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COVID-19

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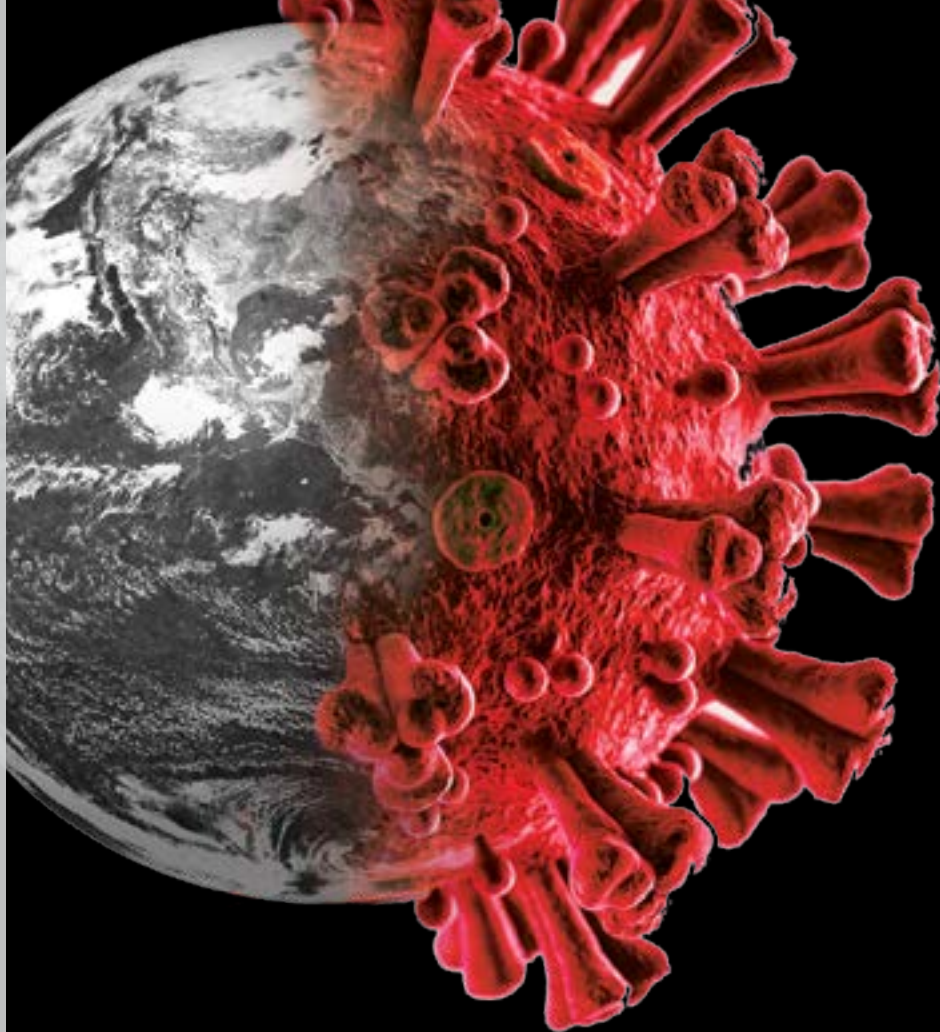
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WHAT WILL BE THE NEW NORMAL

**EACH COUNTRY HAS
SHOWN THAT IT IS FOR
ITSELF IN THIS CRISIS—
DOG-EAT-DOG WORLD**

BY SUNITA NARAIN



IDARE to say: COVID-19 is the most tumultuous, most catastrophic and the most defining epoch of our lifetime. I cannot think of anything else which has happened with such speed—from the end of December last year when the first cases were reported in China to the middle of April when an estimated one-third of the world's population is locked into their homes. This crisis has no precedent—there is no rulebook that tells governments what to do; how to shut down economies; and, when to re-open them. The virus is a mutant—it jumped from its animal host to humans; it is pernicious because it seems to find new ways to hide itself; and, we can be asymptomatic and yet be a carrier of infection. Deadly and devastating.

But what we should be really thinking about is the collective vulnerability of our world. The most macho leaders; the most high-tech scientific establishments; and, the most mighty economic prowess have all met their match in this lowly virus. It should make us humble—think about what we need to do differently; how we need to act and behave differently. But this is where I suspect we will err.

The fact is that every time there is a catastrophic event, the focus is on the immediate—the relief and the rescue—and not on what we must learn for the future. And there is no doubt that the exigencies of COVID-19 management are most urgent and dire. We are losing lives in the rich world—which has hospitals and health infrastructure. Just imagine the scale of the human tragedy in the emerging-developing world where none of this exists. But then also imagine the sheer scale of the human deprivation as

jobs are taken away—the economies of the poor are not based on the security of tenure, but on their daily earnings.

But there is going to be life after COVID-19. So, what will be the new normal? Let's discuss the most critical issue of our globalised world: what leaders and institutions must learn from COVID-19 for the next planetary emergency. The hard fact is that we know we should have acted together and we did not.

China did not share information quickly enough; the virus moved out of the country and spread infection; the World Health

Organization (WHO) did not act swiftly enough; or, maybe its voice was not respected enough to be heeded. Till the end of January, WHO was hedging its bets on the containment of the virus in China—it came out against global travel bans and hummed and hawed about the need to elevate the crisis to a pandemic. Then when it acted, it floundered against the sheer scale of the health emergency. It has lost credibility in this period, and this at a time when the world needs strong voices to steer it ahead. The UN Security

Council did not meet for weeks, and when it did, it just whimpered and died.

It is not just about China and WHO—each country has shown that it is for itself in this crisis—dog-eat-dog world. It has reached the point where countries are pirating protective equipment—masks and gowns that are needed for healthcare workers, competing for medicine supplies and sparring about who will make the first vaccine. It is frightening to think of this when we know that the coronavirus pandemic is an outcome of an inter-dependent globalised world. The fact is that the virus definitely came from a

IF WE WANT ALL COUNTRIES TO ACT, THEN WE MUST BUILD A COOPERATIVE AGREEMENT, ONE IN WHICH THE LAST PERSON, THE LAST COUNTRY, HAS ITS RIGHT TO DEVELOPMENT



province in China, where I have no reason not to say its citizens have a dystopian relationship with food. But the contagion grew because we live in such an interconnected world. It is also clear that we are as strong as our weakest link. If the virus continues to spread in some region of the world—most probably the one with the least healthcare services or one that is ravaged by war and strife—it will stay with us. We will not win this, unless we win it together.

That's why the pathetic state of today's global leadership should concern us. There are many respected voices who are arguing that COVID-19 shows the end of multilateralism—it's the death of the United Nations and all that it stood for. Now, it will be

unilateralism at its worst that will set the new world order. But this will not do—not for COVID-19 and certainly not for the next and looming planetary emergency of climate change. Very much like COVID-19, climate change needs global leadership—if one country continues to emit, then all actions of the rest will be negated. But if we want all countries to act, then we must build a cooperative agreement, one in which the last person, the last country, has its right to development. We need global leadership in a globalised inter-dependent world. So, in the new normal of the post-COVID-19 world, we must remember this. How we fix this is the question for tomorrow. But fix it, we must. **DTE**

[@sunitanar](https://twitter.com/sunitanar)

EXTREME DISORDER

Flattening the epidemiological curve also means an economic cessation. Who will bear the burden in an unequal world?

RICHARD MAHAPATRA

BY APRIL, the COVID-19 pandemic metamorphosed into everybody's crisis. The emergence of Europe and the US as deadlier hotspots than China gave credence to the popular assumption that COVID-19 is an infliction brought on by the rich and well-endowed. By mid-April, it rampaged across the world disrupting the planet like never before. Over 1.73 million people have contracted the novel virus disease and more than 0.1 million have succumbed to it. Unlike the Spanish Flu pandemic of 1919-20 which was spread by World War I soldiers, the current pandemic is being transmitted by ordinary citizens of a globalised world. This distinction makes COVID-19 extremely hazardous, both in terms of health and economic costs.

This is the first time in human history that the entire world has stopped travelling. Currently half of the world's population—3.1 billion people—is under lockdown, as per the Johns Hopkins University. The pandemic has forced countries that account for two-thirds of the planet's output and income to embrace containment policies, suggests the Centre for Economic Policy Research, a London-based association of over 1,300 economists engaged in research. This is extreme as the modern economy thrives on mobility and everybody is somebody's economic interest/investment.

The lockdown in India has kept the workers from working and consumers

from consuming. This effectively has killed the demand and supply at the same time. The economy has ceased to exist and nobody knows for how long.

Yet, global lockdown is the only prescription. Countries need to flatten the epidemiological curve (the rate of COVID-19 spread) to disrupt transmission. And the faster they try to flatten the curve, the restrictions and resultant economic paralysis become widespread. The world can stop the spread of the virus only by embracing economic stagnation. As Pierre-Olivier Gourinchas, a visiting professor at Princeton University, says, "Flattening the infection curve inevitably steepens the macroeconomic recession curve." But the question is: who will be the worst affected by the economic side-effect of the COVID-19 treatment?

"This pandemic is not just a health crisis. For vast swathes of the globe, the pandemic will leave deep, deep scars," says Achim Steiner of the United Nations Development Programme (UNDP). "We risk a massive reversal of gains made over the last two decades, and an entire generation lost, if not in lives then in rights, opportunities and dignity."

From the day national lockdown was imposed in India, disturbing images of mass exodus of migrant workers from urban centres appeared. From Kerala to Bihar; Delhi to Kashmir; Andhra Pradesh to Odisha, millions of workers headed to their villages. It was not the fear of

**THE ECONOMY
HAS CEASED
TO EXIST AND
NOBODY
KNOWS FOR
HOW LONG**



Covid-19 lockdown triggered mass migration from metros across the country

COVID-19, but the unbearable burden of surviving without no money, food or work that triggered the mass exodus. About 87 per cent of India's workforce is in the informal sector. A *Down To Earth* calculation shows that some 125 cities/towns reported outmigration. What is worse is that even after completing the arduous journey to their villages, the migrant poor continue to face an uncertain future. What will they do for survival?

Globally, at least 25 million people will be unemployed, which will translate into \$3.4 trillion loss in workers' income, estimates the International Labour Organization (ILO). The economic loss will precipitate further because an estimated 55 per cent of the world's population does not have access to social protection.

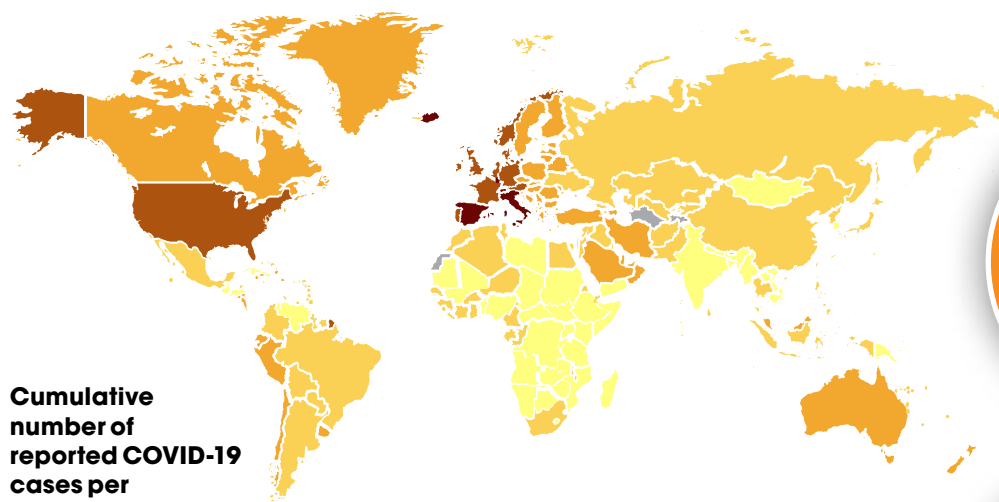
The economic loss due to mobility restrictions will never be recovered. According to the United Nations Conference on

Trade and Development (UNCTAD), the global economy would slow down to below 2 per cent in 2020, leading to over \$1 trillion losses. According to the International Food Policy Research Institute (IFPRI), one percentage of global economic slowdown pushes poverty levels by 2 per cent. This means the pandemic will leave 14 million new poor in the world. Disruptions in labour markets will reduce labour productivity and supply by 1.4 per cent in 2020, as per IFPRI.

The World Bank estimates that 100 million people fall back into extreme poverty each year due to unexpected catastrophic health expenditures. This number is likely to increase due to COVID-19. Over 40 per cent of the world's population has no health insurance or access to national health services. They spend close to 10 per cent of the family budget on healthcare every year. In India,

TIGHTENING NOOSE

COVID-19 has spared no continent, except Antarctica. Europe and the US have overtaken China, the country of origin



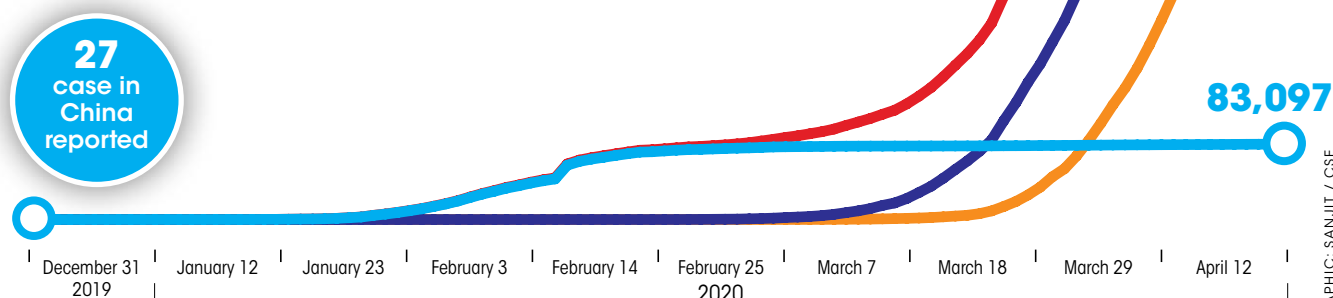
0 - 0.9 1 - 9.9 10 - 99.9 100 - 199.9 ≥ 200
 Countries and territories without cases reported

Africa	Asia	America	Europe	Oceania
13,666 cases	284,479 cases	614,674 cases	813,829 cases	7,569 cases
743 deaths	10,541 deaths	23,826 deaths	73,007 deaths	68 deaths

696 cases and **7 deaths** have been reported from an international conveyance in Japan

- World COVID-19 cases
- European Union COVID-19 cases
- China COVID-19 cases
- USA COVID-19 cases

Data updated till April 12, 2020



Source: European Center for Disease Control and Prevention



Over 300 million children across the world rely on school meals as their one reliable meal of the day, estimates FAO

close to 68 per cent of households incur out-of-pocket medical expenditure due to dependence on the private healthcare system. Community transmission will overwhelm the public health infrastructure in almost all states. This will increase the dependence on private healthcare and push many more into poverty. In Maharashtra, which has the most COVID-19 cases in the country, there is one government hospital for every 0.17 million people, on an average.

The current crisis has further precipitated food insecurity. Currently, 820 million people endure chronic hunger. Of them, 113 million are so food-insecure that they will die without external assistance. The current scenario has disrupted the livelihood chain and global support system. This will result in large-scale hunger deaths. The scale of the crisis has prompted UNCTAD to seek a \$2.5 trillion rescue package to save developing countries from financial distress. It includes writing off debt worth \$1 trillion.

Africa alone needs \$100 billion of immediate emergency financing to deal with the “pandemic shock” that will result in drastic revenues losses and economic slump. It will also jeopardise the progress of the Sustainable Development Goals, particularly in developing countries. A financing gap of \$2-3 trillion will be faced by developing countries for the next two years, as per UNCTAD.

There are indications that many hotspot countries will be peaking in the COVID-19 spread. But at the same time, many countries are just entering into the exponential spread phase. The other challenge is that pandemics often reoccur, like the Spanish Flu that struck three times between 1919 and 1920 and wiped out nearly 2 per cent of the world's population. It killed both the poor and the rich, including US President Donald Trump's grandfather. We now know that COVID-19 will be no different and that the planet has entered into an extremely unpredictable disorder. [DTE](#) [@richiemaha](#)

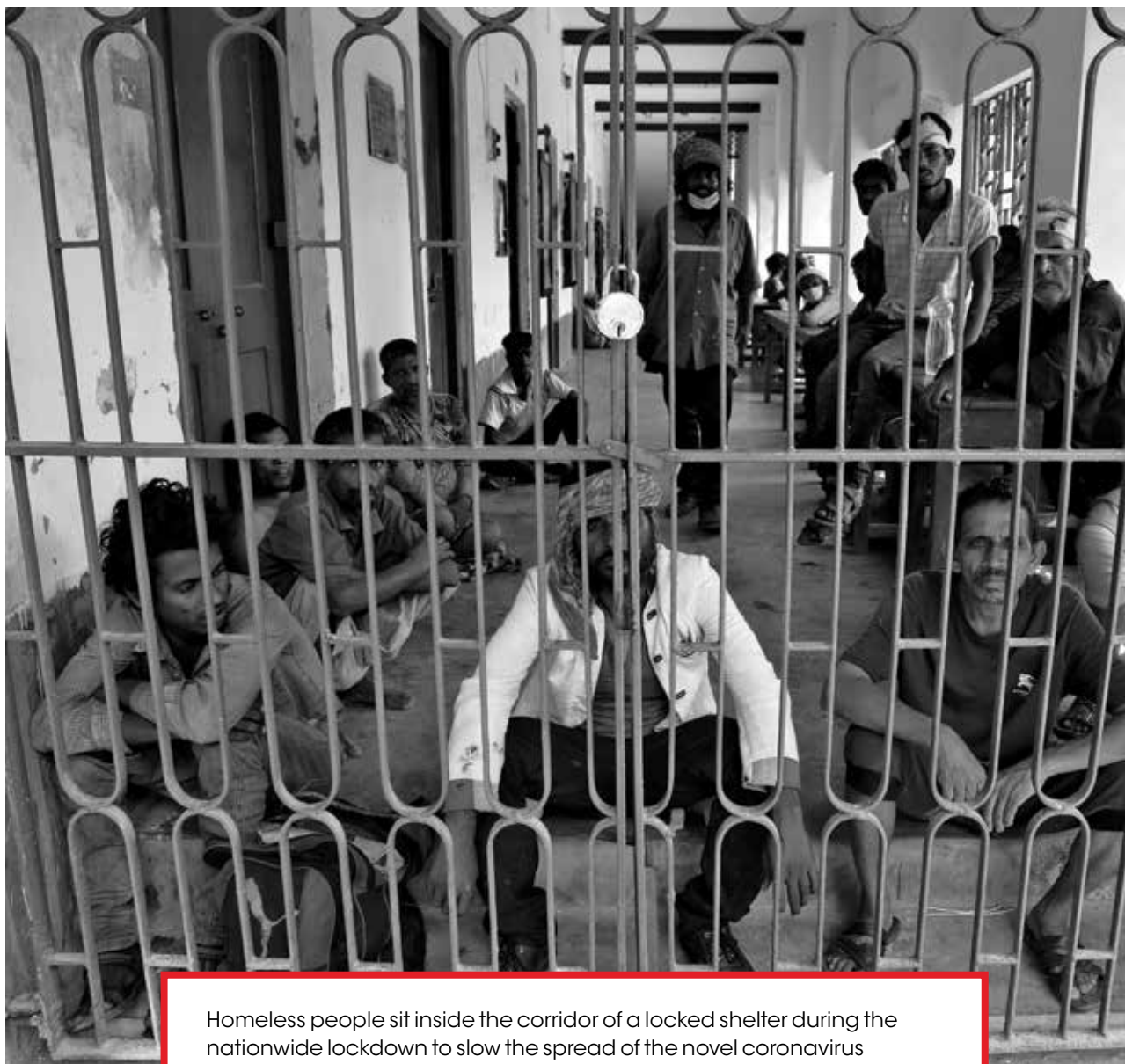
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OUT OF FRAME

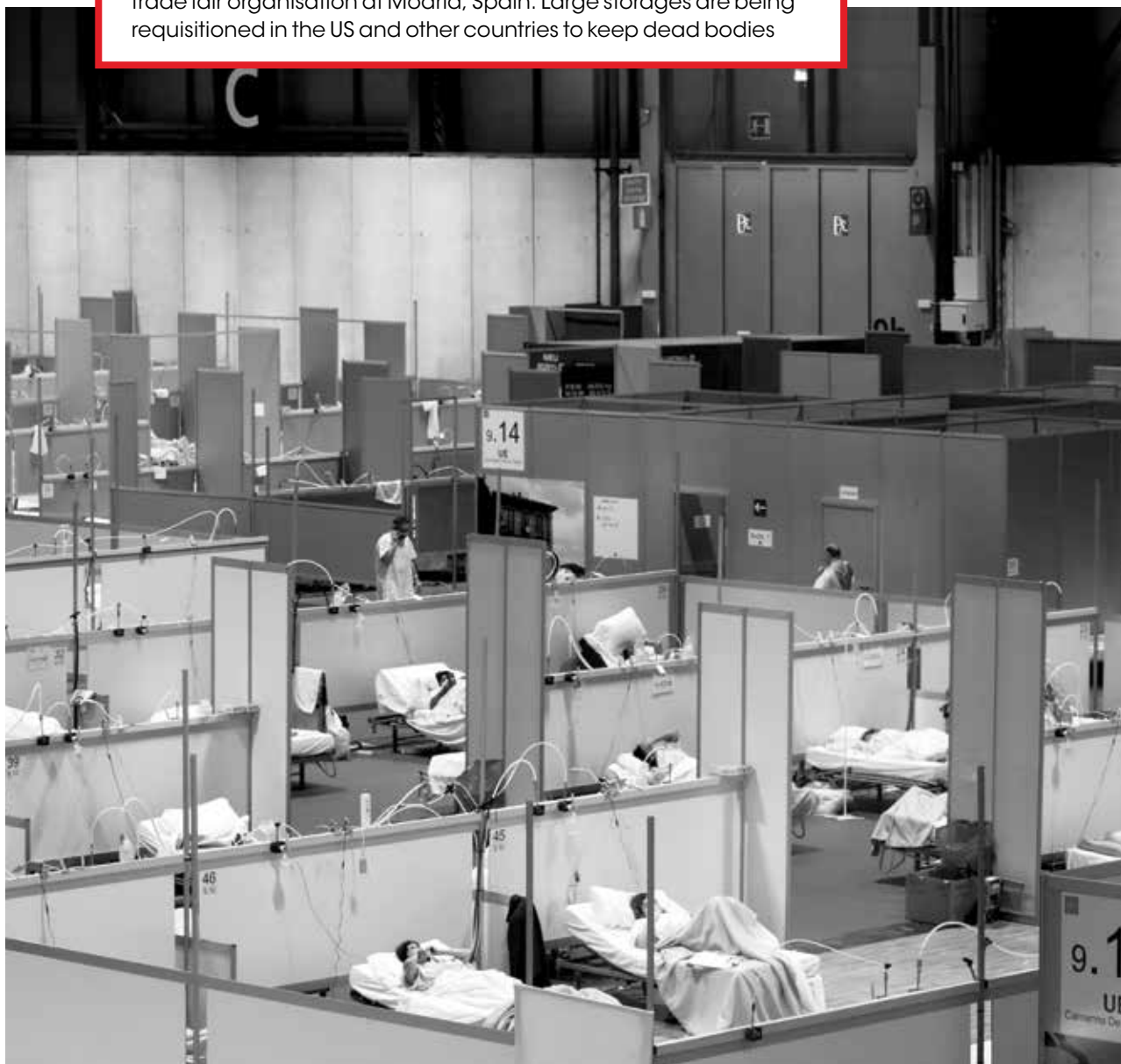
When the world came to a halt, out of necessity and fear, we got glimpses of what it means and to whom

COVID-19 pandemic will push at least 14 million more people to poverty while 50 countries will need immediate food aids. For instance, thousands of homeless and unemployed thronged this food distribution centre in Delhi. Their slippers secured circled spots drawn in a queue on the ground to ensure social distancing during the 21-day lockdown



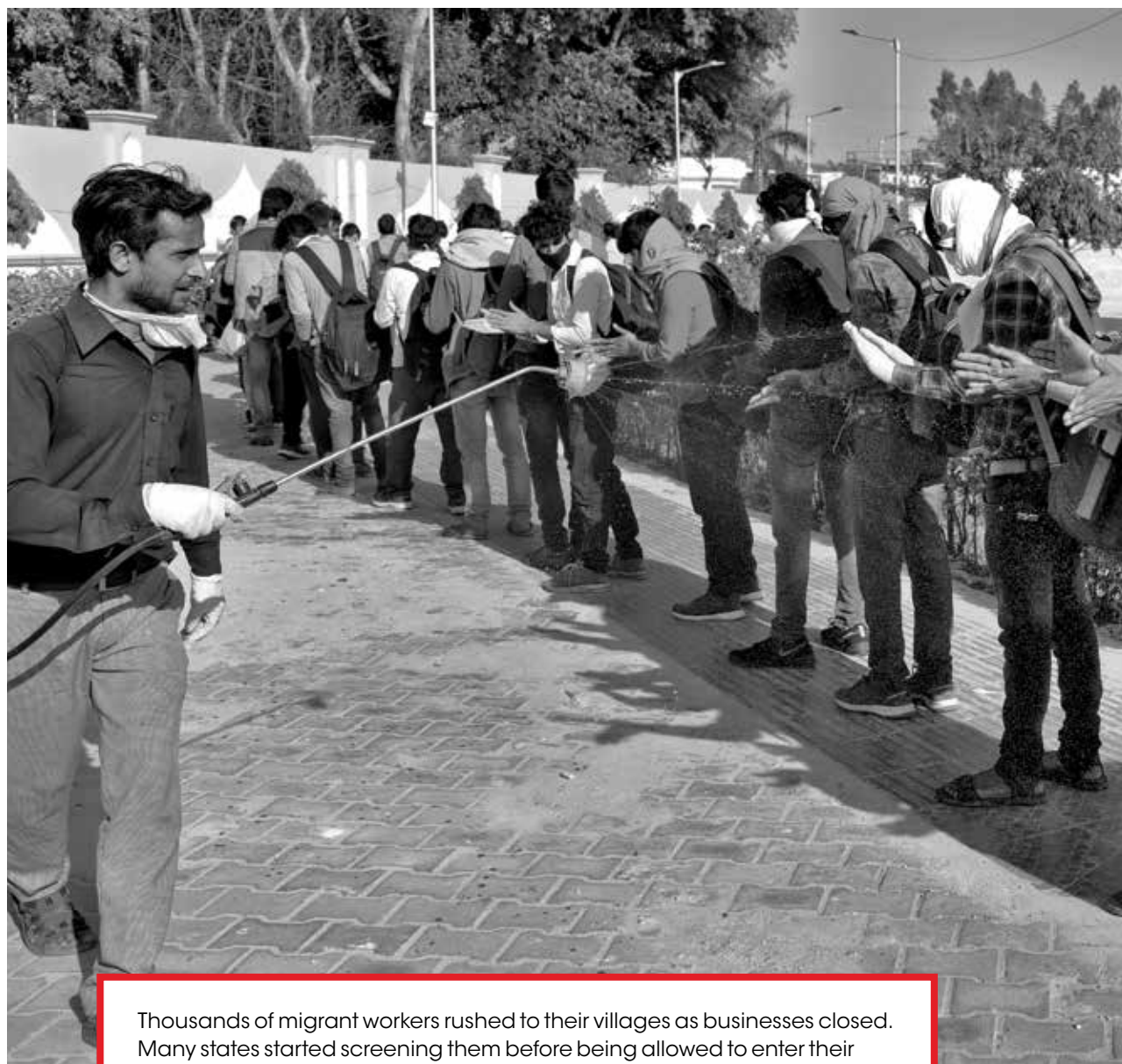
Homeless people sit inside the corridor of a locked shelter during the nationwide lockdown to slow the spread of the novel coronavirus at Howrah, on the outskirts of Kolkata. There were reports of people fleeing quarantine due to the poor condition of shelter homes, officially declared medical centres

By April 12, over 108,000 people had died of COVID-19, with European countries accounting for over 67 per cent of the deaths. A view of a temporary hospital inside the conference centre of IFEMA, the trade fair organisation at Madrid, Spain. Large storages are being requisitioned in the US and other countries to keep dead bodies





As awareness on the pandemic spread, so did innovations. In Chhattisgarh, many rural residents are using leaf masks for protection. This is also because face masks are hard to find and most poor Indians cannot afford them. At present, even doctors do not have enough protective gears to safely treat patients. A number of doctors and health workers have contracted COVID-19



Thousands of migrant workers rushed to their villages as businesses closed. Many states started screening them before being allowed to enter their villages. In this photo a municipal worker sprays disinfectant on migrant workers before they board a bus during the nationwide lockdown to slow the spread of COVID-19 in Lucknow

In many states restrictions were imposed to maintain social distancing—at least half a metre gap between two persons. Within a few days of the lockdown, the distancing mechanism was in place. Markets, like this one in Odisha, were set up at safe distances; cramped ones were shifted to large playgrounds and located in such a way that the distance between two sellers was at least 12 metres



To control the spread of the virus, people were urged to frequently wash hands in Rwanda's capital city Kigali. Portable wash basins were set up at the main taxi park in downtown Kigali by service providers. The passengers travelling in public transport were asked to wash their hands before boarding the bus

CHRISTOPHE HITAYEZU



DIRECTIONLESS DRIFT

It will be more damaging to economy than demonetisation

BY PRONAB SEN

INDIA IS amidst an unprecedented crisis. First there was the outbreak of novel coronavirus disease, or COVID-19, and then Prime Minister Narendra Modi announced a nationwide lockdown. Ever since, people have been trying to make sense of what's happening around them.

Thousands of migrant workers hit the road across the country to return to their native places. With poor health facilities and infrastructure in rural India, this can be calamitous. Those stranded in cities are hungry and unable to earn a livelihood. The Union government's initiative to send money in their bank accounts is not really helpful as many of them do not have Jan Dhan Yojana accounts; many others have their passbooks and debit cards back in their village.

Even if they do manage to get the money, how does the government plan to make grocery available in shops? It seems to have forgotten that the total distribution chain from the wholesale market to the local grocers and green grocers is labour-intensive. The government just announced lockdown and promised to ensure food and other essentials. There was no discussion on how it would be ensured. At the centre of it all are the wholesale markets. If they are left open, the government will have to be careful about a number of things. Buyers, sellers, farmers and traders, all visit wholesale markets. To what extent can normalcy be maintained there? And, if the wholesale markets are shut down, the entire system will collapse, which will have a massive impact on agriculture.

One of the biggest worries is that the country is right in the middle of rabi harvest—it is over in some



parts while it's still on in other regions. The lockdown may devastate the farming sector. Economically, it can be more damaging than demonetisation. When it was announced in November 2016, economic activities were still on. The problem was access to money: people worked but did not get paid as employers did not have cash. But workers could negotiate that once cash was available, they would get paid. They could also negotiate informal credit with shops. Payments were made when cash started coming in. It's different this time. Production activities

have stopped. This means zero income. So workers will use up all their savings.

The effects of demonetisation was long-lasting as the government did not do what it should have, right from day one: repayment of bank loans should have been postponed until remonetisation was complete, continued credit unless people paid cash, etc. Remonetisation took almost a year. In between, small and medium enterprises (SMES) were labelled non-performing assets, many had to shut down. The lower-middle class, such as small shopkeepers, were wiped out. This is impacting economy even now.

So would India have absorbed the shock of lockdown had demonetisation not happened? The economy had, sort of, started normalising essentially on the strength of Mudra loans. SMES took loans to start new ventures, though not at the same scale. Now even that is shut. **DTE**

*The column is edited excerpt of an interview with Down To Earth
(The author is former chairman of the National Statistical Commission and head of the Centre's Standing Committee on Economic Statistics)*

THE GREAT LOCKDOWN CRISIS

Despite being exempted from the lockdown rules, farmers and food supply are most visible casualties of India's battle against coronavirus

VIVEK MISHRA, JITENDRA, KUNDAN PANDEY, K A SHAJI, AJIT PANDA, GURVINDER SINGH AND PURUSHOTTAM SINGH THAKUR



TILL A month ago, Dhaniram Sahu was not aware of the word virus or the concept of social distancing. "These days, almost everybody seems to be talking about coronavirus and how to stay protected," says Sahu from Shankardah village in Chhattisgarh's Dhamtari district. Just like the scientists and epidemiologists worldwide, Sahu does not understand much about the virus. But on March 24, he came face to face with its ferocity. That morning, along with some 1,500 daily wage labourers, he was waiting at Ghadi Chowk in Dhamtari town to be hired by rice millers, shopkeepers, builders or well-to-do families. Suddenly, the group was approached by the police and local officials who asked them to go back and not to venture out of their villages for the next three weeks. "They informed us that the government has announced a nationwide lockdown to contain the coronavirus. Most of us did not know how to react," he recalls. Sahu is the sole breadwinner of his family of five and the menial job would have earned him ₹150-200, sufficient to buy rice, pulses and vegetables for two days.

A week later, he received two months of free ration in advance. "It was a package of 70 kg rice, 2 kg sugar and 4 packets of salt," says Sahu, wondering how to now arrange *daal* and vegetables for his children.

Mahua flower is a main source of living for the Gond tribals of Chhattisgarh. But they cannot benefit from it as village *haats* remain shut due to the coronavirus-lockdown

The situation is no different for people in nearby Gond tribal villages like Khadadah, who earn a living by working under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and selling forest produce, such as tamarind, *mahua*, and lac, for a living. Dhamtari is, in fact, the largest producer and market of lac in Asia. But since the lockdown, MGNREGA works have stopped; lac processing centres and markets remain shut. “*Mahua* is in full bloom. We have also made some baskets,” says Samari Bai, who belongs to Kamari, a Particularly Vulnerable Tribal Group. “But since the middle man has stopped coming to our village and weekly *haat* remains shut, we are not getting cash to buy vegetables or oil,” she says. *Haats* are the lifeline of tribal economy, explains Dilawar Rokadiya, a local forest goods trader. Now that they are unable to sell, they would stop going to the forest for collecting more. This way forest goods will perish and the tribals will be deprived of their livelihood.

The pandemic has hit the country at a crucial time—from February till April end, farms and forests yield crops that ensure critical flow of cash and confidence in rural households. Though the government has exempted farmers, farm activities and food supply from the lockdown rules, the country’s agrarian economy appears to be the biggest collateral damage in this battle against coronavirus due to reasons as obvious as the fear of contagion to fast-spreading rumours and the greatest exodus India has seen since partition.

KNEE-JERK ATTACK

Consider wheat and pulses. These are the two most preferred rabi crops. In Madhya Pradesh, Praveen Parmar, a farmer from Bilkisganj village in Sehore district, says god has been kind to him this crop cycle. But he is now in distress because of the government’s poor planning. Despite the region being hit by unseasonal rains and hails, Parmar has harvested an impressive 50,000 kg of wheat from 8 hectares (ha). Between March 15 and 17, he was in urgent

A SNAPSHOT OF SHOCKS

DELHI

Azadpur mandi,
Asia’s biggest fruit,
vegetable market

Employs

0.1 million workers,
including 40,000
migrant workers

Post-COVID:

50% trade loss
due to restrictions on
transportation, reverse
migration of labourers

MAHARASHTRA
NASHIK, a major
grapes producer

Employs

0.2 million
farm labourers

Post-COVID:

₹10,000 Cr
loss due to transportation
restrictions, lack of
labourers

CHHATTISGARH
DHAMTARI, major
forest goods producer, has
Asia’s biggest lac market

Dependants

Tribal,
and forest-dwelling
people

Post-COVID:

Unable to sell
as trading centres, weekly
haats, lac processing
centres remain shut

Note: Information till April 10,
2020, based on discussions
with farmers, trade unions,
industry associations

need of cash and sold 20,000 kg of wheat at a nearby *mandi* for ₹1,750 per 100 kg. Though the state guarantees ₹1,925 as the minimum support price for 100 kg of wheat, the government had not begun procurement by then. “It should have procured food grains before announcing lockdown,” says Parmar, adding that farmers in his village are struggling to find space for storing wheat. “We will face huge losses if the food grain gets spoiled,” he ruefully says.

SUPPLY CHAIN DERAILED

To alleviate the pressure on farmers, West Bengal on April 7 lifted restrictions on flower trade during the lockdown. But the decision has not brought much cheer to Ganesh Maiti from Mahatpur village in Purbo Medinipur district, who says the damage is already done. Around March and April, there is usually a surge in the demand of flowers, particularly marigold, because of festivals like Navratri. People also prefer organising marriage ceremonies and social gatherings during the months due to pleasant weather, Maiti explains. “But this time, there was almost no demand for flowers. If left intact, flowers can damage productivity of plants. So, we had to pluck and feed tonnes of flowers to our cattle,” says the 30-year-old. He estimates to have incurred a loss of ₹15,000 in just two weeks.

Industry associations say flower is a major cash crop in districts like Howrah, Nadia, North and South 24 Parganas and Purbo Medinipur, which account for 12 per cent of the country’s flower production. “We fear the losses could be the tune of ₹8-10 crore as the market had begun to slow down as early as mid-March when governments had issued advisories against public gatherings,” says Narayan Chandra Nayak, general secretary of the Bengal Flower Growers and Traders Association. Even after the ease of restrictions, Nayak says, the market might recover by just 20 per cent as very few vehicles are available for transportation. Meeranand Manna, a grower in Paschim Medinipur, says, “The situation is not likely to improve as long as

scientists find a cure for the coronavirus and the ban on gatherings is lifted.”

Yogesh Rayate from Kadakmalegaon village in Maharashtra's Nashik district, understands the inevitability of lockdown. “Yet, I feel more worried than ever before,” says the 39-year-old farmer. His village on the Sahyadri hills is known for grapes of table and wine varieties. Rayate owns a 2-ha vineyard and grows vegetables on the 8-ha farm next to it. On March 15, just as he had finished picking the berries and neatly packing those in crates, he heard the government has restricted activities across Nashik over coronavirus scare till March 31. “The traders we were expecting that day to pick up the 10,000 kg of grapes did not turn up. After a week long wait, I emptied the crates and spread the berries in the sun to turn them into raisins. This was a loss of ₹30-40 lakh for my export quality grapes.”

Just as he was planning to recover some of his losses by selling cabbage and cauliflower after March 31, the Centre on March 24 extended the lockdown period. “The timing was brutal. The next day we celebrated *gudi padwa* (a spring-time festival that marks the traditional new year for Marathi Hindus and reaping of rabi crops) by staying indoors,” he says. Two days later, the government exempted *mandis*, procurement agencies, farm operations and farm workers from the lockdown rules. But, Rayate says, traders offered me just ₹2-3 for a kg of my cabbage and cauliflower, citing a slump in demand and travel restrictions. A few days later, he hired a rotavator and ran it over the standing crop, worth ₹1.5 lakh. With no income, Rayate is not sure how to repay the crop loan of ₹18 lakh. Shankar Darekar, state president of the National Farmers' Workers Federation, says the lockdown has dealt a huge blow to grape farmers who had lost 30-40 per cent of their crop due to unseasonal rain and hails between January and March.

Rayate, however, wonders if his losses due to coronavirus-lockdown would be covered under crop insurance that covers losses due to natural calamity.



Unable to arrange a buyer for his export quality grapes, this farmer in Maharashtra's Nashik district sun-dries the berries, worth ₹30-40 lakh, so that he can sell the raisins later and recover some losses

LABOURERS CALL IT QUILTS

In West Bengal, which is determined to ramp up onion production to meet domestic demand, witnesses a bumper crop for the sixth consecutive year. But the red bulbs lie scattered across the fields in one of its major productions zones of Hooghly district. Bikas Molik, a resident of Balagarh block, explains the reasons. Onion is labour-intensive. It needs to be manually planted, harvested, cured and then stacked in store houses. At least 10 labourers work on a *bigha* of onion farm throughout the season. The lockdown was announced, just as they had begun harvesting. By next morning thousands of them left for their homes in Murshidabad and Bardhaman districts. Subrata Karm-

REUTERS

akar, a resident of Basna village in Hooghly, says most onions in his village are yet to be harvested. "If the bulbs are not taken out in the next 15 to 20 days, they will become prone to rotting, while we won't be able to prepare the field for the next crop."

The exodus of labourers from Hooghly has also hit potato farmers, though the crop was harvested as early as February and sent to cold storages. "Potato bags are hand stacked. In the absence of labourers, removing and transporting those bags has become difficult," says Karamkar. He says Hooghly market is now left with only two months of potato from old stock. The region might face an artificial potato shortage if labourers do not return by then.

The absence of labourers has also halted activities at the country's 8,000 pulse mills. Industry estimates show 240,000 labourers work at these mills. Their exodus is now directly hitting farmers who have been unsuccessfully trying to obtain minimum support price for their produce for last three years and suffered a crop loss this year due to unseasonal rains and hails. The Dal Mill Association says unseasonal rains might have reduced the country's pulse production by 10 per cent to about 21 million tonnes.

Uncertainty also looms large over Punjab and Haryana that expect a bumper wheat this year. Punjab has announced that it will begin procurement on April 15, and Haryana a little later. The procurement season has also been extended till mid-June. Every year, about 1.5 million seasonal labourers travel from Uttar Pradesh and Bihar to these states to join the harvesting and procurement process. This is not going to happen this year. The state governments are already encouraging farmers to use combine harvesters for the entire process.

SPICES FEEL THE HEAT

It's testing time for tea plantations in the Nilgiris region of Tamil Nadu and Idukki in Kerala. "Our factories have been incurring losses over the past few months, as the export demand for processed tea powder has reduced," says B K Ajith, secretary of

A SNAPSHOT OF SHOCKS

MADHYA PRADESH
SEHORE, wheat,
pulses main crops

Employs
0.24 million
migrant labourers

POST-COVID:
People struggle with storing wheat as procurement has not started; pulse mills remain shut due to reverse migration of labourers

KERALA
A major cardamom,
natural rubber producer

Employs
Skilled
labourers
mainly from Tamil Nadu

POST-COVID:
Cardamom farmers from across South India suffer a loss of ₹210 crore as auctions stop; rubber faces a loss of ₹350 crore as demand drops

HARYANA
Largest poultry producer

DEPENDANTS
25,000
households

POST-COVID:
Price of a broiler chicken fell by ₹50-70; egg by ₹4-4.50 due to rumour, irregular supply of feeds; farmers shut farms

Note: Information till April 10, 2020, based on discussions with farmers, trade unions, industry associations

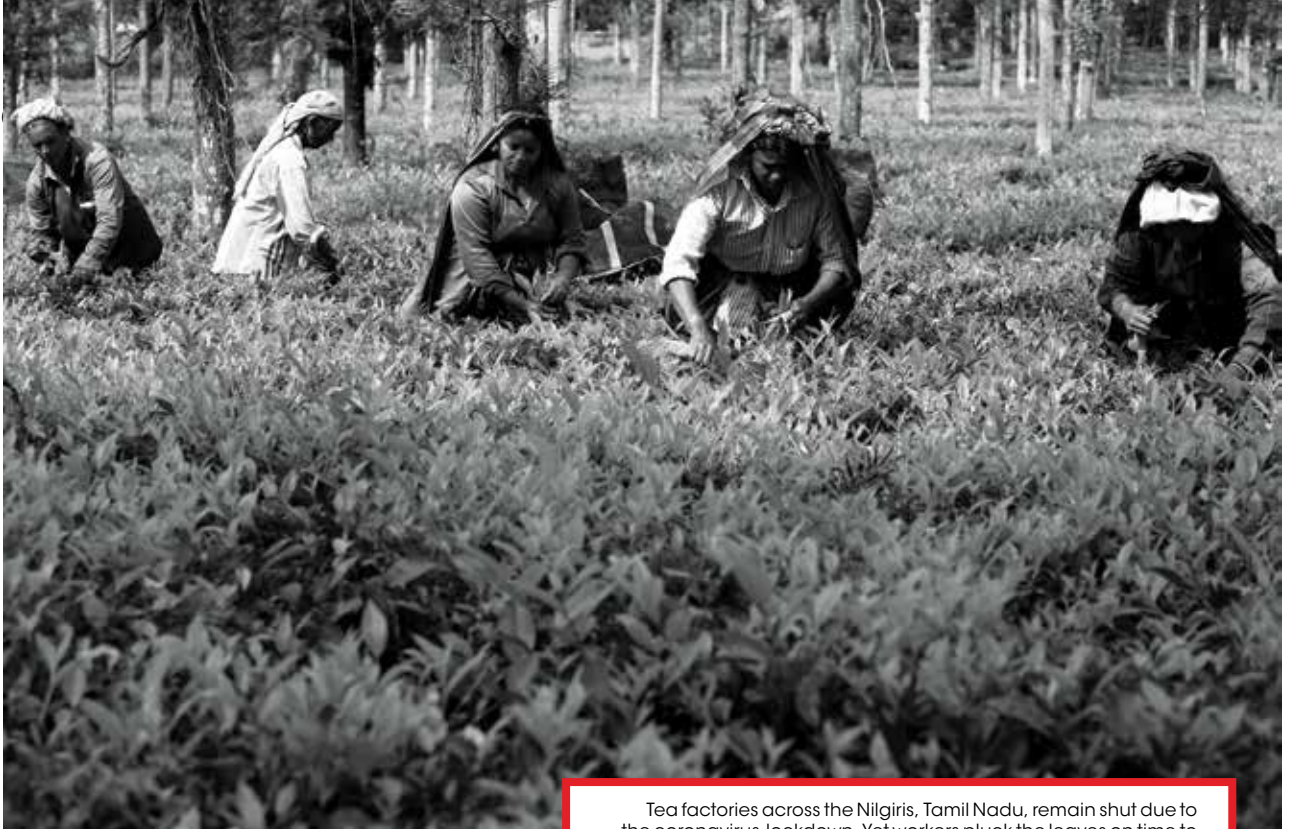
the Association of Planters of Kerala (APK). Some 55 per cent of tea produced for export from the Nilgiris and Idukki didn't find buyers, he says. While the lockdown has compounded their woes, tea estate workers say they need to keep plucking the tea leaves on time, or else the plants will have to be pruned and they will have to wait for a few more months to revive the yield. As per Coonoor-based United Planters Association of South India, tea estates in the region could have incurred losses to the tune of ₹250 crore due to the lockdown.

Data with Kochi-based Spices Board shows cardamom farmers across the south India might have suffered losses to the tune of ₹210 crore. Nearly 80 per cent of cardamom trade happens through auctions involving international agencies and cartels. Now auctions have stopped and retail sales have also reached a standstill. "Companies dealing with spices in Delhi and suburbs consume 20 to 25 tonnes of cardamom a day," says K V Varghese, a cardamom cultivator in Adimali in Idukki, adding that any extension to the lockdown will have a disastrous impact on the sector.

While black pepper farmers in Kerala's Wayanad and Karnataka's Kodagu are likely to have incurred losses of ₹80 crore, APK says the natural rubber sector has suffered a loss of ₹350 crore. However, the price of latex, used for making gloves, is likely to increase from current ₹102 a kg.

WHEN RUMOURS SPREAD

In Panipat district of Haryana, a 2-ha sprawling poultry farm is silent like never before since early February. Just two months back, it housed more than 200,000 broilers chicken. Bittu Dhandha, owner of the farm and also the secretary of National Poultry Federation of India, says, "We used to supply over 5,000 broiler chicken to Delhi everyday. But in early February, we received messages that chicken, meat and eggs can cause coronavirus. At that time, only Kerala had reported three positive cases. "Though we did not take the message seriously, our consumers did," he



Tea factories across the Nilgiris, Tamil Nadu, remain shut due to the coronavirus-lockdown. Yet workers pluck the leaves on time to maintain vitality of the plants

says, adding that one can fight diseases but not rumours against the protein-rich diet. The demand for his broilers started reducing immediately and became zero by the third week of February. He sold some at ₹15-20 and distributed the rest for free before shutting the farm. In Punjab, poultry farmers have culled more than 20 million birds as the supply chain of feed took a hit. On March 30, the Centre in its letter to states clarified that chicken and eggs are safe to consume. "It was a much delayed reaction," Dhandha says. He has incurred a loss of ₹1 crore and is not able to restart the business since.

The lockdown has also impacted the country's 73 million dairy farmers, most of whom depend on one or two cattle. Milk procurement centres in villages have either shut shop or reduced procurement due to less demand. "Some 10-15 per cent of the total milk produced across the country used to go to restaurants, commercial offices and hotels which are now shut," says R S Sodhi, managing director of AMUL, a cooperative dairy giant. "Even if milk reaches processing units, they are struggling to run at full capacity due to lack of labourers," he adds.

While AMUL claims it has reduced its

procurement, Rajasthan Cooperative Dairy Federation Ltd has reduced its collection by one-fourth. In states like Uttar Pradesh, private dairies have reduced procurement by 50 per cent. "There is a sharp dip in the demand of pasteurising milk. We are now diverting most milk for products manufacturing," says Jay Agarwal, managing director, Gyan Dairy, Uttar Pradesh.

In their attempt to stay afloat, farmers in Punjab have stopped providing expensive feeds to cows to reduce their yield and save on expenses. On March 31, milkmen of Karnataka's Belagavi district poured 1,500 litres of milk into an irrigation canal as they had no way to sell it.

In an email interaction with *Down To Earth*, Ramanan Laxminarayan, director of the Center for Disease Dynamics, Economics and Policy, the US, says, the pandemic has already disrupted the rural economy because of the lockdown and this was to some extent, unavoidable, given the potential for casualties without physical distancing. "But we are still early in this epidemic and there will undoubtedly be more disruption, which will have to be ameliorated through government programmes and transfers to the rural poor."

DISTURBING INFLUX

India witnesses a reverse migration like never before. Without social protection measures, it might overwhelm the fragile rural economy

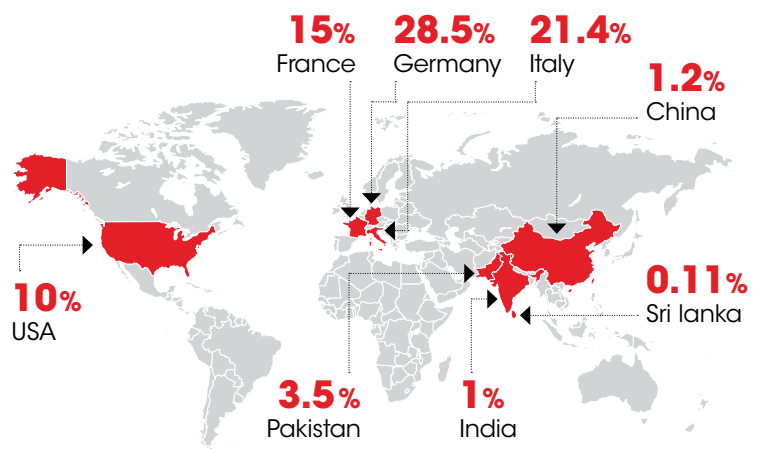
MOHAMMAD IDRISH, a rickshaw puller in Noida is eagerly counting days. He is determined to go back to his family in Shekhpura village of Bihar's Purnia district once the government lifts the lockdown. Though he has been away from his family for the past several years, the lockdown has shaken him to the core. "Here I am alone with no income and very little food provided by relief centres," Idrish says. He is not the only one contemplating an escape. A recent submission made by the Union government to the Supreme Court suggests that of the 41.4 million migrant workers in the country, more than 2.5 million are living in relief camps and shelters and 9.93 million are being provided food (see factsheet on p30-31). Most of them would start moving towards their towns or villages once the lockdown is lifted or relaxed, resulting in the second wave of mass exodus and adding to the rural burden.

"There is certainly a high likelihood for the coronavirus to have made its way into rural India through migrants returning home. There will be cases and deaths in rural areas that will not get reported because testing is not available widely," epidemiologist and economist Ramanan Laxminarayan, who directs the Center for Disease Dynamics, Economics and Policy, US, tells DTE. "That said, we do have a challenge also in urban pockets, including housing colonies and slums. So, we should keep our eye on both."

But protecting the fragile economy of a largely rural country is an even bigger

How big is India's effort

India's fiscal package of ₹1.7 lakh crore to help people tide over the lockdown fails to impress when compared with other economies



Percentages are expressed as share of GDP
Source: IMF (As of April 1)

challenge. People here are in fact facing a dual challenge. About half of the country's working population—231.8 million of the 474.1 million workforce, as per the last National Sample Survey Office report—are engaged in agriculture and allied activities, which is the mainstay of rural economy. Despite the government exempting farmers and farming activities from the lockdown rules, DTE reportage shows that most are unable to sell their produce. This is not only disrupting food supply chains but also their income. Add to this the influx of migrant workers, who were previously working in cities and sending money back to villages, adding to the income of rural households. Having left their work, which was largely informal, they are now back in villages.

The International Labour Organization (ILO), which has described COVID-19 pandemic as the “worst global crisis since World War II”, suggests that the problem could be way bigger for India. With a share of almost 90 per cent of people working in the informal economy, about 400 million workers in the informal economy are at the risk of falling deeper into poverty during the crisis. Current lockdown measures have impacted these workers significantly, forcing them to return to rural areas, it says. A statistical brief released by its office in January 2019, notes that almost 67 per cent of the informal workers in the country belong to poor households.

In Odisha's Nuapada district, infamous for high rates of distress migration, as many as 3,869 labourers have returned home since India started reporting cases of coronavirus. The district administration says another 15,000 to 20,000 would arrive as soon as the lockdown is over. The survey conducted by ASHA workers shows that most were employed at construction sites or engaged in other petty jobs on a daily wage basis. They are now burden on their families. Till the lockdown was announced, the eight-member family of Loknath Majhi, a daily wage labourer from Kusmal village, used to depend on him and his elder son Manoranjan who worked as a painter in Mumbai and earned ₹450 a day. Since the coronavirus scare, Manoranjan has returned home to be with his family. The entire family now depends on the government relief package, which Loknath says is not sufficient. “I could not register the names of two of my sons in the ration card due to some problem with their Aadhaar cards. So, we have received ration only for six family members,” says Loknath, adding that their plight is going to compound if the government extends the lockdown.

Amitabh Kundu, fellow at New Delhi-based think tank Research and Information System for Developing Countries, uses the latest National Sample Survey of 2007-08 data to argue that 7-7.5

**SOME KEY
SUGGESTIONS
OF THE LETTER
WRITTEN BY
ABOUT 300
ECONOMISTS,
ACADEMICS
AND SOCIAL
SCIENTISTS TO
THE PRIME
MINISTER
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TRANSFER OF
₹6,000 PER
MONTH TO
EACH
HOUSEHOLD
AND 10 KG OF
FREE RATIONS
PER PERSON
PER MONTH**

million workers in the country fall in category of those who have daily or weekly arrangement of works. There are another 7 million who get monthly salary but are engaged in informal sector. Then there are the other 7-8 million people who work as vendors; half of them are interstate migrants. They are the ones going to be badly affected despite several statements made at the highest level, says Kundu.

Though the Union government has announced a special fiscal package of ₹1.7 lakh crore to help the country's 800 million poor tide over the pandemic, economist-activist Jean Drèze says the amount “discounting the creative accounting and window-dressing” is just 0.5 per cent of GDP, or less than what the Centre blew on corporate tax cuts last year (see ‘Hunger is spreading’, p29). A recent report by the International Monetary Fund shows the package announced by India is too small compared to packages announced by several other developed and developing economies (see infograph). Economist like Arvind Subramanian says the country needs to release a fiscal package of ₹8 lakh crore, or 5 per cent of its GDP.

Around 300 economists and academics have recently written to the prime minister, seeking substantial increase in the relief package. A key recommendation is cash transfer of ₹6,000 per month to each household and 10 kg of free rations per person per month. The government should take all measures to ensure safe harvesting and post-harvesting activities. Procurement at minimum support price and storage by the Food Corporation of India and state agencies needs to be enhanced to prevent a famine like condition from evolving, states the letter. To ensure that people benefit from the package in time, Nobel laureate Abhijit Banerjee suggests that the government should not try to become clever. It should rather focus on being fast and disbursing relief package to most of the households without thinking whether there is some duplicity or not.  @down2earthindia

‘HUNGER IS SPREADING’

Economist-activist **JEAN DRÈZE** is known for his influential work on hunger and social equity. He tells **JITENDRA** that states need immediate support to provide food and shelter to migrant workers

Millions of migrant workers fled cities as the government announced lockdown. What happens to them now?

Many of them belong to households covered under the public distribution system (PDS), social security pensions and related schemes. But they will find it difficult to survive on the meagre benefits offered by these welfare schemes. The benefits will have to be scaled up and supplemented with interventions like emergency cash transfers and community kitchens. This is important as migrant workers will hesitate to leave their homes again for some time. Besides, very little work will be available for them at home, unless they have land for farming. If the Mahatma Gandhi National Rural Employment Guarantee Act can be reactivated soon, with higher wages and a reliable payment system, that will help.

Your opinion on the Centre’s relief package.

If you discount the creative accounting and window-dressing, the size of the package is closer to ₹1 lakh crore than ₹1.7 lakh crore. That’s 0.5 per cent of GDP, or less than what the Centre blew on corporate tax cuts last year at the first sign of an economic slowdown. Implementing relief measures will take time, but meanwhile hunger is spreading. States need immediate support for emergency relief measures like community kitchens and shelters for migrant workers. That’s a gaping hole in the Centre’s package.

Of late, migrant workers have been the main drivers of rural economy. Will this change?

The compulsion to resume seasonal migration sooner or later will be very strong, because millions of poor



people can barely manage without it. But for the duration of the health crisis, migration is likely to be much subdued, and the crisis is not going to end so soon.

How will the pandemic affect our food supply and economy?

There is the possibility of disruptions of the food system related to lockdowns and economic recession. Right now, we are in an odd situation where shortages and surpluses coexist as the supply chain is largely broken. Food inflation is subdued as most are unable to do shopping beyond the bare necessities. But that

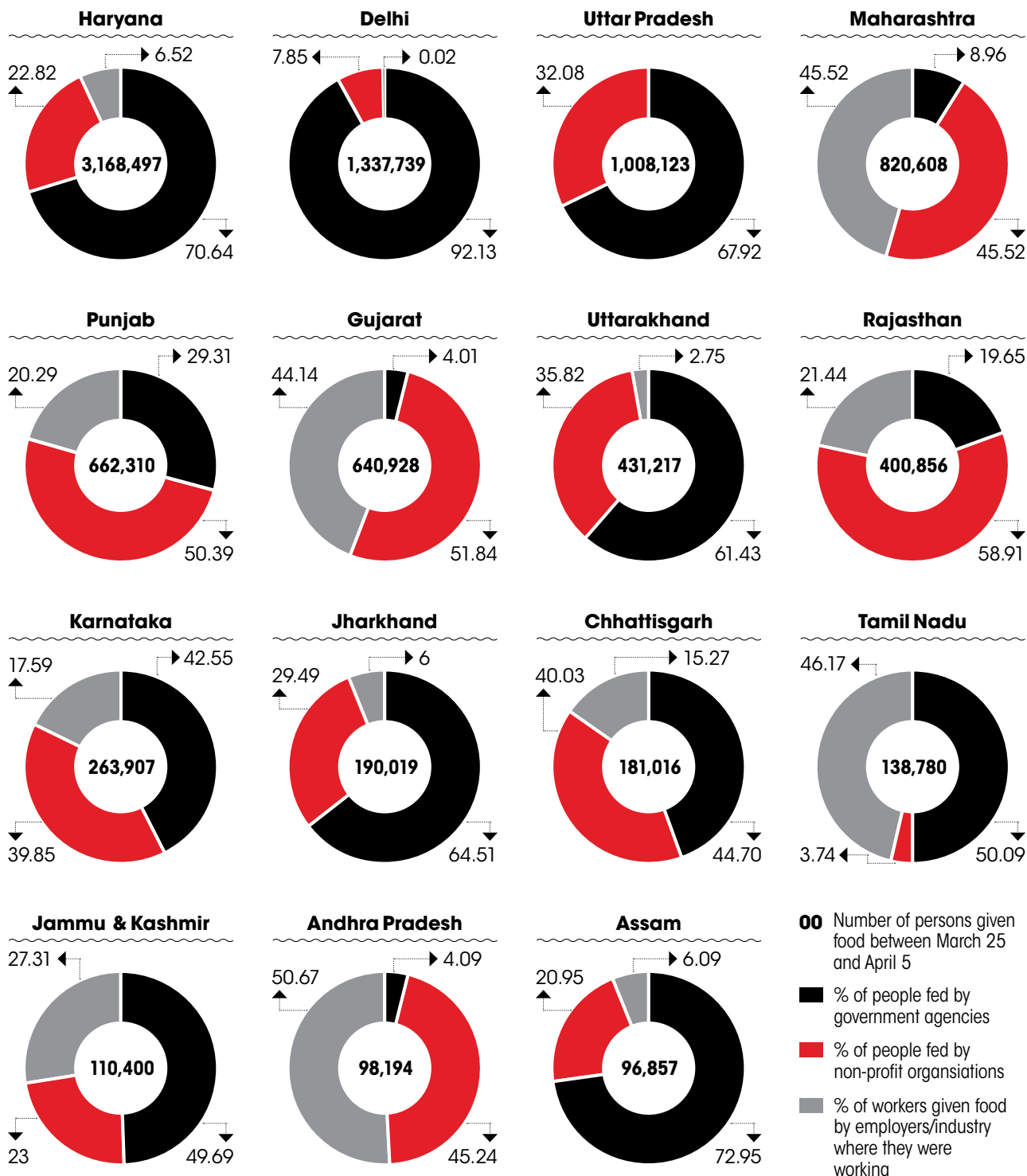
may change once the lockdown is relaxed. Then those who can afford it are likely to go on a shopping spree. If the supply chain is still in bad shape, there may be localised price spikes, pushing more people to the wall, especially those who are out of work. Events of this sort are likely to continue if periodic lockdowns continue in the next few months. Even after the lockdowns end, the food supply system is likely to suffer for some time from the general disarray of economy.

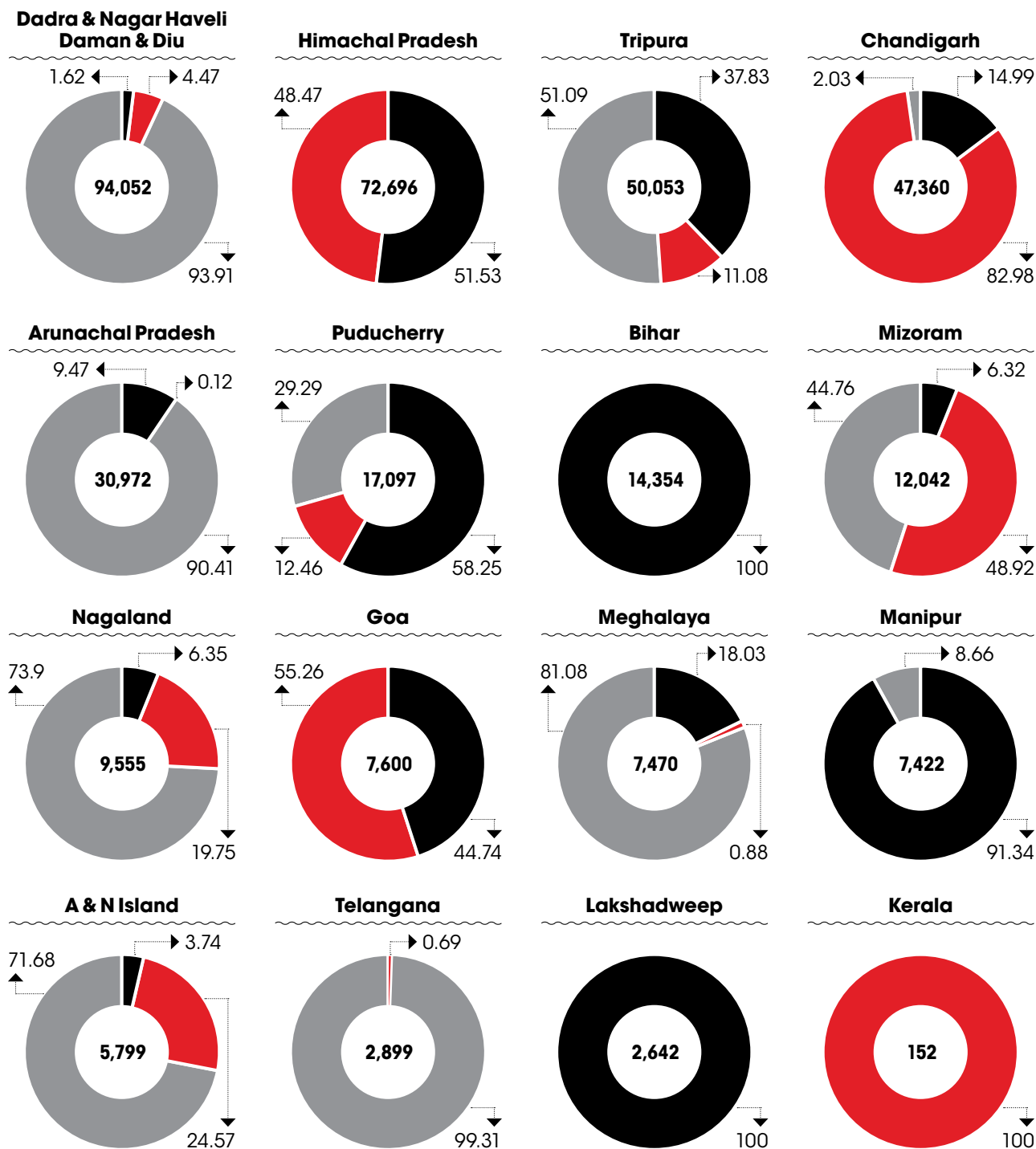
What lesson should India learn from the crisis?

We need to give higher priority to health and social security. Even the most ardent devotee of capitalism would recognise that market competition is a poor way of organising health services, especially public health. Most affluent countries, with the sobering exception of the US, have come to terms with this and made health for all a public endeavour. The same applies to social security. The other lesson is recognising the value of solidarity and how it is constantly undermined by the caste system and other social divisions. **DTE**

MEAGRE HELPINGS

Till early April, 9.93 million of the country's 41.4 million migrant workers were being fed.
Another 372.9 million had benefitted from the ₹1.7 lakh crore fiscal package aimed at helping 800 million poor tide over the lockdown





00 Number of persons given food between March 25 and April 5

■ % of people fed by government agencies

■ % of people fed by non-profits

■ % of workers given food by employers/industry where they were working

Note: No people are being fed in Ladakh and Sikkim;
% rounded off to two decimal places

Sources: Centre's status report to Supreme Court on April 7, 2020; Press Information Bureau; DTE reportage

SURVIVAL SHOTS

The other major initiatives to help the poor

320 million poor given direct cash support of ₹29,352 crore and **52.9 million people received free ration of food grains** under the ₹1.7 cr fiscal package till April 13

1 million people have been provided meals by religious groups Shiromani Gurdwara Parbandhak Committee and ISCON till April 14. Several other groups are also organising food camps

UPSIDE OF THE DOWNSIDE

Partition migration was triggered by a newly drawn line between two nations whereas the present exodus highlights another kind of divide, within the country. It's between the rural and urban India

BY BINOD KHADRIA

THE FIRST week of the 21-day nationwide lockdown saw images of masses trying to return to their native villages in rural India with their bundled belongings by whatever means of transport they could lay their hands on—overcrowded train tops, bus tops, handcarts, bicycles—or literally laying their feet on the long path back home hundreds of kilometres away. The scenes of outmigration from cities like Delhi were reminiscent of the Partition of India and the unprecedented population transfer that followed. The partition migration was triggered by a newly drawn line between two nations whereas the present exodus has highlighted another kind of divide within the country—between the rural and the urban India. There was one more remarkable difference—the sudden lockdown that led to the unanticipated displacement of migrant workers from cities like Delhi and its surrounding areas was meant for saving lives from coronavirus through maximising so-called “social distancing”.

The search for a better life usually motivates a rural-to-urban migration. The question is whether the move has actually provided a life to these migrants any better than what they would have had in rural areas? Now that we are witnessing the opposite trend, this gives us an opportunity to rethink internal migration in India and turn a



grim situation into a less dire one, rather somewhat better eventually—both for rural folks and city-dwellers.

The Global Compact for Migration (GCM) agreed upon by most countries in December 2018 has aimed to make migration SOR—safe, orderly and regular. The Compact is meant to apply to international migration across borders, where the responsibility of implementation lies more with the destination countries. However, can we not extrapolate it for internal migration as well? Could there

be a pledge to make migration between rural India and the cities “safe, orderly and regular”?

As for the lockdown migration, it was none of these, but there is scope to learn for the future. There can be a rethink followed by a planned strategy to make migration or displacement from urban to rural areas into one which is SOR. Unlike international migration, the responsibility of internal migration would remain within a single country. There are instances of states in the federal structure of India cooperating as allies, not adversaries, while dealing with climate migration. In the present case of coronavirus lockdown, however, some states behaved like they were adversaries of each other and the migrant labourers rushing home were nobody's babies. Several states have sealed borders to stop urban-rural migration,

without facilitating services that would have made their passage “safe, orderly and regular”, thereby minimising the chances of spreading the infection, the very purpose of the lockdown in the first place.

What lessons could be drawn from this for the future well-being of India? One could be that the urban-rural migration can be incentivised by attracting people back or even to stay back in the rural areas, smaller towns if not villages, and decongest the cities and metropolises. In India and elsewhere, wild animals are venturing on to urban streets, rivers are becoming cleaner, skies are turning bluer and urban air is becoming purer as a result of a temporarily absent human enterprise during the lockdown. Even the incidences of urban ailments have come down, and it is believed that a large part of these were actually manufactured by the medical industry. Is there then a way to nurture and sustain such positive effects of the lockdown on the city environment in an effort to pre-empt a bigger disaster than coronavirus?

There are pre-conditions and safeguards that need to be erected steadily if not speedily. It would not be an easy thing to do, but neither has the lockdown been. If the people of India could live with the lockdown successfully, they should also be able to bear the cost of reimagining and rebuilding a different trajectory of rural-urban development in India. For example, it would help curb rampant illegal construction activities in housing, for example, like those that go on all the year round in colonies of the Delhi Development Authority where children, youth and the elderly are made to suffer from dust pollution, noise pollution and bad inter-personal relations among neighbours—all leading to low immunity against virus attacks and high incidences of urban ailments. On the other side, the rural folks are deprived of their youth sucked in by the cities—in their fastest growing sector of employment, which is construction.

If people could be optimally distributed between the urban and rural areas then trade, commerce and services like education and health—and thereby construction too—could be incentivised to relocate

there as the hubs in the so far deprived rural and semi-urban areas.

The lockdown wave of migrant workers desperately returning home in their villages throws up a vital question. Why were they so desperate to move out? This is because they do not have the needed retention power to stay back in cities when a crisis strikes—neither physical nor mental. Though the city offers higher wages and migrants earn more in urban areas, the higher income comes at the cost of their health, safety and well-being.

Another question that comes to mind is: “Why has coronavirus been not reported to be as high in villages and rural India as in the cities? Is it because the rural folks have relatively better lungs, unspoilt

**WHY WERE THE
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by polluted air that their counterparts in urban India, both the rich and the poor, have been breathing? Perhaps the respiratory problems related to the weaker and more vulnerable lungs are specific creation of our cities, where clean air has become rare. One unnoticed but major reason for this is the rampant unregulated/illegal construction activity that, fired by human greed, goes on unabated in the garb of renovations in otherwise complete structures in established housing colonies. Previously, the Delhi government had aimed to reschedule the sweeping of its streets so that elders and senior citizens taking their morning walks were not exposed to the clouds of dust. It is not known what happened to that small but imaginative

initiative; perhaps it was not insisted upon with the same grit that the present lockdown has been.

It is never early to implement the lessons we have been forced to learn because of the coronavirus crisis. It has readied the people of India to accept drastic changes. Fear of nature’s fury has been greater than that of even the gods as the former has not yet been conquered by corruption whereas fake agents of the latter have ruled the roost! This, in my opinion, is the upside of the present downside. **DTI**

(The author is a migration scholar and former professor, Jawaharlal Nehru University, New Delhi)

EARLY BIOTERRORISM

Is the West a victim of its own past?

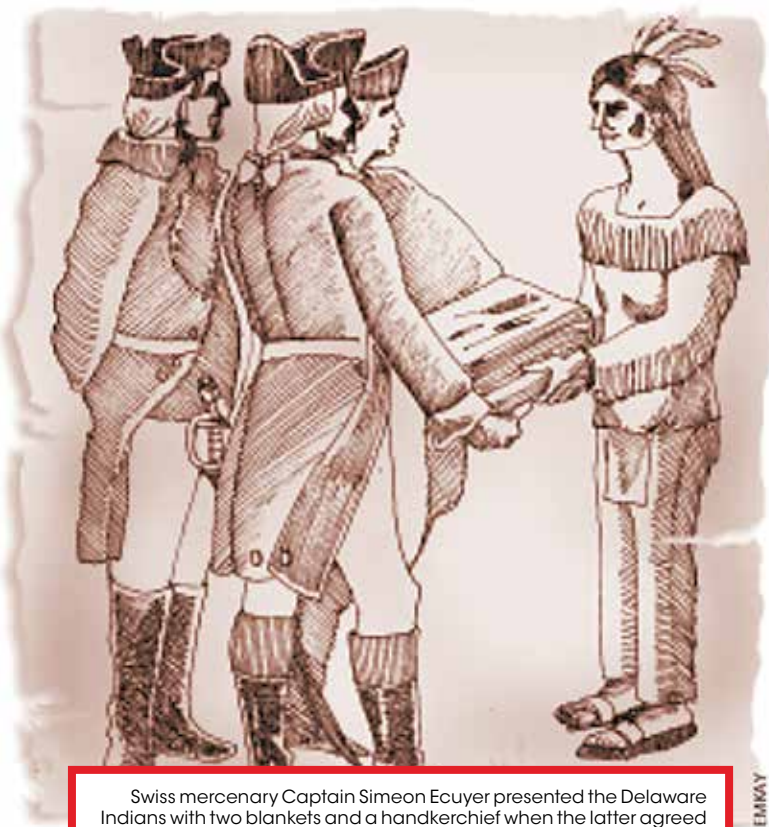
BY PRANAY LAL

IN THE early years of this century a curious search for blankets began in the plains around the Great Lakes in North America. These were not ordinary blankets. They were actually bison skins that were smeared with body fluid tainted with smallpox and used, 200 years ago, to obliterate American Indians.

Post 9/11, US authorities feared that some such blankets might still exist, and a viable source of smallpox might fall into wrong hands. Many areas in the US and Canada were cordoned off. But the operations remained shrouded in secrecy. The search did not yield anything, but brought to the fore sordid pages from American history. Many historians trace the notorious blankets to a gruesome episode during the spring of 1763.

That year, a party of Delaware Indians, led by their Ottawa chief Pontiac, laid siege on the British-owned Fort Pitt (now Pittsburgh, Pennsylvania). Captain Simeon Ecuyer, a Swiss mercenary and the fort's senior officer, saved the day for the British. The Indians agreed to temporarily abandon their siege in return of a gift of two blankets and a handkerchief. They had no inkling that the wily Ecuyer had deliberately infected the presents with smallpox contagion.

This episode is confirmed by William Trent—the leader of the militia of European settlers at Fort Pitt—in his journal. Most historians regard this source as the “most detailed contemporary account of the anxious days and nights in the beleaguered fort.” Trent notes in an



Swiss mercenary Captain Simeon Ecuyer presented the Delaware Indians with two blankets and a handkerchief when the latter agreed to abandon their siege on a British-owned fort. The Indians had no inkling that Ecuyer had infected the presents with smallpox contagion.

entry dated May 24, 1763, “I hope the means have the desired effects.” They indeed had. By July 17, smallpox had become endemic among the Delaware Indians.

Another villain in this piece is Lord Jeffrey Amherst, commander of British forces in North America during the final battles of the French and Indian wars (1756-1763). The general's correspondence

shows that he entered into tacit collaboration with his bitter colonial rival, the French, to further the dubious methods initiated by Ecuyer. In his book, *The Conspiracy of Pontiac and the Indian War after the Conquest of Canada*, historian Francis Parkman notes that Amherst and a French general Henry Bouquet exchanged regular letters about spreading “smallpox among the disaffected tribes of Indians.”

Bouquet was aware of Ecuyer’s method. In a letter dated June 23, 1763, he notes that smallpox had broken out among Indians at Fort Pitt. And on July 13, 1763, he suggests “the distribution of smallpox smeared blankets to 4 | Environmental History Reader inoculate the Indians.” Amherst approves of the method in a letter dated July 16, 1763, and also queries his French interlocutor about other

European colonialists like Amherst and Bouquet could go on with exterminating Indians using the notorious blankets because they themselves were armed with the knowledge of inoculation. The process was discovered by a Dutch physiologist Jan Ingenhaus and was brought to England in 1721 by one Lady Mary Wortly Montague. It involved inoculating healthy people with pus from the pustules of those who had a mild case of the disease, but this often had fatal results. But colonists like Amherst did not have to wait for long. By the closing decades of the 18th century, they could carry with even greater impunity. By that time, British physician Edward Jenner’s research on the relation between cowpox and smallpox had begun to yield decisive results. In 1796, Jenner reported that humans could be vaccinated against

LORD JEFFREY AMHERST, COMMANDER OF BRITISH FORCES IN NORTH AMERICA, ENTERED INTO A COLLABORATION WITH HIS BITTER COLONIAL RIVAL, THE FRENCH. THEY EXCHANGED LETTERS ABOUT SPREADING “SMALLPOX AMONG THE DISAFFECTED TRIBES OF INDIANS” AND ABOUT METHODS “TO EXTIRPATE THIS EXECRABLE RACE”

methods, “To extirpate this execrable race.” Bouquet and Amherst also discuss the use of dogs to hunt down Indians, called the “Spanish method”. But this method could not be put into practice, because there were not enough dogs.

Amherst had been at war with the French as much as with the Indians, but he was not driven by any obsessive desire to extirpate them from the face of the Earth. The general had no scruples when it came to Indians. His letters abound with phrases such as, “That vermine (sic) have forfeited all claims to the rights of humanity.” Historian J C Long, records the general as saying, “I would be happy for the provinces [Pittsburg] if there was not an Indian settlement within a thousand miles of them.”

smallpox if a small dose of cowpox could be administered to them. Such knowledge was kept away from indigenous people in the colonies.

Today, the West remains in mortal fear of diseases that originate in Asia (Severe Acute Respiratory Syndrome, or SARS; avian influenza) and Africa (Acquired Immune Deficiency Syndrome, or AIDS, Ebola and monkeypox). But almost all vaccination measures are designed to protect citizens of the developed world. There is very little effort to protect those who face the greatest risk from violent diseases. For example, discontinuation of smallpox vaccination in Africa has exposed many in the continent to other related infections, like the monkeypox. [DTE](#)

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AFRICA HAS A FEW BLESSINGS

Several countries with past experience of managing deadly epidemics are proactive in response, but a fragile infrastructure and a high morbidity rate may put brakes on containment efforts

ENGELA DUVENAGE reports from South Africa, **BENNETT OGHIFO** from Nigeria, **MAINA WARURU** and **AGATHA NGOTHO** from Kenya, **ADOLPHUS MAWOLO** from Senegal, **CHRISTOPHE HITAYEZU** from Rwanda and **ANDRÉ PALICE NDIRUKUNDO** from D R Congo

FOR THE first time in the 187-year history of the South African Dairy Championships, there was no swanky awards dinner in a town hall, nor an audience to applaud the winners. Names of those who bagged the awards were announced on March 26, 2020 via a live Facebook broadcast event. This wasn't done for novelty's sake, but for the fear of the looming COVID-19 epidemic. The event was held 12 hours before South Africa imposed a 21-day lockdown to stop spread of the virus. By April 6, South Africa had the continent's highest number of COVID-19 patients, accounting for over 28 per cent of the total cases. After four days of lockdown, the country became the first in the continent to roll out door-to-door screening for the infection, deploying 10,000 workers. President Cyril Ramaphosa declared in his address to the country: "People with symptoms will be referred to local clinics or mobile clinics for testing. Those found to be infected with the virus but with no or moderate symptoms, will remain in isolation at home or at a facility provided by government."

African nations have been precautionary

in facing the pandemic. Like South Africa, Kenya prepared for an elaborate online teaching regime before closing educational institutions for two weeks, starting March 12. A state body called Kenya Institute of Curriculum Development has intensified delivery of school programmes through radio and TV broadcasts. "Following the closure, 15 million primary and secondary school learners are now at home and need guidance on home-based learning," says George Magoha, the country's education minister.

The COVID-19 pandemic comes almost six years after Senegal treated its only confirmed case of Ebola in the 2014 outbreak in West Africa that affected Liberia, Guinea and Sierra Leone. The experience from that outbreak has guided authorities to properly design and closely coordinate efforts in containing the current pandemic. "The first response to this pandemic was to set up an emergency operations centre to lead and coordinate all operations," says Abdoulaye Bousso, director, Public Health Emergency Operation Center, Ministry of Health. He added there was a need to "learn from the past experience to

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African countries have been precautionary in dealing with the pandemic, particularly because they have a fragile healthcare infrastructure

clearly define and design messages for public awareness.” Senegal’s effective management of infectious diseases such as measles-rubella, meningitis, tuberculosis and rabies over the years places it in a better position among regional neighbours. To bolster people’s understanding of the pandemic, the government is mobilising communities and disseminating vital information. It is also using social influencers, such as musicians and clerics to drive messages to their followers. “The country has a strong, integrated disease surveillance and response to include community-based surveillance reporting,” says Alpha Barry, epidemiologist and public health specialist from Guinea. He led the fight against the 2014 Ebola outbreak.

Notwithstanding the seemingly proactive reactions, Africa is also expected to be

on guard given its fragile healthcare infrastructure. Also, transmission rate of COVID-19 is now faster than last month. From March 15 to the end of the month the number of countries affected shot up from 9 to 41. By April 12 the viral infection was reported from all the countries in the continent with the total cases crossing 13,000. The World Health Organization (WHO) has cautioned the spread in Africa as a deadly situation given prevalence of HIV/AIDS and malnutrition.

This also negates the perceived protections from the pandemic in the continent—Africa is the youngest continent with the median age of 19.7 years (it is 38.4 years in China). COVID-19 has affected people above 60 years more and proved fatal for those with other illnesses. But till now, there is no clear trend on how the virus is

behaving, except that more men have died than women. The young African population is also not too healthy due to high prevalence of malnutrition, anaemia, malaria, HIV/AIDS and tuberculosis. The ability to treat severe forms of COVIDS-19 will depend on the availability of ventilators, electricity and oxygen. A recent analysis of countries with the highest number of intensive care beds per capita does not include any African nation. Liberia for instance, does not have a single intensive care unit (ICU) with ventilators. Uganda has 0.1 ICU bed per 100,000 population. In contrast, the US has 34.7 beds per 100,000 population. Another immediate concern is making food available to the millions under lockdown.

The Democratic Republic of Congo announced total confinement for three weeks in the province of Kinshasa, the epicentre of COVID-19, from March 28th. It allowed an intermittent four-day relaxation for people to get basic food supplies. But immediately after the announcement, people invaded the markets and by the afternoon, many products had become unavailable. "I went through many places but didn't get even toilet paper. I don't know if I'll find potatoes," says Mariam Gwabije, a resident of Kinshasa. "Hunger will kill us during confinement, especially since we have not been warned," regrets Mugoli Camunani, a daily wageer. "We live on what we earn per day. D R Congo differs from the European Union that feeds its citizens," adds Charles Mukendi Mwenzele, a street trader.

Far away in Senegal, people are facing another kind of problem. Tapalapa bread, which is the first meal of the day for many Senegalese, is usually sold at kiosks. But in the wake of the pandemic, the government has banned it and instead, recommends direct purchase from bakeries. This has resulted in large crowds at bakeries, sometimes in violation of the 'social distancing' recommended by public health experts to combat COVID-19. Malik Ba, a 34-year-old father of two buys bread every

morning from a nearby neighbourhood bakery. He says he was worried about the chaotic scenes at the bakery. "The crowds are not regulated. I'm afraid some people could easily get infected or spread the disease through close contact," he says.

Food is likely to be an issue during the pandemic and even after it. In Rwanda, an agrarian country, the restrictions are making life difficult for farmers. Agro dealer Jeremie Ruhirwa struggled with the purchase of fertilisers despite official claims that agriculture activities must continue. Ruhirwa, who sells agri-inputs in villages of Ntunga sector of Gasabo district, expresses his failure to purchase DAP fertiliser from the wholesaler. "Inputs are prepaid to an accredited wholesaler. I travelled for an hour on my motorcycle, but the office and the store were closed," he says. "Some employees could not come because there was no public transport—the lockdown had started on March 21. Now I cannot give the farmers DAP. They may use fertilisers not recommended for crops. It can affect the produce," he adds. "There are people who earn from non-agricultural businesses to invest in agriculture. These businesses are closed. Many of them are in urban areas and their families in rural areas depend on their earning," says Teddy Kaberuka, an economy analyst.

The Africa Agriculture Status Report 2018 shows that close to 70 per cent of the continent's population is involved in agriculture, but it is also amongst the worst sufferers. "I used to cultivate with the daily wages I earned from working in a school in Kigali. Now the school is closed and I'm unable to exploit this planting season as I do not have cash to buy seeds and fertilisers," Theogene Bahanugira, a smallholder farmer in Nyabihu district says. Joseph Gafaranga, a farmer and secretary-general of Imbaraga Farmers Organization, expresses the challenges linked to lockdown. "We use several daily wage employees in farming, but we are employing only a few now to minimise

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contact,” he says.

The COVID-19 pandemic is making things even more difficult in areas affected by locusts. The swarms were first reported in Kenya on December 28, 2019, having crossed the border from Somalia. Now, the desert locusts have perched on vegetation in 26 counties of the total 47 counties of the country. Agriculture, Livestock, Fisheries and Cooperative cabinet secretary Peter Munya said during a media briefing on January 15 the ministry has received Sh530 million from the national treasury to control the desert locusts. “We are putting focus on these areas as we continue with aerial spraying in all the areas where desert locusts have invaded,” he said.

However, the COVID-19 pandemic has slowed the importation process, so there is inadequate supply of pesticides and equipment. When the locust invasion began, protocols to locate, tag and monitor desert locusts breeding sites were put in place. In February, the Food and Agriculture Organization of the United Nations

trained 600 National Youth Servicemen who were deployed for ground locust control operations. There were plans to strengthen Kenya government’s desert locust control measures by training 30 Trainer of Trainers who will then train 900 local operations team in the respective affected counties. These 900 teams would carry out the actual ground surveillance and control activities and will play a critical role in relaying data to the control bases.

The farmers are also losing out because they are unable to sell their products. According to data from the Ministry of Agriculture, vegetables and fruits markets remain with minimal activities as exporters are shipping only 25-30 per cent of their normal capacity and many contracted outgrower farmers have reported losses due to non-collection of their produce from their farms. Due to the lockdown in most countries in Europe, flower farms in Kenya have lost 70 per cent of their income over the last month.

In 2019, locust swarms invaded vegetation in 26 of the 47 counties in Kenya. As COVID-19 showed down importation of pesticides and equipment, farmers suffered losses



PANDEMIC PREPAREDNESS

This is not the first time that African countries have faced an epidemic. To an extent, they are or should be better equipped to fight the disease. In D R Congo, which just recently stopped seeing new Ebola cases, doctors are aware of the seriousness of the problem. “Congolese doctors and nurses have already been involved in the Ebola response in Liberia, Sierra Leone and Guinea. In addition, prevention messages are easy to disseminate through the population because people have just come out of the Ebola epidemic. People are already mobilised,” says Rodriguez Kasando, communication expert for behavioural change and community engagement in the country. “Confinement and social distancing are new preventive measures for the Congolese already accustomed to hygiene measures to protect themselves against the Ebola virus. Therefore, awareness must emphasise social distancing in addition to hygiene measures taking into account the mode of infection by air of the COVID-19 which does not exist in the Ebola virus,” says Kasando.

“From our experience on the cost of the Ebola response, the US\$135 million envelope in the contingency plan being provided for COVID-19 cannot cover the need for awareness, the purchase of protective and screening equipment, the purchase of medicines and the payment of personnel involved in the response,” insists Kasando and advises that the Congolese government should seek assistance from partner countries and international financial institutions to “mobilize the necessary funds to acquire the support infrastructure and purchase equipment such as respirators, which are currently insufficient”.

The Alliance for International Medical Action), or ALIMA, which collaborates with the Institute Pasteur of Dakar on testing and supports the infectious disease unit at the Fann University Hospital on the management of suspected and confirmed

HUMAN AND MATERIAL RESOURCES ARE LARGELY INSUFFICIENT SO THE MORTALITY RATE LINKED TO COVID-19 IS EXPECTED TO BE 3 TO 5 TIMES HIGHER THAN IN THE REST OF THE WORLD, SAYS AUGUSTIN AUGIER, EXECUTIVE DIRECTOR OF THE ALLIANCE FOR INTERNATIONAL MEDICAL ACTION

cases, is calling for immediate deployment of health experts, medications and other medical supplies to Africa. The organisation has warned that in many African countries, whose health systems are among the most fragile in the world and who have far fewer resources than those available in Europe, China or the US, the situation is potentially catastrophic. The executive director of the organisation Augustin Augier said that in sub-Saharan Africa, health systems are already fragile and the pandemic’s spread to these regions could lead to a much higher mortality rate than in the rest of the world. “Since human and material resources, such as hospitalisation and resuscitation beds are largely insufficient, the mortality rate linked to COVID-19 is expected to be 3 to 5 times higher than in the rest of the world,” said Augier. The preventive measures taken by African countries to date are legitimate and welcome, he said. However, some of them make the circulation of humanitarian personnel and the delivery of materials, essential for humanitarian assistance, almost impossible at a time when the need to fight COVID-19 will increase.

South Africa, too, is learning from its past experiences. Public health expert Kerrin Begg of Stellenbosch University and a member of the Western Cape Province Outbreak Response Team reveals that outbreak response teams in all of the country’s nine provinces are providing emergency refresher training to medical staff about how to contain the spread of the virus, and on aspects such as thoroughly sterilising ventilators and other equipment.

There are learnings from tuberculosis which too is an airborne, droplet distributed illness. “Staff who have experience working in South Africa’s tuberculosis hospitals or with tuberculosis patients will probably be best equipped and prepared to be handle the crisis. They already know to wear masks at all times, to wash hands regularly, to ensure good ventilation in a room and the need for isolating patients. They know how to take



A health worker talks to a resident in Cape Town, South Africa, during the 21-day nationwide lockdown to create awareness on the spread of coronavirus disease

off their personal protective clothing and how to dispose it properly. They know how important it is to thoroughly clean a ventilator, for instance, before you use it on a new patient,” explains Begg.

“Strategically, our government must be commended because the stance taken is stronger than that of countries such as the UK and the US in their initial stages,” says medical virologist Denis Chopera, programme executive manager for the sub-Saharan African Network for TB/HIV Research Excellence (SANTHE) based at the Africa Health Research Institute in Durban. “When HIV started emerging in South Africa in the 1980s, the country

took a backseat on handling it. This was because of poor leadership at the time, and certain beliefs. We did nothing for a long time. By the time we fully responded, it was too late,” he remembers.

He is hopeful that the strong measures put into place, along with factors such as a warmer climate and a younger population, will see South Africa through the pandemic. “We previously learnt the hard way that we need to be at the forefront when trying to curb a virus. The cost of drastic measures far outweighs the cost of doing nothing, even if it costs the economy millions,” said Chopera. [DTE](#)

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WHAT WILL THE WORLD BE LIKE AFTER CORONAVIRUS?

Four possible futures are: a descent into barbarism, a robust state capitalism, a radical state socialism, and a transformation into a big society built on mutual aid

BY SIMON MAIR

WHERE WILL we be in six months, a year, ten years from now? I lie awake at night wondering what the future holds for my loved ones. My vulnerable friends and relatives. I wonder what will happen to my job, even though I'm luckier than many: I get good sick pay and can work remotely. I am writing this from the UK, where I still have self-employed friends who are staring down the barrel of months without pay, friends who have already lost jobs. The contract that pays 80 per cent of my salary runs out in December. Coronavirus is hitting the economy badly. Will anyone be hiring when I need work?

There are a number of possible futures, all dependent on how governments and society respond to coronavirus and its economic aftermath. Hopefully we will use this crisis to rebuild, produce something better and more humane. But we may slide into something worse.

I think we can understand our situation—and what might lie in our future—by looking at the political economy of other crises. My research focuses on the fundamentals of the modern economy: global supply chains, wages, and productivity. I look at the way that economic dynamics contribute to challenges like

**CORONAVIRUS,
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climate change and low levels of mental and physical health among workers. I have argued that we need a very different kind of economics if we are to build socially just and ecologically sound futures. In the face of COVID-19, this has never been more obvious.

The responses to the COVID-19 pandemic are simply the amplification of the dynamic that drives other social and ecological crises: the prioritisation of one type of value over others. This dynamic has played a large part in driving global responses to COVID-19. So as responses to the virus evolve, how might our economic futures develop?

From an economic perspective, there are four possible futures: a descent into barbarism, a robust state capitalism, a radical state socialism, and a transformation into a big society built on mutual aid. Versions of all of these futures are perfectly possible, if not equally desirable.

**SMALL CHANGES
DON'T CUT IT**

Coronavirus, like climate change, is partly a problem of our economic structure. Although both appear to be “environmental” or “natural” problems, they are socially driven.



What might our future hold?

Yes, climate change is caused by certain gases absorbing heat. But that's a very shallow explanation. To really understand climate change, we need to understand the social reasons that keep us emitting greenhouse gases. Likewise with COVID-19. Yes, the direct cause is the virus. But managing its effects requires us to understand human behaviour and its wider economic context.

Tackling both COVID-19 and climate change is much easier if you reduce non-essential economic activity. For climate change this is because if you produce less stuff, you use less energy, and emit fewer greenhouse gases. The epidemiology of COVID-19 is rapidly evolving. But the core logic is similarly simple. People mix together and spread infections. This happens in households, and in workplaces, and on the journeys people make. Reducing this mixing is likely to reduce person-to-person transmission and lead to fewer cases overall.

Reducing contact between people probably also helps with other control strategies. One common control strategy for infectious disease outbreaks is contact tracing and isolation, where an infected person's contacts are identified, then isolated to prevent further disease spread. This is most effective when you trace a high percentage of contacts. The fewer contacts a person has, the fewer you have to trace to get to that higher percentage.

We can see from Wuhan that social distancing and lockdown measures like this are effective. Political economy is useful in helping us understand why they weren't introduced earlier in European countries and the US.

A FRAGILE ECONOMY

Lockdown is placing pressure on the global economy. We face a serious recession. This pressure has led some world leaders to call for an easing of lockdown measures.

Even as 19 countries sat in a state of lockdown, the US president, Donald Trump, and Brazilian President Jair Bolsonaro called for roll backs in mitigation measures. Trump called for the American economy to get back to normal in three weeks (he has now accepted that social distancing will need to be maintained for much longer). Bolsonaro said: “Our lives have to go on. Jobs must be kept...We must, yes, get back to normal.”

In the UK meanwhile, four days before calling for a three-week lockdown, Prime Minister Boris Johnson was only marginally less optimistic, saying that the UK could turn the tide within 12 weeks. Yet even if Johnson is correct, it remains the case that we are living with an economic system that will threaten collapse at the next sign of pandemic..

The economics of collapse are fairly straightforward. Businesses exist to make a profit. If they can't produce, they can't sell things. This means they won't make profits, which means they are less able to employ you. Businesses can and do (over short time periods) hold on to workers that they don't need immediately: they want to be able to meet demand when the economy picks back up again. But, if things start to look really bad, then they won't. So, more people lose their jobs or fear losing their jobs. So they buy less. And the whole cycle starts again, and we spiral into an economic depression.

In a normal crisis the prescription for solving this is simple. The government spends, and it spends until people start consuming and working again. (This prescription is what the economist John Maynard Keynes is famous for).

But normal interventions won't work here because we don't want the economy to recover (at least, not immediately). The whole point of the lockdown is to stop people going to work, where they spread the disease. One recent study suggested that lifting lockdown measures in Wuhan (including workplace closures) too soon could see China experience a second peak

of cases later in 2020.

As the economist James Meadway wrote, the correct COVID-19 response isn't a wartime economy—with massive upscaling of production. Rather, we need an “anti-wartime” economy and a massive scaling back of production. And if we want to be more resilient to pandemics in the future (and to avoid the worst of climate change) we need a system capable of scaling back production in a way that doesn't mean loss of livelihood.

So what we need is a different economic mindset. We tend to think of the economy as the way we buy and sell things, mainly consumer goods. But this is not what an economy is or needs to be. At its core, the economy is the way we take our resources and turn them into the things we need to live. Looked at this way, we can start to see more opportunities for living differently that allow us to produce less stuff without increasing misery.

I and other ecological economists have long been concerned with the question of how you produce less in a socially just way, because the challenge of producing less is also central to tackling climate change. All else equal, the more we produce the more greenhouse gases we emit. So how do you reduce the amount of stuff you make while keeping people in work?

Proposals include reducing the length of the working week, or, as some of my recent work has looked at, you could allow people to work more slowly and with less pressure. Neither of these is directly applicable to COVID-19, where the aim is reducing contact rather than output, but the core of the proposals is the same. You have to reduce people's dependence on a wage to be able to live.

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WHAT IS THE ECONOMY FOR?

The key to understanding responses to COVID-19 is the question of what the economy is for. Currently, the primary aim of the global economy is to facilitate exchanges of money. This is what

economists call “exchange value”.

The dominant idea of the current system we live in is that exchange value is the same thing as use value. Basically, people will spend money on the things that they want or need, and this act of spending money tells us something about how much they value its “use”. This is why markets are seen as the best way to run society. They allow you to adapt, and are flexible enough to match up productive capacity with use value.

What COVID-19 is throwing into sharp relief is just how false our beliefs about markets are. Around the world, governments fear that critical systems will be disrupted or overloaded: supply chains, social care, but principally healthcare. There are lots of contributing factors to this. But let’s take two.

First, it is quite hard to make money from many of the most essential societal services. This is in part because a major

driver of profits is labour productivity growth: doing more with fewer people. People are a big cost factor in many businesses, especially those that rely on personal interactions, like healthcare. Consequently, productivity growth in the healthcare sector tends to be lower than the rest of the economy, so its costs go up faster than average.

Second, jobs in many critical services aren’t those that tend to be highest valued in society. Many of the best paid jobs only exist to facilitate exchanges; to make money. They serve no wider purpose to society: they are what the anthropologist David Graeber calls “bullshit jobs”. Yet because they make lots of money we have lots of consultants, a huge advertising industry and a massive financial sector. Meanwhile, we have a crisis in health and social care, where people are often forced out of useful jobs they enjoy, because these jobs don’t pay them enough to live.

Workers of food delivery group Deliveroo protest against their working conditions in Belgium and the Netherlands



POINTLESS JOBS

The fact that so many people work pointless jobs is partly why we are so ill prepared to respond to COVID-19. The pandemic is highlighting that many jobs are not essential, yet we lack sufficient key workers to respond when things go bad.

People are compelled to work pointless jobs because in a society where exchange value is the guiding principle of the economy, the basic goods of life are mainly available through markets. This means you have to buy them, and to buy them you need an income, which comes from a job.

The other side of this coin is that the most radical (and effective) responses that we are seeing to the COVID-19 outbreak challenge the dominance of markets and exchange value. Around the world governments are taking actions that three months ago looked impossible. In Spain, private hospitals have been nationalised. In the UK, the prospect of nationalising various modes of transport has become very real. And France has stated its readiness to nationalise large businesses.

Likewise, we are seeing the breakdown of labour markets. Countries like Denmark and the UK are providing people with an income in order to stop them from going to work. This is an essential part of a successful lockdown. These measures are far from perfect. Nonetheless, it is a shift from the principle that people have to work in order to earn their income, and a move towards the idea that people deserve to be able to live even if they cannot work.

This reverses the dominant trends of the last 40 years. Over this time, markets and exchange values have been seen as the best way of running an economy. Consequently, public systems have come under increasing pressures to marketise, to be run as though they were businesses who have to make money. Likewise, workers have become more and more exposed to the market—zero-hours

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contracts and the gig economy have removed the layer of protection from market fluctuations that long term, stable, employment used to offer.

COVID-19 appears to be reversing this trend, taking healthcare and labour goods out of the market and putting it into the hands of the state. States produce for many reasons. Some good and some bad. But unlike markets, they do not have to produce for exchange value alone.

These changes give me hope. They give us the chance to save many lives. They even hint at the possibility of longer term change that makes us happier and helps us tackle climate change. But why did it take us so long to get here? Why were many countries so ill-prepared to slow-down production? The answer lies in a recent World Health Organization (WHO) report: they did not have the right “mindset”.

OUR ECONOMIC IMAGINATIONS

There has been a broad economic consensus for 40 years. This has limited the ability of politicians and their advisers to see cracks in the system, or imagine alternatives. This mindset is driven by two linked beliefs:

- The market is what delivers a good quality of life, so it must be protected
- The market will always return to normal after short periods of crisis

These views are common to many Western countries. But they are strongest in the UK and the US, both of which have appeared to be badly prepared to respond to COVID-19.

In the UK, attendees at a private engagement reportedly summarised the Prime Minister’s most senior aide’s approach to COVID-19 as “herd immunity, protect the economy, and if that means some pensioners die, too bad”. The government has denied this, but if real, it’s not surprising. At a government event early in the pandemic, a senior civil servant said to me: “Is it worth the



We could be in for some long-term changes

economic disruption? If you look at the treasury valuation of a life, probably not.”

This kind of view is endemic in a particular elite class. It is well represented by a Texas official who argued that many elderly people would gladly die rather than see the US sink into economic depression. This view endangers many vulnerable people (and not all vulnerable people are elderly), and, as I have tried to lay out here, it is a false choice.

One of the things the COVID-19 crisis could be doing, is expanding that economic imagination. As governments and citizens take steps that three months ago seemed impossible, our ideas about how the world works could change rapidly. Let us look at where this re-imagining could take us.

FOUR FUTURES

To help us visit the future, I’m going to use a technique from the field of futures studies. You take two factors you think will be important in driving the future, and you imagine what will happen under different combinations of those factors.

The factors I want to take are value and centralisation. Value refers to whatever is the guiding principle of our economy. Do we use our resources to maximise exchanges and money, or do we use them to maximise life? Centralisation refers to the ways that things are organised, either by lots of small units or by one big commanding force. We can organise these factors into a grid, which can then be populated with scenarios. So

we can think about what might happen if we try to respond to the coronavirus with the four extreme combinations:

- 1) State capitalism: centralised response, prioritising exchange value
- 2) Barbarism: decentralised response prioritising exchange value
- 3) State socialism: centralised response, prioritising the protection of life
- 4) Mutual aid: decentralised response prioritising the protection of life.

STATE CAPITALISM

State capitalism is the dominant response we are seeing across the world right now. Typical examples are the UK, Spain and Denmark.

The state capitalist society continues to pursue exchange value as the guiding light of the economy. But it recognises that markets in crisis require support from the state. Given that many workers cannot work because they are ill, and fear for their lives, the state steps in with extended welfare. It also enacts massive Keynesian stimulus by extending credit and making direct payments to businesses.

The expectation here is that this will be for a short period. The primary function of the steps being taken is to allow as many businesses as possible to keep on trading. In the UK, for example, food is still distributed by markets (though the government has relaxed competition laws). Where workers are supported directly, this is done in ways that seek to minimise disruption of normal labour market functioning. So, for example, as in the UK, payments to workers have to be applied for and distributed by employers. And the size of payments is made on the basis of the exchange value a worker usually creates in the market, rather than the usefulness of their work.

Could this be a successful scenario? Possibly, but only if COVID-19 proves controllable over a short period. As full lockdown is avoided to maintain market functioning, transmission of infection is still likely to continue. In the UK, for

instance, non-essential construction is still continuing, leaving workers mixing on building sites. But limited state intervention will become increasingly hard to maintain if death tolls rise. Increased illness and death will provoke unrest and deepen economic impacts, forcing the state to take more and more radical actions to try to maintain market functioning.

BARBARISM

This is the bleakest scenario. Barbarism is the future if we continue to rely on exchange value as our guiding principle and yet refuse to extend support to those who get locked out of markets by illness or unemployment. It describes a situation that we have not yet seen.

Businesses fail and workers starve because there are no mechanisms in place to protect them from the harsh realities of the market. Hospitals are not supported by extraordinary measures, and so become overwhelmed. People die. Barbarism is ultimately an unstable state that ends in ruin or a transition to one of the other grid sections after a period of political and social devastation.

Could this happen? The concern is that either it could happen by mistake during the pandemic, or by intention after the pandemic peaks. The mistake is if a government fails to step in in a big enough way during the worst of the pandemic. Support might be offered to businesses and households, but if this isn't enough to prevent market collapse in the face of widespread illness, chaos would ensue. Hospitals might be sent extra funds and people, but if it's not enough, ill people will be turned away in large numbers.

Potentially just as consequential is the possibility of massive austerity after the pandemic has peaked and governments seek to return to "normal". This has been threatened in Germany. This would be disastrous. Not least because defunding of critical services during austerity has impacted the ability of countries to

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Volunteers shop for groceries during the lockdown, in Arese, Italy

respond to this pandemic. The subsequent failure of the economy and society would trigger political and social unrest, leading to a failed state and the collapse of both state and community welfare systems.

STATE SOCIALISM

State socialism describes the first of the futures we could see with a cultural shift that places a different kind of value at the heart of the economy. This is the future we arrive at with an extension of the measures we are currently seeing in the UK, Spain and Denmark.

The key here is that measures like nationalisation of hospitals and payments to workers are seen not as tools to protect markets, but a way to protect life itself. In such a scenario, the state steps in to

protect the parts of the economy that are essential to life: the production of food, energy and shelter for instance, so that the basic provisions of life are no longer at the whim of the market. The state nationalises hospitals, and makes housing freely available. Finally, it provides all citizens with a means of accessing various goods—both basics and any consumer goods we are able to produce with a reduced workforce.

Citizens no longer rely on employers as intermediaries between them and the basic materials of life. Payments are made to everyone directly and are not related to the exchange value they create. Instead, payments are the same to all (on the basis that we deserve to be able to live, simply because we are alive), or they are based on

the usefulness of the work. Supermarket workers, delivery drivers, warehouse stackers, nurses, teachers, and doctors are the new CEOs.

It's possible that state socialism emerges as a consequence of attempts at state capitalism and the effects of a prolonged pandemic. If deep recessions happen and there is disruption in supply chains such that demand cannot be rescued by the kind of standard Keynesian policies we are seeing now (printing money, making loans easier to get and so on), the state may take over production.

There are risks to this approach—we must be careful to avoid authoritarianism. But done well, this may be our best hope against an extreme COVID-19 outbreak. A strong state able to marshal the resources to protect the core functions of economy and society.

MUTUAL AID

Mutual aid is the second future in which we adopt the protection of life as the guiding principle of our economy. But, in this scenario, the state does not take a defining role. Rather, individuals and small groups begin to organise support and care within their communities.

The risks with this future is that small groups are unable to rapidly mobilise the kind of resources needed to effectively increase healthcare capacity, for instance. But mutual aid could enable more effective transmission prevention, by building community support networks that protect the vulnerable and police isolation rules. The most ambitious form of this future sees new democratic structures arise. Groupings of communities that are able to mobilise substantial resources with relative speed. People coming together to plan regional responses to stop disease spread and (if they have the skills) to treat patients.

This kind of scenario could emerge from any of the others. It is a possible way out of barbarism, or state capitalism, and could support state socialism. We know

that community responses were central to tackling the West African Ebola outbreak. And we already see the roots of this future today in the groups organising care packages and community support. We can see this as a failure of state responses. Or we can see it as a pragmatic, compassionate societal response to an unfolding crisis.

HOPE AND FEAR

These visions are extreme scenarios, caricatures, and likely to bleed into one another. My fear is the descent from state capitalism into barbarism. My hope is a blend of state socialism and mutual aid: a strong, democratic state that mobilises resources to build a stronger health system, prioritises protecting the vulnerable from the whims of the market and responds to and enables citizens to form mutual aid groups rather than working meaningless jobs.

What hopefully is clear is that all these scenarios leave some grounds for fear, but also some for hope. COVID-19 is highlighting serious deficiencies in our existing system. An effective response to this is likely to require radical social change. I have argued it requires a drastic move away from markets and the use of profits as the primary way of organising an economy. The upside of this is the possibility that we build a more humane system that leaves us more resilient in the face of future pandemics and other impending crises like climate change.

Social change can come from many places and with many influences. A key task for us all is demanding that emerging social forms come from an ethic that values care, life, and democracy. The central political task in this time of crisis is living and (virtually) organising around those values.

*The author is research fellow in Ecological Economics, Centre for the Understanding of Sustainable Prosperity, University of Surrey, the UK
(By arrangement with The Conversation)*

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WHIMS OF THE
MARKET**



Healthy India, Happy India



Spreading Happiness and Wellness!

Over the years, Himalaya has actively promoted the health and well-being of individuals across all age groups. Our campaign 'Healthy India, Happy India' focuses on health-care by conducting comprehensive health camps in rural, semi-urban, and remote areas.

Our recent camp in Mawphlang village, East Khasi Hills, in association with SYNJUK (Ka Synjuk Ki Hima Arliang Wah Umiam Mawphlang Welfare Society), gave the local community access to specialized healthcare services, such as Dental, Ophthalmology, Gynecology, Pediatrics, Orthopedics, and General screening. Awareness sessions were conducted on health and hygiene, and free medicines were distributed during the camp. Through this initiative, we reached out to over 1000 individuals.

Similar camps have also been conducted in Rajasthan and in more than 378 schools in Bengaluru.

“WE HAVE MORE SERIOUS CRISES AHEAD OF US”

NOAM CHOMSKY,

a 91-year-old American linguist and political analyst, spoke to

SRECKO HORVAT on DiEM25 TV

from Arizona, the US, where he

is in self-isolation because of

the pandemic. Chomsky

pointed out that the

crisis due to

coronavirus is serious

and will have serious

consequences.

Though it will be

temporary, there are

two more serious

horrors for humanity:

nuclear war and

global warming. His

analysis shows that

the threats are

intensified by the neoliberal

policies, and after the end of

this crisis, the options will be

either more authoritarian,

brutal states or a radical

reconstruction of society with

more humane terms



ACCORDING TO Chomsky, it is shocking that in this crucial moment Donald Trump is in the lead, whom he describes as a sociopath buffoon. “The coronavirus is serious enough, but it’s worth recalling that there are two much greater threats approaching, far worse than anything that’s happened in human history: One is the growing threat of a nuclear war and the other, of course, is the growing threat of global warming. Coronavirus is horrible and can have terrifying consequences, but there will be recovery.

While the others won’t be recovered, it’s finished.”

The US power is overwhelming. It is the only country that when imposing sanctions on other states like Iran and Cuba, everyone else has to follow along. Also Europe that follows the master, Chomsky argues. These countries suffer from US sanctions, but nevertheless “one of the most ironic elements of today’s virus crisis is that Cuba is helping Europe. Germany can’t help Greece, but Cuba can help the European countries.” Adding the deaths of thousands of immigrants and refugees in the Mediterranean, Chomsky thinks that the civilization’s crisis of the West at this point is devastating.

Today’s rhetoric that refers to war is of some significance, according to Chomsky. If we want to deal with this crisis we have to move to something like wartime mobilization. For example, the financial mobilization of the US for the Second World War, which led the country into far greater debt and quadrupled the US manufacturing and led to growth. We need this mentality now in order to overcome this short-run crisis and which can be dealt by rich countries. “In a civilized world, the rich countries would be giving assistance after those in need,

instead of strangling them.” “The coronavirus crisis might bring people to think about what kind of world we want”.

Chomsky believes that the origins of this crisis are a colossal market failure and the neoliberal policies that intensified deep socio-economic problems. “It was known for a long time, that pandemics are very likely to happen and it was very well understood, that there was likely to be coronavirus pandemic with slight modifications of the SARS epidemic. They could have worked on vaccines, on developing protection for potential coronavirus pandemics, and with minor modifications we could have vaccines available today.” Regarding Big Pharma, private tyrannies, which is impossible for the government to step in, it’s more profitable to make new body creams than finding a vaccine that will protect people from total destruction. The threat of polio ended with the Salk vaccine, by a government institution, no patents, available to everyone. “That could have been done this time, but the neoliberal plague has blocked that.”

The information was there, but we didn’t pay attention.

“In October 2019 there was a large-scale simulation in the US, in the world of the possible pandemic of this kind, but nothing was done. We didn’t pay attention to the information. On December 31st, China informed the World Health Organization of pneumonia and a week later some Chinese scientists identified it as a coronavirus and gave the information to the world. The countries in the area, China, South Korea, Taiwan, began to do something and it seems contained, at least for the first surge of crisis. In Europe to some extent, that also happened. Germany, which had moved just on time, has a reliable hospital system and was able to act in its self-interest, without helping others but for itself at least to have a reasonable containment. Other countries just ignored it, the worst of them the United Kingdom and the worst of all was the United States.”

When we overcome this crisis somehow, the options available will range from the installation of highly authoritarian brutal States to radical

reconstruction of society and more humane terms, concerned with human needs instead of private profit. “There is the possibility that people will organize, become engaged, as many are doing, and bring about a much better world, which will also confront the enormous problems, that we’re facing right down the road, the problems of nuclear war, which is closer than it’s ever been and the problems of environmental catastrophes from which there is no recovery once we’ve gotten to that stage, that it’s not far in distance, unless we act decisively.”

“So it’s a critical moment of human history, not just because of the coronavirus, that should bring us to awareness of the profound flaws of the world, the deep, dysfunctional characteristics of the whole socio-

economic system, which has to change, if there’s going to be a survivable future. So this could be a warning sign and a lesson to deal with it today or prevent it from exploding. But thinking of its roots and how those roots are going to lead to more crises, worse ones than this”.

About the quarantine situation that today more than 2 billion people on the planet face, Chomsky points out that a form of social isolation has existed for years and is very damaging.

“We are now in a situation of real social isolation. It has to be overcome by recreating social bonds in whatever way can be done,

whatever kind that can be helping people in need. Contacting them, developing organizations, expanding analysis. Like before getting them to be functional and operative, making plans for the future, bringing people together as we can in the internet age, to join, consult, deliberate to figure out answers to the problems that they face and work on them, which can be done. It’s not face-to-face communication which for human beings is essential. But it’ll be deprived of it for a while, you can put it on hold.”

Noam Chomsky concludes by saying: “Find other ways and continue with, and in fact, extend and deepen the activities carried out. Can be done. It’s not going to be easy, but humans have faced problems in the past”.

Courtesy: PRESENZA

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SANITISE AND CONTROL

Yellow fever became a ruse for US intervention in Cuba

BY PRANAY LAL

YELLOW FEVER is a dreaded disease in the Americas and Africa. It was an even more feared malady in the 19th and early 20th century when cures were not readily available. In 1878, some passengers from a ship that left Havana, Cuba, carried the fever and spread it in New Orleans, the US, after escaping quarantine.

The fever spread throughout the Mississippi Valley and as far as St Louis; 20,000 people died and the cotton industry lost about US \$200 million. Bacteriology was a nascent discipline then and virology (yellow fever is caused by a virus) non-existent. As US commercial relations with Cuba were expanding, anxiety about the fever mounted. Unsanitary conditions in shanties in US cities, particularly in towns bordering Mexico, were a constant worry for health officials.

Americans accused the Spanish—who were trying to claim Cuba and parts of south USA—for introducing the disease. Havana became the focus of US suspicions and yellow fever a pretext for American imperialist designs in Cuba. In 1878, the US intervened in Cuba's war with Spain,

motivated in large measure by threats of yellow fever. But Maximo Gomez, leader of the Cuban Liberation Army said that towards the end of the 10-year war, that began in 1868, when the Cuban resistance was waning, the “invincible generals June, July and August” (months when heat and summer rains breed the fever) killed more Spaniards than all the gunpowder and ammunition the US provided the Cubans. The latter had been exposed to the disease for long and that gave them some semblance of immunity to it.

In 1897, deteriorating conditions in Havana again paralysed the southern US economy. And in December 1898, the US military took actions to sanitise Cuba from yellow fever. The occupation government coerced Cuban families to clean streets, demolish old buildings and dredge the Havana port. Since yellow fever is largely an urban disease, US troops were stationed in camps outside Havana.

The failure of the initial sanitary measures led to renewed interest into the causes of the fever. Meanwhile a Cuban doctor, Carlos Finlay, hypothesised that a

YELLOW FEVER SPREAD THROUGHOUT THE MISSISSIPPI VALLEY AND AS FAR AS ST LOUIS; 20,000 PEOPLE DIED. AS US COMMERCIAL RELATIONS WITH CUBA WERE EXPANDING, ANXIETY ABOUT THE FEVER MOUNTED. UNSANITARY CONDITIONS IN SHANTIES IN US CITIES, PARTICULARLY IN TOWNS BORDERING MEXICO, WERE A CONSTANT WORRY FOR HEALTH OFFICIALS



This illustration depicts a yellow fever victim in a Jefferson Street home in Memphis. It's from a series of images titled "The Great Yellow Fever Scourge—incidents of its horrors in the Most Fatal District of the Southern States"

mosquito species, *Aedes* spp, transmitted the fever from one human to another. A US sanitarian Henry Carter found that it took 10-12 days before the fever actually affected the person bitten by the mosquito.

Experiments by the US Yellow Fever Commission confirmed Finlay's and Carter's findings. This led to elimination of breeding sites of the vector in Havana and by 1901, there was no yellow fever in Cuba. But coercion to adopt sanitation methods strained the already uneasy relationship between Cubans and the occupiers. In 1902, a piece of legislation called the Platt Amendment was introduced into the Cuban Constitution. The amendment led to the replacement of sanitation amenities put up by Cuban civic authorities with ones built by the Americans.

In 1906, yellow fever reappeared in Cuba. The US government intervened again but failed; the Americans were forced to leave the island by 1911 because of mounting casualty. By that time, Cubans had learnt that keeping their country free of yellow fever was critical to keeping their powerful neighbours at bay.

Carlos Finlay, initially ignored by the Cubans for having sided with the US, was now declared a national hero who understood the science of yellow fever better than the Americans. The islanders also realised that they were in no way inferior to the US in terms of public health concerns and made parallel and sometimes spectacular breakthroughs in preventive medicine.

The early 1930s and 1940s saw the US become a near-xenophobe towards its near neighbours. US-based philanthropic organisations—Rockefeller and Ford foundations—found that Central and South America posed a risk of constant reintroduction of fevers. These organisations unleashed oppressive "[disease] sanitation" programmes. For example in Mexico, the Rockefeller Foundation started hookworm eradication knowing well that its ends would not be met with existing technology.

The fear of imported disease by "enemies of the state" is not a new syndrome for the US. It has consistently used public health as a tool of diplomacy and subjugation. [DTE](#) [@down2earthindia](#)

WATER UNDER FIRE

Unaccessible safe water to a large population across the world may thwart steps to arrest COVID-19 spread

SUSHMITA SENGUPTA
and **SURESH ROHILLA**

IN THREE short months, a microscopic virus took complete grip of humanity. It is unfortunate that the key to fight war against the life-threatening COVID-19—an exercise as simple as washing hands with soap—is a humongous task in several parts of the world. The World Health Organization (WHO) recommends at least 20 seconds of thorough hand-scrubbing to get rid of the novel coronavirus. But a rough calculation shows the amount of water required for this is more than what people in several parts of the world can afford.

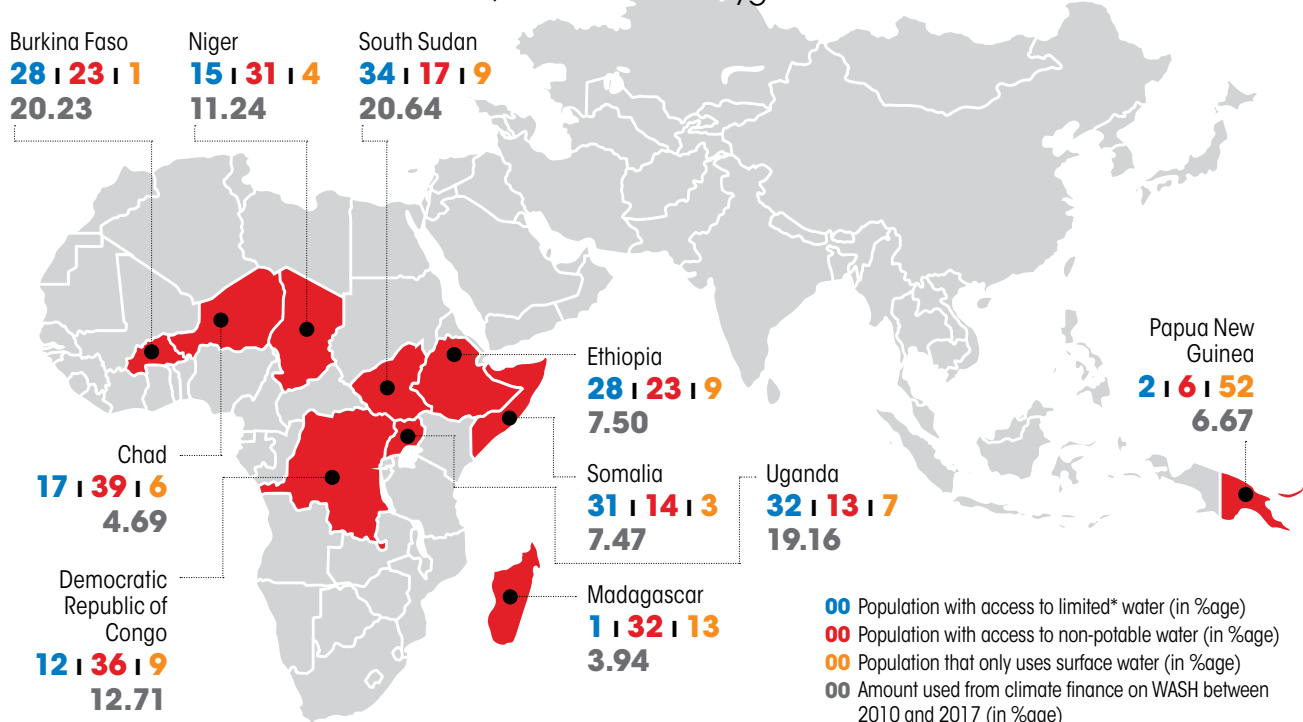
Consider this: if a person spends 30 to 40 seconds in hand-washing, it would require 4 litres of water when the tap is left on, and two litres when the tap is closed, estimates Delhi-based non-profit Centre for Science and Environment (CSE). WHO recommends frequent hand-washing to check the spread of COVID-19, so if a person cleans hands 10 times a day

It's difficult for people to wash hands several times a day when they have to travel long distances just to fill water containers



Poor performers

Ten countries worst in providing basic water supply to its people spend least of their climate finance fund on water, sanitation and hygiene



Source: Water Aid, 'On the Frontline: The State of the World's Water 2020'; *When people have to travel for more than 30 minutes up and down for improved source of water

instead of the usual average of five times daily, 20-40 litres water would be used in a day. This means a five-member family would need 100 to 200 litres daily only to wash hands. This is near-impossible for the homeless multitude and the urban poor who live in slums in big cities and towns. According to Paul R Hunter of School of Medicine, Health Policy and Practice, University of East Anglia, United Kingdom, one person needs 7.5 litres a day for drinking, cooking and personal hygiene. But piped water has still not reached many, and travelling long distances for water and securing soap requires constant effort and expense.

WOES OF USING UNSAFE WATER

More water use also means more wastewater. If one washes hands as indicated above, the water demand will

increase 20 to 25 per cent. It also increases health risks. For instance, in India 65 per cent of wastewater is not treated and makes its way to various water bodies.

The 2019 Joint Monitoring Programme (JMP) report of WHO and UNICEF exposes a scarier reality. Four households out of 10 across the globe neither have water nor soap for hand-washing; five out of 10 schools do not have water and soap for students; and, four out of 10 healthcare facilities do not have soap and water at the point of use, sanitizer is only a far cry.

"Ample clean water is necessary to check a pandemic," says Madhumita Dobe, director-professor of Kolkata-based All India Institute of Hygiene and Public Health. Clean, affordable and accessible water and safe toilets form the first line of defence against changing climate and outbreak of disease. But there are 160 million Indians and a total of two billion

people in the world without access to clean water, states non-profit Water Aid in its report '*On the Frontline: The State of the World's Water 2020*'.

Faulty toilet technologies and mismanagement of faecal sludge are the main reasons for soil and groundwater contamination. A 2012 CSE research in 71 Indian cities shows that cities are not completely connected by sewage, so sewer is directly dumped into water bodies polluting them to the brim. In sub-Saharan Africa, people walk long distances to get water from lakes, streams and rivers, already contaminated because of untreated excreta, states the JMP report. The region is already distressed by open defecation and has 138.2 million people who do not have access to safe water. Nigeria, which has the highest number of open defecators in the world, has 69 million people without access to clean water, states the Multiple Indicator Cluster Survey of 2016-17 published by the National Bureau of Statistics.

What's extremely disturbing is that as many as 1.8 billion people, living in the low- and middle-income countries, consume groundwater with faecal contamination, says a report in the journal *Tropical Medicine and International Health*. This places people at risk of diarrhoeal and other water-borne diseases. In India, 60 per cent of the deaths are caused by diarrhoea. The 2019 national health profile of the Central Bureau of Intelligence shows 1,362 people died of diarrhoea in 2017 and another 1,450 in 2018. The fear now is that groundwater contamination may, in some way, be linked to spread of COVID-19.

CONTAMINATION AND COVID-19 CONNECTION

In China, researchers at the hospital of Sun Yat-sen University observed COVID-19 patients throughout their illness and quarantine period and extended it for five weeks even after they had tested negative. They fear that potential faecal or oral transmission may pose increased risk in

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contained living premises such as hostels, dormitories, trains, buses and cruise ships. Though no transmission has been proved so far, the investigation stresses that enough and safe water is important to maintain sanitation and hygiene facilities. The research was published *Lancet Gastroenterology and Hepatology* in April 2020.

"Globally, a huge population depends on groundwater when there is not enough water supply," says Shashank Shekhar, associate professor at the department of geology, University of Delhi. In fact, 50 per cent of the global population uses groundwater for drinking purposes, shows a 2012 UNESCO study. In urban areas people turn to bottled water during water scarcity. This, again, is mainly sourced from groundwater, adds Shekhar.

Yet, countries have shown little seriousness in water, sanitation and hygiene (WASH). Water Aid's report reveals that countries that do not have access to basic water supply are mostly in Africa. But they spent only 3.94 to 20.64 per cent of their climate finance fund between 2010 and 2017 on WASH (see 'Poor performers' on p57). It shows that countries have not recognised the importance of building resilience to climate change, states the Water Aid report.

However, there is good news amid the gloomy reality—making safe water available to all is not impossible. The pandemic has thrown open opportunities for the world to learn how to tackle the effects of climate change—groundwater can be recharged by harvesting rain and protecting the water bodies; and safe technologies to manage excreta and wastewater can protect surface as well as groundwater. In India, the Central government's Jal Shakti Abhiyan aims to work towards water conservation. Union Minister of Jal Shakti Gajendra Singh Shekhawat claims that projects have been launched to recharge groundwater, and protect and renovate water bodies. 

 @down2earthindia

“WATER A CRITICAL WEAPON TO FIGHT PANDEMIC”

This is the right time to accelerate efforts to ensure universal access to safe water and sanitation

BY DHESIGEN NAIDOO

WE ARE in the throes of an unprecedented global pandemic, perhaps unexpectedly with a variant of a virus we collectively contained and managed in the SARS epidemic of 2002-2004. This new SARS-CoV-2, or COVID-19, has thrown the world into a storm, with no corner on Earth unaffected. Its impact has already been severe on the social, political, economic, security and health fronts. Our anxiety for personal and collective safety has risen to understandably high levels. Our governments are investing in war-like strategies such as lockdowns and total isolation to flatten the infections curve and maintain the numbers with levels that our mostly fragile, and under-resourced, health systems can manage. I write this when South Africa's infections have climbed above the 1,000 mark and we have recorded our first COVID-19-related death. Dark times!

Water is central to both the containment of infections as well as the treatment regimen of those who are infected and ill. Regular washing, in particular hand-washing, is one of the better lines of defense against the further spread of the virus. Hand-washing campaigns have gone to the top of the list of many national interventions. What this has inevitably done, as crises generally do, is put a magnifying glass on the issues of water security and safe sanitation access. And once again, worldwide, but mainly in the Global South, we have been found wanting.



Using the budget prioritisation for emergency measures, water access has become a key objective with tanker services, water harvesting and storage tanks being key short-term measures. Similarly, access to safe sanitation and organising for rapid de-densification of settlements and slums are key interventions in the COVID-19 response plan of governments. This, together with the measures to ensure short-term food security and a measure of economic safety nets, will help us toward being in reasonable

shape, as individuals and nations—both through, and especially beyond, this crisis. One of the many risks associated with this pandemic is the slowing of the pace in achieving development targets, including the Sustainable Development Goals (SDGs). There is a high probability that SDG-6, the goal for water and sanitation, will be further delayed. Depending on the global recovery time from the crisis, this could be for a long time.

In this flurry of emergency responses, it is important to note that we also have the opportunity to do the opposite. We can, in fact, accelerate our efforts toward the SDGs in the medium term, and be firmly on the pathway to sustainable development and a lower carbon economy in the long term. This is the moment when in many countries in the world unsafe water and poor sanitation are key COVID-19 risk factors on the one hand, and core to the containment and recovery strategy on the other. They are enjoying much political attention in the



Hand-washing campaigns top the list of national interventions. This has put a magnifying glass on issues of water security and safe sanitation access

public sector and huge focus in the private sector. This must be the right time to engage in catalytic actions to leap-frog the current system constraints to universal access to safe water and sanitation with concomitant, smarter, eco-friendly waste and wastewater treatment. This should be complemented by the industrialisation of the beneficiation of waste and wastewater to produce fertilizers, energy, high value chemicals, lipids and proteins. These actions will prove transformative—economically, socially and environmentally.

To make this a reality, there are some critical success factors. Firstly, we have to heighten our efforts to translate the vast repository of scientific and technological knowledge in this domain to

tangible products and services for immediate use on the ground. There will have to be substantive support to product and business development and an overhaul of our archaic regulatory rules and operating procedures. Secondly, we need new economic models to effect large-scale implementation and sustainable operations and maintenance. Thirdly, we need to bolster our partnerships between science and society, governments and business, local and international. COVID-19 has introduced a ray of hope for new global solidarity. It has emphasised that we are unarguably friends in need, let us become friends in deed!

(The author is chief executive officer, Water Research Commission, South African government)



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‘SUFFERERS THEN, SUFFERERS NOW’

Writer, political theorist and activist **KANCHA ILAIAH SHEPHERD**'s grandparents faced the bubonic plague of 1897 that killed nearly six per cent people of undivided India. He inherited their stories, and in an interview with **KUNDAN PANDEY**, recounts their struggles and strategies for survival, which are remarkably similar to the way people have responded to COVID-19, be it migration or social distancing



You grew up with memories of the 1897 plague that your grandparents witnessed. Currently we are under lockdown due to the COVID-19 pandemic. As a narrator of social change, how do you see both the events?

In any pandemic, the poor suffer more because of low immunity levels and other reasons. In 1897, when undivided India had a population of 180 to 200 million, the bubonic plague killed 10 million, mostly the poor and those living in urban slums. As per data, it affected 70 per cent people, 14 per cent became very sick, and 6 per cent died of it. If COVID-19 transmits to the masses, the biggest problems will occur in India, Indonesia, South Africa, Bangladesh, Pakistan and other such countries. As it happens,

the diseases, in both the instances, are said to have originated in China. In 1897, it came via the ports of Mumbai and Kolkata. This time it has arrived with the highly mobile rich people in aeroplanes.

Based on your family's experiences, how did the plague unfolded in 1897?

In 1897, my grandparents lived in the Warangal town of the princely state of Hyderabad and were shepherds. The area is now a part of the state of Telangana. The worst-hit areas were those where poor people, like my grandparents lived. My grandfather died of the plague. There was scarcity of food. Shepherds, the fishing community, dalits dependent on the cattle economy and rural forest-dwelling families fled. My grandmother,

Kancha Lingamma, and her elder sister, Alli Eamma, whose husband had also died, ran deep into the forests along with their herds of sheep in search of green pastures and water resources. They settled in areas that had tanks or a stream. My maternal grandparents also joined them. Though the plague gripped the whole country and was virulent, it took a long time to spread since there was very little human-to-human contact and habitations were spread out.

How did the new survival strategy evolve?

Migration helped maintain disease-distancing, but they were a socially cohesive mass helping each other. People formed community associations. Gradually this gave birth to new clusters



Widows and orphans of porters who died of the 1897 bubonic plague at the Bombay Municipal Slaughter House, Maharashtra

of hamlets. What saved my family and others who escaped from their original places of residence was access to meat and milk protein. People ate their own sheep and goats. Dalits and tribals survived mainly on beef and forest food.

There was no vegetable economy at that time. Women used to stay under the trees, along with children and cattle, and cook or collect forest food/fruits. Men used to go into the forest to graze cattle. Fishers supplied their stock in return for milk and meat. Slowly, the migrant communities started cultivating the abundant land available irrespective of their staple livelihood activities. This is how they finally got access to foodgrains and pulses. By the time of my generation [Shepherd was born in 1952], the shepherd community had settled in small villages. I was born in Papaiahpetta, a hamlet set up by the family and friends of my grandmother.

How did the medical infrastructure, however insignificant, respond to the pandemic?

There was no health infrastructure under the Nizam who was ruling the princely state. Even pre-British India didn't have a structured medical system. Poor people were never given access to traditional medical treatments like the Patanjali system, ayurveda or homeopathy. For these communities, there were local practices like plant-liquid medicines.

The British enacted the Epidemic Diseases Act, 1897 to segregate people and curtail transmission. The Act is still being used to the same end. Collectors were given additional powers. They also deployed medical teams. But in colonial times, brahmins did not prefer to be doctors because it involved touching people of all castes. The British order was for doctors to serve everybody. So thanks to colonialism which "de-castified" medicine in India. [DTE](#) [@down2earthindia](#)

INVISIBLE ENEMY

Surveillance of citizens is a bad precedent and it might continue to haunt us even after the health crisis is over

AKSHIT SANGLOMA

FROM RELEASING the names and addresses of COVID-19 patients in the public domain, to using mobile apps that force people to share personal information, the Centre and state governments are blatantly undermining privacy and human dignity during the health crisis. Governments are in fact exploiting an archaic legislation that was enacted even before the invention of the television to carry out mobile surveillance and use artificial intelligence for facial recognition in the current crisis. The Epidemic Diseases Act, 1897, which has remained largely unchanged in the past 123 years, authorises governments to curtail people's autonomy, privacy and liberty without even clearly defining the situations under which it can be implemented, observes P S Rakesh, a health consultant, in a 2016 paper published in the *Indian Journal of Medical Ethics*. The Act, which is silent on ethical and human rights issues, also shields officials from "any suit or other legal proceedings". The 1897 Act, along with the National Disaster Management Act, 2005, lays the legal foundations for the bold steps the country is taking to fight COVID-19.

Besides deploying digital surveillance to exert social control, state governments are also repurposing technologies used by

**INDIA IS
EXPLOITING A
LEGISLATION
PASSED IN
1897 TO
CARRY OUT
SURVEILLANCE
ON COVID-19
PATIENTS**

the police to keep a tab on civilians. The authorities are understandably eager to employ every tool in the book to disrupt the virus spread, but surveillance without a strong legal framework threatens to alter the precarious balance between public safety and personal privacy. The Centre's much publicised Aarogya Setu mobile application, for example, has a host of privacy concerns including ambiguity over how it will use/share the data (see 'Threat of a kind', p65). Similarly, state governments are releasing apps and websites without privacy safeguards and they are being used to collect huge amounts of sensitive medical and personal information. The Tamil Nadu Quarantine Monitoring App, through which the state police is monitoring the location of quarantined people, has been released without privacy policy or terms of use. Location data is highly revealing and tracking apps without safeguards can record information that is not necessarily relevant for the fight against coronavirus and place a country's entire population under monitoring and surveillance, warns a report by Access Now, a non profit that fights for human rights.

The situation is equally grave globally with many countries amending their laws to allow unfettered surveillance to tracking citizens without their consent

(see 'Under scanner', p66-67). "The wave of surveillance we're seeing is truly unprecedented, even surpassing how governments across the world responded to 9/11. The laws, powers, and technologies being deployed around the world pose a grave and long-term threat to human freedom," warns Edin Omanovic, advocacy director of Privacy International, which, along with 100 other civil societies, has started a global petition asking governments to ensure that invasive measures introduced during COVID-19 also respect human rights. He adds that while the extraordinary crisis requires extraordinary measures, "it also demands extraordinary protections".

Not only are governments using technology recklessly, people are too scared to ask questions. "Citizens are right now blindly sharing medical information of their families on public databases and mobile apps, which they would never have done under normal circumstances," says Mira Swaminathan, policy officer at Delhi-based Centre for Internet and Society.

Sathiya Venkatesan, who returned to Hyderabad on March 23 from New York, and is under self-quarantine ever since, says she is living under constant harassment and fear. "It has been just crazy. First, the airport officials placed a self-quarantine stamp on my wrist. Three days later, the municipal corporation pasted a notice on my front door. They said they will follow-up with regular checkups, but I have not heard from them since then. The notice, meanwhile, has created a stir in my society's whatsapp group. I now know I will not receive any help even during an emergency," she says. Venkatesan makes another worrying point when she says that government departments are not sharing the information. "I had filled up all the details at the airport. A few days later, I received a call from the local police asking me to give my address because the airport authorities had only shared my number," says she.

THREAT OF A KIND

From the Centre to state governments, everyone is blindly rolling out apps with the promise of tracking COVID-19

Aarogya Setu

Developer: National Informatics Centre

Downloads: Over 10 million

Access granted: Bluetooth, GPS, contacts and storage

Information collected: Personal (such as name, age, gender, location, profession, travel history) and health data



PRIVACY ISSUES

User has to register and furnish all the details to gain access to terms of use and privacy policy	The privacy policy uses the phrase "may" several times, leaving ambiguity over how data can be used later	Government is not liable in case user data gets leaked or is used for an unauthorised purpose	Privacy policy silent on how user data will be anonymised to avoid misuse
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Test Yourself

Developer: Innovaccer Inc

Users: 50,000

Information collected: Personal data along with internet history, general geographical location through IP address and social media information if access is granted



PRIVACY ISSUES

The website, which claims to conduct self-evaluation assessment to identify at-risk patients for COVID-19, collects a lot of personal and medical information without giving anything useful to the user. Experts warn against such unnecessary collection of personal data and suggest that the government should instead allow users to consult a doctor remotely

Tamil Nadu Quarantine Monitor

Developer: Pixxon AI Solutions private limited

Downloads: 100,000

Access granted: GPS for live tracking

Information collected: User movement data



PRIVACY ISSUES

The app does not have a privacy policy or terms of use and is silent on how the data will be used, which is mandatory under the General Data Protection Regulation followed in India

Maharashtra MahaKavach

Developer: Multiple public and private players

Downloads: 10,000

Access granted: GPS location

Information collected: Personal information, location data, photographs



PRIVACY ISSUES

The app has generic privacy policy despite using artificial intelligence

(Sources: Divij Joshi, technology policy expert at Mozilla, and media reports)

UNDER SCANNER

European Union and at least **23 countries** are brazenly tracking citizens, highlighting the sudden increase in non-consensual state digital surveillance during the covid crisis. Here's some of the moves that raise concerns:

AUSTRIA

A1, the largest telecommunications company, is **voluntarily providing the government with the movement profiles of all mobile phone users.**

The company started the information sharing without informing or taking consent of its customers.



AUSTRALIA

Police in the state of Adelaide is **relying on a surveillance program used for criminal investigations to track covid patients and their movements.** The police only needs the phone number to track an individual and is sharing the information with the health department.



BULGARIA

The Electronic Communications Act has been amended to give the Ministry of Interior the right to demand customer data from telecoms. The amendment means **the ministry no more requires a court order to carry out surveillance and this privilege will continue even after the crisis is over**



CHINA

Apps such as **Alipay and WeChat flag high-risk individuals, who are then quarantined or disallowed from entering public spaces.**

As normalcy returns to the region, people are required to obtain a "green clearance" from these apps to move freely. Companies are also developing softwares that will allow facial recognition cameras to detect contactless temperature. Some cities are offering rewards for informing on sick neighbours.



COLUMBIA

An old app has been repurposed and renamed **CoronApp to provide information on the virus.** The

application requests a large amount of personal information — such as data on ethnicity — to function. There is no transparency regarding who has access to this data and how it may be used.



EUROPEAN UNION

Telecom companies and public authorities are entering into arrangements to share location data. So far, there is little transparency as to how

much data is being shared, and how long these arrangements, which are often extra-legal, will last. In addition to national governments, the European Commission requested metadata from telecoms operators to "track the spread of the virus" and determine hotspots



Countries are going out of the way to carry out surveillance and amass data even though past experiences suggest they seldom help. "The assumption that open and interoperable data will lead to better health response is untested, as is the assumption that mobile network data records measurably improve health system response efforts," writes Sean Martin McDonald in a research paper that explores the role of data during the Ebola outbreak in west Africa in 2014.

In the March 2016 paper, McDonald says that experts at the start of the outbreak suggested location tracking to carry out contact tracing (a process of identifying the spread of a disease by monitoring the movement of people. It assumes that predictability improves as more and more individuals are tracked). In reality, however, the story was different. Humanitarian agencies invested on contact tracing and made digital interventions commonplace in Liberia, the epicentre of the Ebola epidemic. "The digitisation of the Ebola response made humanitarian response even more difficult because of an absence of coordination between different parts of the information system—the government, international agencies and private companies. It also did not solve the significant legal, financial, and practical risks involved." Similar experiences have also been recorded in the current outbreak, where the scale of surveillance is substantially higher than during Ebola. In South Korea, people stopped going in for tests after the country took surveillance to the next level. The country is using geo-locations of citizens and then comparing it with CCTV footages and credit card records. Till January, they were uploading detailed location information of infected individuals: whether they were wearing a mask in the subway, and the places they visited. People started avoiding tests in the fear of mob attacks and authorities had to finally revisit their decision to publish detailed information online.

“A pandemic is no excuse to collect extensive and unnecessary data. Access to health data shall be limited to those who need information to conduct treatment, research, and otherwise address the crisis. The information should be stored securely, in a separate database,” says the Access Now report. It adds that most data should be erased after the crisis is over. On the issue of surveillance, the report recommends “detailed in-person contact tracing” rather than use of mobile devices to safeguard privacy and improve accuracy. In case of geo-location tracking, data should be anonymised. The report also calls for strict safeguards against misuse of data by private companies. “When creating applications to respond to a public health crisis, private companies should not be able to monetise data derived from the use of their products. Additionally, there should be clear limitations on secondary uses or further processing of data.” Most state government apps in India are developed by private companies and many of them are without a privacy policy. Companies are also playing a leading role in the United States.

The biggest threat, however, is the sheer scale of privacy invasion that COVID-19 can trigger. Several countries have arbitrarily altered laws to gain coercive powers that will continue even after the health crisis is over. The episode might not only normalise the deployment of mass surveillance tools in countries that have so far rejected them, but also lead to the transition from “over the skin” to “under the skin” surveillance, warns author Yuval Noah Harari in an article published in the *Financial Times*. “Hitherto, when your finger touched the screen of your smartphone and clicked on a link, the government wanted to know what exactly your finger was clicking on. But with coronavirus, the focus of interest shifts. Now the government wants to know the temperature of your finger and the blood-pressure under its skin.” **OTE**

 @Aks7489

ISRAEL

Shin Bet, the domestic security agency, has **repurposed its cellular geotracking technology used for terrorists** to monitor COVID-19 outbreak.



KENYA

mSafari app has been rolled out to help with contact tracing. The app, developed by the private sector, will be used to track passengers in public service vehicles including buses, taxis, and other transportation services. Drivers are expected to download this app and register all passengers. **The government is also using “electronic surveillance” to track individuals who are supposed to self-isolate for 14 days due to their recent travel history.**



SOUTH KOREA

The government is tracking and posting online detailed location data of people confirmed and suspected to be infected by the virus. By merging existing databases, new datasets provide dynamic tracking through CCTV footage, credit card, and location histories. The information published online includes details about when people left for work, whether they wore masks in the subway, the places they frequented, and the names of the clinics where they were tested. The government is now concealing personal information after internet mobs started exploiting the data to identify patients and harass them.



TAIWAN

Public authorities are using active mobile network monitoring to enforce home quarantine for newly arrived or at-risk individuals. They are alerted if an individual's mobile device is active outside of their home.



TUNISIA

Enova Robotics signed an agreement with the Ministry of Interior to start operating PGuard robots. These robots will be equipped with a set of infrared cameras and will stop people from leaving their houses. There is no information as to where these robots will be deployed, what information they will gather



UNITED STATES

Researchers are using Facebook data to measure social distancing. Data collected from Facebook users who have location history enabled is used to develop maps with aggregated, de-identified location data. This project presents significant privacy and data protection risks since it assumes that Facebook users agree to be tracked by the platform. Google's biotechnology company Verily has launched a limited COVID-19 screening website. To qualify for screening, it requires users to have a Google account and agree to share information with Google. The website is a collaboration Verily, the California governor's office, and other federal officials



Sources: Access Now and Privacy International

FORTUNE TO MAKE

Vigorous research is underway to fight COVID-19 and pharma companies are ready to make a killing

VIBHA VARSHNEY

WHILE MOST people are adversely affected by the COVID-19 pandemic, companies making drugs, vaccines and diagnostics will certainly end up making money from it. According to the World Health Organization, as many as 67 vaccines were in preclinical stage and three vaccines were in phase I clinical trials as of April 11. Similarly, an assessment by Foundation for Innovative New Diagnostics, a global non-profit that drives research on diagnostics, says that 36 molecular assays that use viral genes for diagnosis and 38 immunoassays which used antibodies for diagnosis are being developed. Data from Coronavirus Treatment Acceleration Program run by the US Food and Drug Administration (USFDA) to support new therapies also shows that 10 drugs are in active trials and another 15 are in planning stages.

Profit is at the centre of all these endeavours. The Wall Street is already monitoring biotech companies involved in making these products. According to Nasdaq, a global electronic marketplace for buying and trading securities, the company to invest in is Dynavax Technologies Corporation, a California-based firm that makes adjuvants-chemicals which can make the vaccine more effective. This company has secured funding from Oslo-based nonprofit Coalition for Epidemic Preparedness Innovations (CEPI), which has invested up to \$29.2 million in the search for a COVID-19 vaccine. The organisation hopes to fund at

least three vaccine candidates and estimates it would need an investment of US\$2 billion to do so.

At present, most of the research on drugs, vaccines and diagnostics is being carried out by small biotech companies and universities. Many of these small companies are using novel techniques to develop the vaccines. For example, Boston-based Moderna is working on a vaccine which is based on a spike protein of the coronavirus and has provided doses to the US' National Institute of Allergy and Infectious Diseases (NIAID) Vaccine Research Center for the phase I safety trials. These trials are likely to begin in April. However, NIAID director Anthony Fauci recently reported to US Senators that it would take at least a year and a half to have any vaccine ready for the market even if the trials are fast tracked. After successful trials, the vaccine would need to be manufactured in sufficient quantities. At this time, it is likely that the small companies would sell their knowhow to the big four pharma companies—GlaxoSmithKline, Sanofi, Merck and Pfizer—which control 85 per cent of the global vaccine market. A spokesperson for GAVI, The Vaccine Alliance, a Geneva-based public-private global health organisation, told *Down To Earth* (DTE) that it has taken steps to help strengthen the preparedness of health systems in lower-income countries. Under this, countries that qualify for GAVI support

**IT NEEDS TO BE
SEEN THAT THE
DRUGS AND
VACCINES
CAN BE MADE
IN SUFFICIENT
QUANTITIES
AND ARE
AFFORDABLE**



Researchers at US-based pharma company Arcturus Therapeutics work on a COVID-19 vaccine. Globally, as many as 42 vaccines were in preclinical stage as of March 20



THE CURE

Development of vaccines takes time and does not always lead to a breakthrough

Spanish flu
(H1N1)

Year of spread

1918

Vaccine

1942

Asian flu
(H5N1)

Year of spread

1957

Vaccine

2007

AIDS

Year of spread

1981

Vaccine

Not available

Swine flu
(H1N1)

Year of spread

2009

Vaccine

2009

West African Ebola

Year of spread

2014

Vaccine

2019

Zika

Year of spread

2015

Vaccine

Not available

Source: World Health Organization; US Food and Drug Administration; Centers for Disease Control and Prevention, US

will be able to reallocate up to 10 per cent of grants extended to them to respond to COVID-19. "GAVI will continue to monitor the pandemic as it evolves in order to understand how to best leverage the Alliance's expertise in delivering affordable vaccines at scale and to the most vulnerable," GAVI says.

However, the poor are not likely to be at the mercy of global funding agencies

due to a fortuitous twist. Researchers are finding that many existing drugs and vaccines are effective against COVID-19. For example, existing experimental vaccines against SARS and MERS, both a type of coronavirus, are likely to work and are being tested. The University of Oxford, UK, also recently received permission to test their vaccine on humans. This vaccine is made using the

spike protein of COVID-19 parcelled in an adenovirus (a group of common virus that mostly cause a range of mild illnesses such as cold and cough). Similarly, Maryland-based Novavax is developing vaccines against SARS and MERS and expects to move to the first phase of human trials by the end of spring 2020. Clinical trials are being carried out globally to test the efficacy of the BCG vaccine, commonly used against tuberculosis, against COVID-19. This is based on epidemiological data which shows that countries which do not vaccinate against tuberculosis at birth, are showing more cases of COVID-19. These countries include the US, Italy and the Netherlands. Countries like Iran that started giving the vaccine late, in 1984, too had high mortality which suggests that BCG protects the vaccinated elderly population.

Among drugs being rapidly tested against COVID-19, chloroquin, an antimalarial medicine, is being used in combination with the antibiotic azithromycin. Another drug, remdesivir, developed and patented 10 years ago by US-based company Gilead Sciences against the Ebola virus, has been found useful against MERS coronavirus, suggesting that it could work on COVID-19 too. Gilead is carrying out clinical trials of this drug in China in cooperation with the Chinese government. The earliest results from these trials are expected in April 2020. Other drugs being experimented with are the antivirals lopinavir and ritonavir (sold together as Kaletra for HIV/AIDS patients) and influenza drugs like oseltamivir. A recent study showed that camostat mesylate, a drug approved for pancreatitis in Japan, blocks COVID-19 infection of cells and this could be another off-label use for the drug.

Most of these drugs are off patent and manufacturing capacities already exist. "Since the composition of these compounds has long since passed into the public domain, any subscription

**MOST OF THE
RESEARCH ON
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VACCINES AND
DIAGNOSTICS
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COMPANIES
AND
UNIVERSITIES,
WHICH ARE
LIKELY TO SELL
THEIR
KNOWLEDGE
TO BIG
PHARMA**

could be made for another use that would get around the patent," says James Leahy, professor at the Florida Center of Excellence for Drug Discovery & Innovation, University of South Florida, US. Leahy is also optimistic that life threatening illnesses like COVID-19 will not be as susceptible to price gouging by the industry as more lifestyle-type drugs like for erectile dysfunction or psoriasis. "Once an approved treatment is in place, there will be many places that manufacture the drugs. If these drugs are the old ones, this will be simple. If they are the new ones, I expect that countries such as India would allow for patent invalidation in the interest of public need and manufacture them," says Leahy.

What needs to be ensured is that the drugs and vaccines are tested properly. A study published in the *Journal of Virology* in 2004 showed that though the experimental SARS vaccine could protect ferrets exposed to the SARS virus, the livers of the animals were damaged. Stringent safety tests are therefore needed. Sam Behar, professor at the University of Massachusetts Medical School, US, points out that BCG revaccination is not always a benign phenomenon and the elderly often have poor responses to vaccines. Shibo Jiang, professor of virology at the School of Basic Medical Sciences, Fudan University, Shanghai, China says in *Nature* on March 16 that testing vaccines and medicines without fully understanding safety risks could bring unwarranted setbacks during the current pandemic. "The public's willingness to back quarantines and other public-health measures to slow spread tends to correlate with how much people trust the government's health advice. A rush into potentially risky vaccines and therapies will betray that trust and discourage work to develop better assessments. Despite the genuine need for urgency, the old saying holds: measure twice, cut once," he wrote. **DTE**

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WHO IS TO BE BLAMED

The United Nations health agency has been widely criticised for the way it is handling the pandemic. A point-by-point assessment

BANJOT KAUR

BY NOW there is little doubt that the World Health Organization (WHO) blatantly soft-pedalled China's dubious role in covering up the debilitating spread of novel coronavirus disease (COVID-19). The only question that remains to be answered is: why?

As WHO's image lay in tatters, its director general Tedros Adhanom Ghebreyesus, at an April-6 virtual press conference to mark 100 days of the pandemic, did the unthinkable to wriggle out of the mess. Ghebreyesus, an Ethiopian, charged that he has been the target of racial attacks for three months because he is black. He even claimed to have received death threats. All this was a prelude to him refuting the much serious charge made by US President Donald Trump that WHO has become "China centric". Tokyo, too, has charged WHO with toeing the China line. Japan's deputy prime minister Taro Aso went as far as to say that WHO should be renamed China Health Organization!

There are ample studies that indicate a definite cover-up by China. WHO not only kept itself blind to it but, in fact, showered praises on Beijing. "China is doing more than it is expected to do", "I am impressed with the knowledge of China's leadership on the subject", "China is protecting rest of the world," and "China deserves our gratitude"—these were the expressions Ghebreyesus used at his first media briefing after he returned from China. He never said a word about the cover-up.

**THE WORLD
HEALTH
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TIMES AND THE
VIRUS ENTERED
18 COUNTRIES**

WHO, which always praises health workers as "heroes", never mentioned Chinese whistle-blower Li Weliang. The doctor had warned of an unknown pneumonia-type disease much before China declared it to the world. Weliang was jailed for this. He was later released but developed COVID-19 symptoms and died.

On January 23, WHO called a meeting to declare a global health emergency. But it did not declare it and waited for a week for Ghebreyesus to return from China. By this time, COVID-19 cases increased 10 times and the virus entered 18 countries. It even denied human-to-human transmission of the virus till mid-January. Studies now say such a spread started in December itself. Till as late as February, WHO kept rebuking nations for imposing travel and trade restrictions on China. When countries began evacuating their citizens from Wuhan, the COVID-19 epicentre, WHO said it did not favour this step. By now, the UN body was completely cornered as countries refused to listen to it. A desperate WHO said it would invoke International Health Regulations and demand explanation from the countries for ignoring it.

The road to declaring COVID-19 a pandemic was equally bumpy. WHO officials vehemently denied this till mid-February despite warnings from global health experts. But WHO kept deflecting the debate between "containment" and "mitigation". Containment means a phase when the virus can be contained or chain of



Despite ample studies indicating a cover-up by China, World Health Organization chief Tedros Adhanom Ghebreyesus showered praises on Beijing

transmission controlled. Mitigation is the stage when it is accepted that the virus can no longer be controlled and efforts should be made to mitigate its impact.

WHO kept saying it was pointless to declare COVID-19 a pandemic since containment was possible. However, when it had to finally make that declaration, the UN body started advising nations not to go into the binary of containment and mitigation! It is widely speculated that WHO delayed the pandemic declaration under pressure from China.

Ghebreyesus obliquely criticised India for not taking adequate “social measures” before announcing a lockdown. All this while, WHO’s South Asia officials were praising New Delhi’s response to the virus. Soon, the WHO chief, too, changed track and appreciated Prime Minister Narendra Modi for announcing the ₹1.74 lakh-crore bailout package for the poor. Incidentally, the package had been already announced

when Ghebreyesus berated India.

WHO has also been flegling on the issue of masks. For long, it said healthy persons did not need to wear masks. Hours before the US Centres for Disease Control and Prevention advised that everyone should wear masks, WHO said it would support countries’ decision. But the next day, WHO issued a fresh guidelines reverting to its previous position.

“We may commit mistakes. We are human beings, after all, and not angels,” Ghebreyesus said on April 8 in his first admission of serious oversights in his response to the pandemic. “We will do an after-action review once the pandemic ends to learn lessons for future.”

The review may eventually help WHO improve but its decisions have cost the world heavily. By April 12, the pandemic had spread to more than 200 countries, infecting 1.73 million people and leaving 108,000 dead. **DTE**

BEGIN AGAIN

Economies will recover once the COVID-19 crisis is over.
Chances are that emissions will bounce back, too

TARUN GOPALAKRISHNAN

REGARDLESS OF the course the COVID-19 crisis takes, future commentators will link our response to it with the global climate emergency. If we fail to respond adequately to the pandemic, they will point at our planet-wide failures on climate change as a forerunner and an indicator of our inability to act together in dealing with a global crisis. If we manage to respond adequately, they will link the pandemic to the long-desired good of carbon mitigation, because dealing with COVID-19 will involve social distancing and result in a huge loss of economic activity, thereby reducing emissions.

The links, however, are tenuous, at least at the global level. Though China's response to the crisis led to an 18 per cent reduction in carbon emissions between February and mid-March, the evidence on the strength of the link between COVID-19 and global emission reduction is still mixed. For one, the World Meteorological Organization reports that at several key observation sites, emissions levels for February 2020 were higher than they were in February 2019, perhaps because industries across the world had not yet stopped production. Secondly, the economic impact is currently being projected in terms of general indicators such as GDP, stock prices and job losses. The differentiated impacts between sectors (such as oil and renewables) will take more time to become clear. As expected, oil demand and prices have taken a beating. But the global oil market

is still relatively diversified compared to renewables manufacturing, which is dominated by China.

There is already acrimony over China's handling of the early days of the COVID-19 crisis. Sensible global leadership would demand accountability from China at the appropriate forums (such as the World Health Organisation) and make it commit to more open and cleaner policies, without allowing the issue to escalate into a multi-front dispute.

TIE STIMULUS TO GREEN

The renewables industry is obviously not the only one looking at the government for stimulus. This has resulted in calls for a clean stimulus, and hope that current levels of stimulus will make climate proposals, like the Green New Deal—a 2019 US congressional resolution that seeks to reduce greenhouse gas emissions and promises jobs in clean energy industries—look more palatable.

The argument linking the two crises is on stronger footing here. It makes the more limited point that any economic decision must be conscious of the ongoing climate crisis. It is difficult to argue, for example, that the airline industry can be allowed to go under. Yet airlines are also uniquely opaque and territorial regarding their emissions data, a basic pre-requisite for responsible climate policy. A stimulus package for the industry should be linked to airlines' releasing emissions data.

The initial signs from across the world are not encouraging. The US government,

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PRODUCERS
AND
REGULATIONS
REQUIRING THE
AUTO INDUSTRY
TO PRODUCE
LESS POLLUTING
VEHICLES**



PM2.5 levels in Delhi decreased by 71 per cent between March 22 and March 27 during a lockdown to contain COVID-19

which has agreed to a US \$2 trillion recovery package on March 27, is relaxing environmental regulations on fossil fuel producers and regulations requiring the auto industry to produce less polluting vehicles. The aviation industry is likely to get assistance with no strings attached. The administration looks likely to help oil companies, despite the current fall in prices being caused more by a price war than by the pandemic. On the flip side, tax credits to the wind and solar industries have not been extended.

In Europe, countries reliant on coal energy, particularly Poland and the Czech Republic, have been pushing to relax the targets outlined late last year in the EU's

Green Deal, which aims a carbon-neutral Europe by 2050. The European renewables industry is more organised, exerting pressure to fold a green stimulus into the EU's pandemic recovery package. The signs are more promising here—the European Council has indicated that it plans to pursue a green recovery, without abandoning its ongoing energy transition.

Japan and Australia have announced stimulus packages that do nothing to redress their over-reliance on coal.

Canada, a big exporter of tar sand oil, has announced direct assistance to its citizens and some measures to keep businesses afloat, but is still mulling a larger business-focused stimulus. In the

meantime, tar sands workers have been classified as “essential”, an effective subsidy to protect economic assets at the potential cost of lives of people who will keep working during the pandemic. Canada’s Alberta province, home of the infamous Keystone XL oil pipeline, announced US \$1.1 billion during the pandemic to jumpstart work on the pipeline, despite bitter opposition. The construction of the pipeline has been found to have contaminated the Athabasca River and poses risk to the lives of indigenous and local communities.

Saudi Arabia is ramping up oil production during a time of falling demand and prices, escalating a price war that has economic and geo-political aims. Other oil producing nations are likely to follow suit, reflecting a panic that the window to monetise oil reserves is narrow, but which might end up further entrenching oil in global energy systems.

China has, naturally, felt the greatest economic impact so far. Power demand has tanked, and will need to be revived. But China is still building coal power plants, and has humongous amounts of currently idling capacity that it will likely use to offset the depression. On the flip side, there is evidence of investments in renewables, including a US \$2.5 billion solar panel manufacturing plant announced in March, with the potential to meet half of global solar panel demand. China is simply electricity hungry, and the direction of its recovery is a critical swing factor for the renewables industry.

Ditto for India, which is trying to assist all energy producers. Coal projects that were unviable pre-COVID-19 should not be part of any stimulus package now. Renewables projects, despite being high on the government’s agenda, were starting to see rough treatment by distribution companies prior to the pandemic. They are now facing rising costs due to a slowdown of imports from China. Without assistance, this crisis on a crisis may doom them.

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EMISSIONS ON REBOUND

The arguments over the COVID-19 stimulus take on even more importance considering the climate impacts of the last big stimulus in public memory. There was much optimism that the 2008-09 financial crisis had broken the link between economic growth and emissions. There was a year or two where the global economy grew marginally, while global annual emissions stayed flat. That trend turned out to be a red herring, and emissions have climbed unrelentingly upward in the decade since, with disastrous results. The most likely aftermath of this crisis looks similar—hunger for growth, with scarce attention paid to the longer term consequences.

Bilateral aid, which is currently the preferred route for climate finance from developed to developing countries, needs to expand to meet the COVID-19 crisis. More likely, these equally critical priorities of the pandemic and climate change will have to draw from the same diminishing pool. Australia has already said that its aid budget for the Indo-Pacific will not be expanded but re-directed toward COVID-19. Other aid-providers will likely follow suit.

The argument for climate equity and justice has been built up over decades. The management of health crises has often focused on the developing world, because it is often the area of greatest need. The COVID-19 crisis has complicated the distinctions between privileged and vulnerable in unprecedented ways. There will be a temptation to pretend that the distinctions no longer exist.

As we head into the fourth month of the crisis, the impacts on the developing world—particularly south Asia and Africa—are likely to come into sharper focus. Even if demographics, geography and sheer good fortune result in manageable impacts, it will not change the fundamental facts. In public health, as in climate policy, we share a common but differentiated vulnerability, and common but differentiated responsibility. **DE**

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WHEN WILL IT END?

Most countries have adopted the 'flatten the curve' model to fight COVID-19 but the end is not yet in sight

VIBHA VARSHNEY

EVERY COUNTRY is fighting COVID-19 but with varying degrees of success. While some, like South Korea, have contained it to a great extent, countries like Italy have witnessed high mortality. No country has been able to say when it would end.

Most countries are trying to "flatten the curve" and reduce the number of cases by using methods such as social distancing. While this helps avoid overburdening of the health system, it spreads the cases over a long period. Other methods like increasing "herd immunity" where the

disease is allowed to take its natural course and infect a large proportion of people have been rejected. In absence of vaccines, this can not only burden the health system, mortality would be high. In talks is "managed herd immunity" in which only the people at risk are quarantined. Researchers at the Hebrew University of Jerusalem, Israel, have developed a mathematical model in March 2020 to help countries decide whether their health infrastructure can take the load of sudden increase in cases.

To flatten the curve, India took action

Experts are discussing "managed herd immunity" in which only the people at risk are quarantined and others can work. It allows economic growth without burdening healthcare



even before the first case was reported. The first advisory was released on January 17 on travel safety and passengers coming from China had to go through screening on arrival. Despite the action, a case was reported on January 30. The country was put on a voluntary curfew on March 22 and then a national lockdown till April 14th. This was later extended to May 3. These efforts are to ensure that R_0 (basic reproduction number) is kept below 1 and incidence of new infections decreases. When it is greater than 1, the infections increase until the epidemic peaks and eventually declines due to acquisition of herd immunity. For India, the latest R_0 is for March 26 and stood at 1.81.

“There is no real estimate of when the pandemic will end. But we are seeing signs of curve flattening for countries with advanced stage of epidemics due to various interventions. We can not say which intervention is more effective but taken together, they are having an effect,” says Swapnil Mishra, research associate with the School of Public Health, Imperial College London, UK. He is the lead author of a report published on March 30 by the UK’s MRC Centre for Global Infectious Disease Analysis. However, the interventions would have to be kept in place for a “while more” as R_0 is above 1, adds Mishra.

While Mishra did not indicate what “while more” could mean, a model proposed by researchers from the University of Cambridge, UK, suggests two options that India could use to end it. The first one has lockdowns of 21 days, 28 days and 18 days in succession, with each lockdown followed by five days of relaxation. Starting March 24, this would have to continue till June 10. The other is to have a continuous lockdown for 49 days (till May 13, if one starts from March 24). If the epidemic is allowed to proceed unimpeded, the model predicts that it will be over by the end of August with development of herd immunity. “If we control the epidemic by sustained social distancing, we will have to wait till a vaccine is found, which will

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be at least a year. Therefore, we are really looking at a horizon of at least a year before there is a return to normalcy,” says Ronjoy Adhikari, faculty of mathematics at the University of Cambridge, UK. This study is yet to be peer reviewed but as end of the current lockdown looms, it could provide the government something to work with. Adhikari says there are multiple lockdown protocols that can bring infection levels down to certain values. But the feasibility of these lockdowns is not something that can be mathematically ascertained, since economic, medical, social and ethical factors must weigh in.

Asked whether India is doing enough to control the pandemic, Mishra said that this is difficult to answer as reliable data is scarce and interventions are not usually followed well. “Our hunch is if community infection has started in India (as the news from Dharavi in Mumbai and Nizamuddin in Delhi suggests) then we need to have interventions in place in the country for a while to keep the curve flat,” Mishra adds.

For India, it is imperative that measures to flatten the curve are implemented well because the health infrastructure is not equipped to deal with uncontrollable spread of the disease. A survey among Indian Administrative Service officers, published on April 1, 2020, by the Department of Administrative Reforms and Public Grievances, indicates an acute shortage of health infrastructure. Of the 266 officials who responded, 71 per cent said sufficient ventilators, key in supporting COVID-19 patients, were not available in their respective jurisdictions. Lack of testing kits and personal protection equipment (PPE) were identified as major lacunae in the health system’s ability to deal with the pandemic.

Improving just the testing can help the government take better policy decisions. More tests mean we have a better idea of the spread of the infection. This can improve mathematical modelling which can help in better policy decisions, Adhikari explains. [DTE](https://www.downtoearth.org.in) [@down2earthindia](https://twitter.com/down2earthindia)

SERVING THE HEATHEN

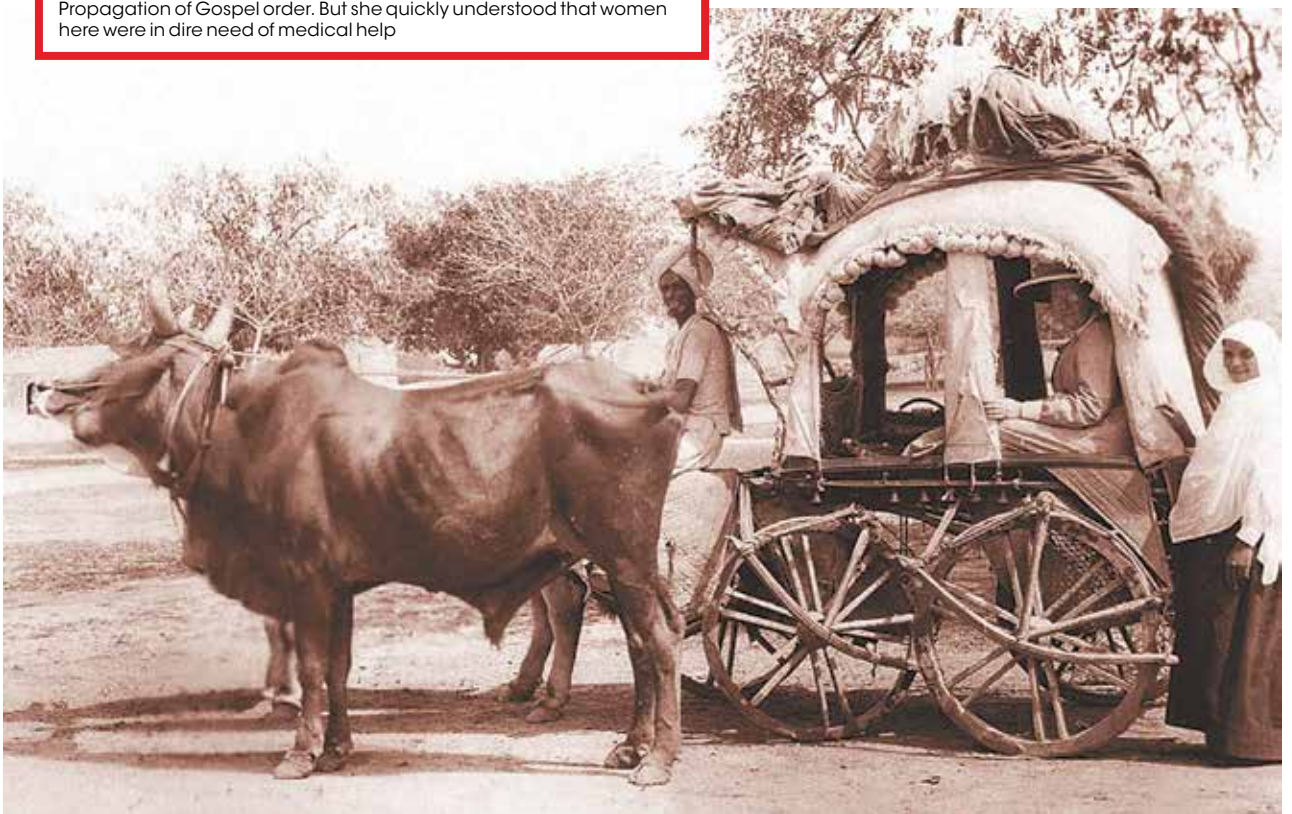
Missionary women doctors in 19th century Delhi

BY KAUSHIK DAS GUPTA

THROUGHOUT THE 1860s a frail young European woman with a medicine chest was a conspicuous presence at the women's ghats of the river Yamuna in Delhi. This was Priscilla Winter, an Anglican missionary who had absolutely no training in medicine. Missionaries like Winter were common in European colonies in the 19th century. Well before qualified doctors and nurses became familiar figures on the mission scene, many ordinary missionaries made attempts to relieve symptoms of sickness in communities surrounding their stations.

Priscilla Winter had arrived in Delhi in 1858 to join the Union Society for the Propagation of Gospel (USPG) order there. Her original duties were to spread the word of the Gospel among the women of the city. But the *Delhi Mission News*, a quarterly newsletter of USPG's Delhi mission, notes, that as soon as Winter got around with this task, "her quick eye at once saw the importance of medical women in India." Winter herself wrote, "Women in India get no relief from suffering. The medicine man takes them in hand and his remedies are the

Priscilla Winter arrived in Delhi in 1858 to join the Union Society for the Propagation of Gospel order. But she quickly understood that women here were in dire need of medical help



crudest.” So she started “distributing simple remedies to all classes of Hindu women whose sole respite from the confines of the purdah was in going down to the river to take their vows.” There were frequent epidemics of cholera and influenza in the city and women, impressed by the treatments offered by the missionary, often recommended her to others.

The work expanded. During a furlough in England, Winter sought support for her plan to establish a dispensary in Delhi. An association of supporters—White Ladies Association—was formed to provide funds and publicity for the scheme. In 1874, a house was rented in Chandni Chowk in the walled city and a woman worker engaged to manage the dispensary, to train nurses and visit sick women in their houses. The

terrible burden of sickness”.

In spite of home support, the Delhi medical mission faced many difficulties. During the early years, many improvised methods were adopted to provide medical care. The first medical missionaries drawn into the mission possessed uncertain skills. Many relied, like Winter, on little more than medicine chests and the wisdom of experience. In 1870 a midwife with some bare minimum hospital training, joined the dispensary.

How long could the missionaries carry along with rudimentary healthcare? Over the course of the 19th century, there was a gradual hardening of Western attitudes towards indigenous healing. According to the historian Rosemary Fitzgerald, “shoddy missionary work was also perceived as compromising wider imperial ambitions

IN 1874, A HOUSE WAS RENTED IN CHANDNI CHOWK AND A WOMAN WORKER ENGAGED TO MANAGE THE DISPENSARY, TO TRAIN NURSES AND VISIT SICK WOMEN IN THEIR HOUSES. THE RUDIMENTARY DISPENSARY FORMED THE MODEST ORIGIN OF WHAT LATER CAME TO BE KNOWN AS THE DELHI FEMALE MEDICAL MISSION

Punjab government donated ₹410 per year for medicines and the Delhi Municipality contributed ₹75 a month for scholarships for trainee women nurses. The rudimentary dispensary at Chandni Chowk formed the modest origins of what later came to be known as the Delhi Female Medical Mission.

Galvanising support was not difficult. To European supporters of missionaries long accustomed to reports of missionaries being hooted out, the impressive reception accorded to medical missionaries by indigenous people was a welcome contrast. Public imagination in England was stirred by the idea of heroic missionary doctors carrying the gift of Western medicine to lands where people “reeled under the

of establishing the hegemony of Western medicine.” In 1883, C R Francis, the principal of Calcutta Medical College, reminded missionaries that the medical missionaries were supposed to “impress natives with their professional skills.”

The missionaries tried to stave off such criticism by pointing to the scale of death and disease in the colonies. The head of the Delhi mission G A Lefroy, for example, held that missionary ladies were far more equipped to deal with diseases than the “archaic *unani hakims* and the barbers.” But increasingly, missionaries became apprehensive that their medical workers would lose all goodwill if they persisted with their half-baked methods. In fact one missionary admitted, “Since I could not give them

medicine for every disease, the women got angry and believed I would not give them advice.”

The Delhi mission also realised that much more could be accomplished, both medically and evangelically, by removing patients from their homes for dispensary and hospital care. The Indian home environment did not provide the ideal setting for the missionary to apply the dual care that touched both the body and soul. In the mission’s view, the air of dirt and disorder within Indian homes compromised the quality of treatment. Besides, it also meant non-compliance of the “doctor’s” directions since there was persistent meddling by family members and indigenous healers.

In 1885, the St Stephens Hospital, the first hospital for women and children of Delhi, was opened. The hospital, with

generously donated.”

The Lahore Diocese—of which the Delhi Mission was a part—was alive to these concerns. At the 1893 Conference of Women Medical Missionaries it was decided that a medical school for women, attached to a women’s hospital, was needed in India. The North India School of Medicine for Christian Women opened in the following year, with four staff and four students. St Stephens Hospital also started a training school for nurses under Alice Wilkinson—the first trained British nurse who joined the hospital in 1908. Wilkinson became the hospital’s nursing superintendent and is credited with raising the standard of nursing not only in St Stephen’s but in rest of India as well. She founded the Trained Nurse’s Association of India and worked as its secretary until 1948. In 1913, the first

THE FIRST QUALIFIED DOCTOR, JENNY MULLER, JOINED ST STEPHENS HOSPITAL IN 1891. IN 1906, FOUNDATION FOR A BIGGER PREMISE WAS LAID AT TIS HAZARI—THE PRESENT SITE OF THE HOSPITAL. G A LEFROY, HEAD OF THE DELHI MEDICAL MISSION, THOUGHT THIS WOULD PUT THE MISSION ON A FIRM FOOTING

its thorough order hygiene and discipline, was perceived as education for women. Inside it patients were encouraged to read from the scriptures and arrangements were designed to ensure the fair administration of the gospel before actual treatment.

The first qualified doctor, Jenny Muller, however, joined St Stephens only in 1891. And in 1906, foundation for a bigger premise were laid at Tis Hazari—the present site of the hospital. Lefroy thought this would put the Delhi Medical Mission on a firm footing. But not everyone was as confident. Muller in fact was apprehensive that the paucity of trained personnel might prevent the hospital from doing justice to its objectives. She noted, “I am sure we are wasting the money so

qualified surgeon, Helen Franklin, joined the hospital.

The missionaries had to make a number of concessions: the cook in the hospital was always a Brahmin. They had to also tolerate the entourage of relatives whom, given a choice, they would have banished from their wards.

All this along with professionalisation led to greater acceptance for missionary medical work. In the past, patients had often consulted missionaries after exhausting all avenues of indigenous treatment. By the second decade of the 20th century they were able to report that a large proportion of their patients were willing to consult them at a less desperate stage of illness. **OTE**

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Health workers disinfect vehicles at Walayar village in Coimbatore, which is a major inter-state entry point between Tamil Nadu and Kerala

Bravehearts

India's 10.5 million community workers brave all odds to ensure that India wins the battle against coronavirus with minimal casualties and losses

VIVEK MISHRA, K A SHAJI, MEGHA PRAKASH, AJIT PANDA, SHAGUN KAPIL, PURUSOTTAM SINGH THAKUR

EVEN AS novel coronavirus brings the entire country to a near-halt, it's the sheer size of the infantry mobilised against the virus that gives one hope that India can win the battle with minimal casualties and losses. Since cases of coronavirus started showing up, state governments have deployed more than 10.5 million community healthcare facilitators, sanitation workers and panchayat representatives as the first line of defence so that the healthcare infrastructure does



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not get overwhelmed. Together, they account for one-sixth of the population of Italy, hardest hit by the pandemic.

The governments are well aware of the potential of this workforce, which includes 5 million sanitation workers, 3.1 million representatives to panchayat raj institutions, 217,780 ANMs (auxiliary nurse midwife, a village-level female health worker), 1.39 million anganwadi workers and 1.04 million accredited social health activists (ASHAs), who act as an interface between the community and the government machinery. In fact, ASHAs, ANMs and anganwadi workers are regarded as the three pillars of health and nutrition care in India.

So, it did not come as a surprise when the Karnataka government promptly agreed to release 15 months of salary dues after more than 10,000 ASHA workers descended on the streets of Bengaluru in January and launched an indefinite strike. Since resuming services, they have been pressed into spreading awareness about the virus and collecting information about those who are likely to be infected with it. "We enquire about the travel history of suspected people, check for symptoms and record body temperatures. The state is now combating the pandemic based on our reports," says DNagalakshmi, secretary of the Karnataka State Samyukta ASHA Workers' Association. In fact across the country, ASHA workers now work overtime without holiday even as the prime minister's promise in 2018 to raise their honorarium by 60 per cent remains unfulfilled.

Similarly on March 19, just days before India entered the three-week lockdown, Tamil Nadu Chief Minister Edappadi K Palaniswami acceded to the long-time demand of sanitation workers and rechristened them *thooimai paniyalargal* or "cleanliness workers" to honour their work. Now, over 60,000 sanitary personnel employed by urban and rural civic bodies are at the forefront of the state's battle against coronavirus. In Chennai, the city

HOPE, ONLY FOR OTHERS

Social health activists, or ASHAs, face a life of uncertainty in India

APPOINTED UNDER the National Rural Health Mission, an ASHA worker is a trained community health worker, who is responsible for 43 functions, right from administering medicines to drug-resistant TB patients, to distributing an ORS (oral rehydration solution) packet. They exist even in areas where government health facilities are non-existent. Yet, they are the worst paid and get less than a daily wage. They receive specific remuneration for each of the functions, such as ₹ 300 for institutional delivery, ₹ 150 for family planning and ₹ 100 for immunisation rounds.

But even this payment is erratic. In several states, ASHA workers rue that wages are pending for up to two years. From time to time, they have resorted to agitations, demanding disbursement of dues, a fixed salary as per the labour laws, and social security benefits, such as provident fund and old-age pension.

"These are particularly important as most ASHA workers are widows or belong to socially weaker sections," says A R Sindhu, general secretary, All India Federation of Anganwadi Workers and Helpers. "Even though the government has assured that they will receive ₹ 1,000 for their participation in the fight against coronavirus, they are losing out on other remunerations as they are not able to conduct their regular functions. While they are in the front line of the battle without any protective equipment or training, it is not clear if the government will bear medical expenses in case they fall ill."

corporation has roped them in for surveillance. Each day, apart from collecting waste, these foot soldiers visit door to door and survey families for symptoms. The corporation's medical officers then analyse the data to plan their next intervention.

What's appalling is that the workforce is operating largely unprotected, without masks, gloves and sanitisers, and without any training on safety standards to be followed while dealing with potentially infected people. Coimbatore-based human rights activist S Balamurugan says about 200,000 sanitation workers operate across Tamil Nadu and most lack essentials like gloves, masks and overcoats.



In Kerala's Kannur district, women groups under the poverty eradication mission Kudumbashree have set up community kitchens to ensure that no one goes hungry during the lockdown

Soon after the lockdown was imposed, the Ministry of Health and Family Welfare released a facilitator guide for training of health frontline functionary on coronavirus response and containment. The National Institute of Rural Development and Panchayati Raj has also launched e-learning portal *Gramswaraj* to help panchayats fight the crisis. But very few appear to have benefitted from these. Most community health workers *Down To Earth* (DTE) interacted with are braving coronavirus with a cloth wrapped around their face and a soap in their bag.

IN LINE OF FIRE

In Tamil Nadu, which restricted inter-state movement of vehicles and labourers even before the country entered total

lockdown, ASHA workers guard the border. While the police ensures that vehicles carrying only essential goods cross checkpoints, ASHA workers screen the suspected passengers and disinfect the vehicles.

K Malarvizhy, a health worker on duty near Kerala border at Thenkasi, says the situation was alarming till the lockdown came into force. Every day, we had to scan numerous trucks transporting vegetables from Kerala and a minimum of 25 buses returning with about 1,000 migrant workers. "Now that the movement has reduced, we feel a lot safer," she says, dressed in a protective suit. But Malarvizhy is among the lucky few in this long and messy battle against coronavirus.

Prabhavathi, an ASHA worker from Kanakapura locality near Bengaluru,

says she is constantly on her toes as the region faces a cholera outbreak alongside coronavirus threat. Of the 80 gastroenteritis cases reported during the first two weeks of March, 17 were proven cholera cases. So after her long days of field work checking on suspected cases and people who are home-quarantined, she visits areas that have reported cholera cases and educates them about food and drinking water safety and keeping the environment clean. “But what I find difficult is busting the myths and notions around coronavirus. Due to increased paranoia, people are becoming discriminatory against those who have returned from certain destinations, particularly after Hajj,” she adds.

The role of community health workers is, however, exemplary in Kerala, where early identification system has helped avert spikes in new cases and ensure the highest recovery rate in the country. “Right from January when the first cases were reported, our department had given priority to strengthening of the networking at the ground level,” Kerala’s Health Minister K K Shylaja told DTE. “We have ensured close coordination between ASHA, anganwadi and Kudumbashree workers, junior health inspectors, junior public health nurses, ward members and residents associations.” (Kudumbashree is a women’s empowerment programme implemented by the State Poverty Eradication Mission.) ASHA and Kudumbashree workers have done yeoman service in plugging loopholes occurred in the screening facilities set up at airports. They traced those who skipped the facility and landed at their natives places. They even identified and prepared a list of people who came in close contact with persons of confirmed COVID-19 cases, says Shylaja. “We made route maps of each coronavirus infected person with their help,” she says. Along with 6,000 doctors and 9,000 nurses, Kerala’s public healthcare system consists of 15,000 health workers, which includes ASHA

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BORDER**

workers, Kudumbashree volunteers, anganwadi workers, hospital development committee members, palliative volunteers and other health activists.

BRIDGING LAST-MILE GAP

The role of community health workers assumes special significance in regions where difficult terrain or poor roads and infrastructure hinder access to healthcare and welfare benefits. One such region is Nuapada. Located in the semi-arid western parts of Odisha, the district is infamous for distress migration. Unofficial estimates show that in 2018 some 128,000 people had migrated to other states due to lack of financial resources and work. So when Kamla Tandi, an anganwadi worker of Mundosil village, got to know that coronavirus is gripping various states, chills ran down her spine. Soon, she heard that 15 youths who had migrated to Mumbai in January last year had returned to the village. Fearing that the youths might have contracted the disease, Tandi rushed to their houses accompanied by ASHA worker Subhashini Pan. “Thirteen of them are from Mundosil, while two are from the nearby Chachrabhata hamlet. We noted down their names and enquired about their health. Since one youth had cold and was sneezing, we advised all of them to stay indoors,” recalls Tandi. Their next step was to inform the village sarpanch and the community health centre (CHC) at Khariar block.

The youths, however, did not abide by their advice. Tandi, who has been working at Mundosil for close to 30 years now, says, “We repeatedly requested them to stay isolated but their parents abused us saying the youths are in perfect health. We did not take it to heart. Doctors at the CHC have trained us how to stay calm during such situations.”

In neighbouring Badi village, migrant labourers have also returned home following the lockdown. “Though the youths are living in self-isolation, doctors have asked me to keep tight vigil on them,”

says ASHA worker Janaki Sahu, adding that the village residents are strictly adhering to all preventive measures against coronavirus. In fact, most have developed the habits of maintaining social distance and washing hands with soaps. "This is the result of awareness advertisements on television and our efforts to motivate them," says Janaki. However, she says, the paranoia against the disease is so strong that people have stopped taking bath in village ponds and canals fearing that it might spread through the waterbodies.

To err on the side of caution, the district administration of Panna in Madhya Pradesh has asked ASHA workers to stay alert. Hunger, poverty and recurrent droughts have forced many families from the district to migrate to distant cities. With factories shut, they might soon start returning home. Rekha Shivareto, ASHA worker at Jardhoba village, says she visits households in her village twice a day to provide data on real-time basis. In the absence of any provision of masks or hand sanitisers from the authorities, she prefers tying a thick towel around her face and keeping a soap handy.

In Chhattisgarh's tribal district of Dhamtari, community health volunteers, *mitanins*, are innovating ways to protect themselves and the communities. Urmila Makram, who works as a *mitanin* in Kumhada village, wears a mask she has prepared using a plain white cloth. "I wash it every day after returning home and reuse it," she says. She has also successfully organised a social gathering while ensuring social distancing. "In the first week of April, our family had to conduct the ritual of *nahawan*, following the death of my mother in a road accident," says Bharti Makram, a resident. "As soon as Urmila got to know about it, she asked us to invite very few relatives to the function, avoid traditional practices like hugging or touching the feet of elders, and request guests to return the same day," says Bharti. To make sure that her advice



While spreading awareness about coronavirus, *mitanins* in Chhattisgarh's tribal district of Dhamtari ensure that people suffering from other health issues do not go unattended

does not go unheeded, Urmila asked five other *mitanins* from nearby villages to participate in the function. "We were with them throughout the day. Our presence made them strictly follow social distancing," says Urmila.

"About 70,000 *mitanins* in Chhattisgarh are now catering to the primary healthcare in villages," says Prabir Chatterjee of State Health Resource centre, an autonomous organisation in Raipur.

FEEDING THE HUNGRY

Fighting the coronavirus has, however, not taken away from these frontline workers their primary responsibilities. In Karaundi village of Madhya Pradesh's

Panna district, anganwadi worker Asha Singh says following the lockdown, she has been asked to educate people about washing hands at regular intervals and maintaining social distance. While this is an uphill task at a place where water availability is scarce and people depend on gathering firewood and forest produce, trudging through the hilly terrain carrying loads of food packets has compounded her hardship. Though preparing hot cooked meal for toddlers has stopped since the anganwadi centres remain closed during the lockdown, anganwadi workers have been instructed to continue providing nutritious meal to expectant and lactating mothers and weaning children in the form of dry ration, delivered at their doorstep.

Kerala, however, has ensured that no beneficiary of anganwadi remains deprived of cooked food. In fact, to ensure that no one starves, the government has announced free home delivery of food essentials to the poor and initiated community kitchens with the help of Kudumbashree workers.

UNITED THEY STAND

The effort of decentralised governance to fight off the pandemic can be seen at its best in Uttarakhand, known for strong local bodies. Here in Dhaneti village of Dunda block, gram pradhan Harsh Bahuguna has been working relentlessly. “Soon after the announcement of lockdown, the government asked us to screen and quarantine families returning home, without making any provision for sanitisers, masks or gloves. We mobilised tailors who were sitting idle. Within a couple of days they stitched 600 to 700 masks, which were then distributed to residents, ASHA and anganwadi workers and migrants walking back to their villages,” he says.

Bahuguna has also obtained seeds of vegetables like tomato, capsicum and potato from the horticulture department and is encouraging village youths to grow those for a steady supply of vegetables and

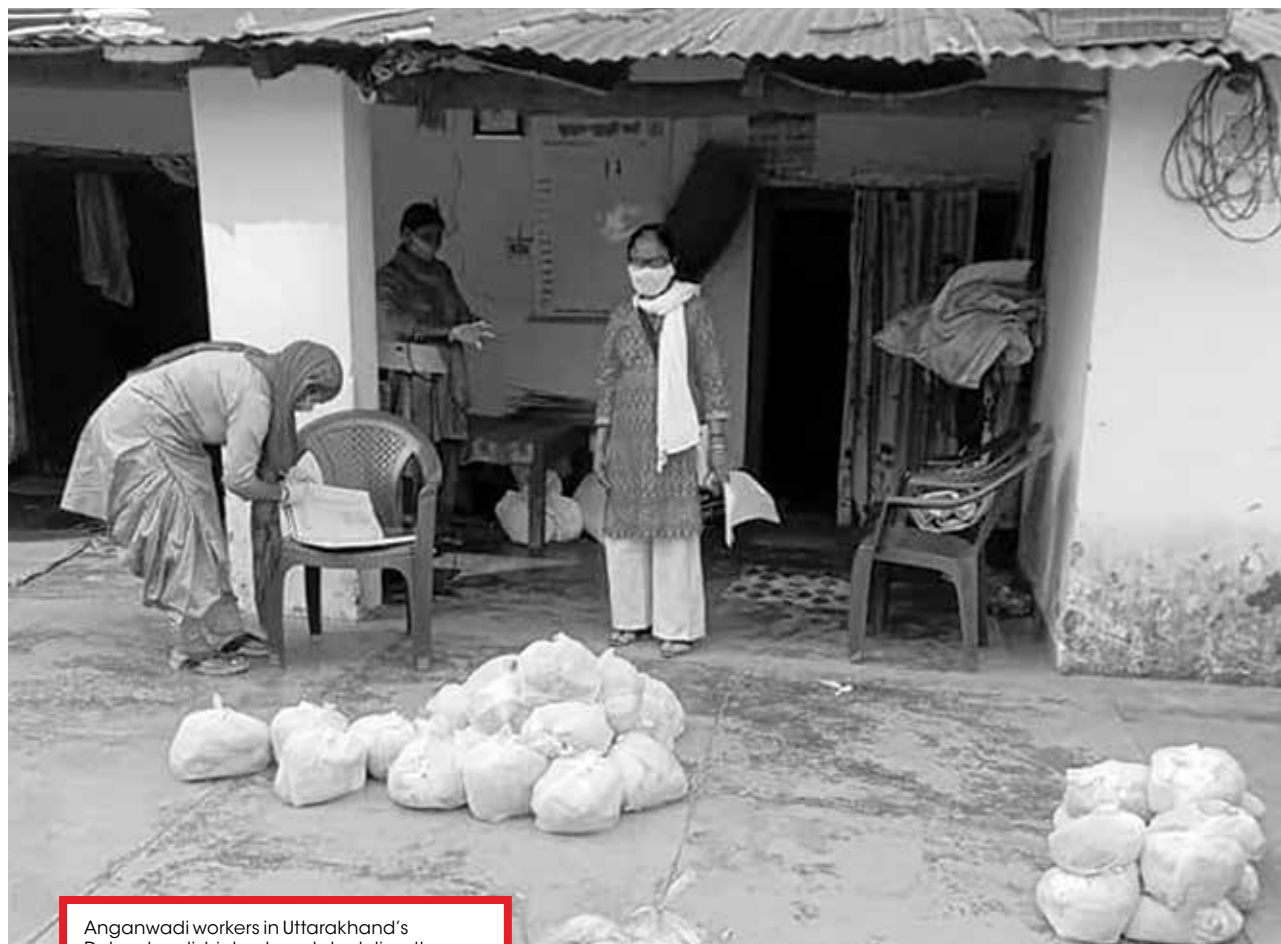
A SELF-HELP GROUP IN DEHRADUN HAS PREPARED 3,000 DOUBLE-LAYER AND TRIPLE-LAYER MASKS, AND IS PROVIDING THOSE TO ANGANWADI WORKERS ALONG WITH TAKE-HOME RATION PACKETS FOR THE BENEFICIARY

engage them in case the government decides to extend the lockdown period.

Besides the village heads, women self-help groups (SHG) are extending their help. Geeta Maurya, founder of Shakti Swayam Seva Samuh in Dehradun's Sahaspur block, supplies take-home ration to 43 anganwadi centres in the block under the government's Poshan abhiyan. Following the lockdown, the government has asked anganwadi workers to provide three months of advance ration to the beneficiaries. But no provision has been made to protect the workers, who will visit door-to-door and deliver the food packets, says Maurya. “We have, thus, prepared 3,000 double-layer and triple-layer masks, which we are providing to the anganwadi workers along with take-home ration packets. We are also providing masks to labourers working in our locality,” says Maurya. As the coronavirus gripped the hill state, demand for masks, gloves and sanitisers has increased. “A few days ago we received requests from other districts to supply raw material like mask-making fabric, elastic and thread. It was heart-warming to see how the block development officers came down in their own vehicle to collect the raw material,” says Maurya. These days she is busy giving virtual training to women in other villages on how to make masks.

CAUGHT IN CROSSFIRE

Then there are those who have unwittingly become part of the infantry fighting coronavirus. One such person is Rahul. The 25-year-old has been working as a cleaner at the night shelters of East Delhi run by the Delhi Urban Shelter Improvement Board. “These night shelters usually get crowded during chilly winter nights,” says Rahul. But following the lockdown, as the Union government asked all states to seal their borders to prevent the virus from spreading to rural areas, and the Delhi Chief Minister Arvind Kejriwal “appealed to everyone to stay where they are”, the national capital's 225-odd night



Anganwadi workers in Uttarakhand's Dehradun district get ready to deliver three months of dry ration to beneficiaries

shelters are swelling with people. "I have been asked to ensure hygiene and sanitation at two more night shelters, which have also been converted into shelter homes for the stranded migrant labourers. In my free time, I help the caretakers in serving food," says Rahul, adding that he does not even get time to visit his residence.

Rahul is aware that some labourers might be infected. "We ask people to maintain a physical distance of at least 1 metre. But it is increasingly becoming difficult as the number of people eating at the shelters has been swelling since the chief minister made the announcement that anyone can take food from the shelters, he says, adding that the surgical mask he has been provided with does not last beyond a few hours. However, he cannot lose the job in

the fear of the virus. "After all, it gives me a steady income of ₹7,000 a month."

Ramesh Kumar Sharma, 63, who is responsible for the upkeep of 13 night shelters on behalf of non-profit Prayas, says, "We are doing our duty. But at the same time, we are playing the game of life and death. The government has said one-third of the migrant labourers could be infected with coronavirus. We are not sure for how long we can evade it."

He rues that while the government has announced special provisions like three-month advance salary and term insurance of ₹50 lakh to its frontline workers, no one seems to have thought about workers like him and Rahul who are playing a vital role in keeping the country moving. 

 @down2earthindia

“PANCHAYATS CAN MAKE THEIR OWN PLANS”

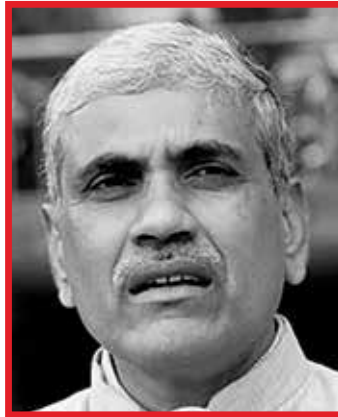
As coronavirus spreads across the country, the National Institute of Rural Development and Panchayati Raj (NIRDPR) has launched a portal to support gram panchayats in their fight against the virus. In an email interview, **W R REDDY**, director general of NIRDPR, exhorts panchayats to realise their potential during such a calamity

What roles do panchayats play in this fight?

As per the Constitution of India, gram panchayats are mandated to function as “institutions of self-government” and deliver certain basic services to the citizens in their respective areas. Second, as per provisions of the National Policy on Disaster Management, 2009, each panchayat is a “local authority” for preparing disaster management plans. So, they need to assist (and most of them are assisting) residents to stop the spread of coronavirus. The third role is through ward members, volunteers, self-help groups, ASHAS and anganwadi workers, they can generate awareness; set up quarantine centres; make arrangements for food; deploy mechanics to ensure regular water supply; and even use discretionary funds to make emergency arrangements. They need to maintain overall surveillance in the area and keep liaison with the administrations to discharge their duties.

You have launched awareness creation modules through portal “Gram Swaraj”. Can panchayats with poor internet connectivity access these?

The portal is not the only platform. We have asked the State Institute of Panchayats and Rural Development (SIPRD) and other subsidiary training institutes under them to disseminate the messages to panchayats in their regions through WhatsApp groups, SMSS and e-mails. Besides, we maintain a database of sarpanches, panchayat members and



over 4,000 certified master trainers. We are taking their help to disseminate the messages. SIPRDS are now getting those translated in local languages.

Health workers are the first line of defense against coronavirus. Why is there no provision to ensure that they have access to safety gears ?

Initially there might have been some shortcomings. But in no time, they have been provided with protective gears.

At places, panchayats feel ignored in this fight.

As local institutions of self-government and local authority for disaster management plans, they need not wait for any instruction from any other authority.

Will returning migrants benefit from welfare schemes, even though not registered for them?

No discrimination is to be entertained by panchayats now. Incumbents have just one identity—quarantined or vulnerable persons to be protected from COVID-19.

Workers like shelter home caretakers fear they might not benefit from special provisions announced for frontline workers.

Panchayats are in touch with the Centre and state governments for all preventive and relief measures. As evidence shows, subsequently the governments will have to depend on them for identifying the right beneficiaries, just like in all other programmes.



“
**Everything will be
okay in the end. If
it's not okay, it's
not the end**

JOHN LENNON

”

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