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Down To Earth

FORTNIGHTLY ON POLITICS OF DEVELOPMENT, ENVIRONMENT AND HEALTH

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CELEBRATING EARTH DAY

COVID-19

UNDER SIEGE

What happens when half the humanity is put under lockdown

The pandemic rips apart India's rural economy, already on crutches

The world will be different post COVID

Africa has long experiences with epidemics. Will it help the continent fight the pandemic?

India's 10.5 million community workers ensure a robust disease surveillance and treatment regime

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.

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

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,

PHOTOGRAPHS: VIKAS CHOUDHARY

TIGHTENING NOOSE

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

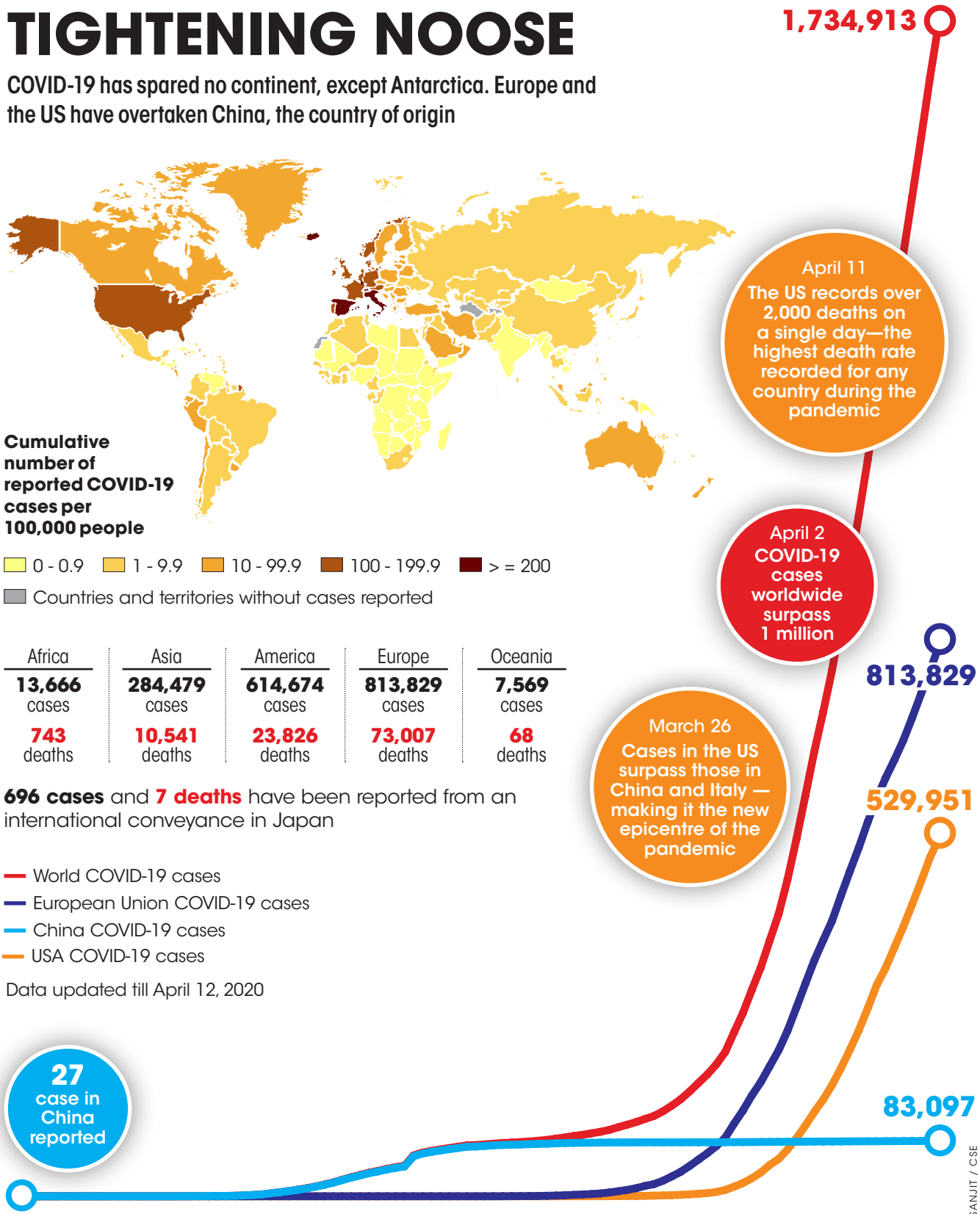
Cumulative number of reported COVID-19 cases per 100,000 people

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

GRAPHIC: SANJIT / CSE

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

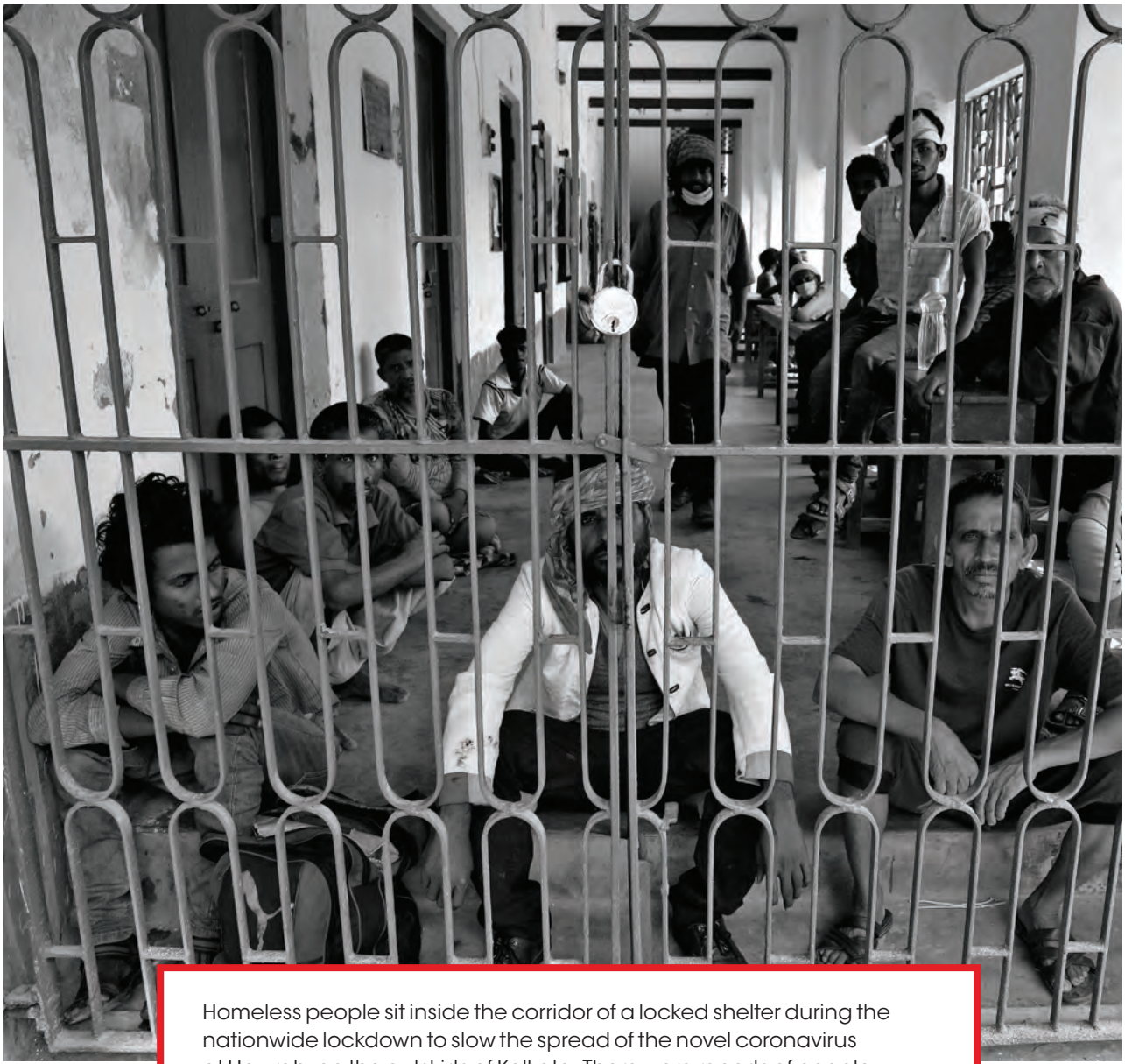
REUTERS

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

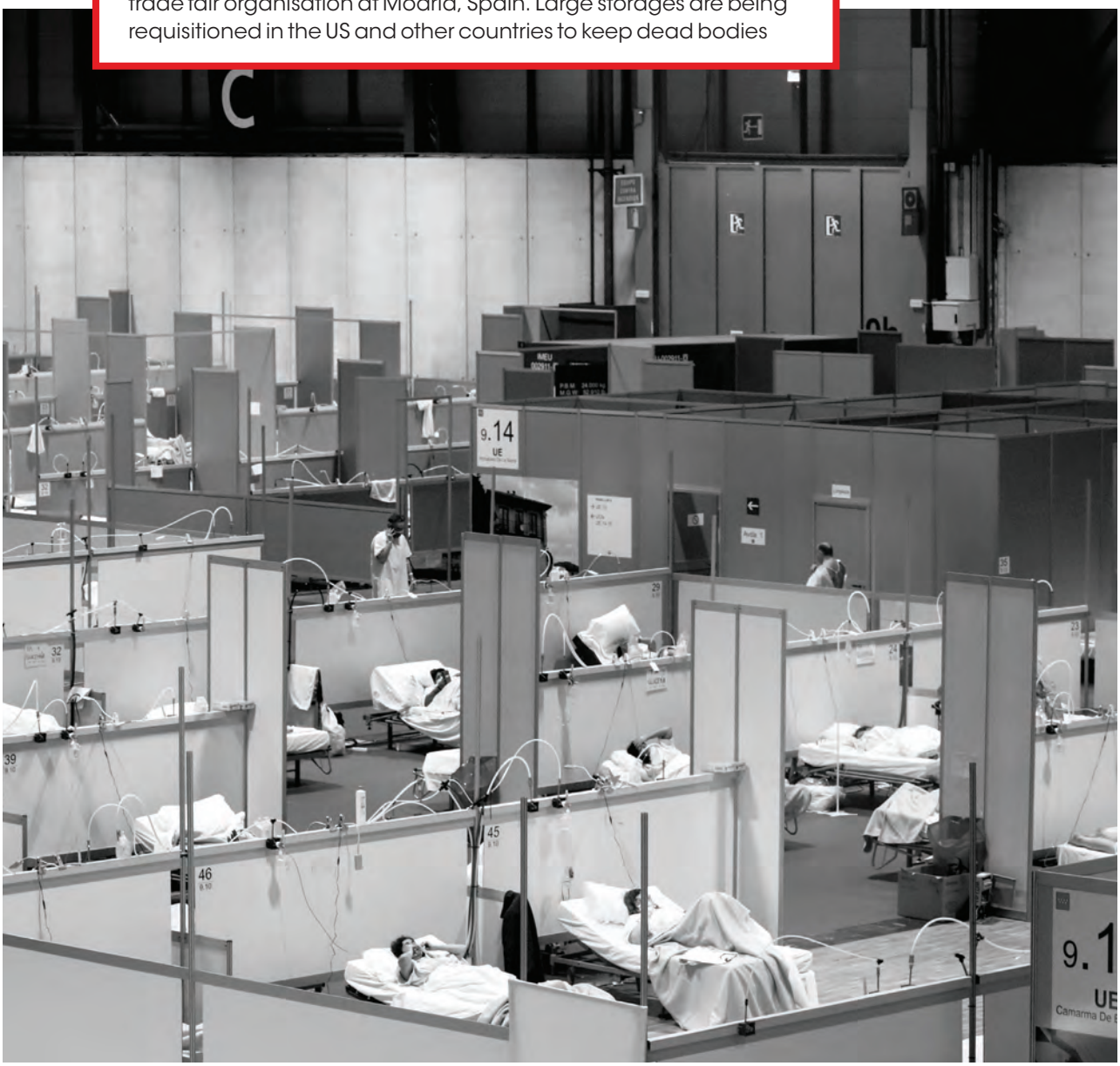
COVID-19 pandemic will push at least 14 million more people to poverty while 50 countries will need immediate food aids. For instance, thousands of homeless and unemployed thronged this food distribution centre in Delhi. Their slippers secured circled spots drawn in a queue on the ground to ensure social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

PHOTOGRAPHS: REUTERS



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 Modrid, Spain. Large storages are being requisitioned in the US and other countries to keep dead bodies



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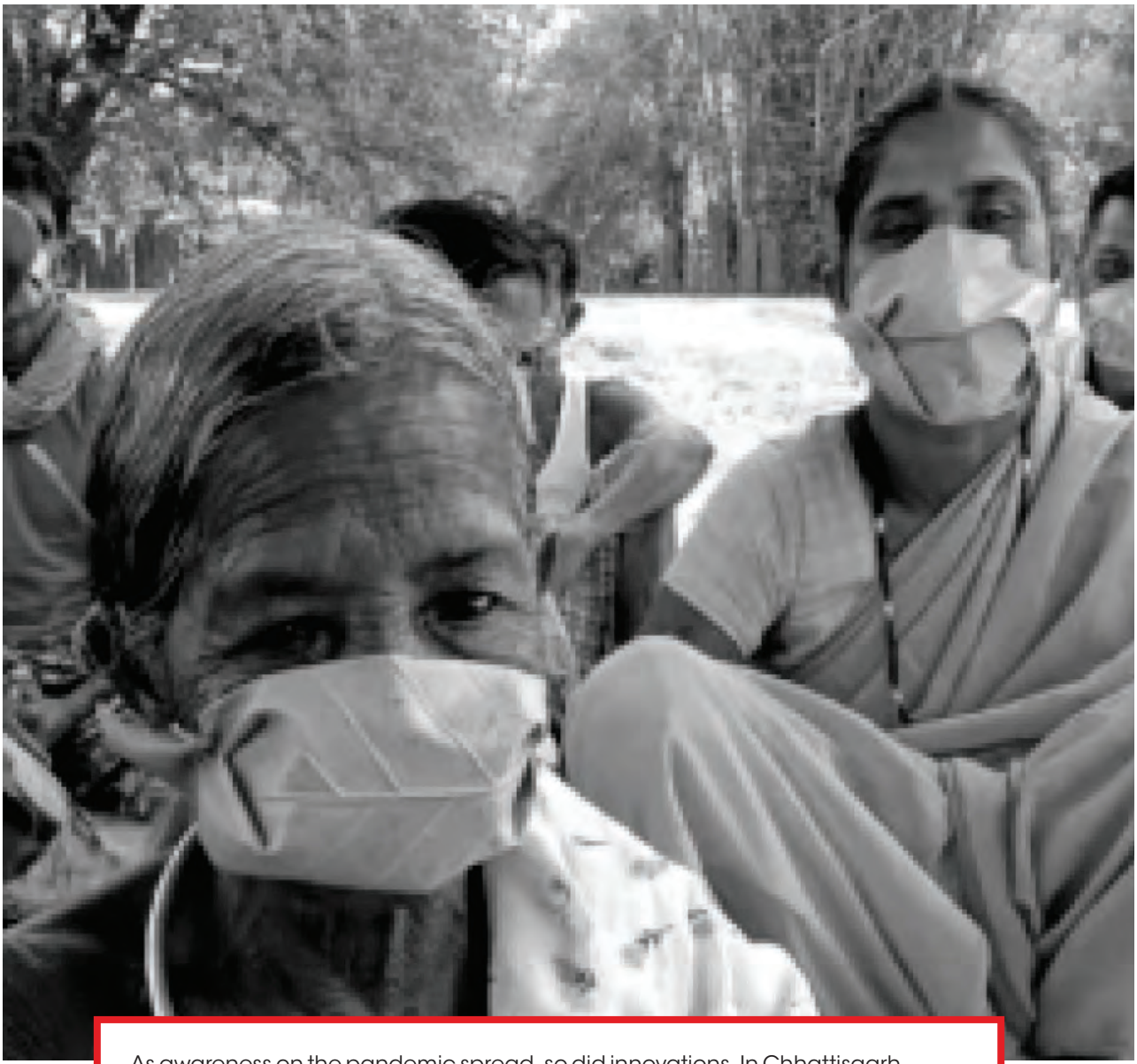


As awareness on the pandemic spread, so did innovations. In Chhattisgarh, many rural residents are using leaf masks for protection. This is also because face masks are hard to find and most poor Indians cannot afford them. At present, even doctors do not have enough protective gears to safely treat patients.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

PRAKASH THAKUR

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

REUTERS

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

SANTOSH MAHAPATRA

CHRISTOPHE HITAYEZU

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

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

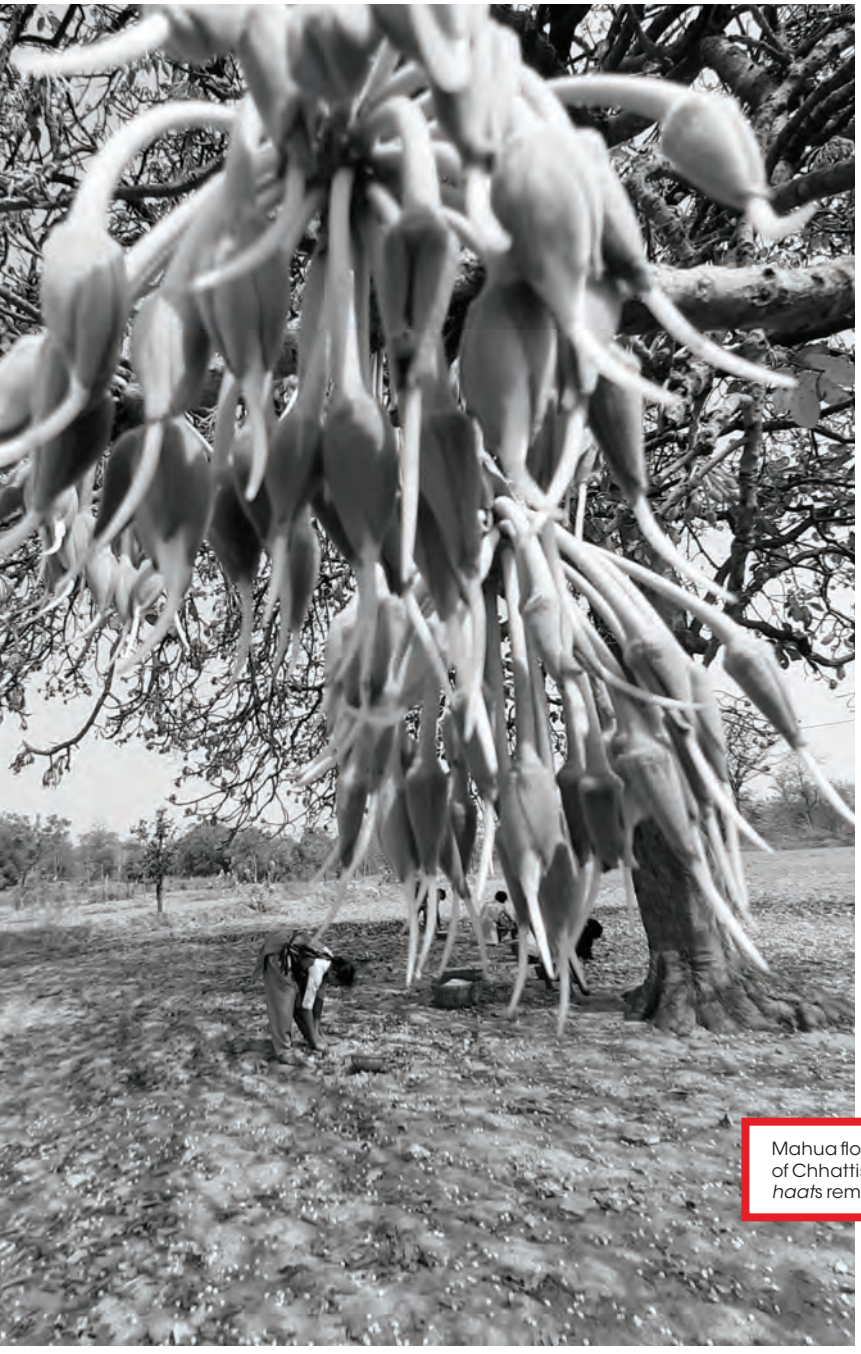
The column is edited excerpt of an interview with Down To Earth

(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



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

PHOTOGRAPH: 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.

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. *Haat*s 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 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.

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 *haat*s, lac processing centres remain shut

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

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 *mandi*s, 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

REUTERS

LABOURERS CALL IT QUITS

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-

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 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

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

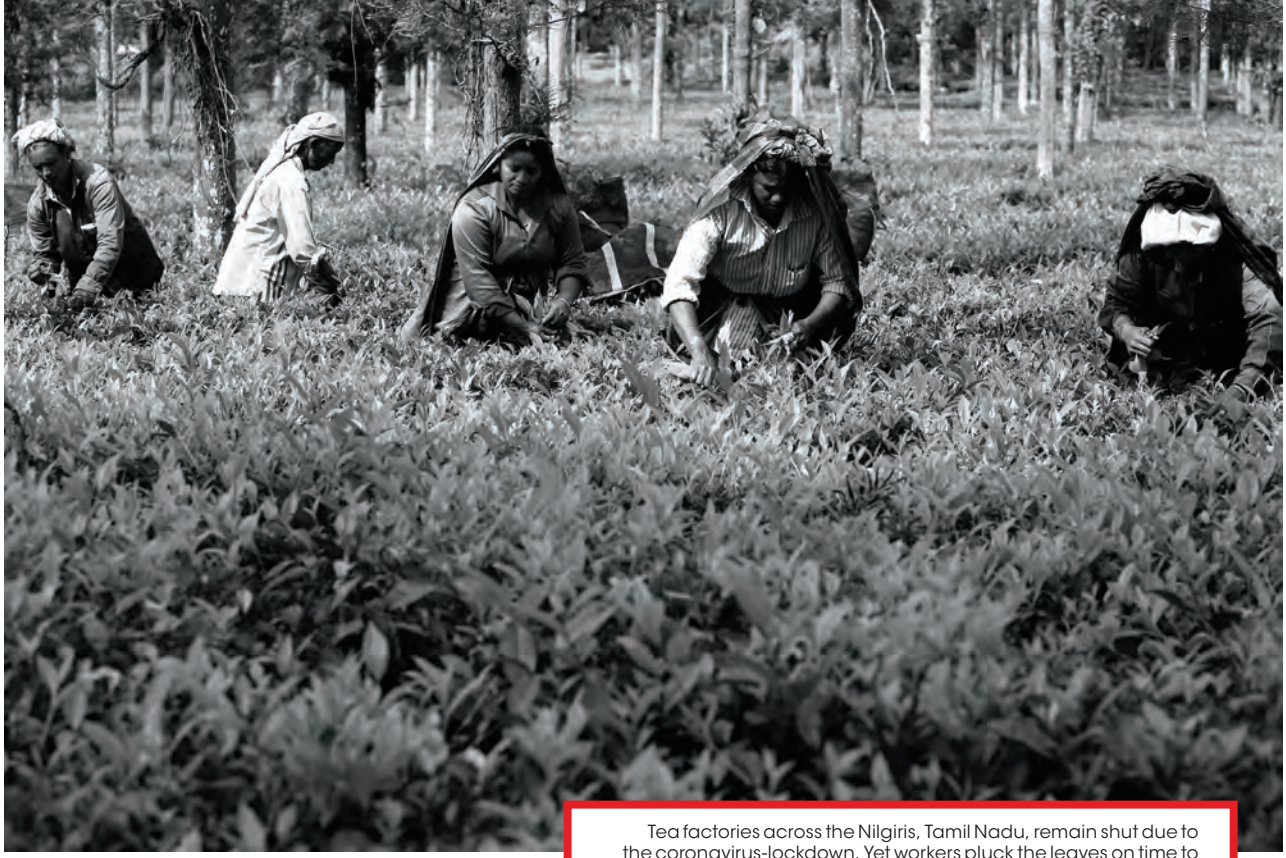
DEPENDANTS

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



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

PHOTOGRAPH: SIBI PULPALLY

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

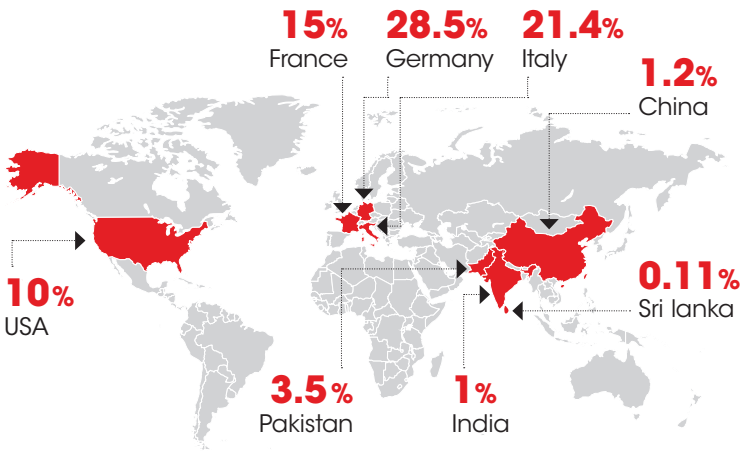
MOHAMMAD IDRISH, a rickshaw puller in Noida is eagerly counting days. He is determined to go back to his family in Shekhpura village of Bihar's Purnia district once the government lifts the lockdown. Though he has been away from his family for the past several years, the lockdown has shaken him to the 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 *p*30-31). 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 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.

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)

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 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.

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

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. DTE

‘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.

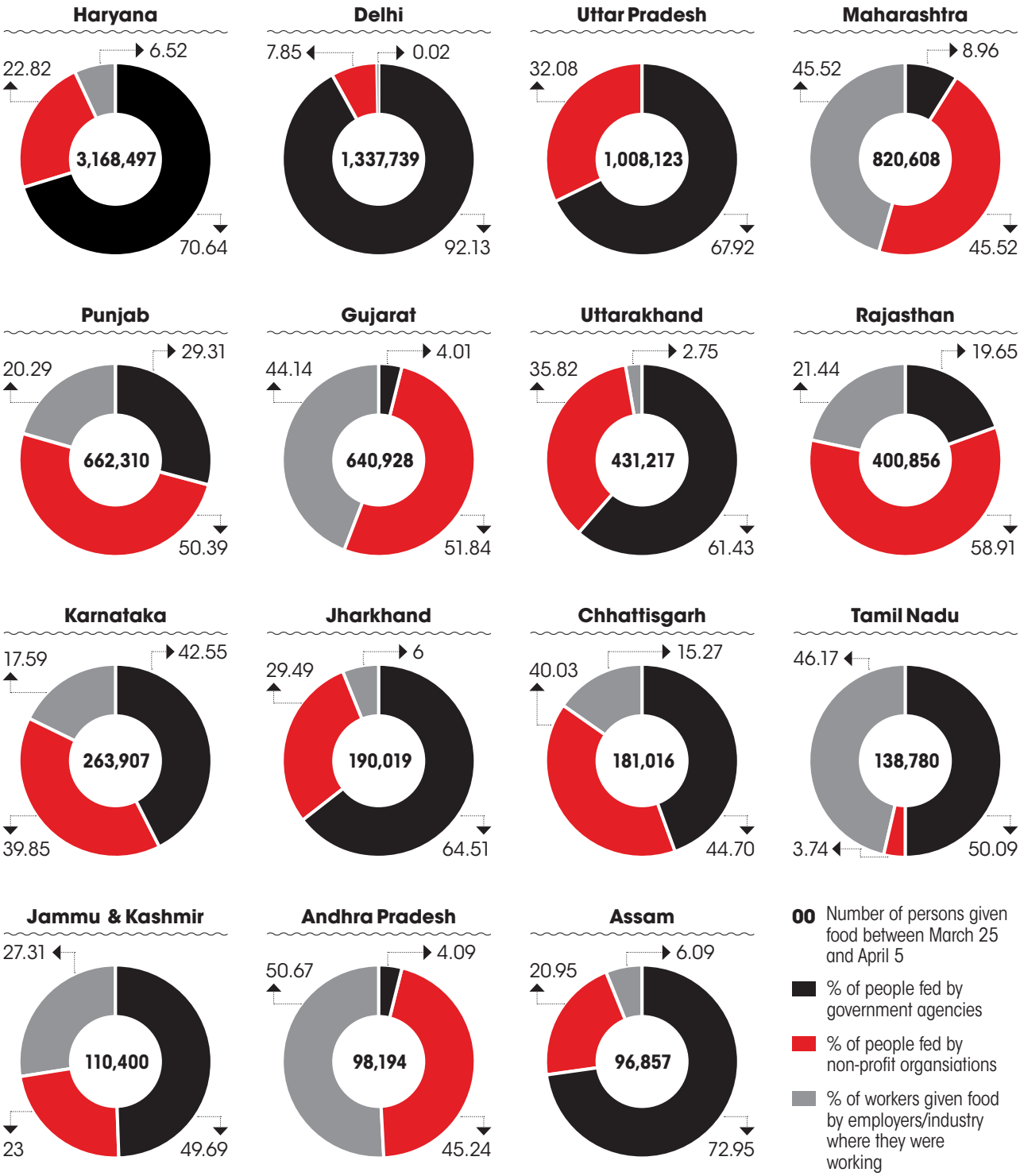
Of late, migrant workers have been the main drivers of rural economy. Will this change?
The compulsion to resume seasonal migration sooner or later will be very strong, because millions of poor people can barely manage without it. But for the duration of the health crisis, migration is likely to be much 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.

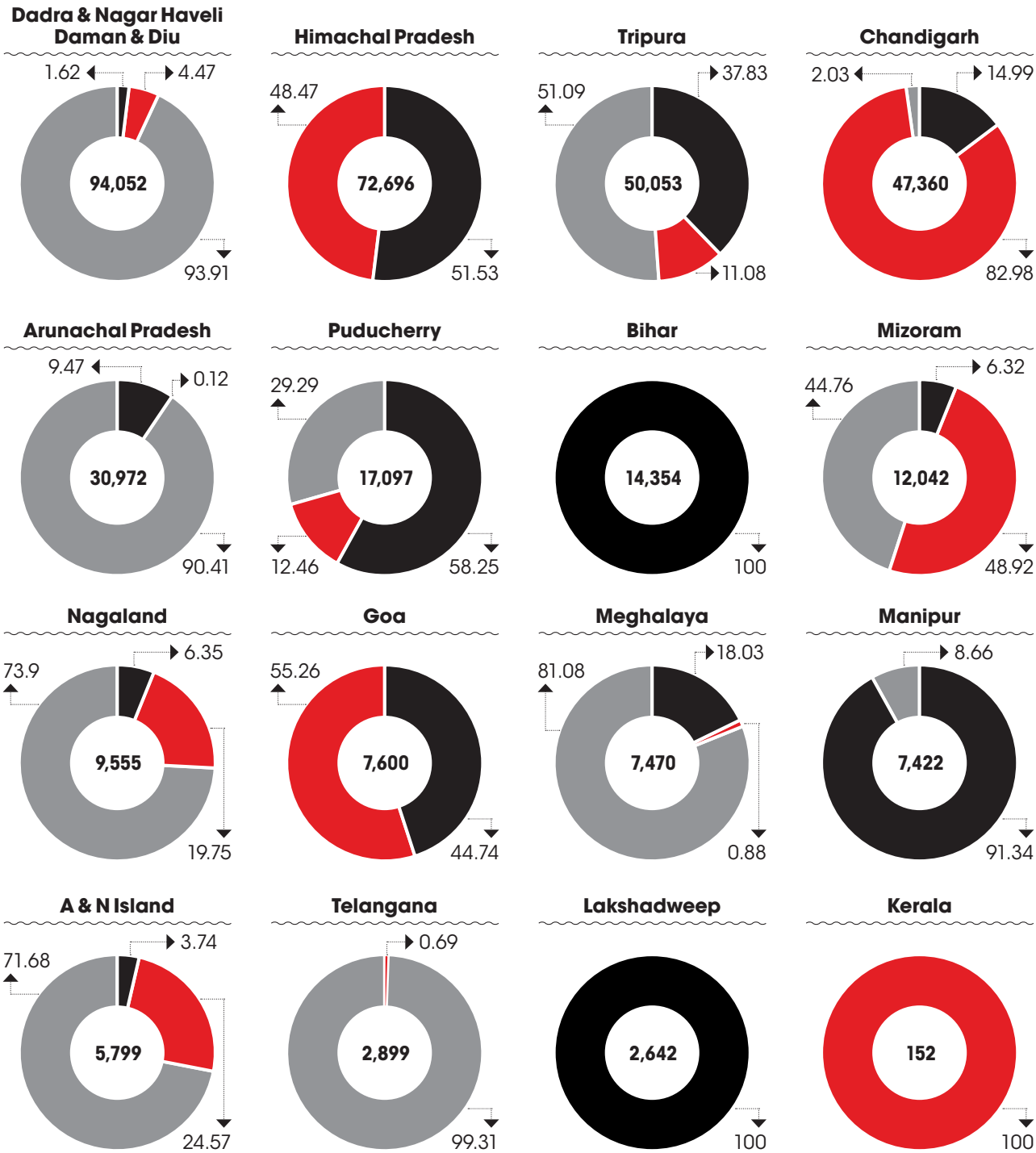
What lesson should India learn from the crisis?
We need to give higher priority to health and social security. Even the most ardent devotee of capitalism would recognise that market competition is a poor way of organising health services, especially public health. Most affluent countries, with the sobering 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



Note: % rounded off to two decimal places



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 ISCOKN 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 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.

WHY WERE THE MIGRANT WORKERS 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

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. DTE

(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?

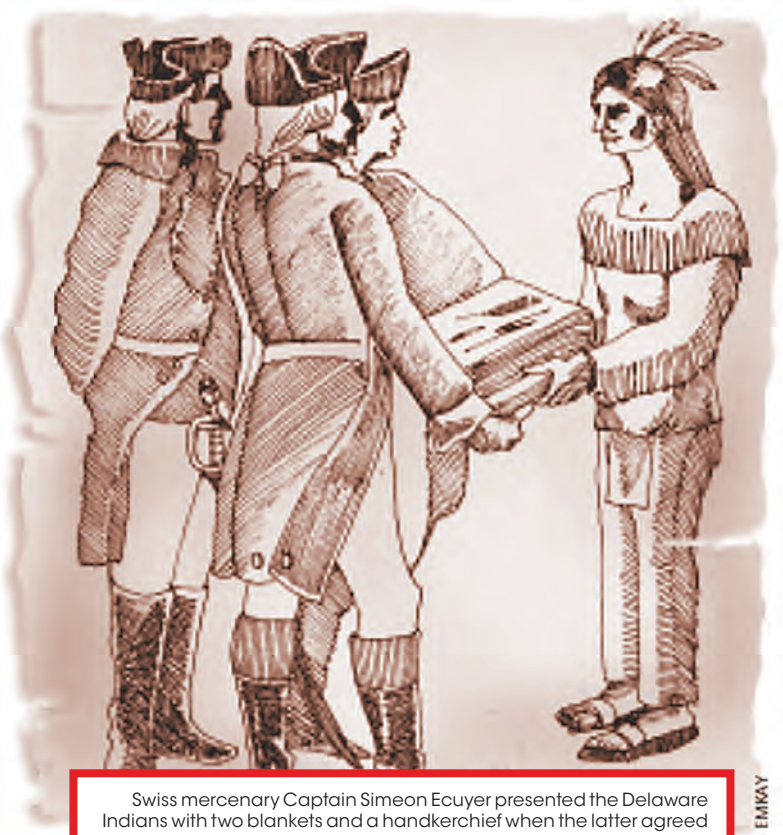
BY PRANAY LAL

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 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.



EMKAY

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 wth smallpox contagion

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 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."

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

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"

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

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

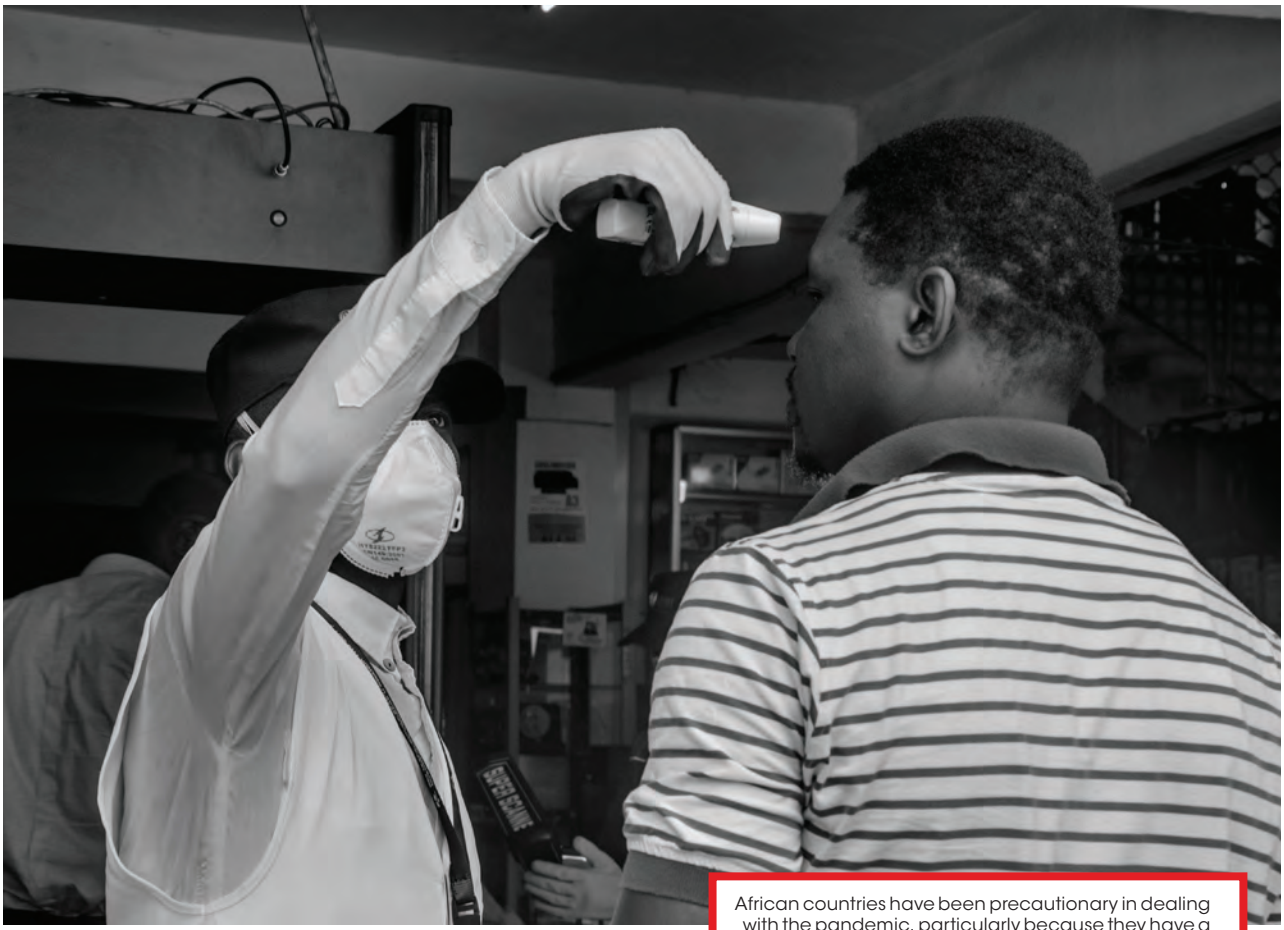
ENGELA DUVENAGE reports from South Africa, **BENNETT OGHIFO** from Nigeria, **MAINA WARURU** and **AGATHA NGOTHO** from Kenya, **ADOLPHUS MAWOLO** from Senegal, **CHRISTOPHE HITAYEZU** from Rwanda and **ANDRÉ PALICE NDIMURUKUNDO** from D R Congo

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 guida-nce on home-based learning," says George Magoha, the country's education minister.

THE 2014 EBOLA OUTBREAK HAS GUIDED AUTHORITIES TO PROPERLY DESIGN AND CLOSELY COORDINATE EFFORTS IN CONTAINING THE COVID-19 PANDEMIC

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



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 f or t hree 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 p otatoes," s ays M ariam Gwabije, a resident of Kinshasa. "Hunger will kill us during confinement, especially since we have not been warned," regrets Mugoli Camunani, a daily wager. "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.

CLOSE TO 70 PER CENT OF AFRICA'S POPULATION IS INVOLVED IN AGRICULTURE, BUT IT IS ALSO AMONGST THE WORST SUFFERERS, SHOWS THE 2018 AFRICA AGRICULTURE STATUS REPORT

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

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 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.

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

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

REUTERS

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 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.

CORONAVIRUS, LIKE CLIMATE CHANGE, IS PARTLY A PROBLEM OF OUR ECONOMIC STRUCTURE

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.

ECONOMY IS THE WAY WE TAKE OUR RESOURCES AND TURN THEM INTO THINGS WE NEED TO LIVE. THIS WAY WE CAN SEE MORE OPPORTUNITIES FOR LIVING DIFFERENTLY THAT ALLOW US TO PRODUCE LESS STUFF WITHOUT INCREASING MISERY

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.

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

GOVERNMENTS ARE TAKING ACTIONS THAT THREE MONTHS AGO LOOKED IMPOSSIBLE. IN SPAIN, PRIVATE HOSPITALS HAVE BEEN NATIONALISED. IN THE UK, THE PROSPECT OF NATIONALISING MODES OF TRANSPORT HAS BECOME REAL. FRANCE IS NOW READY TO NATIONALISE LARGE BUSINESSES

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 slowdown 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 of 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 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

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

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 r ole. R ather, i ndividuals a nd 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 IS FOR A STRONG, DEMOCRATIC STATE THAT MOBILISES RESOURCES TO BUILD A STRONGER HEALTH SYSTEM, PRIORITISES PROTECTING THE VULNERABLE FROM THE WHIMS OF THE MARKET

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.

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(By arrangement with The Conversation*)*

"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 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 move 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".

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

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 analyzation. 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: PRESSENZA

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

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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*"

ILLUSTRATION COURTESY: BETTMANN ARCHIVE

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

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