

# Looking Beyond the COVID-19 Pandemic: What Does Our Future Hold?



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## 1 Introduction

This paper is about COVID-19 and its effects on the world economy and society. The pandemic is a classic example of a complex environmental shock. It is likely to take a heavy toll in terms of human lives, health and well-being, as well as livelihoods and incomes. The pandemic, as I write this, is already into the eighth month, and there is no clear evidence when this will taper off so that one can talk about a post-COVID-19 world. There is a possibility of a vaccine but it is not known when it will be available on a mass scale and how effective it might be. Treatment is still arbitrary and uncertain with doctors trying out different combinations of drugs. There are parallel narratives about the medical evidence and its interpretation. The scientific community, the policy-makers and big business are revealing their vested interests much to the confusion and anxiety of the ordinary citizen. There are conspiracy theories too about how the virus spread and who were responsible for it. Different heads of state have responded differently to these doubts and ambiguities. Stories emerging out of nations are different too. This impact on health is something that human society has not seen in a century since the influenza epidemic of 1918. In terms of the impact on the economy, the data are gradually becoming as alarming as it was during the Great Depression of the 1930s. The two combined is a unique and unprecedented phenomenon.

In this paper, I have treated the pandemic essentially as an environmental problem that could be likened to (or even related to, as we may find out someday) climate change and the associated increase in pathogens. Section 2 discusses the economic and environmental trends in the world just before the onset of the COVID-19

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pandemic. Section 3 discusses the impact of COVID-19 on economy, environment and society, on human life and health along with the different policy responses adopted by nations. In Sect. 4, I discuss the lessons that are being learnt while living through the pandemic. These lessons might change over time, and it is not clear how they will be absorbed and appreciated by diverse segments of society. However, they are valuable. This is followed by Sect. 5 where I discuss alternative futures that are possibly emerging from the lessons learnt during the pandemic. However, the pandemic could also turn the future world more dystopian—politically, environmentally and economically. It is for us as citizens to decide how much we assert our agency, communicate with one another and restart the world. Section 6 concludes the essay.

## 2 The World Economy and Environment Before COVID-19

The year 2019 was a year when the global economy began to show distinct signs of economic slowdown. This was the result of a combination of factors. Investment optimism had declined, leading to a fall in economic growth and incomes leading to a further decline in demand. World trade had been affected adversely from the trade war declared by the USA on China and some other economies, causing large-scale disruptions in the international flow of goods and services. This also contributed to a lack of optimism about future growth and potential for new investments. Economic inequality had risen to levels unprecedented in modern times. Labour as a class was much less organized, and many rights and privileges had been eroded by the growth of casual and contract work in the gig economy. Central banks tried to push recovery by cutting interest rates but were not successful as the “animal spirits” of investors refused to respond positively. In a result to stimulate growth, many governments tried to dilute the implementation of environmental laws and regulations. Governments were less concerned about climate change and biodiversity loss. The trends observed in new technologies were more about labour-saving strategies through the use of data analytics, machine learning and artificial intelligence. New technologies with energy saving and carbon reducing features were relatively scarce. Finally, there was a phenomenon observed in many big and powerful economies of the world, where democratically elected leaders were found wanting in protecting democracy and civil rights. Authoritarianism was on the rise with strong leaders showing little respect for dissent and contrarian views.

According to the United Nations World Economic Situation and Prospects Report, dated 19 January 2020, global economic growth in 2019 was 2.3%, the lowest for the decade. The global rate of growth was 3.2% in 2017 and 3.0% in 2018. Trade disputes had increased tariffs, which reduced international trade and investments leading to a slowdown. Aggregate demand contraction softened oil prices and commodity prices, especially those of industrial use metals. China and India, the two fastest growing large economies, were experiencing slowdowns too. China’s growth had declined from 6.6% in 2018 to 6.1% in 2019. In India, GDP growth was 5.7% in 2019. The

GDP growth rate had been slowing down for ten successive quarters by the end of the calendar year 2019. Before the start of the pandemic, most projections of the global growth rate of income and trade for 2020 were lower than actual growth achieved in 2019.

An updated version of the UN World Economic Situation and Prospects Report (dated May 13, 2020) projected that with the onset of COVID-19, the revised estimates for world economic growth were a negative 3.2%, with the developed market economies shrinking by 5% and developing market economies by 0.7%. The International Monetary Fund (IMF), in its World Economic Outlook of January 2020, found that in 2019 all major economies had slowed down. This included the USA, China, India, the European Union, Brazil, Russia and Mexico, along with countries of the Gulf Cooperation Council. The IMF also found that some other nations such as Argentina, Venezuela, Iran, Libya, Turkey and Sudan not only slowed down, but were severely stressed. It was the same almost everywhere: investments fell, growth slowed down as firms became cautious about new spending on machinery and equipment, and consumers were wary about spending on durables. The consumer non-durables sector, and to some extent, the services sector kept a low growth rate going.

The World Economic Outlook Update (IMF July 2020) showed revisions made in projected growth rates after the advent of COVID-19. World economic growth was projected to shrink to 4.9%, with the developed market economies shrinking by as much as 8% and the emerging market economies experiencing a negative growth rate of 3%. China was the only major country expected to have a positive rate of growth of 1%, and India was expected to shrink by 4.5%. World trade was expected to decline by 0.9%.

As far as the natural environment was concerned, 2019 saw, despite the Paris Accord and a slowdown in global demand, no decline in carbon emissions in the world. The total global carbon emissions of 33.3 Gigatonnes of carbon dioxide were the same for 2018 and 2019. This was after two years of increase during 2016 and 2017 from 32.1 Gigatonnes to 32.7 Gigatonnes, respectively. Climate change from the emissions, made in the past as well as emissions made currently, has contributed to a rise in average global temperatures by over 1 °C. Large and growing economies like China and India have committed themselves to keeping global warming to within 2 °C. Hence, a 2° increase is almost given with the best of mitigation strategies like afforestation, switch to wind and solar power from coal to natural gas, increases in safe nuclear power and new technologies to reduce dependence on fossil fuels. The threat of climate change is real and persistent, and perhaps one little piece of hopeful news was that carbon emissions had at last begun to flatten out for the first time in the last thirty years.

To sum up, 2019 was a year where the global Economy was showing distinct signs of trouble, and the trends in natural environmental damage were far from being free from posing a serious danger to human health and well-being. Economic slowdown, astonishing inequalities, rising authoritarianism, climate change and biodiversity loss presented an ideal ambience for the perfect storm called COVID-19.

### 3 The Pandemic and Its Effects

#### 3.1 *The Medical Evidence and Surprises*

At some point of time in December 2019, doctors in Wuhan, China, began to report an unknown type of influenza or pneumonia which many people were having, and that standard treatments were not working. In few days, it was detected as a new strain of the coronavirus, a type of severe acute respiratory syndrome (SARS) virus labelled SARS-CoV-2. It was also referred to as the novel coronavirus and the disease was named COVID-19. The genetic sequence was mapped by early January 2020. The disease began to spread rapidly from China to a large number of countries, especially to Europe and USA. There was a New Year celebration in Wuhan where many people, some non-resident Chinese included, congregated. Most of these people contracted the disease. While many recovered fast with only mild influenza-like symptoms, some exhibited severe respiratory distress and a few succumbed to the disease. The Director General of the World Health Organization visited China to look into the spread of COVID-19 but did not make any statement regarding the possible dangers from the spread of this infectious disease.

It was much later, on 11 March 2020, that the World Health Organization declared a pandemic caused by COVID-19. The disease is believed to have zoonotic origins and has close genetic similarity to bat coronaviruses, suggesting it emerged from the virus-carrying bats. There is no evidence yet to link an intermediate animal reservoir, such as a pangolin, to its introduction to humans. The virus shows little genetic diversity, indicating that the spillover event introducing SARS-CoV-2 to humans is likely to have occurred in late 2019. The WHO advised all people to avoid crowded places, wear masks and practice social distancing by maintaining at least one metre's distance between two people.

A number of unusual things about the disease began to be observed by then. Epidemiological studies estimated that each infection resulted in 1.4–3.9 new ones when no members of the community were immune and no preventive measures were taken. This rate of contagion was considered unusually high, much higher than the earlier SARS. Secondly, there were a lot of people who were infected but showed symptoms after a long lag of four or even seven days. These asymptomatic carriers were even more dangerous because they would not be consciously avoided. The third fact emerging was that people over 60 years of age and having co-morbidities such as type-2 diabetes, hypertension, kidney ailments and chronic obstructive pulmonary disorders (COPD) were likely to show severe symptoms and high fatality rates. Finally, it was obvious that a vaccine would take a long time, and in the interim there was no treatment using existing drugs that worked in curing the ailment. In short, the evidence and the data were too little and too confusing. Within the community of medical practitioners and researchers, there were parallel and often conflicting hypotheses asserted about the disease, its degree of danger and the warranted line of treatment.

**Table 1** Comparison of cases and deaths

Country	Cases	Deaths
USA	5,997,163	183,069
Brazil	3,862,331	120,828
India	3,621,245	64,469
World	25,225,985	846,405

*Source The Johns Hopkins University Coronavirus Tracker coronavirus.jhu.edu/map.html accessed on August 31 12.30 p.m*

The spread of the disease was so swift and widespread that doctors and policy-makers had no time to reflect or strategize as to what would be the best responses. Most governments announced “lockdown” or closures of all non-essential activities like shops and markets, gyms and theatres, schools and colleges and all offices barring essential services. In some nations, like in India, there was a strict and complete lockdown that closed all economic activities, and there was a curfew declared restricting citizens from going out of their homes. In other nations like the USA, the restrictions were not effectively announced or followed. Some states were strict while others had virtually no restrictions at all. In Europe, many countries followed the strict lockdown model, while in many other nations it was largely left to the wisdom of citizens to behave in a responsible manner. All nations began to report the incidence of the disease. The world had not experienced such a severe pandemic since the influenza epidemic of 1918–20. By the end of August 2020, the global data of COVID-19 infections along with the three worst affected countries in terms of total caseloads were as given in Table 1.

### 3.2 Economic Impact

The pandemic came as a severe shock to markets and economic production. International travel and tourism came to a sudden halt. Hotels and bars and restaurants were shut. Shops and malls were closed as were factories. At the retail level of trade, only food items and medicines were allowed. Offices, schools and colleges were closed as people stayed home to avoid infections. Theatres showing films or playhouses for drama were closed. Suddenly, the global economy came to a grinding halt. Health-care workers on the other hand were stretched to their limits as the number of patients increased and health infrastructure in most countries came under severe strain. There was a shortage of gloves and protective wear and intensive care equipment like ventilators.

First, economic production slowed down to an alarming level. Firms shut down or went out of business altogether as the disease continued to spread and lockdowns began to be extended. This led to large-scale lay-offs and loss of jobs. Those who were lucky to retain their jobs had to take substantial pay cuts or remained edgy as to when their turn for retrenchment would come. Unemployment figures skyrocketed

in most countries to levels not witnessed since the Great Depression of the 1930s. In the USA, for instance, unemployment climbed by 14 million, which was more than the additional unemployment experienced in the country during the Great Recession of 2007–08 (Kochhar 2020). In India, unemployment climbed by 20 million during the period April to June 2020 (Ghosh et al. 2020).

While unemployment increased in all countries, there were differences in the impact depending upon the extent and efficacy of social safety nets. In Europe, the impact was less than in the USA. In the latter country, many of the social security benefits had been reduced over the years as government support was thought to be too expensive and only induced laziness in recipients of state aid. In countries like India where there is massive inequality accompanied by widespread poverty and deprivation, there is hardly any built-in fiscal measures that can count as social insurance barring the public food distribution system and the work guarantee scheme under the (Mahatma Gandhi National Rural Employment Guarantee Act) MGNREGA. This ensures a minimum of 100 days of work at a preannounced minimum wage. The bulk of India's workers (estimated to be about 85%) are in the informal sector with no rights and benefits. Many of them are temporary migrant workers who move from villages to far-off urban centres to work as daily wage earners on oral contracts. They do not have job security of any sort and often stay in temporary shanties or urban ghettos. They are not covered by the public distribution system, and many do not even have proper identity cards as citizens.

When the lockdown was announced in India by the prime minister, a notice of only four hours was given. Suddenly millions of migrant workers not only were left without a job, but were stranded without food. Hence, a large part of these many millions started to go back to their own villages which in many cases were hundreds of kilometres away. Since no public transports like trains and buses were allowed to ply, they began to walk. One of the most striking images of poverty and hunger was that of millions of Indians walking on highways and roads to reach home. Some had to go a hundred kilometres while some others travelled anywhere up to seven hundred kilometres. Some died on the way, some collapsed, and few of the migrant workers gave birth on the way, while others lost their newborns. These hitherto invisible Indians were perhaps unknown to, or ignored by, the ruling elites.

There was a lot of talk in the media about the necessity of this lockdown that the medical practitioners were insisting on, to contain the disease and related deaths. Some economists claimed that the shutdown could claim equal or perhaps even more deaths from hunger and other diseases brought about by unemployment. In the advanced economies of the world, the debate was between loss of lives and the loss of livelihoods. In India, it was between the “visible” loss of lives from the virus and the “invisible” loss of lives from hunger.

The nature of the shock to the global economy was complex. The first effect was that of a sudden disruption of supply and supply chains across the economies of the world. This came at a time, as I had mentioned earlier, when the global economy was weak and sluggish. The disruption in supplies led to closures and the release of a large number of workers. This obviously had a severe adverse effect on demand. With stagnating and falling consumer demand and the general outlook for the immediate

future looking gloomy, nobody was willing to invest, which aggravated the crisis. In India, the financial system was already suffering from large amounts of uncovered bad debts. In such a situation, banks, for instance, fearing opportunistic behaviour from potentially bad borrowers were unwilling to lend, and the demand for credit was also low. The shock led to a vicious cycle of low supply, low demand and low growth, low off-take of credit coupled with massive unemployment and unprecedented closure of small and medium enterprises. The pandemic and its economic effects had other consequences too. It affected social values and beliefs, political positions and individual well-being even without being infected.

Surprisingly, stock markets were not crashing anywhere. In the USA, it was distinctly doing very well, while in most other countries there was increased volatility but there was no downward trend visible. Nobody knows how long the disruption will continue, yet there are people who seem to be confident of a quick and decisive recovery from the recession in terms of what is called a V-shaped recovery, once the pandemic dies down. Obviously, policy responses emerged to counter the economic shock. They were qualitatively as well as quantitatively different in different countries.

### ***3.3 Social and Political Impact***

The social impact of the pandemic was initially marked, the world over, by a callousness and overconfidence that the whole thing was being hyped up by the medical community. Some saw even a conspiracy to sell a vaccine; some thought it was deliberately let loose by the Chinese from Wuhan to dominate the world. These kinds of attitudes and narratives soon got replaced by a sense of panic and fear realizing that the disease was really infectious, and some people were actually dying from it. Gradually the wearing of masks caught on, as did the washing of hands more frequently and the use of hand sanitizers. Social distancing, as recommended by doctors and governments, were a bit more difficult for a couple of reasons. The first was the inherent tendency of human beings to be together and socialize. Hence, sea beaches, parks, markets, places of worship, restaurants and social functions like marriages, drew people close together in large numbers. The second was the lack of space in densely populated urban areas and in crowded cities of the developing world. People living in crowded tenements and narrow lanes had no way of keeping a metre's distance between two individuals.

Next, there was widespread anger and suspicion about people who were infected and people who were likely to be asymptomatic carriers. These people, including healthcare workers like doctors and nurses, were hounded from their homes. They were considered too risky to have as next-door neighbours. They were treated as untouchables. These effects varied from nation to nation, and even within a country there were variations of these reactions in different parts. In some countries, there were still many people who thought it was all hype. National leaders like Bolsonaro in Brazil and Trump in the USA actually defied medical advice by either not wearing

masks, or not practising social distancing. Their supporters kept behaving as if there was no pandemic at all (Galea and Alcalde 2020).

Political responses were varied (Nath 2020). Most nations cracked down when the disease began to spread with strict “lockdown” in almost all economic and social activities. The degree of strictness varied though, as did the duration of the closures. There were debates within the medical community, especially among epidemiologists, regarding the efficacy of strict lockdowns. Governments were obviously confused. In India, a strict lockdown was followed. Even as I write this essay, international and domestic travel and tourism are still down to a tiny fraction of the pre COVID-19 levels. Governments found this to be a good opportunity to trace the activities of citizens so as to keep track of potential infections spreading. However, it was also helpful in increasing the surveillance over citizens and keeping a tab over other kinds of activities, especially political, being carried out. In all countries of the world, the pandemic caused heavy disruption in economic activity (Miller 2020). The poor were hit the hardest both from the pandemic as well as from loss of incomes and jobs. In some countries, the ethnic minorities suffered more in terms of infections and deaths. The medical calamity got inextricably tied up with politics. The economic loss and the huge strain on public health systems forced the political establishment to react. It would be disastrous not to do so. Designing and funding a recovery package would mean finding appropriate means to alleviate immediate suffering and also open opportunities to quickly rebuilding the economy with new livelihood and employment opportunities. It would mean a great strain on fiscal resources in rich countries and poor.

### ***3.4 The Environmental Impact***

COVID-19 and the associated lockdowns in economic and social activities had positive as well as negative effects on the natural environment. The full extent of these effects is yet to be measured, and some of the consequences are told in terms of anecdotal evidence and what was perceptible to the naked eye. The effects were globally observed in varying degrees since 213 nations have been affected by the virus (Schuijers 2020). A major beneficial effect observed was the reduction in air pollution since many manufacturing units were closed, road and air travel were drastically cut, a large number of oil refineries were shut, and coal consumption had fallen. Some preliminary estimates suggest that in the European Union, particulate matter (PM 2.5) and nitrogen oxides (NOx) emissions fell by 20–30% in the first month of the pandemic-induced closures. In China during February 2020, carbon dioxide emissions fell by 200 million metric tons compared to the emissions in February 2019.

Another benefit from the stay at home restrictions imposed by governments helped clean water bodies like the canals of Venice or the sea beaches of France and Spain. It is expected that fish stock growth will be higher since the quality of water would be better in rivers as well as coastlines. Environmental noise measured in decibels fell



significantly with lower traffic movements. Road accidents declined too as highways and roads were nearly empty. Ecological footprints fell since international mobility of goods and people were suddenly reduced. This, in turn, enabled local producers of food and other essentials to enjoy improved sales. A number of wild animals and birds were spotted in deserted urban areas seemingly comfortable with no signs of humans or vehicles to frighten them. Pakistan took this opportunity of healing the environment by putting unemployed people to work in planting 10 billion trees as part of a social and environmental campaign (Zambrano-Monserrate, Alejandra Ruano, & Sanchez-Alcalde, 2020).

However, there were negative effects too. The most serious of these has been the huge increase in waste, as recycling was virtually stopped from the fear of infections spreading from reused materials. Of the increased waste, a large part is considered biohazardous. Also waste management has been disrupted in many places as it was not sure whether there was contaminated refuse in garbage piles. Indeed, in some countries of Europe households were prohibited from sorting their own garbage in the fear that some people could end up spreading the virus in the process. Many companies have repealed their own bans on disposable bags by going back to single use packaging. With reduced movement of people, environmental policing has slackened. This has led to a spurt in crime such as poaching of rare wildlife or the felling of trees. It is claimed that deforestation has increased sharply in Brazil. It might be noted though that this might have happened even without the pandemic since the president of Brazil officially endorsed clearing up the rainforests. In many other countries like India, governments have diluted the environmental clearances required for large projects where environmental damage was more likely to occur. It reflects an effort to please big business and facilitate the ease of doing business by small and medium enterprises. This will, governments believe, help a quick recovery from the economic effects of the pandemic.

### ***3.5 The Human Costs of the Pandemic***

The prolonged lockdown and the uncertainty about what the future holds have affected all individuals, in varying degrees, in terms of their lifestyles and their behaviour patterns. The first, and most obvious impact, is the rise in stress and anxiety about health and incomes. The lockdown turned out to be a virtual home imprisonment where even visits by friends, relatives and neighbours were a source of unease and fear about infections. Many families had to cope with children at home, partners having lost their job or source of income and a sharply increased work stress for those who had to go out like health care workers. Two kinds of emotions have become dominant in the pandemic: anger and a low-grade depression. Those who fell ill and were lucky to have recovered are likely to feel helpless in not being able to comprehend why they fell ill. Those who had to be quarantined developed a sense of isolation and loneliness (Dubey et al., 2020). Those who did not survive the illness left a deep scar of sorrow and despair in the minds of their close relatives and friends.

Domestic violence is reported to have increased across the world as have incidences of suicides.

A number of people have tried to exploit the vulnerability of other people and passed around fake news, false narratives about how the disease came about and how it spreads and peddling treatments that were to say the least, therapeutic misadventures. In India, various Godmen claimed cure from the disease through ingestion of cow's urine, or some herb that carried the saliva of the quack. Some of them could not prevent having the disease themselves, and in the process of their blind superstitious beliefs put a number of people into danger of contracting the disease. Many alternative medicines have been suggested through the Internet along with innumerable preventive, immunity-boosting diets. Social media and the Internet have become, according to the Director of WHO, a "coronavirus infodemic".

Some parts of society have been hit by overwork and strain like frontline health-care personnel such as doctors, nurses, paramedics, policemen, bankers and delivery people. The psychological effects on these people, who are much more vulnerable to infections, are twofold. One is that they often face social rejection as untouchables and are often asked to leave their residences and go somewhere else. The other constant fear they live with is the higher chance of their being asymptomatic carriers of the virus and infecting their loved ones at home including partners, children and old parents.

Children stuck at home, without games even on television, and without being able to go to school or play in the neighbourhood park, have faced problems. Anger and tantrums have increased, and many sensitive children might be left with indelible scars from the pandemic. A simple example will suffice to show how the world of adults can create lasting behavioural impressions on children. The pandemic has introduced extensive use of the thermal gun to record the body temperature of people trying to enter office buildings or public spaces. The hand-held device is held by one adult and pointed like a gun at the middle of the forehead of the person whose temperature is being checked. Other adults do not show any apprehension nor do they try to stop the person from pointing the gun-like device. The child can easily process this image as shooting a gun at another person's forehead is acceptable social behaviour.

The other sections of society badly hit are the marginalized communities of migrants, homeless, slum dwellers and prison inmates. Their abilities to practise social distancing or adopt basic hygienic rules are extremely limited. The poor and deprived are always the worst hit in times of disasters. In such situations, rational behaviour is often replaced by herd behaviour where everyone feels comfortable in being led and identifying with a common enemy. Hence, the pandemic has seen significant increase in xenophobia, communalism and racism. One important upshot of the social impact of the pandemic is that old patterns of accepted behaviour have been disrupted. New practices are being tried out. This implies that the barriers around stereotypical behaviour have broken down. These often take extremely long to change. Disasters and upheavals break them down decisively. It is a moment of social inflection. New patterns emerge. Whether the new patterns are forward-looking and harmonious, or they are myopic and dissonant is anybody's guess at the moment.

### ***3.6 The Economic Policy Responses***

With the economies of most nations coming to a grinding halt, for the first time since the Great Depression, both advanced economies and developing economies are in recession. Governments and central banks have responded to the pandemic and the economic crisis using both fiscal and monetary tools on a scale that the world has not witnessed before. A recent paper (Benmelech & Tzur Ilan, 2020) estimated the determinants of fiscal and monetary policies during the COVID-19 crisis. It was found that high-income countries announced larger fiscal interventions than lower-income countries. It was also found that a country's credit rating is the most important determinant of its fiscal spending during the pandemic. High-income countries entered the crisis with historically low interest rates and as a result were forced to use non-conventional monetary policy tools. These findings raised the concern that countries with poor credit histories and those with lower credit ratings, in particular, lower-income countries have not been able to deploy fiscal policy tools effectively during the pandemic. As a result, they have been pushed into using interest rate policies and other monetary policy tools such as loan moratoriums or guaranteed credit and soft loans without collaterals as instruments to kick start the economy.

The differences in policy emphasis can affect the speed of recovery. The reason is quite straight forward. I have already argued that the shock to supply quickly spilled over into a severe demand contraction. Hence, the policy to trigger recovery would have to focus on demand stimulation that would restore the confidence of producers and investors. If, on the contrary, the supply side is focussed on by policies where cheap money and easy credit are made available, the producers would not increase capacity utilization and capital expenditures since they were not sure of future demand. The additional liquidity in the economy would fuel inflation and speculative activities in financial markets. If fiscal policy has been used more effectively by rich economies to directly stimulate demand, then their recoveries would be likely to be faster than that of poor countries that relied more on private debt in the fear of their sovereign ratings being downgraded.

A quick look at the strategies used by USA, China and India will suffice in this context. The USA declared a large fiscal stimulus of \$2.3 trillion which was 11% of its GDP. Coronavirus Aid Relief and Economic Security (CARES) Act provided enhanced unemployment benefits, widened the food safety net and prevented corporate bankruptcy and mechanisms for writing off or deferring small business debts. About \$483 billion of the fiscal package went directly for the protection of wages and salaries, and healthcare support was enhanced. As far as monetary policy was concerned, the Federal Reserve Bank dropped policy rates by 150 basis points in March 2020 and reduced the cost of funds at the discount window. It also declared that it would make open market purchases of government securities as and when necessary. The Federal Reserve has been buying corporate papers directly and indirectly through financial agencies. Clearly, the basis of the stimulus for recovery was focussed more on direct demand creation rather than on supply side easing of liquidity

constraints. Yet it was ready to use monetary policy when the additional demand for credit started to be discernable following growth in aggregate demand.

China's fiscal policy stimulus was 4.5% of GDP which was to the tune of RMB 4.6 trillion. This package of incentives for demand contained larger doses of public investment, significant tax waivers and accelerated disbursements of government dues to citizens and corporates. China also used its monetary policy tools to support easy credit, with large doses of liquidity injection through open market operations and reverse repos. The policy rate was reduced by 50 basis points. Around RMB 1.8 trillion was targeted directly to support the credit needs of manufacturing units producing necessities like food and medical supplies. Unsecured loans were allowed under certain conditions, and banks were allowed a higher tolerance for non-performing assets. China used a judicious mix of fiscal and monetary tools in ensuring that production and employment were minimally affected, especially in sectors like food and medical supplies. In these sectors, demand was not a problem but supply constraints were. Hence, in these sectors monetary policy had a specific role to play. In other cases, the demand stimulus was the main trigger. It may be noted that China was defending itself from a drastic fall in its reputation as a responsible economy after the perception mounted that it had in some way contributed to the global spread of the virus. China was trying to ensure that there was no serious flight of direct foreign investment as a fallout of the trade war with USA.

In India, though the government claimed that its (rather late) stimulus package was worth around 10% of GDP, the direct fiscal demand generating component was only 1.9%. The unspoken fear was that the fiscal deficit would spin out of control leading to a downgraded sovereign rating. Direct support was given to the poorest of the poor in terms of free public distribution of cereals and other food, cooking gas and direct cash transfers. The government also helped the middle class and the well to do through the deferment of tax collections. This has been considered to be too little too late. However, the government expressed a view that cash transfers and tax cuts are not spent, but rather saved for future use. On the monetary policy front, the promise of loans and guarantees on loans was very large, much larger than the fiscal policy package. This was to the tune of 4.9% of GDP in the form of shored up credit lines for the micro, small and medium enterprises (MSMEs). The Reserve Bank of India has, since March 2020, reduced its repo and reverse repo rate by 115 and 155 basis points. It also reduced the cash reserve ratio for banks, along with the liquidity coverage ratio and increased the marginal standing facility.

A moratorium on loan repayment was announced for a total of six months from 1 March 2020 to 31 August 2020. Once the moratorium is lifted, borrowers would have to pay their dues with interest, as well as interest accrued on the late payment. This particular clause has been frowned upon by courts in India. During April 2020, the RBI, along with additional monetary easing, announced a TLTRO-2.0 (funds to be invested in investment grade bonds, commercial paper and non-convertible debentures of NBFCs); special refinance facilities for rural banks, housing finance companies and small and medium-sized enterprises; a temporary reduction of the liquidity coverage ratio (LCR) and restriction on banks from making dividend payments; and a standstill on asset classifications during the loan moratorium period with 10%

provisioning requirement and an extension of the time period for resolution timeline of large accounts under default by 90 days. Clearly, the Indian policy-makers have depended heavily on the supply side through credit flows to stimulate growth and economic activity. The direct demand stimulation has been significantly lower in India as compared to the USA and China. This is well brought out by the latest data on GDP for different countries for the April–June quarter of 2020. While China grew by a paltry 3.2%, India's performance was the worst among the G-20 nations with a contraction of 23.9%. USA was somewhere in between with a contraction of 9.5%.

## 4 The Unfolding Lessons from the Pandemic

The pandemic has forced lifestyle changes on all people. There has been talk of a new normal in the sense that these restrictions such as work from home will remain even after the pandemic is over. The longer the restrictions last and the more prolonged the fear of contracting the disease becomes, human beings will begin to realize important life lessons taught by COVID-19. For instance, the disease caused by the virus found in nature affects all. However, trends show that people with lower incomes and deprived minorities get affected more and are more likely to die from the disease. This means that while all are equal in nature, social hierarchies and inequalities tend to create an unjust distribution of the costs. The pandemic has made people learn to live with much less material goods than what they were used to before the pandemic hit. Of course, the rich would feel the pinch more than the poor in deprivations like not being able to take an international vacation, or go to luxurious restaurants for dinner. The core of this lesson is that consumerism as promoted by the free market economy is largely irrelevant in terms of basic requirements for living. The human ecological footprint has been forced to be reduced with lower movements in international goods and services during the lockdown periods. People also realized that basic needs can be met through local resources to a very large extent: food, shelter and clothing and other necessities of life. There is also a realization that with the lockdown of most economic activities, nature looked rested and rejuvenated. It was clear that human interventions in nature do cause terrible degradations (Dasgupta, 2020). It is also clear that nature can be cleaned up but ethically it cannot be done so with higher unemployment and closures of factories and plants.

There are a number of lessons emerging from governments' reactions in terms of policies and packages to ameliorate the suffering caused by the pandemic. One thing was clear from the responses of all nations is the fact that when pushed to an emergency, the state can dole out cash transfers to poor and adversely affected people without necessarily having a fiscal crisis. Indeed, the actions taken during the pandemic may turn out to be a nascent embryonic pilot project for the introduction of universal basic income in the future.

Two other significant lessons revolve around the importance of healthcare facilities that all citizens can access at reasonable costs, and the ability to have uninterrupted, universally accessible education services. Countries from USA to India have all

experienced a shortage of healthcare infrastructure in terms of equipment, beds, hospitals, paramedical staff, nurses, medicines or doctors. A well-planned healthcare plan at affordable costs is of paramount importance for any caring society. Education is also equally important. In India, for instance, it is well known that access is not universal, and where access can be made, the quality is far below par. During the pandemic, there had to be a quick shift to digital platforms for uninterrupted classes. However, it was found that a significant proportion of children and young students did not have access to the Internet or to smart devices like a cell phone or laptop. A plan for universal education with flexible technologies is needed across the world. The digital platforms provide new challenges to pedagogies and teaching tools. This is true for rich and poor nations alike. The lacunae in health care and education have been very acute and costly.

In the times of what some refer to as de-globalization and a return to trade protection, there is a lesson that even though humans can reduce their ecological footprints quite significantly without many tears, in the realm of ideas and knowledge the global arena is still the most desirable. For instance, medical research on drugs, the search for a vaccine and the analysis of the pandemic data are best shared around the world. Technologies, new ideas and innovations are still inherently goods with global positive externalities. Hence, international cooperation in these fields is vital for benefits to be shared equitably around the world. Also, certain problems like controlling the pandemic, mitigating climate change or increasing the chances of nuclear disarmament can only be carried out through international dialogues and mutual understanding.

Finally, the pandemic is leaving human beings with one important philosophical lesson. The disease affects all of us independent of race, religion or nationality. Identities are irrelevant as far as nature is concerned. In the age of rising authoritarianism and xenophobia, this is important. Religious beliefs have also been hit to the extent that one's belief in God or superhuman powers could not save even priests getting the infection. In fact, governments had to prevent by edict congregation of worshippers in temples, mosques, synagogues and churches.

People have multiple identities, and these are subject to change with changes in the preferences of an individual. One can change one's religion and one's nationality. One can change less important identities too like being someone's partner, or supporting a particular football team or political party. Indeed, in today's world of science, one can change one's gender too. However, one identity is immutable as long as one is alive is that of being a human being. This is very evident when one looks at the world of medical science. There is no separate diagnosis or treatment for a Dalit and a Brahmin, or black or white individual. This lesson, if learnt well, can ease a lot of tension around the world.

Can these lessons teach us ways of making the post-COVID-19 world a better place or are these lessons mainly transitory, and once the pandemic dies down, will people rapidly return to business as usual of the pre-pandemic days? It is obviously difficult to predict, and the world can turn out to be better in some respects and worse in others. Some social and economic trends may continue while others may get reversed. However, one thing has undoubtedly happened. The barrier to

changing human behavioural patterns has been broken decisively with the advent of the pandemic. It is a hard barrier to crack through policies alone. It is the fear of death and disease that forced the issue. Hence, resetting the world economy and society may not be an impossible task after all.

## 5 Imagining Alternative Futures

The COVID-19 has suddenly exposed the fragility and structural weaknesses of the existing economic system built upon free markets and liberal politics of parliamentary democracy. Some sore spots were already visible before the pandemic as I discussed earlier in the paper. Liberalism was becoming a dirty word in the authoritarian right-wing political lexicon. Free markets and globalization were up for challenge from an inward looking, xenophobic populism that was spreading across the world. The weaknesses exposed were long known in the textbooks of economic development but hardly observed in public policy and the ruling political ideologies of ultra-nationalism and the fear of the immigrant. The stunning inequalities in income and wealth that kept rising beyond imagination, the lack of assured basic health care for most, the poor access and quality of education for the poor and the deprived, the fragility of jobs and incomes, the systematic degradation of the natural environment and the restricted domain of civil rights and liberties all were ignored by policy-makers as an inevitable outcome of market efficiency or at best, a temporary adjustment problem which would disappear if left to itself as the economy continued to grow in terms of GDP.

I have discussed the lessons learnt from COVID-19 and the possibilities. However, it is not clear to what extent societies would be courageous enough to reset the world. Much would depend on the longevity of the virus and the size of the toll it finally takes. On this there could be different combinations of responses by civil society and the state that would determine the broad categories of outcomes. If business and markets are weak and so is the state in terms of governance and regulations, the transition to the post-COVID world would be a chaotic one. If the state is weak but businesses are strong and influential, the outcome will be business as usual. These two outcomes are likely to be costly and the world would become a worse place in terms of the festering fragilities. One the other hand, a strong state with a weak civil society would mean low rates of growth and economic recovery but potentially leaving the system with a better distribution of goods and services so that the poor are better off. I am using the word potential to flag the fact that a strong state post-COVID could be an authoritarian one and whether that government decides to bring reforms for redistribution or uses force to suppress any civil disturbances is unknown and not easy to predict. Finally, a strong civil society with a strong state could potentially work out a better long-term strategy of inclusive development on the assumption that civil society displays strategic foresight about a more stable world. Once again, under this scenario, it is difficult to predict how things would shape up. The world could be a more difficult place to live in, somewhat of a combination of Huxley's Brave New

World and Orwell's 1984. It could also be a new economy where the prime objective would be to protect human beings and the planet they inhabit with adequate resources and rights for all. This description does not rule out basic changes. One possibility is that a post-COVID chaotic transition actually throws up new rules and norms, and institutions are tweaked to benefit all. It would mean that power structures change with new social classes getting more influence in policy-making and legislation.

Fundamentally, three exhaustive alternatives might emerge from the four combinations I described. First would be a situation where people act as if the pandemic had never happened. The second alternative is the consolidation and comeback of strong authoritarian states whose policies would be hard to predict. The third possibility remains the emergence a newly evolved system where people and the planet could be looked after in a sustainable fashion.

There is a strong possibility of a change in the global food supply chains. The international food market is controlled by a few giant corporations from fields to supermarket shelves. They sell organic and healthy foods at high prices to the rich and sell hamburgers and pizzas and other junk foods at very low prices for the vast majority of poor and even middle-class people. The mantra is that the world needs to produce more for feeding a growing population of 9–10 billion people this century, hence grow more for less value. This has never benefited poor farmers across the world. Now people are much more concerned and aware of healthy food and realized the importance of wellness and immunity. This might help consumers focus more on what they eat and where the food comes from. There is no aggregate shortage of food. The current food availability is said to be enough to feed 12–14 billion people instead of only the 7.5 billion inhabiting the planet today.

One trend will continue from the pre-COVID times, whatever kind of post-COVID world emerges. That trend is the rapid development of biotechnology and nanotechnology. The advent of machine learning and artificial intelligence will be used to do three distinct things. The first will be to restrict wastage and use of energy to ensure that the artifices of the new technology will be environment friendly and energy efficient. The second test of a new technology would be how it can displace human labour, especially repetitive tasks that can be done by robots without failure, at reduced costs and with no errors. The third test would be if the new technology can keep learning and adapting in dynamically changing work environments. These changes are likely to affect the energy sector too. Rapid evolution of battery technologies will allow the transport sector's emissions to be reduced, resulting in a significant improvement of the quality of air one breathes.

The existing trend of these changes can only be accelerated after COVID-19 dies down. New jobs requiring new skills will be required but many older traditional jobs will be lost. These jobs will not be limited to low skilled jobs, but also include high skilled jobs like that of doctors, engineers, project managers, professors and accountants to name only a few. This new world of technology will create new jobs which require accomplished skills in data analysis and keeping data secure, creative content making for new industries like virtual reality and virtual tourism and entertainment. Technological developments described above would also create a very large unemployable class of useless people. How society treats and looks after



this class would determine the quality of life. There would be a strong need to provide some assured basic income to this class.

## 6 Conclusion

This paper discussed the pandemic as a complex environmental shock and the systemic disruptions caused by it. These disruptions are likely to take a heavy toll on economies and societies. The world after COVID would be a different one from the world before COVID. There are possibilities of change for a better, more humane world emerging from the wisdom gathered out of experience (OECD, 2020). The changes could also be for the worse. Some things are almost certain to happen: there will be labour displacing technological changes and the emergence of mass unemployment. Governments are likely to become more authoritarian. The outcomes can be of various kinds; some much better than the others. Much depends on what societies choose. This statement is itself somewhat vacuous at the end of a rather long essay about COVID. However, it must be noted that the sheer possibility of having alternatives and to move for the betterment of the world by leaving old baggage behind is not something that happens often in history. Change is usually incremental and gradual. Periods of rapid disruptions are rare and revolutionary. The COVID moment is one such exceptional instance in human history. Liberalism is on its way out since it is no longer able to solve the world's problems. There is no alternative at the moment. The struggle to find an alternative to it will continue. It is likely to result in a conflict between the agency of human beings seeking to build their own lives and the powers seeking a return to a promised but non-existent golden past, by consolidating tyrannical forces of control and suppression. It will not be a classical class conflict under capitalism. Nonetheless, it would be a widespread and complex social upheaval.<sup>1</sup>

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<sup>1</sup>I have extensively used news reports from a variety of publications, the internet, especially the You-tube, and television. The sources are too numerous to record exhaustively. These sources have informed me about news and facts and debates in the course of the pandemic.

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