



# TESTING TIMES IN A GLOBAL PANDEMIC: A NATIONAL STUDY OF INDIA'S TRADE-OFF WITH COVID-19

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## ABSTRACT

*This paper looks upon the status of India's trade-off with the Corona Virus pandemic in areas of health, education, economic participation, and social opportunities. In the process it establishes a comparison between India and the globe on various dimensions and tries to analyze the spill-overs of this global pandemic. Emphasis has been given to the trade off in sectors of Education, Health and Economy, thus giving a detailed account of the overall condition of India and discusses the possible reasons for the results obtained. The paper focuses on how these impending times have proven to be positive spill over's.*

**KEY WORDS**– Corona Virus, Pandemic, Economy, Health, Technology, Environment, SDG.

## INTRODUCTION

Corona virus disease (COVID-19) is an infectious disease caused by a newly discovered Corona Virus. Corona viruses are single-stranded RNA viruses, about 120 nanometres in diameter. They are susceptible to mutation and recombination and are therefore highly diverse. There are about 40 different varieties, and they mainly infect human and non-human mammals and birds. They reside in bats and wild birds, and can spread to other animals and hence to humans. [1]. This paper focuses on status of India's trade-off with the Corona Virus pandemic in areas of health, education, economic participation, and social opportunities. In December, 2019, a series of

pneumonia cases of unknown cause emerged in Wuhan, Hubei, China, with clinical presentations greatly resembling viral pneumonia. [2]. The COVID-19 is believed to incur other health problems such as pneumonia and acute respiratory distress syndrome (ARDS). While reporting the data of fatalities done due to COVID-19, the countries are asked to follow the 'cause of death' classifications from the WHO's International Classification of Diseases guidelines. These guidelines state that if the government suspects that COVID-19 played a role in an individual's death then it should be properly specified on the death certificate. Corona Virus disease 2019 (COVID-19) is defined as illness caused by a Novel Corona Virus now called severe acute respiratory syndrome Corona Virus -2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China.[3]. It was initially reported to the WHO on December 31, 2019. On January 30, 2020, the WHO declared the COVID-19 outbreak a global health emergency. [4].

## **OBJECTIVES**

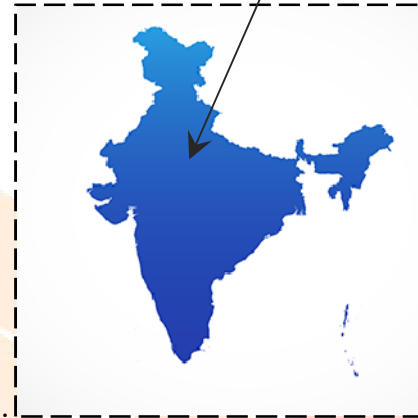
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1. To review the status of India's trade-off with the global crisis of COVID-19.
2. To review the status of impact of COVID-19 on the Economy and various other sectors in India.
3. To review the status of impact of COVID-19 on the Environmental health of India
4. To review the potential solutions and takeaways to and from the COVID-19, respectively.

## **STUDY REGION**

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This paper looks into the status of India's trade-off with Corona Virus pandemic in areas of health, education, economic participation, and social opportunities. The Republic of India is a country in South Asia. It is the seventh-largest country by area, the second-most populous country, and the most populous democracy in the world. Bounded by the Indian Ocean on the south, the Arabian Sea on the southwest, and the Bay of Bengal on the southeast, it shares land borders with Pakistan to the west; China, Nepal, and Bhutan to the north; and Bangladesh and Myanmar to the east. In the Indian Ocean, India is in the vicinity of Sri Lanka and the Maldives; its Andaman and Nicobar Islands share a maritime border with Thailand and Indonesia. India's population stands at 1,210,854,977 persons with the Male population of 623,724,568 and Female population of 586,469,294. It has a density of population equal to 382. There are 28 States and 8 Union territories with 726 Districts and 650,244 Villages in India.



The present study is an attempt to discuss the status of India's trade-off with global catastrophe of Corona Virus (COVID-19). In this study paper, secondary data has been taken into consideration from World Health Organisation (2020), Ministry of Health and Family Welfare, Govt. of India (2020), European Centre for Disease Prevention and Control (2020), United Nations Department of Economic and Social Affairs, The International Monetary Fund (IMF), RoboBank Financial Services Company, The Ministry of Statistics and Programme Implementation(MoSPI), Ministry of Commerce. The primary data has been collected through various questionnaires performed for the local people of Bhilwara District of Rajasthan with the use of online video conferencing. The stratified method was used for questionnaires. Statistical methods were used for the determination of the impact of Corona Virus in areas of health, education, economic participation, and social opportunities.

## ANALYSIS AND INTERPRETATION

### INDIA'S POSITION IN THE GLOBAL PANDEMIC

*India stands along with 17 countries having more than 14000 cases of COVID- 19. A global comparison shows that India is somewhere in the middle of the 9<sup>th</sup> highest CFR.*

The fatality rate in Russia stands at 0.82 percent, followed by the US at 1.45%.

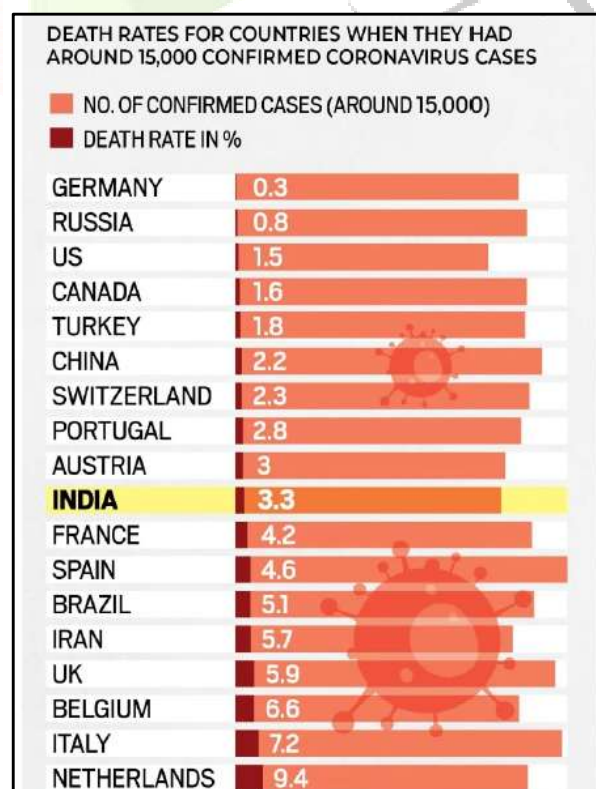
China (2.1%) was followed by Switzerland at 2.25% and Austria with 2.9%.

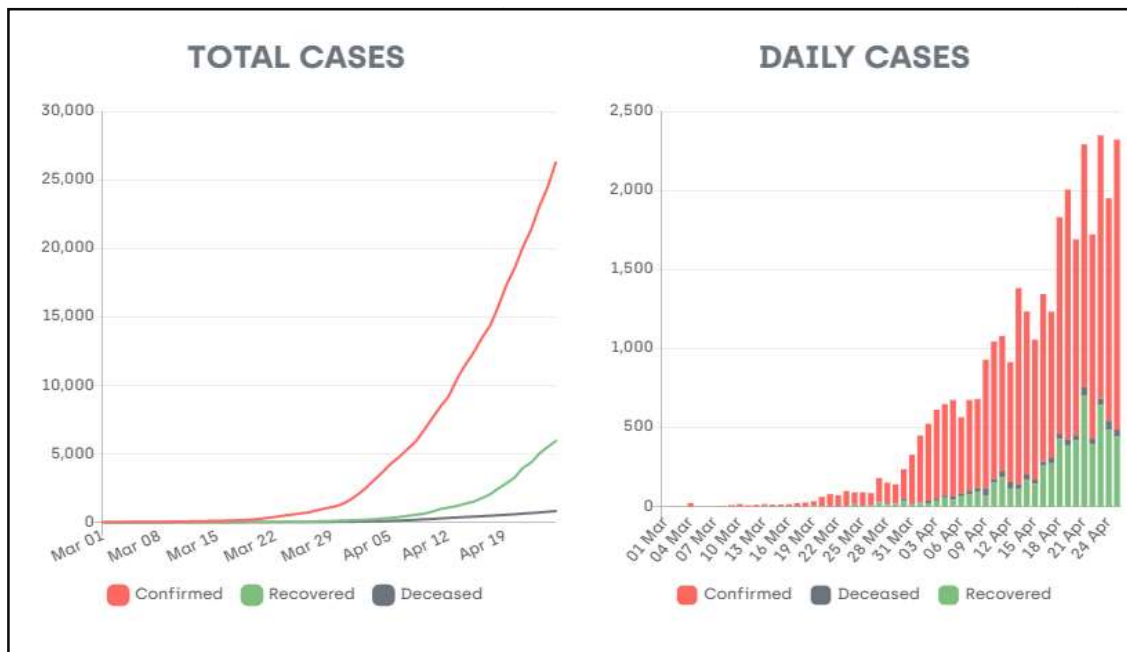
India stood at 3.3% followed by the countries of CFR greater than 4%.

The recovered people percentage puts India in a much better position as compared to many other developed nations. Austria had a recovery rate of 70%. Iran stood at 30% followed by Canada at 19%.

The fatality rates and the recovery data coming from a global pandemic may be tricky and not much reliable as the rate of the diffusion of the virus is highly unpredictable.

**Source: Ministry of Health and Family Welfare, Govt. of India**

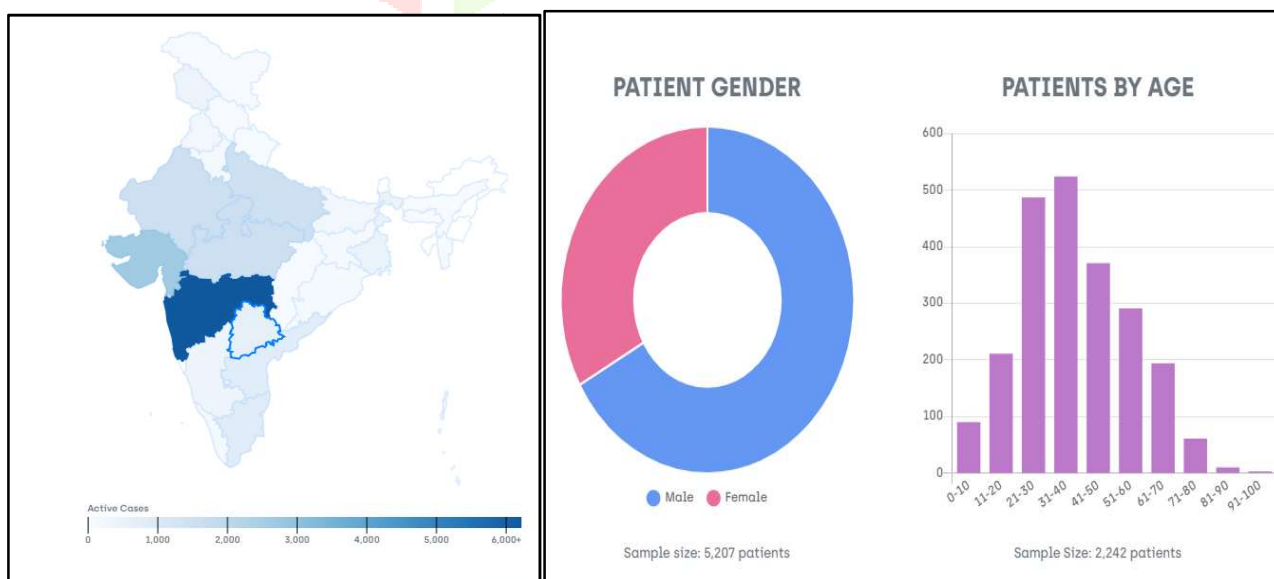




**Source: Ministry of Health and Family Welfare, Govt. of India.**

As on the 22<sup>nd</sup> of April, in India, there were as many as 21,372 confirmed cases consisting of 16,321 active cases, 4370 recoveries, and 681 fatalities. The above line graph of the total cases in India consists of three parameters. 1. Number of confirmed cases, 2. Number of Recovered persons. 3. Number of deaths due to the Corona Virus. The line of number of confirmed cases shows a parabolic path with an elevated head. The line of number of Recovered persons also shows a parabolic path with an elevated head. The line of number of deaths due to the Corona Virus reflects a linear line with a little elevation. The other bar graph shows the Number of daily increase in the cases. This graph consists of 3 parameters. 1. Number of daily confirmed cases, 2. Number of daily Recovered persons. 3. Number of daily deaths due to the Corona Virus.

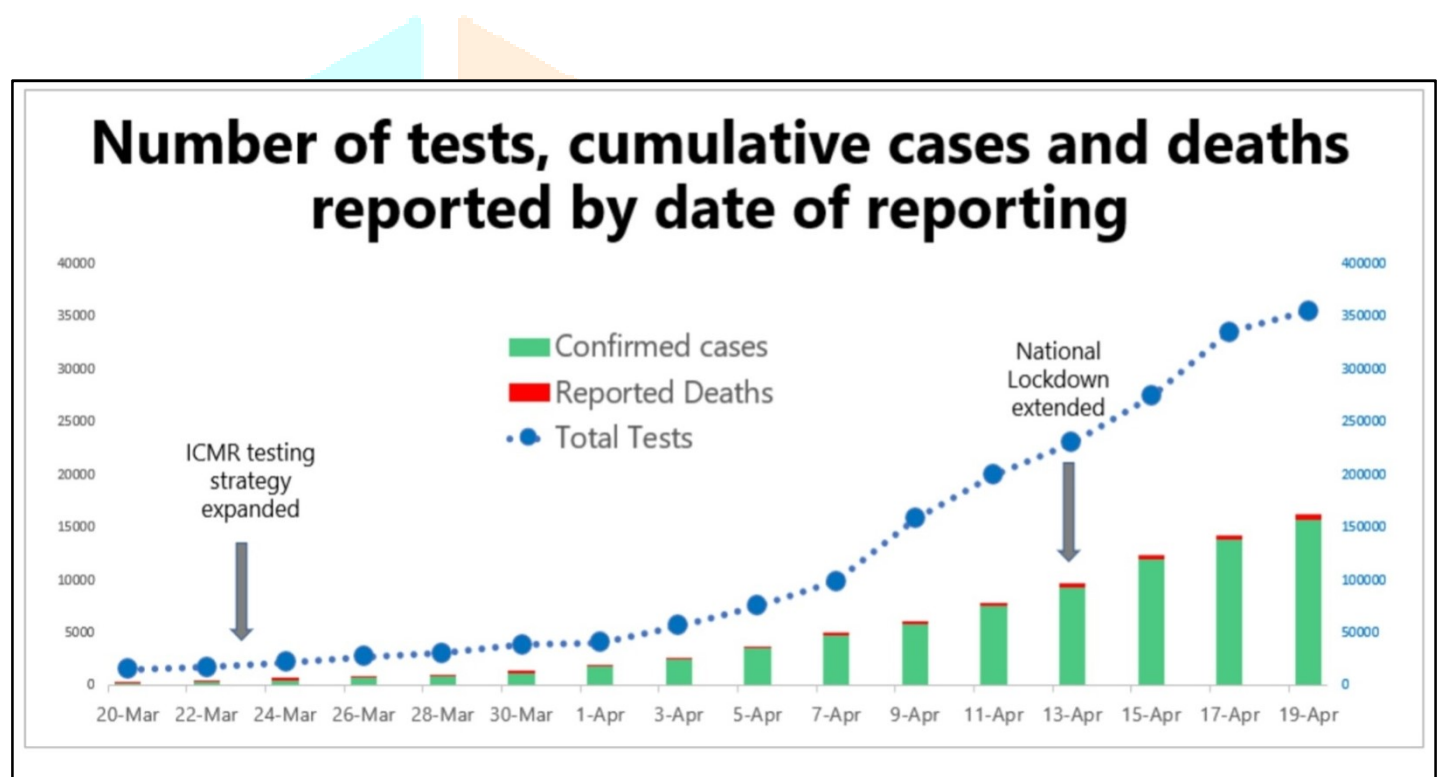
**ACTIVE CASES IN INDIA AND THEIR PROPORTION BY GENDER AND AGE GROUP**



**Source: Ministry of Health and Family Welfare, Govt. of India.**

The above charts show the data for the active cases in India and their proportion by gender and age groups. In a sample survey of 5207 patients, it was found that out of 5207, 1726 patients were females making it 33.1% of the total, whereas 3481 patients were males, i.e. 66.9% of the total.

For the age wise proportion of the number of cases, the sample was done for 2242 patients. The highest proportion of the number of cases was found to be in the age group of 31-40 years (524 cases out of 2242 total cases). The lowest proportion of the number of cases was in age group of 91-100 years (03 cases out of 2242 total cases) followed by 81-90 years group (10 cases out of 2242 total cases).



Source: Ministry of Health and Family Welfare, Govt. of India.

The COVID-19 is believed to incur other health problems such as pneumonia and acute respiratory distress syndrome (ARDS).

While reporting the data of fatalities done due to COVID-19, the countries are asked to follow the 'cause of death' classifications from the WHO's International Classification of Diseases guidelines.

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## *Trade-Off Analysis*

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### ECONOMY

The Indian economy have had experienced slowdown in the past few quarters. The economy grew at a six-year low rate of 4.7% in the third quarter of the current fiscal year.

The new Corona Virus global pandemic has made the recovery extremely difficult. The virus has presented new challenges for the Indian economy impacting both demand and supply side.

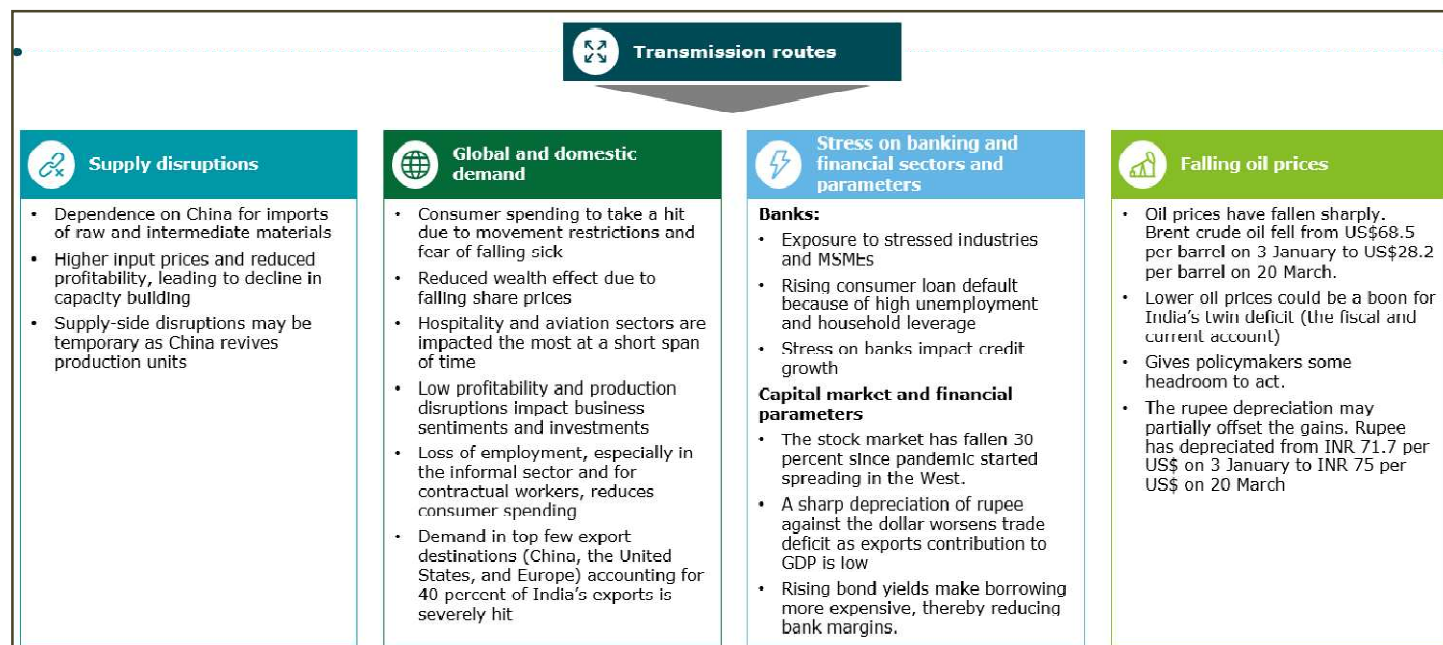
Rabobank has been cited in the media as saying that global recession now is all but certain. It has predicted global GDP growth to be 1.6% for 2020, a figure that was 2.9% the last year, as per IMF estimates.

**Impact on the Demand Side**- Sectors facing the maximum brunt of this global crisis includes Tourism, Hospitality and Aviation. Decline in the footfall has affected the retail. Job losses and decline in income levels has impacted the consumption.

**Impact on the Supply Side** – Due to the ongoing nationwide lockdown, many Indian manufacturing sectors which source their intermediate and final product requirements from China have been badly affected due to the the shutdown of factories and the delay in supply of goods from China.

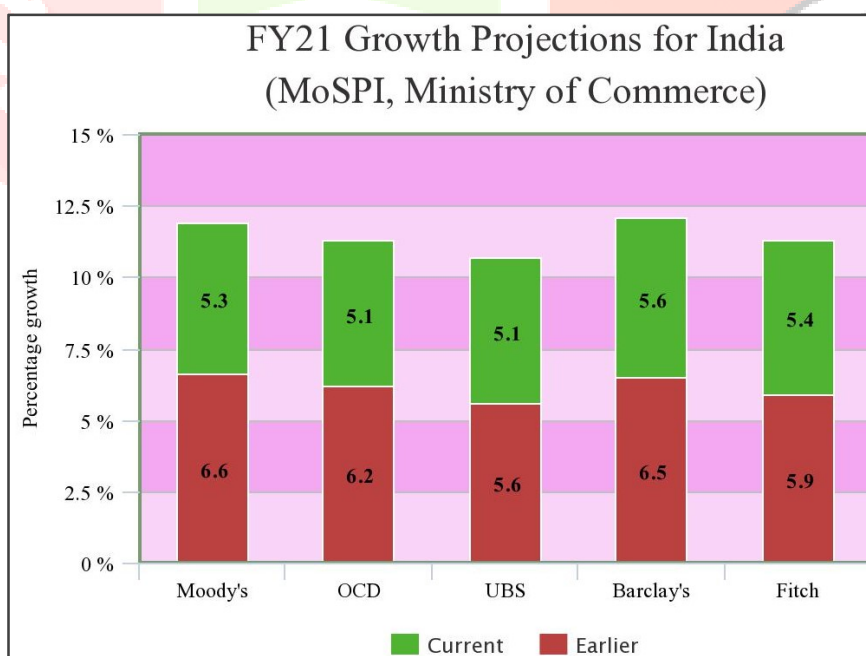
Other sectors such as the automobiles sector, pharmaceuticals sector, electronics sector, chemical products sector, are facing shortages of the raw material and components. In addition to this, India is also facing a negative side on imports of important raw materials and products to the other markets of Asia, Europe and the US.

**Impact on International Trade** - Indian products like petrochemicals, seafood, gems and jewellery which have their major exports to China, are being the worst hit due to the Corona Virus outbreak. India exports around 36% of its diamonds and 34% of its petrochemicals to China.



Source: MoSPI, Ministry of Commerce.

The businesses and people are facing huge challenges and as a consequence of which the Indian economy is most likely to follow a slow growth during the last quarter of the current fiscal year. Many of the multilateral agencies and credit rating agencies have revised their growth projections for India for the FY 2020-21. Below are the estimates, both earlier and the revised ones.

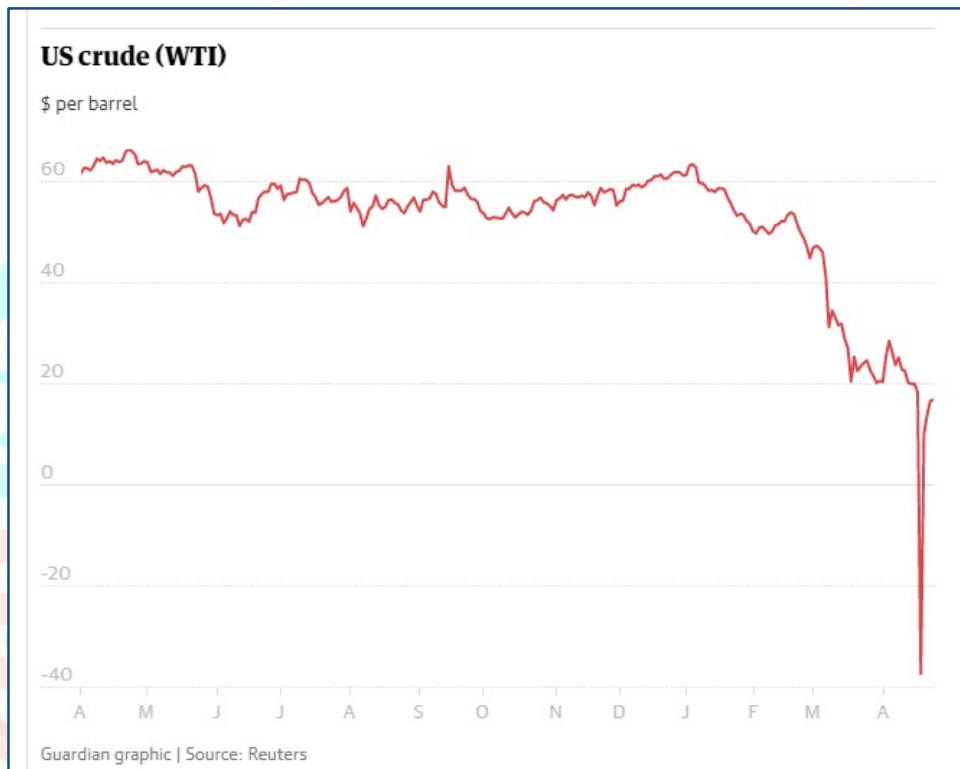


Source: MoSPI, Ministry of Commerce.



## Oil Crisis-

A rare index to measure the magnitude of this global paralysis is worsening effect of Corona Virus on energy markets. With a sharp fall in demand in China, cargoes are forced to get stranded off the country's coast. Such low demand is shippers to seek out towards other Asian destinations. This map below shows tankers stranded around the world due to low demand. With the value of oil goes as low as zero (see graph below), it is still costing about \$30,000 a day for keeping the oil tankers in these detained conditions. Reports suggest that the onshore stores of various countries are also at full capacity as there is no one to buy. With a global crisis in place, the oil is trapped on the surface of the oceans within the tankers.



## 2. ENVIRONMENT

The world is witnessing an all time low because of the Corona Virus pandemic. With a considerable amount of global population under lockdown, it has caused a lot of damage to the human systems. On the other side of the half dozen, it has given a huge opportunity to the global environment to take a sigh of relief and heal itself in such uncertain chaos.

One of the major concerns globally has been the Climate Change and Environmental deterioration. The global commitments have not been able to tackle the above concerns due to lack of integrated will to take drastic actions to cut the emissions down.

The COVID – 19 lockdowns have shown some positive changes experienced by the environment and biodiversity.

### **Clean Air**

With temporary shutdown of many industries and office, there has been an appreciable improvement in air quality across the world. As per a research done by Columbia University, carbon monoxide and carbon-dioxide emissions were fallen by around 50 per cent and 10 per cent, respectively, in New York City in the USA. The amount of nitrogen dioxide also dropped by 36 per cent, globally.

India has been no exception to this. Various reports claimed that people living in northern Punjab have been able to view the Himalayas from their rooftops. The PM 2.5 and the Nitrous Oxide pollution levels have been the lowest in the capital city of New Delhi due to the reduced industrial activity.

### **Clean Water**

River Yamuna, listed among the world's most polluted rivers, has started to clean itself, as industries in Haryana and Delhi are not being able to draw water from Yamuna River. This has also been favourable in allowing the river to rejuvenate and clean itself. Thus, it has also led to the return of Birds to the river which shows positive signs of restoration of the rivers biodiversity.

### **Thriving Biodiversity**

The wildlife across the world is busy reclaiming their areas during the lockdown. With an absolute absence of people and traffic on the roads, the lockdown has allowed them to move out in the city regions. India, across the country has experienced various birds and animals on the empty streets.

The marine life has been no exception to this beautification because of reduced water pollution. Several dolphins were seen swimming and playing near Mumbai sea shore as there were no fishing activities happening. One of the most fascinating observations was the return of the Olive Ridley turtles to lay eggs in Odisha's Gahirmatha coast and Rushikulya's rookery.

This is high time that we all must understand and take necessary measures to ensure that the environment and biodiversity is maintained and human activities should not become a hindrance for environmental sustainability.

### **3. POSITIVE SPILLOVERS**

#### **1. Reorienting our relationships with the outside world.**

With a global crisis in place, we are heading towards a new way of living. Awareness towards hygiene as touching things and other people be risky has been widely acknowledged. It has become our second nature to recoil from shaking hands or touching our faces and maintaining our personal hygiene. The luxury of being in the presence of others is gradually being replaced by a greater comfort with absence. People trapped in busy schedules, making ends meet, & urgent meetings have now regained the real and genuine moments with their loved ones. With a nationwide lockdown people are getting time with their families and are busy reconnecting their own selves in a better way. As we are fighting this battle as a community, it has made us care about how important our family and loved ones are and thus we are finding new ways to stay connected to them.

#### **2. Technological Spill-overs.**

With social distancing on demand, India is heading towards ratcheting up the paradox of online communication. Online platforms were earlier referred to as tool which creates more distance, but now they are creating more connections. We are communicating with people who are physically farther away. The current global crisis of COVID-19 will help us in sweeping away the artificial barriers to moving our lives towards online platforms. Though not everything can become virtual but we can always uptake on genuinely useful online tool. There are various companies and outlets that have gone entirely with little to zero physical offices at all. With cities locked under the national lockdown, companies and organizations across the India had to make this mandatory shift towards this realm of working remotely. People are changing their mindsets by asking for more and more reliance on these online platforms. Schools and Universities are taking the institutions to the virtual platforms thus making it very convenient for remotely located teachers and students to easily access all the required resources. This crisis can be proven as a boon to DIGITAL INDIA program, with more and more people relying on the authenticity of online transactions. Couples are live-streaming their weddings under the lockdown: reports show that couples from all over the world are stripping down their big fat weddings.

#### **3. Equated Patriotism and Acknowledgement.**

The crisis has taught us the lessons of gratitude and acknowledgement towards our real frontline heroes fighting against Corona Virus. These heroes are not the conscripts, mercenaries or enlisted men but they are our doctors, nurses, pharmacists staff, teachers, policemen, caregivers, utility workers, small-business owners, store clerks and, employees.

We are recognizing their sacrifice as true patriotism by saluting our doctors and nurses. People will finally start to understand that true patriotism is all about cultivating the health and life of your community. The government

is also doing the needy by passing The Epidemic Diseases (Amendment) Ordinance, 2020 which for allows and aims at protecting doctors and healthcare professionals against any kind of violence during health crises such as the COVID-19.

#### **4. De-escalating Political and Cultural Polarization.**

The Corona Virus pandemic is providing us a great opportunity of deescalating the political and cultural polarization we have been trapped in by changing our course towards greater national solidarity and functionality.

This common enemy has forced people to begin to look past their differences and allow for a singularity of purpose to help us as this virus didn't distinguish between reds and blues. The true potentials of altruism, compassion and generosity can help us easily combat this global enemy. We need to look beyond our personal agendas and work community building.

#### **5. Luxury and the fundamentally unserious.**

The pandemic has shown all of its grey sides. The countries which topped the lists in health care potentials are facing the failure to contain the virus. Countries of western Europe and the US which were awarded with the luxury of huge economies, affluences and high levels of consumer technologies are finding it difficult to scramble to save their own people. This all signifies the unserious way in which the first world countries handled the crisis leading to over 190000 fatalities worldwide.

#### **6. Advancing towards the Real Smart Cities.**

The Corona Virus pandemic has revealed the loop holes in our healthcare infrastructure, and planning, as millions of families are navigating the crisis without a safety net. The real need lies in abiding by the National Smart City Mission which provides for proper sanitation, including solid waste management, efficient urban mobility, robust IT connectivity and digitalization, e-Governance and citizen participation, sustainable environment, safety and security of citizens, and proper focus on health and education. This pandemic has attributed for cleanliness drives, proper urban waste management.

#### **7. A boon to Virtual Reality.**

With COVID-19 in place, we all are feeling isolated or alone. Virtual Reality can be a better option which allows us to have all the experiences which otherwise we may miss. Maybe that will be how we adapt and stay safe in the next outbreak. New researches have highlighted that the virtual reality could help ease the burden of the Corona Virus crisis.

Social quarantine and isolations may have a huge psychological impact. Researchers suggest that virtual reality can help alleviate the stresses in the Corona Virus crisis.

## **8. The Rise of Telemedicine.**

The global crisis of Corona Virus has shown the potential of making a paradigm shift in the way our healthcare delivery takes place. Telemedicine has for long being lingered on the sidelines as it was considered a cost-controlling, high convenience system. With necessities in place telemedicine remote office visits could shoot up in popularity as traditional and general care settings are overwhelmed by the pandemic. This shift will also help in containment-related benefits as staying home and attending medical care on a proper video call keeps you out of the transit system, thus, keeping you safe.

## **9. Traditional is the new Modern.**

With the pandemic, the mindsets have changed, and people are now privy to how essential it is to keep yourself clean. As social animals, people are bound to be related with everyone around. That's not going to have any alternate; however these current times have made us all aware of a way to do that in a better way and more hygienically. From shaking hands to namaste, all of us have had a lifestyle change for the better. We're going to bear in mind to cover our mouths while we cough, and to sanitize our hands after touching. In the wake of the Covid 19 outbreak, entire mankind across the globe is suffering. Enhancing the body's natural defence system (immunity) plays an important role in maintaining optimum health. We all know that prevention is better than cure. While there is no medicine for COVID-19 as of now, it will be good to take preventive measures which boost our immunity in these times. Ayurveda, being the science of life, propagates the gifts of nature in maintaining healthy and happy living. Ayurveda's extensive knowledge base on preventive care derives from the concepts of "Dinacharya" - daily regimes and "Ritucharya" - seasonal regimes to maintain healthy life. It is a plant-based science. The simplicity of awareness about oneself and the harmony each individual can achieve by uplifting and maintaining his or her immunity is emphasized across Ayurveda's classical scriptures. Ministry of AYUSH recommended several self-care guidelines for preventive health measures and boosting immunity with special reference to respiratory health. These are supported by Ayurvedic literature and scientific publications.

## **10. Civic Federalism.**

The global crisis of Corona Virus has helped in the rise of a new civic federalism. In the face of this unprecedented challenge the States and localities are turning into the centres of justice, solidarity and far-sighted democratic problem-solving. Pondering over the current crisis we get to know that some communities have handled the crisis much better than others. Successful models reflect the joint efforts of the government, civic and private-sector leaders who joined their strengths together with a true spirit of self-sacrifice for the common good.

A good proportion of fabric of some communities have fostered the responsibility and have shown immense altruism for millions of ordinary citizens who stayed in their homes. The Corona Virus is an urgent and serious challenge to humanity. Therefore there is a need to harness a new sense of solidarity.

## 11. Birth of domestic supply chains.

The Corona Virus pandemic has successfully created a pressure on corporations to weigh the efficiency and benefits of a globalised supply chain system against the robustness of a national domestic-based supply chain. Thus, there is a need to switch to a more robust domestic supply chain which would potentially reduce our dependence on a fractured global supply system. This shift will better ensure that people get the goods they need.

## 12. Transmogrifying the SDG's into a reality.



The pandemic has exposed some of the fundamental weaknesses in our global system. It has shown in every term as how the prevalence of poverty along with weak health systems, lack of education, and absence of global cooperation can intensify the global crisis.

With the world facing absolute common challenges, it has brought us to the urgent need for common global solutions. Leaders around the globe need to make efforts in meeting people's basic needs, and building a fairer and resilient world. It is times like this when the importance of the Sustainable Development Goals (SDGs) comes into the mainstream, the global blueprint to end poverty, protect our planet and ensure prosperity, are all about. Paralysed in the crisis, the world is making efforts to contain the spread of the virus. It is high time that the countries should start resetting their priorities, and reallocate their resources in order to work towards to global goals of SDGs.

The response to the pandemic should be directly be linked to the SDGs as achieving the SDGs will put us on a better and firm path to deal with global health crisis and the emerging infectious diseases. SDGs like the SDG 3 (Good Health) will allow the strengthening of the capacity of countries for early warning, risk minimization, and management of local, national, and global health risks.

## ***DEGREE OF SAPIENCE***

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COVID-19 is a wake-up call for the postmodern world moving swiftly into the uncertainties of time. In line with the adage “every problem is an opportunity in disguise”, the present dramatic scenario of pandemic proportions spotlights the relevance of Mahatma Gandhi’s clarion call (articulated in his 1909-manifesto Hind Swaraj) to extricate ourselves from the mesmerisation of modernity.

With modernity’s shining gloss getting unmasked as a deceptive mirage, it is dawning on us that our globalised lifestyle has made us weaker than ever (from a Gandhian perspective morally as well as physically).

Admittedly, free trade, cheaper flights and social media have brought us closer than ever, but they are also making us more vulnerable. What is more, mass hysteria is on the rise as rumours and fake news are spreading faster than the virus.

### **What can we learn from Gandhiji’s teachings?**

1. Gandhiji’s forebodings should summon us to urgently adopt a new mindset.
2. Guided by his inspirational example, we are called upon to chart out a viable alternative model of polity that could extricate us from the contemporary impasse.
3. His roadmap of integrating economics, politics and technology with ethics (all the while foregrounding the Daridranarayan’s well-being) can function as our sheet anchor in these precarious times.
4. The Gandhian principles of swadeshi, swachhata and sarvodaya should be our guidelines.
5. Rather than indulging in a globalised lifestyle, we should endeavour to respond to Gandhiji’s call for putting into practice a unique variant of “glocalisation”.

## ***EXCEPTIONAL ROLE MODELS***

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### **1. BHILWARA**

Bhilwara, a town in Rajasthan has offered valuable lessons in the war against covid-19. Recently, Bhilwara was among Rajasthan's worst-hit districts, with 27 cases. However since then no new cases have been reported with 17 being recovered and seven others on the road to recovery. Credit it to a strict lockdown, strategic containment plan, or dedicated healthcare work, the district, till recently an emerging hotspot of Corona Virus infections, has not reported any new Corona Virus infections in the last five days.

Though the national level testing has been considered low but the state government of Rajasthan claimed that it had screened nearly 50 million people, and tested 11.7 million households so far.

In the 1,910 villages in the district, panchayats, panchayat samitis and SDMs and BDOs were involved in tackling COVID-19. As cases have risen all over in the country, no one in Bhilwara has been tested positive since March 30.

The epicentre of the virus was immediately locked along with the buffer zones being turned into 'no-movement' sectors. All traffic was stopped by the administration and ensured daily disinfection. Absolute screening along with the testing was prioritised for Brijesh Banger Memorial Hospital, (the epicentre of the outbreak). No one was allowed to move out of their houses. The administration took upon itself to deliver essentials like the food items, rations and medicines.

The containment model of Bhilwara worked in several phases.

- > **Isolating the district.**
- > **Screening strategy in city and rural areas.**
- > **Quarantine and isolation wards.**
- > **Monitoring mechanism for city and rural areas.**

### **2. KERALA**

With the number of COVID-19 infected persons continues to rise all over the country, the state of Kerala is now successfully flattening the curve. Kerala has been able to contain the COVID-19 spread after a huge bumpy start. It was the first state to register COVID-19 case in India. Out of a total 437 cases, 179 have recovered along with 2 deaths.



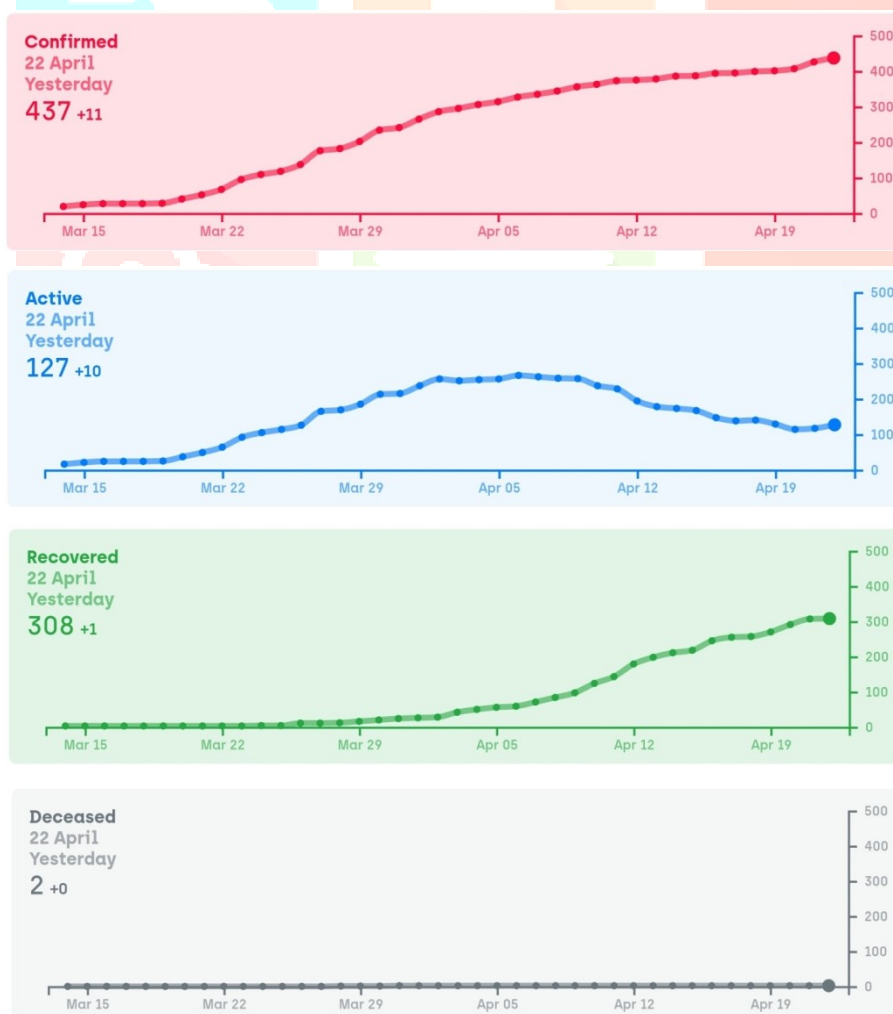
Kerala has done extensive testing of symptomatic cases along with contact-tracing process on a mass level. They prepared the route map of all infected persons with anyone and everyone coming under the potential of being infected was put in self-isolation.

An exceptional inter-departmental coordination at all levels of the hierarchy of administration (state, district and village panchayats) was an excellent motivator for Kerala. A daily address to the public by the Chief Minister established the people's faith in the overall system.

Further, they managed to control the movement of migrant workers. They have built thousands of shelters and have distributed cooked meals to millions.

The state of Kerala was also patrolling its borders, and was screening the entrants with a non-contact infrastructure.

## CONFIRMED, ACTIVE, RECOVERED, AND DECEASED CASES IN KERALA



Source: Ministry of Health and Family Welfare, Govt. of India.

## CONCLUSION

Corona Virus or the COVID-19 has created extraordinary testing times in which we are going through an impending sense of doom and general lack of solidarity. The crisis has revealed the real importance of global unity and how countries should start resetting their priorities, and reallocate their resources in order to work towards to global goals of SDGs. The economic disruptions caused due the crisis can be seen a huge window of opportunities. This could present an unique environmental momentum for action on the climate change. There also lies a big opportunity to create demand for workers, thus, minimizing the national unemployment rate. This is the time where we should preserve our supply chains in agriculture by creating one market for agriculture across India along with intelligent industrial policy making including— incentives, regulatory help, trade policy that can revitalize India's manufacturing potential. The present crisis also creates the momentum to focus on national projects like Make in India which have shown lackadaisical results in the last few years. This pandemic should lead to an absolute strengthening of the health infrastructure of India in order to deal with such pandemics.

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