

## HSNC University, Mumbai



# K.C. College Environment

## <u>Committee</u>

## •Covid-19: Present, Past & Future•

Vol. 10 2019-20 Presented by K.C. College

## From the Principal's Desk



"You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of a difference you want to make."

— Jane Goodall

These powerful words by renowned Anthropologist Jane Goodall, remind us that every action we take whether it is our decision to use more sustainable products or understanding how much waste we generate, has a significant impact on the world around us. Rather than looking outside for large scale change to begin, let us spend some time looking inward, introspecting about our own daily habits and decisions, and thinking of the kind of difference we would like to make on earth- our collective home. Each one of us has the power to make a difference and once people around, see you making that difference, it will trigger a chain of change that can create a powerful impact for the benefit of our planet, helping to make it a safer, cleaner and better place for all living beings.

The Environment Club at K.C. College has been organising a series of lectures, activities and events on different topics related to the environment with its aim of triggering a change in the attitude, behaviour and lifestyle of each one of us in our K.C. family. I am extremely proud of the work done by this team of dedicated faculty and students who continue to motivate us all, with their passion for this very pertinent cause. I congratulate the entire EC Team for launching yet another issue of 'The Environment Space,' and for inspiring us to work together towards nurturing our environment.



### Editorial Team: Faculty

Mrs. Usha Gollakota Dr. Pratiksha Kadam

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## **Editor's Note**

<mark>A Sans</mark>krit subhashitam says, परोपकाराय फलन्ति वृक्षाः, परोपकाराय वहन्ति नद्यः । परोपकाराय दुहन्ति गावः, परोपकारार्थमिदं शरीरम् ॥

This quote articulates "Trees bear fruit for others' sake. Rivers flow for others to use. Cows give milk for all. The purpose of humans is also to serve environment and its beings." But we humans have somewhere forgotten the meaning of true service to our Mother earth. It's our major responsibility to protect the environment where we live, which is always there to give us its bounty. In this Pandemic, we have seen the effect of human recklessness. Along with the Pandemic we've witnessed several natural disasters which have proved to be an eye opener, although we still haven't understood the entire effect of our negligence on the environment.

As individuals we have a few responsibilities towards the environment and we must respect it. Collectively, we can help preventing our environment from further loss by making rational use of natural resources and taking steps to prevent the different types pollution. Humans are one of the species on earth blessed with intelligence and we must utilize this in maintaining the balance of our nature. If this intelligence can be used positively by following the Nature's Rules and understanding the importance of the environment, humans can make wonders. We as a society should introduce affirmative guidelines for continuously improving our environmental performance. Today we have witnessed the cost of Oxygen which was usually offered freely by the trees and hence we never bothered about planting new tress or taking care of the ones already planted. Environment has taught us a lesson now in its own way, and it's high time, we must understand the importance of maintaining harmony with it.

## **Editor's Note**

We, as a part of Environment Committee of K.C. College work to maintain the healthy environment in our college premises and also in society through our various activities. The committee has a strong youth power that works meticulously in organising various programmes and activities that sensitize the society about the environmental issues. Our magazine "The Environmental Space" is one of the initiatives of KC Environment Committee which provide a platform for the youth to create awareness among the society and come up with ideas that can take us a step forward in our path to save our Mother Earth.

This issue of our magazine is based on the special theme - Covid 19: Present, Past And Future. We had conducted Essay Writing competitions and Poster Making Competitions in May 2020 on this theme, for which we received tremendous response. This volume of the magazine is compiled by award winning Essays and Posters presented by the young minds which are responsible citizen and indeed inspiring for others.

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## KCEC Report 19-20

- On 6th June 2019, KC EC organised Tree Plantation Drive. Our Principal Madam, Dr. Hemlata Bagla inaugurated this drive by planting alphonso mango sapling in the college campus. More than hundred tulsi beej balls were made and gifted to staff members of K.C. College.
- The committee released year 2018-19 issue of it's magazine, "The Environmental Space" on 24th October 2019.
- The committee joined hands with the NSS unit of K.C. College for the fundraiser Campaign for Kolhapur and Sangli Flood relief Fund. The committee with 5 student members of KCEC collected Rs. 7000 and handed over to the NSS unit of K C College.
- The committee took pledge on Health Fitness Day with students of Statistics department of K.C. College on 29th August 2019.

- Convenor: Mrs. G<mark>ollakota Usha VVH</mark>

## KCEC Report 19-20





Sylvia Browne, in her 'End of days- 2008' book predicted about COVID-19, saying - "In around 2020 a severe pneumonia like illness will spread throughout the globe"

However, predictions which are based just on mere guess, they are more to be termed as subjective to be bias based on one's own judgement. They may get right just by fluke, but nothing can beat future predictions which are backed up by Data, Analysis and Interpretation.

The golden rule about Past – Present – Future is that, Past is to learn from, Present is to practice, and Future is to excel!

Corona virus is not new to us, it has a history since 1989, emerged as SARS, and declared as epidemic in China from 2002 to 2004, having a total of 8096 no. of affected people with 774 deaths. Later in the new form of MERS in 2012, and in 2019 as we are facing a pandemic of COVID-19 with 5,204,508 affected, 3,37,687 deaths around the world and still counting! The challenge here is that the characteristics of COVID-19 do not align with the family which is "Not to kill, but sicken". The genetic prototype of the virus is such that it mutates in a very fast manner, leaving us behind to track down its properties.



The virus is thus affecting people at an exponential rate. Noteworthy difference between the past and the current outbreak situations should be taken under consideration like the type of virus, the means through which it spreads, parts of body it affects, and the treatment approach, etc. from the perspective of discovering an antidote.

For example - Ebola a Zoonotic virus; Cholera, spread through contaminated water, food, etc.; Flu in categories of H1N1 (swine flu), H3N2, the Spanish flu, leading to respiratory diseases. On similar lines of flu, we have Corona virus with categories SARS, MERS and Covid-19 spreading widely through Human contact and Social Distancing being a greatest measure practiced to contain the spread in the past.

Such out-breaks have had devastating effects on Human Kind! But more effectively each of it has made us equipped with better strategies for facing the future outbreaks.

Data has become the life blood of decision making and the raw material for accountability. Record of past and present data takes a step ahead in fighting with many other similar diseases.

When it comes to Disaster Management 'Data-to-Everything' helps us remove the barrier between inaction and action, so we can turn real time data from countless sources across various dimensions into positive outcome.



For an instance, States like Odisha, Kerala Tamil Nadu face natural disasters like floods and cyclones on yearly basis. 20 years ago a super cyclone hit the state of Odisha resulting in more than 10000 deaths and 25 lakhs of people being homeless and stranded due to water logging. Plus an extensive destruction of infrastructure. But recently in 2019, when a cyclone Fani of same severity hit Odisha only 64 casualties were recorded. Community preparedness with the help of strategic planning is a key feature in Odisha.

Another Classic example for learning from past would be of Kerala; After successfully defeating the Nipah virus in 2018, Kerala has utilized that experience to contain the COVID-19 spread. Strong community network along with strong local governance mechanisms also proved significant. Long term investment into its Healthcare System, efficiently working - PHC's (Primary Health Care Centres) and frontline workers have been a great asset in dealing with COVID-19. The whole act of assessing any future Disaster Risks of epidemic or natural calamity can be managed by visualising the risk early enough, designing a plan of action, effectively implementing and responding to the situation and developing strategies to recover from the loss being faced! Use of advanced technologies of 21st century have definitely helped to make data enabled learning much more powerful and overcome the short comings from the past.

"Nothing in life is to be feared, it is only to be understood and present is the time to understand more so that we may fear less". - Marie Curie

What we are facing today is, massive shutdown, collapsed economies, hospitals are built overnight all because of the emergence of – "Novel" Corona Virus. The Novel word suggests "New and different". A crisis like never before.

People are getting infected at an exponential rate across the world and there is no definite vaccine against this virus. For a country like India the number one priority remains to be containment strategy. The obvious reason is being the second largest populous country with population size of 1.3 billion.

The lack of medical facilities to grass root level, suggests "Suppression is lot more powerful than treatment." The suppression will buy us some time so that the government can analyse and be prepared for the future of COVID-19 until the vaccine is discovered.

The plot clearly shows state-wise population in India is varied across and is a lot more than the number of hospital beds available. To tackle such a problem the 5 P's adopted by India for handling current situation are-

- 1. Proof of Concept with social experiment:-
  - An appeal to the public to follow a 'Janta Curfew' prior to announcing lockdown making them aware about it, and identifying pattern of response to lockdown before implementation.
- 2. Proactive Approach:-
  - Effective immediate awareness about the means of spread of virus and prevention methods broadcasted by media and to individual level using telephonic or cellular approach.
  - Implementing the lockdown area wise and contact tracking in order to prevent further spread of disease.



- 3. People Management:-
  - To avoid panic amongst citizens' innovative ideas of clapping and supporting medical staff, lighting of Diya in hope of better days, Broadcasting shows like Ramayana and Mahabharata, to keep the spirit of people alive and make them hold on to staying home and staying safe.
- 4. Partnership:-
  - The work on vaccine, rapid testing kits and research is vigorously in action in various parts of world. The idea of competing is kept aside and all of them are collaboratively working and sharing information about the discoveries so as to quickly come up with the vaccination.
- 5. Preparation and collaboration:-
  - Providing the people with daily essentials, setting up local markets under norms of social distance, medical facilities etc.
  - Making arrangements for Quarantine centres and beds for future containment; every village now has turned the local school and hospital, or any available space into well-equipped quarantine centre.



This kind of strategy making is only possible if the government has data insights. Big Data with Government can be a boon for governance, Public habits can be studied and policies can be framed in line with the need of hour. Even the Sustainable Development Goals (SDGs) targeted to emphasize- "Increase significantly the availability of high quality timely and reliable data disaggregated by income, gender, race, ethnicity, geographic location, and other characteristics relevant in national context." But Critical data for global regional and national development and policy making is still lacking, we still don't have access to adequate data on the entire population. For instance, an accurate data on Migrant workers would have made implementation of lockdown more effective. It is essential to keep in mind the four components that are very essential for analytics. 1. Data Pipeline:-

Semi-automated process that gathers, cleans, integrates, and safeguards data in a systematic, sustainable and a scalable way.

2. Algorithms:-

To generate predictions about future states or actions of business and economy

3. Experimentation:-

Hypothesis regarding new algorithms to be tested to ensure that their suggestions are having the intended effects.

4. Infrastructure:-

The systems that embed this process in software and connect it to internal and external users.

Today, we have the "Arogya Setu" - Mobile Application for the citizens to enable them in assessing the risk of catching the coronavirus infection, designed in 11 languages.

The application provides us with the number of infected and identified people within 500m range of our current location. Other than tracking and providing real time data to government as well as individuals, the application is an excellent platform for disseminating authentic information to common man.

Furthermore, GIS mapping of positive confirmed cases, identification of active interventions areas, use of heat mapping and predictive data analysis are being used for monitoring implementation of containment plans.

The SIRD (Susceptible, Infected, Recovered, and Death) model is actively being used for predictive modelling. Taking the global and Indian data into consideration, a well layout of predictive model can be laid, which will intern help in making strategies.

Also we must not ignore the asymptomatic cases- as per ICMR (Indian Council for Medical Research), around 80% patients are silent spreaders, which spark the concern of new cases and spread of virus, even after the curve has been flattened. Various studies have highlighted spread by invisible sources as a fresh challenge in the fight against Covid-19.

This is why we need to experiment and add new dimensions to the model. Social Distancing Factor (SDF), Susceptibility Factor (SF), Travel Influx Data are currently added to SIRD model, which supposedly affect the spread of the virus.



This entire structured data analytics has helped us in. All of this highlights that decisions and their enforceability will decide our future. Till now the focus has been on lockdown, quarantine, protective measures of using masks as an effort to reduce social interaction and thus flatten the curve. However, India has to now focus also on bending the curve. For this, India is focusing on optimal testing and tracing.

We must go beyond intuition, hopes and theoretical suggestions for decision making in times of such pandemic with scattered sources of information. We need to rely on robust data for decision making. Such robust data must be a combination of datasets involving range of local and global information.

Though Integrated Disease Surveillance Programme (IDSP) acts as India's first line of defence against epidemics and it continues to struggle for manpower and resources. It has failed to create a robust and decentralized data collection system involving the district health system across states. Because the cases of death outside hospital are not registered.

Additionally, India lacks the usage of new technologies like Artificial Intelligence, Machine Learning, which can make clinical and diagnostics decision-making more robust, i.e. less error-prone, quicker, evidence-driven, and free of judgement and experience bias.

Identifying	Predicting and Planning	Taking Multi-layered decisions for
• Pattern of spread of the virus	<ul> <li>Lockdown enforceability</li> <li>Medical facilities,</li> </ul>	Optimizing the use of government resources
<ul> <li>Asymptomatic and True cases</li> </ul>	resources and infrastructure availability	Minimizing negative     impact on economy
Hotspots like Dharavi, Nizamuddin.	Long term policies	<ul> <li>Preventing rebound of the virus spread during withdrawal</li> </ul>
	• Budget	of lockdowns

To take ideas of development and rise above these problems -various online competitions are organised wherein student's involvement is taken for bringing up solutions:

Hack the Crisis – India- an Online Hackathon to find working solutions for overcoming COVID 19 pandemic.

Challenge Covid-19 Competition (C3) - It has been launched by the National Innovation Foundation (NIF) inviting innovative citizens in it.

Ministry of Human Resource Development - MHRD's – Mega Online challenge 'Samadhan' COVID-19

Such data driven research backed decision making system will ensure the right recommendations on a real time basis, and for situations post the crisis as well. Because here the criticality of the product is not limited to the current state of pandemic, but it becomes even more important in the coming months when lockdown withdrawal shall begin.

And analytics systematically converts internal and external data into predictions, insights and choices, which in turn guide and automated operational work flow.

There have been few events in past that have casted a long shadow on Human Kind, and this pandemic is going to be one of those. It is going to change many things beginning form the perspective of living, to transforming some nations form best to worst and some form worst to best!

There is a chance that India identifies its weaknesses and the entire sectors of Education, Business & Economy, Agriculture and Government are pushed to find their best. As the saying goes, adversity is the foundation of virtue; this crisis though a horrifying one comes with a little silver lining.





This Pandemic has touched the core problems of Poverty, Crowding, Lack of proper Infrastructure, Medical facilities, Low use of Technology, Migration, Lack of adequate data on essential public aspects, etc. which have slowed down Human Development in India for ages now. These problems might have been known to us all, but right now they are being highlighted. To address a few-

Urbanisation:- Cities like Mumbai, Pune, and Delhi are the hardest hit zones, having a large population and lack of proper infrastructure makes it difficult to keep down the infection rate. Urbanisation can be prevented from turning ugly not by keeping people away from the cities but by taking cities to where people live! A Smart city can be defined as the one that uses available resources, to increase efficiency, workability and sustainability. We need to transform every city into a smart one and equally distribute the living across the Nation!

Governance:- This is a situation where every aspect of the nation is being studied, at a stretch, Governments should use this opportunity to launch a bold investment program for clean, green infrastructure for better climate, policies for better employment, and human welfare just like the One Nation, One Ration Card.

Education:-

HRD Ministry had launched a week-long 'Bharat Padhe Online' campaign for Crowd sourcing of Ideas for Improving Online Education ecosystem of India on 10th April 2020

Every Educational Institution today, has adapted to a digital way of teaching and learning. This is a doorstep towards E-learning and would make it possible for every remote area to be connected at tip of fingers for education purpose. Kerala having higher literacy rates, could effectively disseminate awareness aided information amongst people.

Agriculture:-Technology in the agricultural sector as a way to improve productivity. The greater problem we face today is non-availability of migrant labours. So here we have need and opportunity both for promoting activities under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). Agro-based activities and enterprises would be a key element in holding up the economy in coming times. In addition to better policy making, a good supply chain management must exist. The APMC-Agriculture Produce Management committee has launched e-NAM, Electronic-National Common Market. Today we are seeing only one market set up in respective areas, this not only has promoted systematic selling and buying practices but will also promote wise and needful consumption habits amongst citizens.

Business and Economy:-In this trying times, comparatively huge threat is being faced by small scale companies and start-ups in the various sectors of economy of 'rampant takeovers' by so called big fishes in the market. This highlights the need further for strengthening the emerging businesses. Economically, to keep the cycle running many governments are turning towards revival through pushing in 'helicopter money'. As the past research and econometric models suggest that the future sustainability is the opportunity cost of such road. Policymakers should be preparing for availing public-service and guaranteed-job programs to anyone who shows up with unemployment. Job guarantee should be paired with training and education in order to help workers qualify for better-paid private-sector employments when the economy recovers. Further, now there is a realization among the decision makers that instead of importing, creating indigenous knowledge and manufacturing base should be national priority in the coming years. To which Prime Minister, called out people to become "Atmanirbhar"

Disaster Management:- In a country like India where health is a State subject, there should be National Pandemic Preparedness Plans (NPPP) along with State Pandemic Preparedness Plan (SPPP). The most important lesson we have to learn during the present pandemic as well as from the past events is that investing in preparedness can cost little and could save millions of lives. The states of Kerala and Odisha remain classic examples of success.

Research & Development:- Science Technology and Innovation (STI) systems are becoming complex, dynamic and are witnessing rapid changes. To support the dynamic nature of these systems, both evaluation and adaptation should be an integral part of the STI policy cycle. Extensive use of ML and AI, with core concepts of data science should be brought into picture along with technological advancement. UAV- Unmanned vehicles for surveillance, automated telephonic survey accompanied by speech analysis. Citizen chat bots to find out public behaviours and thinking via text analysis.

However this is a crisis, we know there is going to be economic as well as an emotional depression within the society. One step wrong today and that will cost a loss for 10 years ahead. Every advancement should be thoughtfully implemented. Yuval Noah Harari, highlighted that a technology of tracking down daily activities and emotions of people to measuring human temperature via an application is being developed, but every advancements comes along with a risk, risk of Data Breach, invading one's privacy. Although, howsoever the past was, and the dream of future is we must not forget - "The future depends on what you do today." ~ Maha<sup>\*</sup> Prachi Bharat Palvi

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कोविड-19 : भारत का भूत, वर्तमान और भविष्य योग और आध्यात्म संदर्भ में

प्रस्तावना

"यदि इस पृथ्वी तल पर कोई ऐसा देश हे, जो मंगलमयी पूण्यभूमि कहलाने की अधिकारी है, ऐसा देश जहा संसार के समस्य जीवो कोअपना कर्मफल भोगने के लिए आनाही हे; ऐसा देश जहा इश्वरीन्मुख प्रत्येक आत्मा का अपना अंतिम लक्ष्य प्राप्त करने के लिए आनाअनिवार्या है; ऐसा देश जहा मानवता ने रुजुता, उदारता, शुचिता एवं शांति का परम शिखर स्पर्श किया हो तथा इस सबसे आगे बढ़करकी देश अन्तरद्रष्टि एवं आध्यात्मिकता का घर हो तो वह देश भारत ही है|" - स्वामी विवेकानंद

चीन में पैदा हुए कोरोना वायरस; यानी कि कोविद-19 ने धीरे धीरे सरहदों को लांधते हुए एक के बाद एक, लगभग सारे देशो में दस्तकदी | कई देश इस वायरस से लड़ने में सक्षम नहीं है | यंहा तक की आर्थिक, वैचारिक और तबीब रूप से नजर आ रहे है |

ऐसे हालत में, हमारे भारत देशने सारे विष्व में डंका बजाय है | कोविड-19 ने जैसे ही भारत में प्रवेश किया, हमने सख्त कदम उठाये | उसके बाद लगभग सारे देशोने भारत का अनुकरण किया | यहाँ तक की 'विष्व स्वास्थ्य संगठन (WHO) ने विशेष टिप्पणी करते हुएसूचित किया कि 'अन्य देशो की तुलना में भारत कोरोना को काबू करने मे सफल रहा है |

सभी प्रयासों में सबसे अधिक असरदार रहा लोकडाउन | अधिकाँश ने इसका स्वागत किया | यहाँ तक कि इसे एक पाबंधी न समज करएक तक माना |

हर चुनोती में तक देखना चाहिऐ| - आ. राधागुप्त

इससे यह साबित होता है की, अधिकतर भारतीय हकारात्मक विचार द्रष्टि वाले है | लोकडाउन को हमने ऐक वेकेशन के रुपमे स्वीकारा | समय का सदउपयोग कर जीवनमूल्य सिखने का प्रयत्न किया | विविध प्रवृत्ति द्वारा सभी अपना समय पसार कर रहे है | इसमें सबसेरसप्रद बात यह है की सभी योग और आध्यात्मिकता की और मुड़े है | उससे न केवल वर्तमान परिस्थिति में लड़ने की शक्ति मिलेगी, किन्तु साथ ही हम अपनी उस महान प्राचीन ज्ञान को उजागर कर रहे है, जिससे हम एक सुसमृद्ध भविष्य का भि निर्माण कर सकते है |

<mark>कोविड-19</mark> और भारत का भूतकाल

"याद रखना की सेंकडो साल से अत्याचार सहन करने के बावजूद, लगभग हजार सालो तक परदेसी हुकूमत और परदेसी जुल्मो का भोगबने रहने पर भि, यह प्रजा टिकी रही, अभी तक अस्तित्व मै है, तो इसका कारण यही है की अभी तक यह इश्वर की संलगीत रही | धर्मएवं आध्यात्मिकता के भंडार को पकड़ रखा|" - स्वामी विवेकानंद

हमारी संस्कृति ख़त्म होने के जगह अन्य संस्कृति में धुल-मिलकर उसका भाग बनी | धार्मिक संशोधन ने कहा है की ऐसा कई देश नहीं हैजिसने शुभ नितिनियम या आध्यात्मिकता ज्ञान का भाव भारत के पास से न लिया हो | हम जानते ही है की प्राचीन काल में कई प्रवासी – तत्वज्ञानी विशेष भारत की मुलाक़ात को आते थे | उन्हें भारत के ज्ञान, योग और आध्यात्म में खूब रस था और अधिक गहराई से जानने केलिया भारत आया करते थे | हमारा आध्यात्मिक ज्ञान सभी सांस्कृतिक का मूलाधार है | हमारी संस्कृति सबसे प्राचीन है | और इतिहासगवाह है की जब भी विष्व पर विकट परिस्थिति आई है तब प्रत्यक्ष या परोक्ष रूप से हमारी संस्कृति, योग और आध्यात्मिक ज्ञान से हीमार्ग मिला है |

हमारी संस्कृति धर्म, ज्ञान, विज्ञान, परंपरा, तर्क, योग एवं आध्यात्म से समृद्ध है | हमारी संस्कृति की लगभग सारि परंपराओ के पीछे कोईकारण या तर्क है | किन्तु उसमे मलिन मिश्रण या अज्ञानतावश हमने उन परम्परो पर 'अंधश्रध्धा" का अपमान लगाया | कोविड -19 कीभयंकर महामारी दरमियान, आज फिर हमने पीछे मुड़कर देखा है, और हमारी प्राचीन परम्परोओ को जानने का प्रयास किया |

जैसे की सबसे सामान्य किंतु सबसे ज्यादा विष्वप्रसिद्ध हुई है, हमारी नमस्ते की परंपरा | हमारे पूर्वजो का भि यही तर्क रहा था की'नमस्ते' करने से किटाणु का संचार नहीं होता | ऐसी और भी कई परंपरा है, जिसका आज की परिस्थिति में अनुकरण करना हमारे लिएअनिवार्य हो गया है | जैसे की घरमे प्रवेश करने से पूर्व हाथ पैर बहार ही धोना और संभव हे तो स्नान भि करना | स्नान के पानी में नीम, हल्दी इत्यादि डालना, जूते घरके बहार ही निकले | धुप, दिया, हवं करना, की जिसमे डाले गए कपूर, गूगल, लोंग, पान इत्यादि से कीटानुका नाश होता है | सूतक लगने पर घर के किसी भि सभी को बहार की व्यक्ति 13 दिन तक स्पर्श न करे, जो आज के कोरेन्टाइन जैस हीहे | हमारी अग्नि संस्कार प्रथा का आज पूरी दुनिया अनुकरण कर रही है जिससे शव के सारे कीटानु का नाश हो जाए | मंदिर में लगाएघंट की ध्वनी आवर्तन से अत्यंत सूक्ष्म जिव नष्ट जो जाते है | प्राचीन काल में गोबर से घर लिये जाते थे जो किटाणु को नष्ट कर देते है | (वर्तमान समय में हम कम से कम, बोबर का घुप तो कर ही सकते है |)

भारत के कई साधू –संत – संप्रदाय अहिंसा का प्रचार-प्रसार करते है – विशेषकर बौद्ध और जैन | कई रोगी का कारण जिव हत्या औरतामसिक भोजन है | मांसाहार तक तो ठीक है, किन्तु जहा से कोविड-19 उत्पन्न हुआ है – चीन में तो जीवजंतु भि बड़े चाव से खाए जातेहै | अखाध्य ग्रहण करने का परिणाम है यह महामारी | प्राचीन भारतीय परंपरा से ही बिमारी से बचने के लिए इस प्रकार के तामसिकभोजन का निषेद किया गया है | और आज, जब यह बिमारी आ ही गई है तो हमारी प्राचीन परम्पराओ में इसका भि इलाज पाया जाया है | और आज, जब यह बिमारी आ ही गई है तो हमारी प्राचीन परम्पराओ में इसका भि इलाज पाया जाया है | हाल में आयुष मंत्रालय ने भी बताया की 'दिनभर उबला हुआ पानी पिए, भोजन में हल्दी, लसून, सौठ, नीम, मरी, निम्बू, तज, फुदिनाविशेष डाले | हर्बल चाय – तुलसी, इलाचयी, अदरक, लौंग डालकर दिन में दो बार पिए | नाक में सरसव या नारियल का तेल अथवा घीलगाये | नास ले | शहद में लौग-हल्दी डाल दिन मे 2-3 बार सेवन करे | साथ ही यह पाया गया है की आंबल का चूर्ण, नींबू पानी, च्यवनप्राश, ताजे फल, तुलसी का नित्य सवाल हितावह है | डॉ.थॉमस डिनेगीओ ने कहा है की, 'जिसके घरमे तुलसी का सेवन हो, वहघर में रोग आता नहीं |" अब तो यह भी पाया गया है की उपवास से फेफड़े मजबूत बनते है | (जिस पर कोविड-19 का सीधा असर होता है|)

यह सारे उपाय एक या दुसरे रूप में हमारे प्राचीन ग्रंथो में उल्लेखित है | रसोई में इस प्रकार कई औषधिरूप वास्तु का इस्तेमाल करके नकेवल शरीर के कीटाणु और रोग का नाश किया जा सकता है साथ ही रोगप्रतिकारकशक्ति भी बढती है | हमारी परंपरा मै नियम, प्रथाप्रसाद इत्यादि के रुपमे कही बातो को अनिवार्य बनाया गया जिससे लोग उसे टाल न सके | असल में उसके पीछे तर्क और विज्ञानं है जोपालन करने वाले को सीधा लाभदाई है |

#### कोविड-19 और वर्तमान भारत

यदापि सभी समय का सदोपयोग कर आनंद में रह रहे है, लेकिन इस बात कोनाकारा नहीं जा सकता की कोविड-19 महामारी में हर कोईएक या दुसरे रूप से चिंतित है | सबसे ज्यादा डर कोविड-19 से है जिस वजह से मानसिक तनाव बढ़ रहा है | लोकडाउन दमियाँनिष्क्रियता की वजह से नकारात्मक विचार और भय मन पर कब्जा करने लगे है | अज्ञानता का भय ज्यादा थकने वाला है | लोग आलसीऔर अनियमित हो रहे है | संगठ एवं एकांत का आभाव क्रोध में परिवर्तित हो रहा हे | घरमे ही केद रहने से और उद्देश की कमी के कारणस्वभाव चिडचिडा हो रहा है | निष्णांतो का मानना है की इन वजह से मानसिक तनाव बढ़ने की सम्भावना है और कई जगहो पर इसकीअसर दिखाई भी दे रही है |

कोरोना के भय के कारण या उससे संबधित कोई और वजह से आत्महत्या तक के किस्से जानने में आते है | PTI (प्रेस ट्रस्ट ऑफ़इन्डिया) के रिपोर्ट अनुसार व्यसन के कारण विथड्रावल लक्षण से 45 व्यक्तिओ की बेवजह मृत्यु हुई | अकेलेपन और कोविड-19 के डरसे 86 लोगो ने खुद को मार डाला भूख और आर्थिक तकलीफ की वजह से 36 लोगोने आत्महत्या की | अपने घर न पहोचने की वजह सेपरिवार से दूर ही जाने के कारण और इसे अन्य करणसर आत्महत्या के किस्से सामने आते है | लोकडाउन से संबधित गुन्हा से 12 लोगोकी मृत्यु हुई | साथ ही घरेलु हिंसा पारिवारिक अनबनाव, हत्या वगेरे के कई केस सामने आ रहे है |

"खाली मन शैतान का घर होता है|"

नकारात्मक हमारी अन्दर रही उर्जा को सकुचित कर देती है | जिससे निर्बलता का अनुभव होता है | रोगप्रकिताकारक शक्ति पर भी प्रभावपड़ता है | जन जीवन शैली नियमित न ही तब भि रोगप्रतिकारक शक्ति का सामर्थ्य कम हो जाता है | लोकडाउन दरमियाँ हमारीजीवनशैली अनियमित हो गई है | पहले हम देर से सोते थे और थके हुए उठते थे और जीवन को सुनियोजित करने के स्वप्न देखते थे, लेकिन समय नहीं था | किन्तु आज जब हमारे पास समय है, तब हम उसका सदोपयोग नहीं कर पा रहे | हमें ध्यान रखना होगा की हमेंमिली यह अमूल्य क्षण बरबाद नहीं जाए | हमें जीवन निर्वाह करवा तो आता था, लेकिन जीना कैसे है यह अब सीखेंगे | कोविड-19 केबाद व्यस्त जीवन फिर से पटरी पर दोडेगा, किन्तु वर्तमान में हमें यह मोका मिला है की हम उसे और सुन्दर और व्यवस्थित बनाए | यदापिकई क्रिया और कार्य से हम समय का सदोपयोग कर रहे है, किन्तु सब से उचित और सफल मार्ग है योग और आध्यात्म का मार्ग | इससेन केवल बाह्य और आतंरिक जिवन सुधरेगा, साथ ही महामारी और उससे फेली नकारात्मकता से भि बचा जा सकता है | कोविड-19 सेज्यादा तो समाज में भय प्रसरित हो रहा है | अभी तक कोविड-19 की कोई वेक्सिन या दावा मिली नहीं है, किन्तु आयुर्वेदिक उपचार, योगऔर आध्यात्म इससे लड़ने में और भय दूर अकरने में उत्तम साबित हुए है |

<mark>"कोविड-</mark>19 और योग"

"योग के अभ्यास से व्यक्ति शारीरिक रूप से स्वस्थ, मानसिक रूप से सचेत, आध्यत्मिक रूप से अग्रिम और सामाजिक रूप से सुरक्षितहो जाता है|" - पु. राजर्षि मुनि

कोविड-19 महामारी में योग, एक आशा की किरण है, रामबाण इलाज़ है | हार्वड यूनिवर्सिटी, यूनिवर्सिटी ऑफ़ केलिफोर्निया ने भि यहमाना है की कोविड-19 से लड़ने में योग उपयोगी साबित हुआ है | हमारे सामने रोजबरोज ऐसे कई उदहारण आते है, जिससे पता चलताहै की केवल योगाभ्यास से गंभीर से गंभीर और प्राणघातक, बिमारिओ को आसानी से मात दि गई | यहा तक की कोविड-19 दोरान भिऐसे कई बनाव सामने आये की दृढ मनोबल और सकारात्मकता के साथ जब नियमानुसार और नियमित योगाभ्यास किया तय तो स्वस्थहोने की सम्भावना बाद गई | योग को अब एक वैकल्पिक इजाज़ पध्धति के रूप में स्वीकार जा रहा है |

किंतु, योग यदि उचित पद्धति अनुसार न करा जाए तो उसका उलटा असर भि हो सकता है | हाल की स्थितिमें यदि कही व्यक्तिगत रूप सेजाना संभव नहीं, तो ऑनलाइन या टी.वी. के मध्यम से निष्णांत योगगुरु के निर्देशानुसार ही घर बेठकर योग करना चाहिए | इस बात काखास ध्यान रखना है की हम जिस किसी भी प्रकार योग करे, वह नियमानुसार हो |

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"प्राणायमेन मुक्तेन सर्वरोग क्षयोलवेत:
युक्तभ्यास योगेन सर्वरोग समृद्धभव्:|"
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अर्थात, योग्य रूप से प्राणायाम-योग करने से हर रोग क इलाज संभव है | और यदि वह ठीक से न किया जाए तो हर प्रकार के रोग संभवहै | हमारे योगशास्त्र के मुख्य चार प्रकार में विभाजित किया जा सकता है |

1) ध्यान

2) प्राणायाम

3) आसन

4) सूर्यनमस्कार

#### 1. ध्यान

ध्यान से मन नियंत्रित होता है और अशुभ विचारो को रोका जा सकता है | ध्यान की शरुआत ॐकार से होती है | ॐ के उच्चारण से एकध्वनी उतपन्न होती है, जिसका शरीर में उर्जा के रूप में प्रसार होता है | इस दोरान सहज श्वास-प्रश्वास की क्रिया पर विशेष ध्यान देनाहोता है | जिससे सुशुप्त हुए शरीर के सारे अंगो की प्राणशक्ति जाग्रत हो जाती है | मन की शक्ति और रोगप्रतिकारक शक्ति एक दुसरेसे जुडी हुई है | यदि मन स्थिर और हकारात्मक रहता है तो रोगप्रतिकारक शक्ति भी समर्थ बनेगी | हमें शारीरिकरूप से स्वस्थ औरमानसिक रूप से मजबूत रहना है | रोज 10 मिनिट के ध्यान से शुभ विचार आते है | ध्यान दरमियान हमें सतत यह सोचना है की, "में एक शक्तिशाली और पवित्र आत्मा हु | में सब कुछ कर सकता हूँ | मुझे किसी का कोई भय नहीं | इश्वर से मिलति उर्जा को में महेसुस कर सकता हूँ | इश्वर की दिव्य शक्ति मेरेसाथ कवच रूप में हाजिर है जिसके अन्दर में सम्पूर्ण रूप से सुरक्षित हु |" एवं रात को सोने से पूर्व ध्यान के रूप में स्व-मनन करना चाहिए– " मेरा जन्म किस कार्य के लिए हुआ है ? मेरे जीवन का ध्याय क्या है ? क्या आज मेने अपनी ध्येय प्राप्ति की ओर कोई कदम उठाया ? यां में भी प्रवाह के साथ बह रहा हूँ ? में दूसरो से अलग किस प्रकार हूँ ? देश और समाज के प्रति मेरा फर्ज क्या है ? कल में क्या नयाकरूँगा ? क्या मेरे जीवन, मेरी आत्मा को संतोष हो ऐसा है ? क्या आज मेने किसी की मदद की, किसी को खुश किया?" इस प्रकार काध्यान-चिंतन लाभदायी है | जिनके मन में अनेक प्रश्न होते है, वही ध्यान कर सकता है | इस तरह मन और आत्मा पर चढ़ी धुल साफ़ जोजायेंगी |

#### 2. प्राणायाम

रोज सुबह खुली और स्वच्छ जगह पर 30-40 मिनिट प्राणायाम करने चाहिए | विशेषकर कपालभाति, भस्त्रिका, अनुलोमविलोम, भ्रामरी, योगीकश्वसन इत्यादि उपयोगी है | यहाँ ख्याल रखना है की सुखासन, वज्रासन या पद्मासन जो स्वयं को अनुकूल हो वाही स्थिति में बेठे | कमर से शरीर को एकदम सीधा रखना है जिससे रुधिर भ्रमण दिमाग तक पहुँच सके | जब हाथ को एक ही स्थिति में रखना हो तोज्ञानमुद्रा लाभदायी है | प्राणायाम दरमियान की श्वास-प्रश्वास की प्रक्रिया को सहज रूप से करना है, न की जोर देकर | कोविड-19 सीधा फेफड़े पर असर करता है | प्राणायाम से फेफड़े मजबूत बनते है |

#### 3. आसन

निष्णांतो का मानना है की सर्वांगासन, मत्स्यासन, ताड़ासन, शशांकासन, सेतुबंधन इत्यादि इस महामारी दरमियान विशेष उपयोगी है | उससे शरीर के सारे अंगो को पोषण मिलता है एवं रोगप्रतिकारकशक्ति भी बढ़ती है | रुधिराभीसरण तंत्र, श्वसन तंत्र, फेफड़े, ह्रदयमजबूत बनते है |

#### 4. सूर्यनमस्कार

सूर्यनमस्कार एक अदभुत योगिक प्रक्रिया है | सूर्योदय दरमियान और सूर्यास्त से पूर्व खुली जगह और स्वच्छ वातावरण में जहासूर्यप्रकाश स्पर्श करे, ऐसे स्थान पर सूर्यनमस्कार एवं त्राटक करने से न केवल उर्जा का संचार होता है, साथ ही शरीर को नुकशान करनेवाले कीटाणु का भि नाश होता है | सूर्यनमस्कार की सारी स्थितिया ही कुछ ऐसी है की शारीर के सभी हिस्सों तक सूर्यप्रकाश पहुंचे | साथ ही फेफड़े, पेट, सर से संबधित बीमारियों का निवारण होता है |

"तपस्वीभ्योदधिको योगी ज्ञानीभ्योद्पि मनोडपिक:| कर्मिभ्याश्चाधिको योगी तस्माद योगी तस्माद योगी भवार्जुन: ||" - श्रीमद भगवद गीता(6-46)

अर्थात, 'हे अर्जुन, तपस्विओ से योग श्रेष्ठ है, ज्ञानीओ से योग श्रेष्ठ है, कर्मकांड – होम – हवं करने वाले कर्मिओ से योग श्रेष्ठ है, इसलिए तू योगी बन |' भारत योगिओ का देश है | केवल कुछ क्रिया करना ही योग नहीं है | योग का अर्थ बहुत गहरा है | केवल शारीरिकस्वास्थ्य ही योग नहीं, साथ ही योग से हकारात्मक रूप में मन सक्रीय होता है | यह न केवल स्वस्थ शारीरिक उर्जा, अपतु आध्यात्मिकउर्जा भि प्रदान करता है | जीवन में एक नविन प्रकार की शक्ति का संचार होता है | योगाभ्यास से आध्यात्मिक, बौधिक एवं तार्किकविकास होता है | योग का सामान्य अर्थ है जोड़ना | अर्थात जीवात्मा का मन, शरीर, समाज, वातावरण और परमात्मा से संयोग | योगजीवन जीने की कला सिखाता है |

कोविड-19 के कारन हुए लोकडाउन दरमियान मिला यह समय हमें योगाभ्यास में लगाना चाहिए | और न केवल आज, किन्तु भविष्य मेंभि हमें योगाभ्यास सतत करते रहना चाहिए | योग-गुरुओ का मन्ना है की केवल एक बार भी नियमितता में भंग करने से सालो की साधनाव्यर्थ हो जाती है | हमने जाना की योगाभ्यास से न केवल कोविड-19 से लड़ने की शक्ति प्राप्त होती है, अपतु भविष्य में भि अन्य कईप्रकार की मानसिक, दैहिक एवं सामाजिक समस्याओ से लड़ने की शक्ति प्राप्त होगी |

<mark>कोविड-1</mark>9 और आध्यात्म

"हर प्रकार की मलिनता में से सबसे बुरी मलिनता है अज्ञानता| शिष्यों ! स्वयं की शुध्धता करो और अपने आप को मलिनता मुक्त करो|" - धम्मपद

जिस तरह बादल छा जाने से सूर्यप्रकाश ढक जाता है, उसी तरह अज्ञानता के कारण हम हमारे में छुपे दैवत्य को जान नहीं पाते | महर्षिपतंजलि के कहा है की "अज्ञानता ही सभी दुखो का कारण है |" यदि हम स्वयं में छुपे दैवत्य रूपी उस ज्ञान को पा जाए तो नकारात्मकताहमारे नजदीक भि नहीं आ सकती | आध्यात्म के बल एवं नित्य साधना से कोई भी ब्रह्मत्व और दैवत्य ज्ञान को उजागर कर सकता है | तोप्रश्न यह है की यह आध्यात्म ज्ञान पाया कैसे जाए ?

"हमारे शास्त्रों में आध्यात्मिकता का अखूट धोध है| हमारी इस त्यागभूमि भारत के सिवा पूरी पृथ्वी पर कही भि व्यवहारिकआध्यात्मिकता के ऐसे उम्दा द्रष्टांत देखने को नहीं मिलते| - स्वामी विवेकानंद\*

आध्यात्मिकता को प्राप्त करने के लिए प्रमाणभुत आध्यात्मिक गुरु की आवश्यकता है | यदि कोविड-19 के कारण वर्तमान परिस्थिति मेंयह संभव न ही तो हमें हमारे ग्रंथो का भि सहारा ले सकते है | कोई भी घर ऐसा नहीं होगा जहा पर वेद-वेदांत, उपनिषद, श्रीमद भगवदगीता, रामायन, महाभारत, पुराण, शिवतत्वदर्शन, पौराणिक, ऐतिहासिक कथा, जैनग्रंथ त्रिपिटिका – बौध ग्रन्थ गुरुग्रंथ साहिब – 'शिखग्रंथ, सत्यार्थ प्रकाश, राज-कर्म – ज्ञान योग, कुरआन, बाइबल इत्यादि ग्रन्थ में से एक भि न हो | केवल इन्हें घर की शोभा न बनाकर इन्हेंपढ़कर और चिंतन कर कोविड-19 से फेले भय और नकारात्मकता को दूर करके समय का सदोपयोग करना चाहिए |

वर्तमान समयमे पूजा-पाठ करना चाहिए, धर्म को समजने का प्रयत्न करना चाहिए, अपनी भारतीय संस्कृति को जानना चाहिए, अन्य धर्मऔर संस्कृति के बारे में भी माहितगार बनना चाहिए | यह सब भी आध्यात्म को पाने में सहरूप है | इन सब से न केवल आध्यत की प्राप्तिहोगी, साथ ही हम जीवन को एक नए स्वरूप और हकारात्मक अभिगम से देख पायेगे |

<mark>कोविड-1</mark>9 और भारत का भविष्य

"समग्र विश्व की द्रष्टि आज आध्यात्मिक पोषण के लिए भारत भूमि की और जुडी है और तमाम जाती के लिए भारत को यहआवश्यकता पूर्ण करनी है | मानवजात के लिए सर्वोच्च आदर्श सिर्फ यही, भारत में ही है |" - स्वामी विवेकानंद

पूरा विश्व योग और अध्यात्मिक सहाय के लिए भारत के पास आ रहा है | मानव अस्तित्व की समस्याओ का पूर्ण उकेल विष्व को प्रदानकरने की नैतिक फराज अब भारत की है | स्वामी विवेकानंद अनुसार यदि कोई भि संस्कृति आध्यात्मिकता को पकड़ न रखे तो केवल 50 वर्ष में उसका समग्र विनाश निश्चित है | हमारे ग्रंथो में छुपा यौगिक और आध्यात्मिक ज्ञान जब हर व्यक्ति तक पहुचेगा तब हीनकारात्मक और भय दूर होंगे | भारत एवं समग्र विष्व का पुनःउत्थान केवल योगिक और अध्यात्मिक ज्ञान से ही संभव है |

कोविड-19 की महामारी के बाद पूरा विश्व दो हिस्सों में बट जाएगा | कोविड-19 से पूर्व और पश्च्यात | अमेरिकी दार्शनिक थॉमस पेइनने कहा है की, 'इस विष्व को हम फिरसे शुरू कर सके यह हमारी ताकत के अन्दर ही है |' इस महामारी के बाद जीवन में अनेक परिवर्तनआयेंगे | इस संकट से बहार आने के लिए नहीं प्राणशक्ति के संचार के लिए, नकारात्मकता और भय दूर करने के लिए पुरे विष्व कीआशा भारत के ज्ञान – विज्ञानं, तर्क, आयुर्वेद,योग और आध्यात्म के सागर सामान संस्कृति पर हे |इन्ही स्तम्भ के आधार पर न केवलभारत पुरे विष्व का पुन:उत्थान करेंगा साथ ही विश्वगुरु की उपाधि भी पायेगा |

#### समापन

ऐसा नहीं है की कोविड-19 जैसी महामारी पहली बार फैली है | भूतकाल में भी एसी कई बीमारियोंने कहर मचाया था | उलटा इस बारअच्छी बात यह है की हमें पता हे की इस फैलने से कैसे रोका जाता है | वह है की कम से कम व्यक्तिओका संपर्क और जहा लोकडाउनहै, उसका पान | हमें याद रखना है की चिंत, भय और नकारात्मकता के उस पार एक सुन्दर विष्व हमारी राह देख रहा है | इस महामारीदरमियान हमने बहुत कुछ सिखा; विशेषकर योग और आध्यात्म का महत्त्व जिससे जीवन की को एक नया स्वरूप मिले | हमने कई अच्छीआदते बनाई, हमें याद रखना है की जब विष्व फिर से जिवंत हो उठे तब यह सब ज्ञान और आदत हमें जारी रखनी है |

"कोविड-19 पश्चात जीवन फिर से व्यस्त लेकिन अव्यवस्थित, बिनप्रगतिशील और नीरस न बन जाए उसका सुनियोजन आज ही करलेना चाहिए | और उसके लिए योग और आध्यात्म समर्थ माध्यम है जो कोई भी चुनोती से लड़ने की शक्ति प्रदान करते है|" || अस्तु ||

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> > B. Com.

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A few days ago when WHO officially declared the COVID-19 a 'pandemic' a Rubicon of consciousness and global governance was crossed. Hundreds of millions of individuals around the world are coping physically and mentally with what that word never before used in my lifetime means for themselves and those they care most about. The mental dimensions of self-isolation may turn out to be a big challenge almost as big as the disease itself. For once, government officials seem to be heeding the warning of health specialists rather than dutifully than scurrying about to address market signals of distress with public funds. At least this is the public face we see on our TV screens, although in Trump's case even the appearances are mismanaged, considering the corporate smirk at his Rose Garden press conference when several CEOs PF prominent companies received better free PR that not even their most energetic publicist ever imagined attainable. There is a silver lining: if the American elections are actually held in November, we should see the fall of Trump, and as importantly, the end of Trumpism, that is, unless there is a quicker return to normalcy than now seems possible. Although one thing we might learn from how our lives changed overnight is to stop trying to outguess the future. Economists and future studies consultants may have their supersophisticated models and graphs, but some of the most significant surges of history have a will of their own that often makes the most mathematically advanced computer models seem out of touch with transformative social forces that remain hidden until a shockingly unexpected eruption occurs. If nothing else, COVID-19 reminds us of the perils and possible promise of radical uncertainty. As this mysterious deadly mutation of the Coronavirus suggests, our powers of anticipation are not much more impressive than those of our brothers and sisters in the jungle, and I am referring mainly not to tribal peoples looking up at the sky for signs of what is to come, but also of elephants and lions roaming freely on the savannas and grasslands of the world, yet suffering mass killings when wild fires rage out of control. What this uncertainty mandates above all else is preparedness and the acceptance as a matter of urgency of the Precautionary Principle as the long overdue Eleventh Commandment of our civilization. The Precautionary Principle should guide us to take steps to avoid known thresholds of irreversibility or curves of rising risks. The message is this. Don't wait until the predictable crisis is at hand, and don't build on or near the known fault lines of the planet.

COVID-19 also suggests something else that is both instructive and worrisome. We as a species react to crises when their impact is immediate and lethal, and sometimes compensate for earlier complacency by over-reacting when widespread fear spirals out of control to produce panic, and in the process lurid memories of past failures are dredged from the depths of collective consciousness. The Spanish Flu Epidemic of 1918-19 is a current example of a past event I never heard discussed during my childhood, or throughout my adult life, but now is on the lips of many. While still a child this earlier flu pandemic was almost as recent then as the 9/11 attacks are now. We forget quickly past urgencies until replaced by new urgencies. Another lesson here is that we cannot afford to treat climate change as we are treating this pandemic. Once the concreteness of climate change is revealed so that none can plausibly deny, or escape, or turn away from what happens at a distance, or be explained away as an anomaly of nature, or a danger that technology will address before the great collapse will occur, it will be probably too late to halt the downward trend. For now, despite the fires, floods, and droughts the sky above remains as blue as ever in most places, the stock market showed no abiding concern about global warming, and the whole societal ecosystem lurches forward, producing the latest digital device and AI advance, without blinking. Even Brazil and Australia, scenes of catastrophic fires, seem to view these occurrences as onetime events that should not in the first instance interfere with neither sovereign rights nor with profit-making deforestation and cattle ranching, and in the second, with expanding coal production and exports. The short-termism of how we live our ordinary lives and how political leaders and corporate moguls are judged, makes it difficult to combine democracy and accommodating the global and the long-term, especially if its destructive impact can be imagined as always occurring to others far away or in the distant future. When we read of the ordeal of those living in prolonged subsistence confinement in Gaza or in the misery of refugee camps and border assaults, we may lament the news, and even sign petitions and make donations, but our night time sleep is rarely interrupted the way it would be if a next door neighbour or a loved one was so severely infected by the virus as to be carried off to a hospital, hopefully one with enough beds and ventilators, which in a matter of weeks might itself become a vain hope for many older infected people.

COVID-19 also further tears at the fabric of democratic governance. Israel reveals that it has elaborate secret files for the surveillance of all mobile phone users in the country, supposedly to help with counterterrorist efforts, but now to be used in identifying, locating, and confining those believed to be infected or having had recent contact with carriers of the disease. When Orwell imagined a tormenting Big Brother, it was read as an indictment of totalitarian systems of governance, specifically the Soviet Union, or at most a warning of a world in the making, an imagined dystopia that would hopefully never become actual. What the imagination could only worry about the technologists have now achieved. As with the delusions of the militarist, excessive investments in weapons brings insecurity, not enhanced security. America is the best example in all of history. While our military arsenals grow, we shackle ourselves with more and more restrictions on our freedoms, which has been translated by our minder into electronic monitoring, long lines, and countless hidden cameras. Instead of improving lives by investing in social betterment through health, education, culture, parks and natural preserves, we spend public monies collecting meta-data and insist on a military capability that is dominant globally, able to strike catastrophic blows anywhere on the face of the earth from land, air, and sea platforms, and even from space. China, with all its imperfections, demonstrates to the world that the way to gain power, prestige, and influence is to manage clever fusions of state and market, taking advantage of soft power opportunities wherever they are found. By way of contrast, America is demonstrating that the way to lose power, prestige, and influence is to rely on geopolitical muscle through threat and coercive diplomacy, sanctions, and intervention. The result has been repeated frustration by striking its blows in dead end misadventures, yet learning nothing from each failure because the whole edifice is militarized, paralyzing the moral and political imagination, and the high-priced gurus offer tactical adjustments that misinterpret past failures, and thus prepare the way for new failures.

The democratic fabric of many countries was fraying badly long before COVID-19 added to the wear and tear. The end of the Cold War brought with it the expectation that the material and political benefits of democratic forms of governance would become so obvious to everyone as to produce a global tsunami of democratization, and to some extent it did during the 1990s. Bill Clinton spoke of 'enlargement' by which he meant that more capitalist democracies would emerge, and that this would be good for both economic prosperity and world peace as democracies do not make war on one another, especially when trade and investment are robust. Then came 9/11, the counterrevolutionary moves after the Arab Spring that caused severe civil strife and mass displacement, refugees and asylum seekers, ultra-nationalist reactions to neoliberalism, and now COVID-19 comes along. A mixture of alienation, scapegoating, and identity politics gave rise to the still bewildering phenomenon of societies freely electing, and even reelecting, autocratic demagogues that take away basic liberties without disguising their acts or intentions. A leader as regressive from the perspective of democratic values as Rodrigo Duterte enjoys an 80% approval rating in The Phillippiness despite being responsible for as many as 20,000 extra-judicial executions, as well as numerous flagrant violations of human rights standards and disregard of constitutional limitations on the exercise of state power. Modi remains popular in India despite his crude and cruel encroachment on the autonomy of Kashmir coupled with inflaming attitudes toward the large Muslim minority. It is to be expected that there are no real democracies during wartime or in the midst of crises that give governments, regardless of ideology, a free hand to do whatever they proclaim as helpful in the name of national security, and now public health. During World War II the United States Government interned its West Coast Japanese minority without the slightest attempt to proceed in accord with the rule of law or even due process, and yet a majority of the U.S. Supreme Court had no trouble upholding this repressive undertaking as a reasonable security precaution given wartime apprehensions of disloyalty among Japanese citizens and residents. At least, the decision was controversial at the time, and there were dissenting opinions in the high court. Later on official apologies followed, especially 25 years after the end of the war when wartime fevers had dissipated. Now the U.S. government seeks to expel rather than intern, to keep the poor and unwanted out whether by erecting walls or imposing anti-Muslim bans and the like. Instead of global democratization, the recent international experience has been one of the previously unforeseen popularity of radical forms of de-democratization, proliferating ultra-nationalist outlooks, and the erosion of respect for the UN, international law, and global cooperation when such instruments of good order are more needed than ever. Also present in this anti-democratic 'perfect storm' is the penchant for undermining independent journalism and academic freedom, banishing free expression of ideas to private conversations among dissidents.

The cumulative effect of these political tendencies to weaken trust, and even draw the possibility of truth into question, making governance into a series of opportunistic fabrications. When scientifically backed opinions and unwelcome evidence can be dismissed as 'hoaxes' and 'fake news,' we no longer know what to believe, and most of all view skeptically what the government and its leaders tell us. Democracies depend for their legitimacy and effectiveness on trust as well as an atmosphere of normalcy, and when neither exists, there is confusion and chaos, and demagogues comes forth with self-confident and often malicious propaganda that is swallowed whole by large sectors of the population, however divorced from reality is the promise of rescue. One transcription of the message is this: making America 'great' again is being achieved at the price of inducing planetary collapse. This is the dark logic of our time that needs to be countered by a dialectic of resistance and transformation.

Interestingly, COVID has temporarily restored the stature and influence of the expert, at least for this current state of emergency. Can you imagine a future Trump press conference on climate change featuring the head of the Sierra Club, Environmental Defense Fund, and having Greta Thunberg share the platform with the experts. However absurd such a. musing, this seems more or less how the American president seeks now to reassure the public that despite some early stumbles, citizens can now have confidence that everything recommended by the best experts is being done to minimize the harm resulting from the global virus. Trump no longer appears in front of the TV cameras and assembled journalists as the preeminent know-everything leader. Instead he is flanked by health experts, corporate managers, and cabinet member to whom he regularly defers whenever a question by a journalist raises a technical issue. In this ironic turn, the supreme leader has become the novice, and hopefully will soon receive a pink slip of the kind he so gleefully issued while weekly performing on The Apprentice.

Of course, experts have their limits as well, and relying on the authority of the measurable is not a humane path to the future. Ethical sensitivity, especially empathy, is more important than following the evidence as interpreted by many experts, who are often hiding their own questionable policy agendas or career ambitions behind a flurry of numbers and graphs. So somewhere between banishing reality as fake news and worshipping the dapper expert as our supreme guide we need to find the courage, wisdom, and humility to reach difficult decisions that move humanity forward. Yet we are a long way from generating the political choices that include such constructive voices. So far what opposes the entrenched autocrat seems an improvement worth supporting, but It doesn't even pretend to transform the system.

Without overdoing it, the real lessons to be learned are well depicted in a fine essay by Bruce Franklin, an admired friend and long one of the most perceptive and humane interpreters of the political scene, whose virtues have unfortunately automatically relegated him to the outer margins of public awareness. If we cannot learn from the COVID-19 experience of our dependence on global cooperation, and a win/win approach to global problem-solving, the human species is far along on bio-ecological death march. As Franklin makes clear, in responding positively to a pandemic we help ourselves by helping other, and we hurt ourselves when we refuse to do so. His crucial point is that climate change, extreme poverty, biodiversity, global migration, nuclear disarmament, demilitarization are essentially the same: challenges of global scope that will not be resolved entry solved win/win responses on a comparable scale.

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#### It hurts!!!

I'm vanishing..please help me heal.

My people are dying,

Farmers are crying,

Economy is ceasing!!

I don't find people on the road, the air within me is filled with the virus and has been contaminated, the educational institutions are closed and there is a huge damage to me.

EARLIER, when there was no existence of corona, I was the most loved country and the most active of all. My economy was rising at a good rate. The farmers grew plenty of crops and I was filled with green crops all around. The tourist places, malls and gardens were all filled with people enjoying their lives and I felt so good to see everyone happy. The educational institutions were all working at a good pace and making me proud by achieving great heights. My streets were filled with people and my roads were crowded with vehicles. I could breathe air freely. The people residing in me were so lovable and they used to greet and hug everyone and they welcomed the guests home with love. I was very pleased to see my people happy and all going so well. I really miss my beauty and the good old days. After spreading its wings in others countries the virus moved into me and captured all my states. It destroyed many of my people, my population declined in thousands. My people are suffering a lot, I have witnessed many tears. I am sad to see that I cannot feed the poor and the needy people residing in me. I have been losing my economy terribly since these days. The hospitals are all packed with patients. But I feel so proud of the doctors and policemen who are working day and night selflessly to save the people. I can see the fear hidden in their mind, I can see the worries of their families. I feel that there are two significant warriors who are fighting this situation without caring about themselves and serving people. One of the warriors is social workers like policemen and doctors and another warrior is the woman in your house serving you everyday without any break when you all are having holiday from work. Please value them and support them. I am sad to see that my people have become emotionally and mentally weak and are scared.
But my government has been taking the right decisions at the right time and as a precaution has announced lockdowns. The lockdown has helped my people value the essential things within me that is food and water. Also due to lockdown the people are able to give more family time and enjoy at home with families. Also I have become cleaner and greener than before and the pollution too has decreased. The researchers are working constantly to find the medication. The farmers have been given relief economically.

The condition I see today is highly unsatisfying to me. My people used to hug each other meet and greet with love and now are asked to keep social distancing. But I know soon we will win the fight against corona and all my states will be completely free of covid-19 disease. The economy will increase and all the losses will be recovered. The educational institutions will once again start at the same pace. The farmers will once again grow huge crops in my soil. People will once again be able to breathe freely and there will be a sense of relief. There will be smiles on everyone's faces and I will once again be a tourist attraction filled with my crowded streets. I will be the world's best country to fight against covid-19 and to handle it in an appropriate way.

Wow! just even thinking of the future I feel so happy and it grew my confidence to win.

Some of my citizens are selflessly working for others while some are breaking the rules and creating problems for them. Please do support each other and we shall win this fight.

I remember the days when my citizens were known for UNITY IN DIVERSITY but now I see my people fighting amongst each other on their religions.

I am sure my citizens must also be feeling the same things that I do. I would like to appeal to all my citizens to obey the rules and support the Government so that I can be free from danger and so that I can be the best country in the world.

Let's fight together, Support each other, As after the darkest night. There comes a day fresh and bright !!

#### Vidhi Dedhia

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"COVID-19 or CORONAVIRUS" – Two words which have so much power to change our lives, our way of living, our idea of meeting people, our fear of not maintaining "social distance", the view of empty roads, clean environment and much more. A year ago, we had no clue of what those two words would mean in our life today. We were busy with our lives, going to schools, colleges and offices in those packed locals where 'andar hamesha khali hota hai' and buses with no clue of what "social distancing" even mean, going to parties, meeting everyone without masks and fear of getting "virus" by shaking hands or hugging each other, etc. The list is too long to be written. On 31st night, we all were busy celebrating "New Year 2020" without having a single clue of how much 2020 is going to celebrate us in its first quarter itself.

Let us take a look on how COVID-19 would and have changed our perspective on various important things in our lives. It has to be agreed that it has destroyed everyone and everything around us, but it has even taught us one of the most important lessons of "What is actually important for us". People today are no more crazy behind stylish clothes, expensive cars, going to parties but they are crazy behind being able to sustain, being able to fill their kitchens with necessary food items and are realizing the importance of "Our Farmer- The Real Hero", which was faded away in past. Being in India, we have penny pinching mentality prevailing since centuries, which has slowly started to change. We no longer ask for "free dhaniya", we have started accepting without much argument with the vendor who hardly earns enough to barely meet two sides of a string. Finally, Indians are proud to be a citizen of an "Agricultural Economy" rather than being in developed countries where the cases are increasing like the price of gold, even faster than that.

Let me walk you through Education sector. Education was based solely on classroom teaching, we were too rigid to change or adopt the way we used to educate. COVID-19 taught us ways of how to continue educating and learning being at our home sitting in our favorite place. Isn't that great? Of course it is! We just need to download a video calling app, have good internet connection and there it goes. It is less time-consuming, less tiring, more efficient and most important, easy too. Yes, it has some drawbacks too but their weightage is low compared to its advantages. Post COVID-19, people will definitely pave their way to online learning and teaching and we should, if we are rational and pragmatic.

Next, let us discuss about our health. On one hand, we daily read/here people are being target of virus and a few dying because of it which throws us in a mindset that nothing is going to be alright but, on the other hand, why not pay attention to the people recovering? One if the reasons stated is good immune system. Yes! A good immune system is as important as taking breath. Now, when you do not have to go anywhere you have a lot of time to improve your body as a whole. You cannot give excuses as you did in the past of "Not having time", "Too tired to exercise" and many more. Many have already started realizing its importance and have started changing their day-to-day schedule. Post COVID-19, everyone irrespective of their age will be really concerned about their body and the food they eat barring a few of course!

We know our government had to take strict actions for our betterment-which is Lockdown (that too with phases), which at times agitate us, but we do not realize how many lives would be lost if we were not forced to sit at home maintaining social distance. On the other side of the coin, we even know how badly it is going to affect our economy. Our health and safety of life is inversely related to the health of our economy. It is becoming extremely difficult for all the governments in the world to strike a balance between the two. Even 2008 Global Financial Crisis did not impact economies as badly as COVID-19 is impacting right now. Almost all the economies including developed markets have entered recession. People are losing jobs, unemployment rates have spiked and reached its peak, inflation is increasing, stock markets are falling, crude prices became negative few weeks back but to no benefit to us as governments are still charging a lot of tax because they have to recover their losses because their major sources of revenue – which is State-tax and GST on goods and services have drastically reduced. Painful to say, Governments are trying to keep economies alive and doctors are trying to keep humans alive.

No one knows future, nowadays not even what is going to happen tomorrow. Are we going to live with our family or in isolation? Many experts have stated that this 'invisible enemy' of ours is going to stay with us for a long time; we have to learn to stay with it. Considering what they say turns out to be a fact, our lives would change even more than it has changed in past two months. We would be fearing going out, masks will be a part of our outfit forever, there will be no handshakes and hugs and accordingly spread of love will be seen only on social media, outings with friends will turn to group video calls, we will be choosing to have homemade food and not our 'all-time favorite fast food' (if it is available). Our real heroes will be doctors, nurses, policemen, soldiers and farmers and not the ones sitting comfortably at their homes with stacks of money but not willing to help needy but always curious to post their food recipes on social media.

Confused to decide whether COVID-19 has taught us something or snatched away good things. So, let us leave it to time and enjoy the time we have today, right now because no one knows whether we will be alive tomorrow. We have realized that 'Life is too short to not love yourselves and our loved ones'.

#### Pankti Doshi

K.C. Alumni (Batch of 2018)

"Go Corona Go"

Which scientist or doctor is not secretly praying for a miracle? In fact every human is praying for this miracle. It is hard to comprehend just how quickly coronavirus disease, irreversibly changed the world we lived in. On 31 December,2019 as the world was preparing to usher in another new year, the WHO China Country Office was notified of multiple cases of pneumonia of unknown cases.

On 7 January, a new coronavirus later dubbed Severe Acute Respiratory Syndrome Coronavirus was identified as the cause of the cases of pneumonia in Wuhan, China. Almost as soon as the causative agent COVID-19 has been identified, cases began to grow exponentially.

On 23 January, Wuhan, the epicentre of the public health crisis, was put under lockdown. Although many outside of China had never heard of Wuhan, the major city comparable to Delhi, and more populous than London or New York was shut off from the rest of the world should have prompted the world of the destructive nature of COVID-19.

At that point, it was already known that COVID-19 was a serious disease and around 2% of those were being diagnosed were dying from it. But even a cursory glance of Indian and American newspaper headlines that days do not point out the scale of the challenge on the horizon. National newspapers focus on national political news. Corporate profile were up and the stock markets were rising. COVID-19 was China's problem. By the end of the month, as cases begun pop up in other countries, the world rose from slumber. Travel to and from China was suspended.

The number of cases worldwide this week crept over a million. More than 50,000 people have died already. Projections suggest that number will swell to hundreds of thousands, perhaps more. The virus has moved freely along the pathways of trade and international capital, and the terrible illness it has brought in its wake has locked humans down in their countries, their cities and their homes.

The mandarins who are managing this pandemic are fond of speaking of war. They don't even use war as a metaphor, they use it literally. But if it really were a war, then who would be better prepared than the US? If it were not masks and gloves that its frontline soldiers needed, but guns, smart bombs, bunker busters, submarines, fighter jets and nuclear bombs, would there be a shortage?

Night after night, from halfway across the world, some of us watch the New York governor's press briefings with a fascination that is hard to explain. We follow the statistics, and hear the stories of overwhelmed hospitals in the US, of underpaid, overworked nurses having to make masks out of garbage bin liners and old raincoats, risking everything to bring succour to the sick. About states being forced to bid against each other for ventilators, about doctors' dilemmas over which patient should get one and which left to die. And we think to ourselves, "My God! This is America!

On March 11 the World Health Organization declared that Covid-19 was a pandemic. Two days later, on March 13, the health ministry said that corona "is not a health emergency". Please use the sharing tools found via the share button at the top or side of articles.

Finally, on March 19, the Indian prime minister addressed the nation. He hadn't done much homework. He borrowed the playbook from France and Italy. He told us of the need for "social distancing" (easy to understand for a society so steeped in the practice of caste) and called for a day of "people's curfew" on March 22. He said nothing about what his government was going to do in the crisis, but he asked people to come out on their balconies, and ring bells and bang their pots and pans to salute health workers.

On March 24, at 8pm, Modi appeared on TV again to announce that, from midnight onwards, all of India would be under lockdown. Markets would be closed. All transport, public as well as private, were disallowed

The lockdown worked like a chemical experiment that suddenly illuminated hidden things. As shops, restaurants, factories and the construction industry shut down, as the wealthy and the middle classes enclosed themselves in gated colonies, our towns and megacities began to extrude their workingclass citizens — their migrant workers — like so much unwanted accrual. Many driven out by their employers and landlords, millions of impoverished, hungry, thirsty people, young and old, men, women, children, sick people, blind people, disabled people, with nowhere else to go, with no public transport in sight, began a long march home to their villages. They walked for days, towards Badaun , Agra, Azamgarh, Aligarh, Lucknow, Gorakhpur — hundreds of kilometres away. Some died on the way.

They knew they were going home potentially to slow starvation. Perhaps they even knew they could be carrying the virus with them, and would infect their families, their parents and grandparents back home, but they desperately needed a shred of familiarity, shelter and dignity, as well as food. Indian government have showed more heart and understanding in the crisis. Trade unions, private citizens and other collectives are distributing food and emergency rations. The central government has been slow to respond to their desperate appeals for funds. It turns out that the prime minister's National Relief Fund has no ready cash available. Instead, money from wellwishers is pouring into the somewhat mysterious new PM-CARES fund.

Supply chains have broken, medicines and essential supplies are running low. Thousands of truck drivers are still marooned on the highways, with little food and water. Standing crops, ready to be harvested, are slowly rotting.

India's public hospitals and clinics — which are unable to cope with the almost 1m children who die of diarrhoea, malnutrition and other health issues every year, with the hundreds of thousands of tuberculosis patients (a quarter of the world's cases), with a vast anaemic and malnourished population vulnerable to any number of minor illnesses that prove fatal for them — will not be able to cope with a crisis that is like what Europe and the

There are a number of possible futures, all dependent on how government and society respond to corona virus 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.

Lockdown is placing pressure on a global fragile economy. We face a serious recession. The economics of collapse are fairly straight forward. Business exit to make a profit. If they can't produce, they can't sell thing. This means they won't make profit, which means they are less able to employ. Businesses can and do hold on to workers that they don't immediately: they won't do be able to meet demand when the economy picks back up again. But, if things start to look really bad, they won't .So, more people lose their of fear losing their job. And whole cycle start again, and we spiral into an economic depression.

In a normal crisis the prescription for solving this is simple-the government spends, and it spend until people start consuming and working again. But normal interventions won't work here because we don't want the economy to recover at least not immediately. The whole point of lockdown is to stop people going to work, where they spread the disease.

As the economist James Medway 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 future and to avoid the worst of climate change we need a system capable of scaling production in a way that doesn't mean loss of livelihood

So what we need is a different 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 more opportunities for living differently that follow us to produce less stuff without increasing misery.

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. 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 society where exchange value is the guiding principal 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 the most radical response that we are seeing to the Covid -19 outbreak challenge the dominance of market and exchange value. Around the world government are taking actions that three months ago locked impossible. In Spain, private hospitals have been, nationalised. In the UK, prospect of the nationalising various modes of transport has become very real. And France has stated its readiness to nationalise large businesses. Likewise, we seeing the breakdown of labour market. 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 prefect. 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.

State socialism describe 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 measure we are currently seeing in the UK, Spain and Denmark. The key here is that measure like the nationalisation of hospitals and payment to workers are seen not as tools to protect market, but a way to protect the parts of the economy that are essential it life: the production of food, energy and shelter for instance, so that the basic provisions of life are no longer subject to the whims of a 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 that we are able to produce with a educed workforce.

Mutual aid is the second future in which we adopt the protection of life as the guiding principle of our economy. However, in this scenario, the state does not take a defining role. Rather, individual and small group begin to organise support and care within their communities. The risk 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 ambitious2 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 response to stop the spread of disease and to treat patients.

Fiscal mechanisms can help support recovery and resilience efforts, while promoting low-carbon development. The Indian government has announced an economic stimulus of INR 1.7 trillion, and is exploring another bailout of INR 750 billion of Micro, Small and medium Enterprise (MSME), among other steps. Several sectors, like the aviation and auto industries, will need support in order to recover. This will require consideration of the fiscal situation, and presents an opportunity to encourage greater sustainability by making this support conditional on cleaner technologies and fuel efficiency.

Meanwhile, the government can increase taxes on luxury sectors with high environmental impact. It can also use this opportunity to rationalize fertilizer subsidy and increase taxes on fossil fuel, with the saving and proceeds returning to target populations through cash transfer or social safety nets. The current crisis has changed patterns of consumption. Electricity usage patterns have shifted as people are working from home om more flexible schedule. Nonessential purchase have temporarily ceased. All these offer an opportunity for implementing demand -side solutions to drive long term behaviour changes for more sustainable development.

For instance, encouraging conservation in energy- through nudges and tariff reforms-can drive down consumption. Promoting reuse, recycling and repair models for consumption can contribute to a circular economy and reduce the waste generated by current business models. Supporting the continuation of work from home policies can drive road traffic congestion and air pollution. Bio-composites are an exciting new solution to the everincreasing demand for industrial raw materials. These are structures that have naturally occurring minerals woven together into a matrix of natural fibres, such as cellulose and lignin.

Because of their strength, lower weight and recyclability, bio-composite products are being used as environmentally superior alternatives to traditional raw materials such as wood and plastic. For instance, starchbased clay nanocomposites can be a possible alternative for food packaging, while certain bio-composites are used to supplement high-strength carbon fibre structures for industrial applications.

• India's manufacturing industry is highly diversified. A substantial majority of all industrial workers are employed in the millions of small-scale handicraft enterprises. 30% of the total population of India depend on daily wages for survival. The current lockdown has disrupted the livelihood of these people. We are even seeing a rapid de-urbanization with people migrating out of larger cities to their home towns. This is the time where state Governments can also focus on the job creation in the same sectors such as strengthening labour schemes, local startups and small-medium enterprises to ensure employment for these migrants. Governments can address this by pursuing policies that have already proved successful previously, such as measures to improve the energy efficiency of buildings, which created jobs, has reduced energy bills and helps the environment.

- Organisations working in research and implementation can adapt policies which support going digital such as work from home and conducting conference calls instead of face to face meeting. Nevertheless, this could also be adopted by their private and public clients.
- The government needs to focus on core areas which can help the most vulnerable of our population and strengthen healthy living for all.
- All the stakeholders could be more focused on the webinars, online training programs, seminars that could be benefitted commercially.

There is a widespread belief in India that SDGs have been a part and parcel of India's longstanding tradition and heritage. This could remind us of Mahatma Gandhi's social thought which he left behind months before his assassination,

"Recall the face of the poorest and the weakest man whom you may have seen, and ask yourself, if the step you contemplate is going to be of any use to him. Will he gain anything by it? Will it restore him to a control over his own life and destiny? In other words, will it lead to swaraj [freedom] for the hungry and spiritually starving millions?"

> Ritika Swapnesh Mutha

SYBAF, H.R. College of Commerce ど Economics

Abstract: Ever thought about how did a health crisis translate to an Economic crisis? Why did the spread of the coronavirus bring the global economy to its knees? How can it be cured or at least prevented? The answer is in two methods by which coronavirus stifled the economic activities. First, the spread of the virus encouraged social distancing which led to the shutdown of financial markets, corporate offices, businesses and events. Second, the exponential rate at which the virus was spreading, and the heightened uncertainty about how bad the situation could get, led to flight to safety in consumption and investment among consumers, investors and international trade partners. We focus on the period from the start of 2020 through March when the coronavirus began spreading into other countries and markets. We also did observations in assessing the restrictive measures, monetary policy measures, fiscal policy measures and the public health measures that were adopted during the period. We also have done analysis on death rate.

The findings reveal that the increasing number of lockdown days, monetary policy decisions and international travel restrictions severely affected the level of economic activities. In contrast, the imposed restriction on internal movement had a positive impact on the level of economic activities and environmental issues. The world is grappling with an invisible, deadly enemy, trying to understand how to live with the threat posed by a virus. For some, the only way forward is to continue living as countries are under lockdown and regular life seems to have ground to a halt. Humankind is now facing a global crisis. Perhaps the biggest crisis of our generation. The decision people and the government take in the upcoming weeks will probably shape the years to come. They will shape not just our healthcare systems but also our economy, politics and culture. The covid-19 pandemic caused by novel coronavirus or SARS-COV-2 has done unimaginable loss to lives, businesses, daily wage workers and so on.

It's been 2 months and a week all of these and thoughts started to strike in. All of us following the lockdown. No social gatherings, no visits to public or holy places, no public transports, no eating at restaurants. People visited each other at someone's have bar or restaurant. We used to sit beside each other on couch, table, stool. We leisurely shopped for groceries and clothes because we all had jobs and salaries were not given with 50% cut. But Alas! All of these activities were carried before this pandemic arose. But we did not appreciate it enough to know and understand its importance. The importance of freedom, even in minute details of day-to-day life. The first person to have contracted COVID-19, may have been an individual from Hubei province in China. That case dates back to November 17,2019, that's approximately a month earlier than doctors noted cases in Wuhan, China. At the time, authorities suspected the virus stemmed from something sold at wet market in the city. The Corona virus disease (COVID-19) is an infectious disease caused by newly discovered coronavirus. People infected with the virus will mostly experience mild to moderate respiratory illness. Older people and those with co-morbid issue such as cardio vascular disease, diabetes, chronic respiratory disease and cancer are likely to develop serious illness. We, Indians were living our busy lives at our best until the first case of COVID19 pandemic was reported in our country. It was on 30th January 2020. Later when the cases kept on increasing, on 22nd March 2020, the whole nation observed a 14hours voluntary public curfew at the instance of our honorable Prime Minister Narendra Modi. Further on 24th March, the Prime Minister ordered a nationwide lockdown for 21 days, which affected an entire population of 1.3 billion. The nationwide lockdown had a number of restrictions, some of which are- Ban on people from stepping out of their house, all services and shops should be closed except foressential services which included pharmacies, hospitals, banks, grocery shops. Closure of commercial and private offices (Only work from home was allowed). Closure all places of worships. Suspensions of all educational training and research institutes was ordered. Also, suspension of social of all non-essential public and private transport. Prohibition of social gathering in any case.

According to World Health Organization (WHO), social distancing is very important in order to control the increase in cases. Social distancing the idea is to maintain a distance between you and others. In this case, at least six feet. That means minimizing contact with people, avoiding public transport, limit nonessential travel, work from home, skip social gatherings and definitely do not go to crowded places ad sporting. "Every single reduction in number of contacts people have per day with relatives, friends, co-workers in school will have a significant impact on the ability of the virus to spread in the population". Said Dr. Gerardo Chowell, chairman of population health sciences at Georgia State University. Well, this strategy has saved thousands of lives both during the Spanish flu pandemic of 1918 and more recently in Mexico City during the 2009 pandemic. The only way to control Coronavirus is to flatten the curve, many and most of the countries such as China, America, Italy have failed to flatten the curve at a larger extend and got the result in loss of lives and increase in number of infected cases. Because of all this, India initially in its initial stage came up with the strategy to flatten the curve with public curfew and lockdowns but however, India was not able to stop the increasing cases and also the impact of sudden lockdown has resulted into decrease in India's GDP by a mere 2.1 percent in the 4th quarter of FY20, weakest in at least 8 years. (Economic times) not only India but other powerful countries such as America has also faced a reduction in GDP growth by 5.9% in April. And now talking about the world, with more than 20 lakh people infected worldwide and 1.27 lakh dead, the COVID-19 pandemic shows no sign of abating. Till date no vaccine has been found. The International monetary fund (IMF) has revised its global GDP growth estimate from 3.3% just 3months ago to a contraction of 3%, something not since the great depression of the 1930s. (Economics Time Wealth) Covid-19 has made people jobless. The unemployment rate in India during lockdown is 27.11% till may 3 as at the end of April which increased by 7% from mid-march. According to newspaper named The Hindu, Maharashtra stands at 9th position with 20.9 % of unemployment rate. While Puducherry is topping the list with 75.8% of unemployment followed by Tamil Nadu with 49.8% and with lowest employment rate is in Himachal Pradesh with 2.2% and second lowest is Sikkim with 2.3%. The number also hikes up in U.S. as 26 million people lost their jobs. Also, according to united Nations Labor Organization,195 million full time jobs could be lost in the second quarter to business shutdowns.



	Sno	Date	Time	 Cured	Deaths	Confirmed
0	1	30/01/20	6:00 PM	 0	0	1
1	2	31/01/20	6:00 PM	 0	0	1
2	3	01/02/20	6:00 PM	 0	0	
3	4	02/02/20	6:00 PM	 0	0	
4	5	03/02/20	6:00 PM	 0	0	3
524	525	31/03/20	8:30 PM	 1	1	79
525	526	31/03/20	8:30 PM	 2	0	
526	527	31/03/20	8:30 PM	 14	0	101
527	528	31/03/20	8:30 PM	 0	2	26
528	529	31/03/20	8:30 PM	 0	0	38

The data used for various graph is collected from github.com. The basic structure of data is as follows, Variables of data set are: Sr.no, Date, Time, State/Union Territory, Confirmed Indian National, Confirmed Foreign National, Cured, Deaths, Confirmed. This data is updated till 25th April 2020 and it contains data point of Indian States and Province. State wise collection of data points are done. With help of Tableau Software, importance of the above data was memorized by plotting various graphs. If we here coronavirus the 1st thing comes into our mind is confirmed cases, cured cases and last but not the least number of deaths. The below graph shows state wise distribution of confirmed, cured and death cases.



The above graph describes the confirm cases with State wise distribution of patients till 25th April 2020. The highest being Kerala and Maharashtra, followed by Uttar Pradesh, Telangana and Rajasthan.

The next graph describes the cured cases till 25th April 2020. Uttar Pradesh topping the list followed by Maharashtra andKerala.

The next graph describes the death cases till 25th April 2020. Death toll is highest in Maharashtra followed by Gujarat and Karnataka. Kerala has improved death toll with being the least.

The next graph describes about the death cases and the plotted trendline is moving upwards as a result we can observe more deaths in future and this can be harmful to the Indian society if there is no control over the virus.







Also, the only way to control this virus is to flatten the curve as no vaccine has been discovered yet. Now let us have a look at the curve. In the graph, we can clearly visualize, instead of curve flattening the curve has taken an upward trend and which gives us clear indication of a greater number of cases in India in the upcoming time. The data set is giving us a clear visual about the drastic change in number of cured, confirmed and death cases.

Working more further a new data set was taken into consideration of state wise Aadhaar saturation data from uidai website and a new variable was created which is case per 10 million and a correlation plot was obtain between various variables to check the relation between the variables. Correlation graph is taken as a reference graph. Reading the correlation plot, we get a clear idea that correlation between death case and confirmed case is highest with 0.95 which is strong positive correlation. Also, there is a positive correlation between cured cases and confirmed cases.





Many young teenagers think that they don't have any risk and can continue to socialize but the truth is young people are by no means immune. No question that older people and those with underlying health conditions are most vulnerable to the virus, but young people may also contract the virus. People who show only mild symptoms may pass the virus to many other. Abdullah Shihipar writes in an opinion essay, 'Coronavirus and the Isolation Paradox', that, "while social distancing is required to present infection, loneliness can make us sick".

The Health Resources and Services Administration cautions that loneliness can be as damaging to health as smoking 15 cigarettes a day. In an essay for the Financial Times, Novelist Arundhati Roy writes about Indian Prime Minister Narendra Modi's response to the threat and also offers a glimmer of hope for the future.

"Historically, pandemics have forced humans to break with the past and imagine their world anew. This one is no different. It is a portal, a gateway between one world and the next. We can choose to walk through it, dragging the carcasses of our prejudice and hatred, our avarice, our data banks and dead ideas, our dead rivers and smoky skies behind us. Or we can walk through lightly, with little luggage, ready to imagine another world. And ready to fight for it".

Also, my heart reaches out to daily wage earners, small business owners and selfemployed persons in marginalized communities are facing the burnt of nationwide lockdown and loss of livelihood. The concept of home is different to different people. For some, it is a place, a thousand miles away where they desperately want to reach, at any cost without a penny in pocket, a vehicle to get on or even a pair od slippers for the bleeding sides, with the hope of being at peace. While some hoard more essentials for family and sip on Dalgona, some share a single roti among three. While we miss our social gatherings with friends who are a video call away, they cry on streets unable to reach their loved ones. While we crib about running out of things to do in our comfort at our home, they walk barefoot for miles to reach theirs. The list is never ending, the story is witnessing one of the worst migrant crises in country and smirking at our hypocrisy. Storms always hit the lowest of low. Understand and acknowledge the privilege you got. Do what you can to ease their load. The lockdown has imparted positive impact on our environment as well, emission and effluents have reduction, Air Quality Index (AQI) has improved. Beaches and Water bodies such as river Ganga and Yamuna are clearing.

Coronavirus will surely impact our future in terms of supply chains, wages and productivity. While if talking about the workers there will be huge impact on physical and mental health of workers. And moreover, the economy will be drastically affected. Also, as we have seen the GDP of various countries and globally, it has been drastically affected in present so we have a clear idea about GDP in future. Also, there will be cash and liquidity crises as most of us are running out of cash. Interactions between individuals. And as migrant labors are drastically affected by this novel coronavirus we can imagine in our near future construction works will not turn back to normalcy soon. I wish this all comes to an end soon and everything falls back to its normalcy.

Normal life of people is likely to be redefined in post-coronavirus phase when lockdown is lifted and the masses resume their daily routine.

The world has survived all pandemics of the past. We are alive and more populous then ever is proof to that. Humans have vanquished past pandemics with much lower degree of medical advancements.

Even after all of this is over, everybody will be advised to wear mask while going out. Social distancing would be practiced, because novel coronavirus is now a human virus. It is here to stay possibly for decades if not forever, much like HIV, dengue and influenza viruses. The government must strengthen public health care infrastructure particularly in the towns and villages. Basic hygiene rules should be taught and mr

> Mohammed Moheed

K.C. College

What do we mean by covid 19? Do you know that covid-19 is not a synonym for corona virus rather corona virus is the name of the disease which is caused by the virus named covid-19. Also, previously known as "2019 novel corona virus."

The awful history of corona virus is said to be that, "in late 2019 someone at the now world famous Huanan seafood market in Wuhan was infected with a virus from animal." While this pandemic disease has various theories of how it has emerged, it is hard to believe what is true and what isn't. Here Prof. Stephen Turner, head of the department of microbiology at Melbourne's Monash University, "says what's most likely is that virus originated in bats. But that's where the certainity ends, he says." Turner further said that, "On the hypothesis, that the virus emerged at the Wuhan live animal market from an interaction between an animal and a human."

Due to this pandemic disease, the world so far from Jan 22, 2020 to May 5, 2020 has faced 250,000 deaths around the world. With no offence, whether or not China is responsible for such an act, this catastrophe has tend to not only extremely large number of deaths but a major global recession. The world economy faces massive tragedy, imbalance and depression. Countries like China, Italy, Spain and U.S.A has faced numerous deaths and their economic condition could not be any worse.

While on one hand there is the rest of the world and the other, there is India which is said that due to our Prime Minister, Sir. Narendra Modi who had previously, very smartly taken precautions and started the lockdown in the country at a very early stage. Starting the lockdown and taking safety measures has lead India to be in less jeopardy than the rest of the world. If this step had not been outsmartly taken by the PM in the past, our condition would have been worse due to huge population and poverty.

India has incredibly handled three lockdowns with its enormous population of 1.3 billion. The first lockdown stated on 24th March, 2020 limiting the movement of the entire country which were then followed by other two lockdowns. The lockdown had resulted in complete shut down of all services and shops except for pharmacies, hospitals, banks, grocery and other essential services.

India has stood strong together in this pandemic situation and set an unforgetable example of social distancing and following the rules instructed by the PM. One of the biggest producer of hydroxychloroquine an antimalarial drug is said to be the "game changer" in the fight against covid-19. According to the sources, India manufactures 70% of the world's supply of hydroxychloroquine due to which we have the capacity to quickly ramp up the output of the drug.

In present, India has confirmed 49,391 total cases of corona virus patients and 1694 deaths. While on the sunny side, 14,183 cases are said to be recovered. It is said that India will be exporting hydroxychloroquine to more than 20 countries to aid the fight against covid-19 pandemic.

Currently, the future of India is uncertain just like any other country but if things tend to work out for India we could say that India will get global recognition not just in scientific terms but also in terms of global leadership. Meanwhile, we can see that India has been helping hand to the world in not just terms of medicine but has also shown great discipline and stood firm even with having second highest population in the world.

To rise from the ashes of this global recession is going to be very difficult in future for the whole world. On the good side, pollution has immensly decreased, mother nature is healing and being flourished. The world will struggle to get up and start again economically but whereas India, in my opinion will at least have a way to prosper and economically strengthen through the field of science and medicine globally which will increase employment and slowly but hopefully eradicate poverty. Hereby, I conclude by saying, "India has so far incredibly stood as steady as a rock while being hit by such a diabolical pandemic."

Sanaya Zubin Bulsara

S.Y B.com

The Byramjee Jeejeebhoy College of Commerce

Never have I seen such a mess in life.

The air is pure but wearing a mask is mandatory.

Roads are empty but it is impossible to go on long drive.

People have clean hands but there is a ban on shaking hands.

Friends have time to sit together but they cannot get together.

The cook inside you is crazy, but you cannot call anyone to lunch or dinner.

On every Monday, the heart longs for the office but the weekend does not seem to end.

Those who have money have no way to spend it.

Those who don't have money have no way to earn it.

There is enough time on hand but you cannot fulfill your dreams.

The culprit is all around but cannot be seen.

If someone leaves this world, he cannot be bid adieu.

Take some time make it worth the spend,

Take a moment a breathe the fresh air before its polluted all over again. Watch the empty and peaceful streets and absorb the silence before its all Chaotic all over again .

Who new ludo, scrabble, housie, and card games would be back in trend Never have I seen such a mess in life.

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a blink of an eye everthing will change again.

#### Insiyah Bhanpurawala

F.Y BBA

Vishmakarama University





Trunal T. Kamble

Sem 6, Shri Bhagubhai Mafatlal Polytechnic College



Sneha Dayanand Kotian Tolami College of Commerce, Mumbai SY BMS



Janhvi Suryanarayan Vidya Mali S.Y.B.com Lala Lajpatrai College



Sneha Chavhan SY BCom MD Shah Mahila College of Arts & Commerce, Malad (West)

# Kiran Report 2020-21

KCEC organised the National level Essay writing and Poster Making competitions, Theme: "COVID-19: Past, Present and Future of India. There were 47 entries from various institutes all over India. Dr Anil Rai, Chartered Engineer from Engineering Council UK, Chief Engineer with Black & Veatch Pvt. Ltd, (Black & Veatch Corporation, USA) kindly agreed to judge the essays & posters. Our committee member, Ms. Poonam Sharma, EVS faculty for our Junior College was the second Judge for the posters.

KCEC celebrated The World Environment Day by organizing the National level webinar "Mathematical Models of Tipping Points in Ecosystem" On 5th June 2020, jointly with the Department of Mathematics, under DBT Star Scheme. In his talk Dr. Guttal mathematically explained how the rate at which the damages are done to the Ecosystem is much much higher than the rate at which we can do the repair to the damages to the Ecosystem. On behalf of KCEC Ms. Pratiksha Kadam, Dr. Rajesh Samant. Ms. Usha Gollakota and the student volunteer Ms. Nishna Paria helped to conduct the Webinar. Apart from the students and the teaching faculty of various colleges in and around Mumbai, the webinar was attended by the researchers from many Universities and many research Institutes like Wild Life Institute, IISER Pune. IISER Tirupati, IIT Bombay, IISER kolkatta ICT.(91 Participants including one from Singapore)

# Kiran Report 2020-21

The Environment Committee, in association with the Department of chemistry, under the aegis of DBT Star College organised a webinar on "Waste Management" by Ms. Anita Deshpande founder-reCharkha The Eco Social Tribe, on Tuesday 16th March, 2021 at 4 P.M. Ms. Anita explained how they recycle plastic waste to prepare bags, cushion covers. Around 145 students and faculty from K.C. College and from few other colleges in Thane, Mumbai regions attended the webinar.

The 10th issue of our magazine "The Environment Space", which is a special issue in which the essays and posters of the winners of the National level competition, Theme: COVID-19: Past, Present and Future of India, are being published, is ready for the publication. Our committee member Mrs. Pratiksha Kadam is the editor of the magazine. Ms. Aditi Sharma from FY BSc is the student editor. This issue will be the first issue for which we are doing E-release.

- Mrs. Gollakota Usha V V Hemasundar Convenor, KCEC



Management"