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# COVID - 19: IMPACT AND RESPONSE

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COMPILATION OF REVIEWS ON  
COVID-19 PANDEMIC



Editors:

Dr. Sagar A. Vhanalakar  
Dr. Sharadrao A. Vanalakar  
Mr. Chetan P. Bhagat

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## Editors

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## **Preface**

*The new respiratory pandemic disease i.e. COVID-19 has caused disruptions in the lives and customs of people with significant impact on the economies of nations. The outbreak of the disease is a global health emergency and of international interest. This global health challenge leads to the infection, morbidity and mortality of many people.*

*In the weeks since the World Health Organization manifest the corona virus (COVID – 19) episode a worldwide unstipulated wellbeing crisis, the COVID-19 pandemic has influenced 212 nations and forfeit increasingly than 400,000 lives. Still today there is no successful remedy to lockup the spreading of this infection. The pandemic is developing prior disparities, uncovering vulnerabilities in social, political and financial frameworks which are thusly intensifying the effects of the pandemic.*

*Governments of various nations adopted restrictive measures involving both within the countries and at international borders as effective response to the corona virus pandemic. These measures includes confinements of workers and order to work from home, banning of social and religious gatherings, closure of market places, closure of workplaces including airports, building or creation of testing and isolation centers, quarantining/isolation of suspected persons, self-imposed isolations, and the use of face masks whether surgical or cloth type in situations where there is a cogent reason to defy the restriction.*

*Academic communities were not left out as institutions of learning were requested to close in many countries since it is very easy to spread the virus among students and youths in tertiary institutions where socialization is an essential part of their lives.*

*To address the various issues related with the COVID – 19 Shri. Mouni Vidyapeeth's Karmaveer Hire Arts, Science, Commerce and Education College, Gargoti with*

*collaboration with Bhumi Publishing, India organized two days Virtual International Poster Conference on 12 – 13 June, 2020. The platform of conference brings more than 1000 researches, academicians, teachers, students and community stakeholders together to share their views on this pandemic.*

*This is our effort to publish selected papers from conference in the form of book. It is an assemblage of variety of information about COVID – 19 pandemic and strategic plans to face the current situation. The interdisciplinary approach of the book will make the book useful and informative to the students, teachers, researchers, scientists and policy makers in India and abroad.*

*We specially thanks The Management and Governing Council of Shri Mouni Vidyapeeth, Gargoti, for their valuable inputs in the form of encouragement and trust on us to organize such a nice event of virtual conference . We also express our thanks to Principal, Teaching staff, Non-teaching staff of our college for their support. We thank our publisher Bhumi Publishing, India for taking pains in bringing out the book.*

*Finally, we will always remain a debtor to all our well-wishers for their blessings, without which this book would not have come into existence.*

**- Editorial Team**

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## **SOCIO-ECONOMIC IMPACT OF COVID-19 ON INDIA AND WORLD AT LARGE**

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### **Abstract:**

The entire world recorded more than 6.15 Million Covid-19 positive cases, where as India recorded more than 1,80,000 positive cases and more than 5,000 people were died from Covid-19. The countries are being maintained the lockdown to protect themselves from the Covid-19 as per the instructions given by the WHO. Where as India also maintained the Lockdown. IMF released the GDP growth rate of World and India, that is -3.8% and 1.9 for the year 2020 respectively. Asian Development Bank (ADB) staff released the data an amount of contribution lost by world and developing Asia that is \$77 Billion to \$347 Billion and \$15 Billion to \$42 Billion respectively, because of this Covid-19 lockdown. At present entire world become the global village, the trade transactions among the countries is being happened. It was broken by the Covid-19. Some countries announced stimulus package for increasing the liquidity position. The Covid-19 impacted not only economically but also socially that means Political, Educational, Psychological, Culture, Climate and Miscellaneous impact was happened due to Covid-19. Socially, Covid-19 impacted some what positively but to face the overall impact it needs to follow an effective guidelines. To face this impact our study recommends SEP Suggestions. SEP contains SIA Suggestions and PEC-MEC Suggestions. These suggestions will help the countries to face the Social and Economical impact of Covid-19.

**Keywords:** Covid-19, Socio-Economic impact, SEP Suggestions, SIA Suggestions, PEC-MEC suggestions.

### **Introduction:**

The Novel Corona Virus or Covid-19 was changed the direction and life style of the human beings. It has also changed the Economic position of the countries. It impacts each every dimension of the society as well as the economy. The first Covid-19 positive case was reported with the Cold and Cough symptoms in the month of the December in 2019 in Wuhan City, China. The World Health Organization declared the outbreak a public health emergency of international concern on 30 January, and a pandemic on 11 March. Later the virus is expanded to the various countries. Initially, Italy was highly impacted by the Corona Virus after the China. After that, it moved to Spain and expand very quickly. Until the month of February, the major victims of the Covid-19 were China, Italy and Spain. Covid-19 has spread all over the world. The World Health Organization advised the counties to hold the lockdown in the respective countries to break the chain of Covid-19. The countries decided to hold the Lockdown for the long period of time. As the result of this, the Economic Cycle of the country, Purchase Power of Consumers, The social relations among the people, all types of companies and industries have been stopped temporarily due to this Covid-19 lockdown in every country. Some countries adopted free lockdown mechanism and some countries adopted restrictive lockdown mechanism. The social impact of the Covid-19 includes the Political hygienic; it creates inequality among the people and mental health issues also happening because of this Covid-19 Pandemic.

### **Review of Literature:**

There are many channels by which a disease influences the country's economy. Direct and indirect economic costs of illness are often the subject of the health economics studies on the burden of disease. The

conventional approach uses information on deaths and illness that prevents work to estimate the loss of future income due to death and disability. This approach underestimates the true economic costs of infectious diseases of epidemic proportions which are highly transmissible and for which there is no vaccine (e.g. HIV/AIDS, SARS and pandemic influenza). The experience from previous diseases we can take the valuable information on how to think about the implications of COVID-19, WHO Commission on Macroeconomics and Health, 2001. **World Bank's** assessment states that, India is expected to record its growth rate between from 1.5% to 2.8% And IMF projected a GDP growth of 1.9 per cent for India in 2020 because the global economy is affected by the COVID pandemic, it compare this situation as the worst recession since the Great Depression in the 1930s. Indian economy has been facing the economic recession from pre-covid-19, the recession begun with the automobile industry later on it surpassed through the other industries and damaged the entire Indian economy.

**Need of the Study:**

The Covid-19 pandemic is now being spread to everywhere. It expands its scope worldwide. The entire world is under the lockdown to protect them from the Covid-19 pandemic. The World Health Organization advised the countries to hold the Lockdown to break the Covid-19 chain. WHO strongly believes that the lockdown is the only thing to overcome the problem. By implementing the lockdown in countries it leads to some problems also. Even there is an advantage to break Covid-19 chain, there are some problems to be faced while implementing the lockdown. The financial position of the each and every country irrespective of the development is destroyed. The developed countries, developing countries and least developing countries also facing the financial crises. Because, the Economic Cycle has been broken due to this lockdown. The organized and unorganized sector has been facing the financial crises. The companies, businesses, industries and self employment is following the lockdown. The Agricultural sector, Industrial Sector and Service sector functions have stopped. So that, the employment cannot be created, money cannot be generated by them. The Covid-19 is not only impacted on the economically but also on the Social events. The educational activities, political activities also stopped. The Migrants Workers condition is very serious and critical. The relationship among the people is damaged. To know the detail analysis regarding to the Economic and Social impact of Covid-19 pandemic this study is needed.

**Objectives and Methodology:**

To understand the above things it is necessary to observe this study. The main objectives of the study are to find out the exact and accurate economic impact of the Covid-19 in India and World wide. To find out the problems which have been facing by the people during the lockdown of Covid-19. To see how the Covid-19 is impacting on the education sector and political activities. To understand how the Covid-19 is damaging the relationship among the people because of its nature. To know about the critical position of the Gross Domestic Product (GDP) of the country. Assess whether the Covid-19 leads to great depression after 1930 or not. To understand about the Covid-19's impact of the country with respect to Agriculture, Industry and Service sector. The key objectives of the study are to know the Economic and Social impact of the Covid-19 in India and World. For studying the above things and proofing the objectives, we have taken the secondary data as source. That means, we gathered the information from the government official websites, government institutions data, the economic survey institutions, the government official announcements, the articles published by another ones, the books published by the national and international statistical institutions. We have mentioned the references of my study in the references section in detail.

## **Results and Discussion:**

**(1) Economic Impact of Covid-19:** Income Cycle is the key component for every country's economy in Income cycle there are some people who sell and purchase the goods and services each other. One person spends and another person receives. That means one person spending is another person income. The person will spend the money to meet his needs and requirements. Then only the money will be circulated in the country economy. If any one of the two activities like spend and receive will stop then it would be impacted on the economy. Money cannot be circulated as the result there is a possibility to face the inflation and economic recession. Now, Entire world people have been facing the unbelievable situation that is Covid-19. This even been happened in the past days. The entire world economy was destroyed due to World War-I and World War-II. The entire world economy destroyed beyond the 2 World Wars damage.

**(2) Economic Impact of Covid-19 in India:** The Great Depression was happened between the 1929-30. At that time the entire world economy was destroyed due to lack of savings among the people as well as governments. In the year 2013, another Economic Recession was happened in the United States of America (USA) and it expanded almost all developed and some of the developing countries. At that time most of country's economy was damaged but the Indian economic was overcome the situation by maintaining an effective monetary policies. But from the last 2 to 3 years our Country economy is not that much appreciable and effective because of some reasons and economic reforms. India faced so many financial crises but the Covid-19 financial crises are unique apart from all of those. It will take much more time to perform as earlier. The impact of Covid-19 on Indian economy Started with the automobile industry, later it expands its scope from it to every sector. Mainly it damage the Industry and as well as service sector. Even majority of the people depended on the Agriculture sector, the Percentage of GDP contribution from the Agricultural sector is less. Moreover the contribution of Service sector is very high among three Sectors particularly in India.

**2.1. Covid-19 Impact on Indian Agriculture Sector:** As we know that, every country has the three sectors called Agriculture Sector, Industrial Sector and Service Sector. Apart from all of these, Indian people are highly dependent upon on the Agricultural sector. According to the 2011 Agriculture Census report, around 61.5% of the 1300 Million Population in India are depending on the Agricultural sector it self. The agricultural sector only provides the employment for most of the people in the country. But if you see the contribution from the Agriculture to the GDP is 12 – 15 Percentage. The Agriculture sector primarily engaged in growing crops, raising animals, and harvesting fish and other animals from a farm, ranch, or their natural habitats. The reason behind the less contribution is Indian farmers follow the traditional mechanism to farm their agriculture lands. They argued that they cannot be gotten benefits from the government in the real time. Initial days of the Covid-19 lockdown the farmers and agriculture labors highly impacted and they cannot be able to perform their duties in the field. They lost their investment and also lost their season. Generally, in India these days for the Mangoes, Banana, and other crops. If you see the current position the market of those items won't be expectable. In starting days, government instructed the farmers and agriculture labors not to do operations in the agricultural land, later the government allowed them to perform their works in the field. Even though government provides the permission to them they cannot be performed as like as earlier due to money and other problems. They need money to invest and farming the field. Economists delineated agriculture's major roles in economic development, in terms of contributions like products, markets, factors and foreign exchange. Product indicates that the supply of goods like foods and several raw materials (like cotton) for the industrial sector, while absorbing labour. This is the most critical contribution. And due to their scale of impact,

they are broadly explained as revolutions. Examples include the green revolution in crops, white revolution with dairy and blue revolution with fisheries. Not with standing the many lacunae in this model, India is today a global leader in their production. Analysis says that no Country cannot be provided the food facility to the entire Indians but our country can be provided to entire world. This can be done with the effective measurements only.

**2.2. Covid-19 Impact on Indian Industrial Sector:** The second and one of the important sectors for employing the people in India is Industrial Sector. 25% of the people of Indian population depend on the Industrial Sector. The contribution from the Industrial Sector is between 25 to 30% in every year to the GDP. The subsidiaries of the Industrial Sector in India are Micro Small Medium Enterprises (MSMEs), Small scale industries, medium scale industries, and Large scale industries, automobile industry, manufacturing companies and industries, industries concern with producing of the goods and services, tiny industries, textile mills, cotton mills, handloom industries and other units will come under the Industrial Sector. The automobile industry has been facing the problem from 1 year, the production of the units is also stopped due to lack of money. They cannot give the salaries to the Employees also. The big industrial companies like TATA, HERO, Maruti Udyogi Limited and other also decided to cutoff the salaries of employees and workers also. International Labour Organization warns that around 40 Crore of the country people lost their jobs in India out of which majority loss will occur from the Industrial sector alone. The MSMEs are playing an important role in the Indian economy and it also contributed to the GDP as much Percentage. The Large, Small and Medium Enterprises and Industries facing the financial problems. They want to get the financial assistance from the government. They appealed the government that to give the tax benefits to them or else give some loans with minimum interest rate. The government also providing as they are expected. Here the problem is to sustain the employees in the industries by giving the fewer amounts of salaries. People can't do anything without proper compensation. The industries are not able to give the compensation or salaries as employees want. As like as the every country facing the problem on exporting and importing and as well as trading among the countries also within the countries.

**2.3. Covid-19 Impact on Service Sector:** The Service Sector is the major sector for every country in the world. This sector is source of money to every country in the world. Even though that is developing country, this sector performs well. The service sector contribution to the India is around 50 – 60 % and after the Agricultural sector, the majority of the people in India working under this service sector. The subsidiaries of service sector are, Entertainment industries or companies, Hospitals, Communication channels, hotels, movie theaters, malls, tourism, transport, airways, railways, government services, electronic and communication, information technology and other subsidiaries come under the Service Sector. The impact of Covid-19 on the sector is un expectable and un assessable because, this sector is the source of money for government. This service sector is purely based upon the luxurious and as well as need and requirement for every people. The Cinema industry, comes under the Service Sector. Government of India stopped the functioning of the cinema industry. Around 2 to 3 crore people are getting the employment directly or indirectly from the Cinema industry. The subsidiary for the cinema industry is movie theaters, which is also providing the employment for the people. Due to this lockdown movies are not directing and producing as the result of it, the movie are not releasing in the theaters. Even though movies are released in the theaters, people are not interested to watch them in the movie theaters because of fearing about the public gathering. The fear in the people still going on particularly in the cinema theaters. As like as this, each and every subsidiary of service sector has damaged

**(3) Social Impact of the Covid-19:** As we discussed earlier, the Covid-19 scope is wider than the any other pandemic as like this impact is also wider. The Covid-19 is affected not only economically but also socially. The Social impact of the Covid-19 is nothing but, the implications of Covid-19 in Political, Education, Religious, Climate, Culture, Psychological, Personal inequality, Person gatherings and finally domestic violence. If you observe the social impact of the Covid-19 occurred by the mistakes of the humans. All the above things have been discussed in detail as below.

**3.1. Political impact of Covid-19:** Covid-19 can't impact on the politics, politics can impact the Covid-19. The politicians among the various countries are blaming their opposition party members and other nations. If you see the political war between the China and United States Of America. Both of these countries blaming each other USA argued the China was spread the Covid-19 through the Wuhan virus lab and the China argued that the USA was spread the virus through the military people to damage the China economy. The dialogue war between these countries is not acceptable, they should take appropriate actions on the Covid-19 and they should focus on the controlling of Covid-19. The America president Donald Trump was criticized for his response to the pandemic. In India the main opposition parties criticized the central government; they argued that the government didn't do the test as requirement. They just do the test who got the virus symptoms. India has the 130 crore of population, the government didn't do 5% of Covid-19 tests till now. The tests have done by the 29 States and 9 Union Territories of India are 1,08,00,000. If it is continuing it will affect in the future.

**3.2. Educational impact of Covid-19:** There are 35 Crores of Students in India, the number of students in India is equivalent to the population of United States of America. Now the position of those students is in difficult situation. There are number of National and international universities which are offering various courses to the students. Now a days every student dream is to study in the international universities like Harvard University, Stanford University and California University and University of Michigan and etc. In case of Indians majority of the students prefer to study in the Universities like JNTU, IIT and IIM or else in prestigious colleges. Covid-19 became the global pandemic in the Month of March; generally the March month is for examinations of the students. The international universities sent back the students into their hometown due to Covid-19.

**3.3. Religious impact of Covid-19:** The word religious represents that the group of people follow the same kind of traditions and customs. That means a particular group should follow the same kind of rules and procedure. Where are as these procedure will be different from one group to another group. Here the group is nothing but one religion. Now a days, the religious became the big issue in the every country sometimes it leads to wars among the nations also. That's why political analysts treat the word religion is the sensitive. All the activities have been closed due to lockdown. As like as that the religious activities also postponed due to this Covid-19.

**3.4 Climate impact of Covid-19:** Many of the Scientistssaid that, Quality in the Air is being improved in these Covid-19 days. As industries, aviation, and other means of transportation stop, air pollution is reduced countries severely affected by the virus, such as China, Italy, and Spain. Commuting is also reducing due to work from home policies. Our response to this health crisis will shape how we will deal with a climate crisis in the next decades.

**3.5 Cultural impact of Covid-19:** Some of the People say "Even bad is also for good" as like as that, the Covid-19 gave so many lessons to the human beings. It gave the information what to do and what not to do. There is a culture in the western countries to hug the people for greeting the new people. Where same kind of culture is is also followed by so many countries. Where as Japanese people greet the new person by bending their body towards the new people that is their culture. If you see Indian culture they greet the new people by holding their hands that is

called as “Namashkar”. Because, there is no persons tough while greeting another one. There is no possibility of spreading the virus among the people.

**3.6 Psychological impact of Covid-19:** World Health Organization issued a report related to mental health and psychosocial issues on March 18, 2020 by instructing some social considerations during the COVID-19 pandemic. Due to doubts if pets or other livestock may pass on coronavirus to humans, many people were reluctant to keep their pets fearing transmission, for instance in the Arab World, celebrities were urging people to keep and protect their pets. Meanwhile, people in the United Kingdom tend to acquire more pets during the coronavirus lockdown. The coronavirus pandemic has been followed by a concern for a great spike in suicides, at high by social isolation due to quarantine and social-distancing guidelines, fear, and unemployment and financial factors.

**3.7 Miscellaneous impact of Covid-19:** The impact on personal gatherings has been strong as medical experts advised, and local authorities often mandated stay-at-home orders to avert congregations of any size, not just the larger events that were initially restricted. Such gatherings may be replaced by teleconferencing, or in some cases with the strange attempts to maintain social distancing with actions such as a balcony sing-along for a concert, or a "birthday parade" for a birthday party. Replacements for gatherings have been seen as significant to mental health during the crisis. Many countries have reported an upsurge in domestic violence and intimate partner violence attributed to lockdowns amid the COVID-19 pandemic. Financial insecurity, stress, and uncertainty have lead to augmented hostility at home, through addicts able to control large amounts of their victims' daily life. United Nations Secretary-General Antonio Gutierrez has called for a domestic violence "Ceasefire". Unethically, person's inequality situation is being increased due to this Covid-19. The people who succumbed due to Covid-19 have been preserved as the untouchable persons in the society. No body is prepared to treat them as the human being. Even though they are recovered from the Covid-19.

#### **Findings and Suggestions:**

The Covid-19 impacted each and every sector in the entire world, it doesn't leave alone anyone. The scope of the Covid-19 is very large. Economically the Covid-19 Lockdown impact on the country people purchase power and also government spending. For solving these Economic and Social Issues, our study recommends or suggests the **SEP Suggestions** are classified into 2 categories, they are **SIA Suggestions** one is for the Economic Impact and **PEC-MECSuggestions** for the Social Impact. The acronym for the SIA Suggestions is The **S** refers to Service Sector Suggestions, **I** refer to Industrial Sector Suggestions and **A** refers to Agriculture sector Suggestions. The word PEC-MEC is an acronym for the **P**olitical, **E**ducational, and **C**limate - **M**iscellaneous, **E**quality and **C**ulture suggestions respectively.

**(1) SEP Suggestions for Economic impact of Covid-19:** SEP Suggestions for the economic impact of the Covid-19 is SIA Suggestions. The SIA Suggestions are basically advise the government to take the preventive actions to overcome the Covid-19 Outbreak Economic impact. The SIA Suggestions are recommended by ourselves for the sector wise viz., Agriculture Sector, Industrial Sector and Service Sector. We recommend the SIA Suggestions in reverse order are as follows.

**1.1. Agriculture Sector Suggestions:**The impact of Covid-19 on Agriculture is not that much but it will be impacted some what. The contribution of the Agricultural sector to the Gross Domestic Product will be declined compare than the previous year contribution. The main reason behind it is the farmers lost their seasons called Rabi, Karif and Zaid seasons. Generally, the Rabi season will be continued from October to March months. Karif season will be continued from the July to October. And Zaid season will be continued from March to June (between Rabi



and Karif Seasons). The Covid-19 has happened in the month of February (at worldwide) still it is going on. So farmers may lost their Karif and Zaid seasons. If this Pandemic Situation continue as usually it also impact on the main season called Rabi. So government should take an action on the Farmer welfare, and should provide Investment benefits to them. Government should also promote the agricultural products internationally. It should focus on the Lease Hold Labors and the short command land holders. Give them the financial assistance then they will do on their own. Governments are providing the lands for industries at cheap cost as like as that, if it will give to the farmers they would harvest in it. Even if government give the non-agricultural land, the Indian farmers have the talent of making the land it as Agriculture land. Its better to follow by government.

**1.2. Industrial Sector Suggestions:** One of the Major Sectors impacted by the Covid-19 lockdown period is the Industrial Sector. This sector is key component for the developed countries and as well as the developing countries. The industry sector contributed to every country's GDP at large amount. After agricultural sector, the Industrial Sector is the key sector. Particularly in India Micro Small Medium Enterprises contribution is very high through the Industrial Sector. Small and medium scale industries are facing a lot of problems due to this Covid-19. The government ordered them not to open their industries. Even though they allowed them to do operations. They cannot run them with the maximum extent of workforce. Then it is Advised to remove some of the workforce to save the money. The government should give the loans with single window system. The government should give the loan benefits to MSMEs, Small Scale industries, medium scale industries with minimum of the 50% subsidy amount for minimum of 3 to 5 years. Or else government should assured about their private loans. Then only there is a possibility of improving the industries. Now a days big industries and companies have also facing the problem due to this Covid-19. Even industries are facing the problems because of these crises, they should be follow CSR (Corporate Social Responsibility). There are so many industries are for giving money to the poor people in the name of CSR. Keen observation of the government is needed for all the industries as like as the MAHARATNA, MINIRATNA companies. If companies are not able to pay the full amount of salaries to operational level Employees, government should bare some of the amount in the salaries. Government should find out the Unorganized sector people and give them the loans and tax benefits. If they are daily labors, provide them the money benefits when they have no work.

**1.3. Service Sector Suggestions:** Developing countries and below poverty line countries, developing countries and developing countries are depending on the service sector. The contribution of this sector is high to compare than any other sector. The main intention of this sector is to provide the services for the country people. Public transport is also a part of this sector. Entertainment is also subsidiary of this sector. Majority of the income from the Service Sector contributed to the GDP in the name of Tourism. Government should encourage the pilgrims and also encourage tourist places in the India. But COVID-19 has dramatically changed this. The impact on tourism enterprises and workers, the majority being young women, is unprecedented. Timely, large-scale and, in particular, coordinated policy efforts both at international and as we all as the national levels are needed in consultation with governments, employer's and worker's representatives, taking into consideration relevant ILO international labour standards. The International Labor Organization recommends some of the advises like The COVID-19 crisis is drawing attention to the already overburdened public health systems in many countries, and to the challenges faced in recruiting, deploying, retaining and protecting sufficient well-trained, supported and motivated health workers. It highlights the strong need for sustainable investment in health systems, including in the health workforce, and for decent working conditions, training and equipment, especially in relation to personal protective equipment and occupational safety. Social dialogue is essential to building resilient health systems, and therefore has a critical role both in crisis response and in building a future that is prepared for health emergencies.

**(2) PEC-MEC Suggestions for Social Impact of Covid-19:** The government and as well as the common people should follow the PEC-MEC Suggestions. They are discussed as follows (for understanding purpose miscellaneous impact discussed at last)

**2.1. Political Suggestions:** Political impact of the Covid-19 leads to disputes among the people. Some of the politicians used this Covid-19 as the political promotional tool. They want to get the benefit from the Covid-19. The main intention of the criticism in the political context is, the governments take the limited number of Covid-19 tests. The reason behind it is showcasing their government as the best government to control of the Covid-19 in their country or state. The words war between the China and USA is going on till now. The USA president Trump and some other countries Prime Ministers and Presidents also criticized the china government. They said that the China released the virus intentionally. Due to this political arguments among the country, it damages the friendship among the countries. In federal government system, the central government doesn't allocate the money for overcoming the Covid-19. The main reason behind it is, there is one party in the central government and there is another party the state government. They only concern about the political benefits. This is not the acceptable condition. Should be fulfilled the word of Federal system in their countries. The foreword people are needed to face or overcome these type of instances.

**2.2. Educational Suggestions:** The country educational system slowly running towards for the online mode. In future most of the educational things will be conducted through online only. The mode of conducting of classes, the mode of conducting of examinations and other things will be done through online mechanisms. For covering the syllabus the schools and colleges are advised to use the Zoom App, Cisco WebEx meeting, Google Meet, Zoho Meet and other applications. For conducting the quizzes they are advised to use the Google Forms, Microsoft Forms and Zoho Forms and etc. In advance they can also adopt the interview technique instead of conducting of examinations. For example, in the **Italy** country the education institutions follow the online **interview technique** to assess the candidate knowledge. This is the best way for assessing the student. We can reduce the people gathering. Be sure about to adopt this kind of technology, the college/university/government bear the installation charges to maintain such kind of mechanism.

**2.3. Climate Suggestions:** Most of the survey agencies and governments agreed that the Covid-19 impacted positively on the environment. The birds, animals and climate are enjoying the peaceful nature. The environmental lovers advised that the every government should follow at least one day lockdown for every month. Then the pollution which is being released by the industries will be reduced. This is one of social benefits for the world environment.

**2.4. Equality Suggestions:** Covid-19 mainly impacts on the people health. It passed through the people touch and personal closure. By which it leads to untouchability system in future. The patients of the Covid-19 are also faced the same kind of problem. People are advised not to make it as the panic just maintain social distance to break the chain that's it. Don't treat the people as untouchable persons. We don't know what will happen in the future at that time no one is ready to care about you. We don't want to happen for us, but don't do like that.

**2.5. Culture Suggestions:** The cultural Suggestions should be followed by the people this will help to break the Covid-19 chain. Instead of giving shake hands try to do Namashkar to everyone in the Indian Culture. In this connection there is no persons touch. The Indian people do the marriages as the part of their culture. Usually, they call the number of people for their marriages and other functions. Try to concise the number of guests for their marriages. Promote the marriages with limited number of guests. Should not follow the people gathering things until vaccine comes into the world. Don't promote the useless things by spending the money.

**2.6. Miscellaneous Suggestions:** We need to consider the 3 things in this connection, they are Psychological impact, Domestic violence and people gathering. Firstly we concern about the Psychological Suggestions, the

viruses like Covid-19 psychologically impacted on the human health and it also decrease the human immunity power. They will also lost their live due to lack of psychological imbalance. The psychological balance should be maintained in this situation. Be strong and struggle as you can with virus, don't upset with the disease this leads to damage your mental condition also. Be strong and healthy. Secondly, domestic violence mainly is happening in the houses. This will be created by either husband or wife because of lack of emotional imbalance, personal problems and money problems all of these problems lead to emotional imbalance and one concept has created in their mind to create violence or to show up their dictatorship on the spouse or children. People are advised to with your children and spouse make them happy by seeing the movies, sports, other entertainment shows to reduce the stress and for maintaining the emotional balance. Finally, persons gathering this won't be happend right now, if it will happen in the future don't move closely to your friends Colleagues, relatives and other people for the long period. Even though Vaccine comes to the world it is better to maintain the Social distance for the long period. Meanwhile we can break the chain of Covid-19.

**Conclusion:**

The presented paper shows the actual impact of the Covid-19 in the Social and Economical aspects. The Covid-19 pandemic situation is still going on at worldwide. If one country got relief from it the another country will be affected. Even the country was gotten the relaxation from it, again it will beimpacted on it. So, don't take it as easy. Should follow the study precautions for a long while. Then only we will survive and other people will also survive. Government should concern about to announce the economic stimulus package for the country people to increase the money availability and to control the inflation in the country. Some of the people recommends that the Quantitative Easing policy to face the economic crises. The QE is nothing but the Reserve Bank or Central Bank of any country will purchase the government bonds and other securities, by which it will provide the money to government. However, government should take an effective decisions which will be benefitted for both government and people. People also should follow the social precautions to break the Covid-19 chain. Our desire is also that the Covid-19 Pandemic outbreak may end as soon as possible.

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## REVERBERATIONS OF COVID-19 ON THE EMPLOYMENT, LIVES AND LIVELIHOODS OF THE MASSES

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### Abstract:

The dictionary defines livelihood as the means of providing the necessities of life for oneself. It encircles people's capabilities, assets and activities required to secure the necessities of life. The shocks and stresses of the COVID-19 crises worldwide, although primarily considers health crisis but have a much broader impact on the global economy. Both the lives and livelihoods of millions of people are in danger due to this virus. The sudden emergence of this pandemic is a severe threat to the social, economical and the political realm of the world. According to ILO (international labour organization), this pandemic is expected to erase out 6.7 working hours globally by the second quarter of 2020. Agriculture, health care services, tourism, textile industries, small and large businesses, sales, education, transportations and all the other sectors are affected to a large scale. Some very serious upcoming issues are of migrant laborers, violence on women, suicidal deaths, crimes, bad mental health, huge decrement in employment opportunities for final year students etc. All the developed & developing countries suffering from Covid -19 are going to witness a huge setback in the GDP and the employment rates. The need of the hour is to find methods to tackle these problems. Federal responses, occupational licensing, paid sick leaves, defining essential businesses and workers, finding better alternatives to work from home, making stronger employment policies and debt-relief measures are some steps the government can adopt else the days are not far when this crisis will force the economical world to go years behind.

**Keywords:** Covid-19, employment, livelihoods, pandemic, measures.

### Introduction:

As the corona virus continues its march around the world-economic contagion is spreading as fast as the disease itself. The catastrophic effects of COVID-19 pandemic have started to show its color. The covid-19 crisis is expected to wipe out 6.75% of working hours globally in the second quarter of 2020 which is equivalent to 195 million full time workers. According to an ILO research note " This is the worst global crisis since World War II." Both the lives and the livelihoods are at risk from this pandemic. Independently of the evaluation of the crisis, the current measures already impact the most economically and food insecure people.

With less reassures, no access to social protection or safety nets, they capacity to cope with the loss of incomes put them at high of in depth poverty. The spread of covid-19 has already a large negative impact on labour supply and earnings of worker in all the virus-hit countries. These consequences are even harsher for the younger workers who live in the era of "The Gig Economy" which represents daily wage earners with unstable employment and very low incomes. If we talk about the economic impact of COVID-19 on India,

- Harvesting marketing crops at the farm level is in crisis across the country.
- These bottlenecks have led to a fall in the farm prices of a range of commodities in agricultural.
- The return of many migrant workers to their homes has meant that harvest operations are not taking place smoothly and many farmers are being forced to leave the crop in the field.

- Supply chains have been disrupted across the country for a range of commodities.
- The shortage of livestock feed and their availability is raising the costs of production in many animal husbandry units.

It depends on a number of factors;

1. The virus spread
2. The effectiveness of the policy responses
3. New shape of the economic damage due to the abrupt shifts in supply and demands.

Not a single sector is left unaffected by the market instability and lockdown induced by the virus.

#### **I Agriculture:**

The impact of the COVID-19 on the economy is no doubt devastating. No sector has escaped its impact. Its affect on agriculture is complex and varied across diverse segments that forms the agricultural value chain. It has widely different aftermaths among the different regions, producers and agricultural wage labourers. This will reverberate across the larger economy and is going to linger longer than a few months.

According to **Mark Stephenson & John Shutske (University of Wisconsin-Madison)**, the six major impacts on the agriculture are as follows;

- **MARKET AND FARM PRICES:** As we witness a growing level of concern, recommendations for social distancing, reduced travel, avoiding crowds, closures and other protective practices to slow the spread of COVID-19, consumers will be making tough choice about food. Dairy is prominently featured in out-of-home eating which is also going to suffer. In short , there will be some huge and sudden disruptions in food service areas.
- **SUPPLY CHAINS SLOWDOWNS & SHORTAGES:** As the logistics are disrupted and efforts proceed to slow the spread of the virus, multiple connected industries are already being impacted. With some products, “panic buying” is creating additional concern. Slowdowns could also impact the transport of fuels, fertilizers and other input movement and availability as we had towards the spring. There may be major concerns regarding the utilities - electricity, natural gas, propane based on input availability or labor shortages.
- **FARMER’S HEALTH:** Unlike other industry workers, farm operators, 26% are of age 65 years and more. A full of 11.7% of the principal farm operators are aged 75 and older. According to the data from various countries, COVID-19 has a much higher level of severity for those in their 60s and more, this suggests that the preventive and protective recommendations from the CDC and the state (or local) public health experts are critical for our farming population.
- **THE FARM WORKFORCE:** It is highly likely that the workers will need to be out of work particularly with school closures and/or workers who need to stay home to care for sick/elderly family members. The fear of this event and lack of information may also lead to higher levels of absenteeism.
- **WORKER SAFETY AND PERSONAL PROTECTIVE EQUIPMENT (PPE):** There are shortages of PPE and other protective equipment vital for operating farm safety and keeping workers and animals healthy.
- **OTHER DISRUPTIONS:** Sparse populations and less frequent travel may provide a natural social distancing or rural communities but there are challenges that may be faced by rural residents like unavailability of high speed internet services which deprives the students from the system of online education.

### **The Commercial Farming:**

The commercial crops are drastically hit as they tend to be more dependent on migrant labour. Consequently, the shortage of migrant labour has resulted in a sharp increase in the daily wages for harvesting crops. In many areas, the rise is as high as 50%, making it unremunerated for producers since prices have collapsed due to either lack of market access including the stoppage of transportation a closure of borders. This is in contrast to areas where migrant labourers have returned home from urban areas and this has led to a sharp decline in agricultural wages. The rise in labour costs and lack of access means that farmers are staring at huge losses and hence allowing crop to rot in the fields, a better 'stop-loss' mechanism.

Agricultural workers often live in the close proximity to the production site and to each other, which may increase the risk of exposure to COVID-19. Where workers are provided with housing, it is important for it to be in compliance with applicable standards requiring sufficient space, per person or per family, access to safe drinking water, adequate sanitary and washing facilities.

### **Possible shortages ahead:**

The intermediate consequence of this should make the government weary and alert to a possible sharp spike in the price of vegetables and other commercial crops due to large scale changes in cropping patterns. Large buffer stocks in wheat and paddy mean that food grains shortage due to poor harvest is unlikely, at least this year. The case of commercial crops and vegetables is more complex decision to plant these is largely dependent on realization price in the preceding seasons. A collapse in returns means that farmers are likely to shift to another crop thereby substantially altering supply dynamics and with its prices. This may have a bearing on food inflation. The pandemic may also have a significant negative impact on the plantation workers engaged in export-oriented, labor-intensive agricultural production in developing countries. The immediate impact will be felt in various nodes of the chain, including factories, warehouses and transporters, as well as the farms, which may have stopped the production and lay off pluckers, who are often among the most disadvantaged workers and highly vulnerable to economic reversal.

### **End of the lockdown:**

The end of the lockdown will not end the problem. Instead, they are likely to be compounded at the onset of the new agricultural sowing season. The most important issue that farmers have to surmount is the *problem of repaying their crop loans and gold loans at least for those who have borrowed from the formal banking sector*. Crop loans are paid between April-May & fresh loans are hence granted at the start of the new season. Recent price collapse means that the farmers are staring at high losses and most of them are already highly indebted and hence unlikely to have the means to repay their loans. Any failure to do so will mean that they will be forced to borrow money from the informal sector at very high rates of interests.

### **II Healthcare services:**

Access to healthcare is a fundamental human right, but the strain that the covid-19 pandemic has placed on healthcare systems everywhere has, in turn, affected many people's primary care provision. The pandemic has jeopardized these regular prenatal visits to the obstetrician or even made them impossible.

*"Millions of children missing out on routine vaccines is an alarm bell and risks further outbreaks of life threatening diseases like measles"* say Sacha Deshmukh, UNICEF U.K.

Healthcare has generally been immune to recessions in the past. Demand for medical care has been a constant since people get sick, whether times are good or bad. Also, those with health insurance have their out-of-

pocket costs taken care of and are still able to afford to get quality care. But the COVID-19 recession is different. Since people are being asked to practice physical distancing and minimize outside activities, many people who would otherwise *be using healthcare are now choosing to stay home*.

While healthcare workers are busy dealing with COVID-19 patients, healthcare offices are still suffering from the decline in other patients. *Some primary care practices have reported reductions in the use of healthcare services of up to 70%. Salaries of clinical staff are being reduced or frozen, and some staff are being furloughed.* There has been an increase in unemployment insurance claims from healthcare businesses as well.

The healthcare sector is at the epicenter of this unprecedented global pandemic challenge, and the private sector has risen to the occasion, by offering to the government all the support it needs, be it testing support, preparing isolation beds for the treatment of Covid-19 positive patients or deploying equipment and staff in identified nodal hospitals.

This industry has been witnessing loss of business and this trend is expected to continue for the foreseeable future and the fact that there will be losses and severe impact on cash flows.

The prevention and the treatment services for non-communicable(NCDs) have been severely disrupted since the COVID-19 pandemic began, according to a WHO survey . The survey, which was completed by 155 countries during a 3-week period in May, confirmed that the impact is global, but that low-income countries are most affected. This situation is of significant concern because people living with NCDs are at higher risk of severe Covid-19 related illness and death. Some domino effect of Covid-19 on healthcare are:

- **BURDEN:**A global pandemic always has a huge impact on most countries, but India seems to be faring worse than most-the crisis is overburdening India's healthcare system.
- **THE COST:** The cost of fighting Covid-19, though, is being paid by outpatient departments of India's major hospitals. OPDs are closed temporarily to free up doctors and medical staff, leaving people with other ailments out in the cold.
- **CANCER:** The virus has gripped India's healthcare system so badly that chemotherapy services are shut, and ones that are functioning are often out of reach due to the travel restrictions.
- **HIV:** The pandemic is also affecting HIV patients- they can't reach their antiretroviral therapy centers. Plus, trans-persons are finding hormone therapy out of bounds and expecting mothers aren't getting antenatal check-ups.
- **VACCINES:** Immunization services have also been affected, with Uttar Pradesh, Bihar, Rajasthan, Kerala and Karnataka suspending door-step vaccinations services. However, vaccination services are open at primary health centers, district hospitals and medical colleges.
- **WORSENING WOES:** To make matters worse, some cities are shutting down hospitals that have recorded positive Covid-19 cases among medical.

The COVID-19 pandemic has impacted healthcare workers physically and psychologically. Healthcare workers are more vulnerable to COVID-19 infection than the general population because of being frequently in contact with affected individuals.

**1. Risk of infection:** The WHO reported that one in ten health workers is infected with corona virus in some countries. In May 2020, the International Council of Nurses reported that at least 90,000 healthcare workers have been infected and more than 260 nurses had died in the Covid-19 pandemic.

**2. Shortages of PPEs:** Shortcoming of personal protective equipment have been reported from several countries. In China, inadequate staff training, shortage of PPE use and confused PPE guidance have resulted in infections and deaths among healthcare workers.

**3. Violence against healthcare workers:** Healthcare workers have been subjected to violent crimes. Hospitals and government had to take stricter measures to ensure the safety of their staff.

**4. Ethical decisions:** The Conversation reports that healthcare workers will have to face 'moral injury' formaking difficult decisions such as moving a patient off the ventilator or refusing an ICU bed due to the limitation in resources.

### **III Tourism:**

Over the past years, most of the countries have considered tourism as a contributor to economic growth and is widely accepted that year after year throughout the world a massive investment continues to pour in its development. The United Nations World Tourism Organization estimated that global international tourist arrivals might decrease by 20-30% in 2020, leading to a potential loss of US\$30-50 billion. Foreign arrivals in March 2020 fell by 66.4% year-on-year. The World Travel and Tourism Council has warned the Covid-19 pandemic could cut 50 million jobs worldwide in the travel and tourism industry.

Asia is expected to be the worst affected. Once the outbreak is over, it could take up to 10 months for the industry to recover. The tourism industry currently accounts for the 10% of the global GDP. In 2019 the sector accounted for (directly and indirectly) some 330 million jobs worldwide, equivalent to 10.3 percent of total global employment and one in every 10 jobs globally. For every directly created tourism job, nearly one and a half additional jobs are created on an indirect or induced basis. The labor-intensive accommodations and food services sub sectors alone provide 144 million workers worldwide.

#### **Services hampered:**

Hotels, restaurants, tour operators, airlines, and cruise ships have suspended their operations indefinitely. Own-account workers and micro-enterprises together represent nearly 60% of the accommodation and food services sub sectors, a reflection of severe vulnerability to the current economic crisis. While small enterprises around the globe play a major role as job providers, particularly in low- and middle- income countries they often lack access to credit, have few assets and are least likely to benefit from economic stimulus packages without targeted support.

#### **Challenges to tourism industry:**

As witnessed in the aftermath of the global financial crisis, the number of small businesses is expected to decline due to widespread business failures in the wake of the COVID-19 pandemic.

Moreover, it will take considerable time to bring back investments and business operations as recovery is likely to be slow. All the sectors on which tourism has important multiplier effects, including civil aviation, handicrafts, agriculture, and food and beverage provision, have been profoundly affected.

Another challenge is the high incidence of informal working arrangements in the tourism sector, due in part to its seasonality, combined with weak regulation, enforcement and labour organization. Decent work deficits, such as excessively long working hours, low wages, lack of social protection and gender based discrimination, are most pronounced in the informal economy. Migrant workers, women and youth are more vulnerable to informal or casual employment.



#### IV. Urban Livelihoods:

Loss of jobs (employees) and self-employment (micro and small businesses) in e.g. Services, Industry, Tourism and no social protection will make people highly dependent on humanitarian assistance. In urban contexts, the households are completely dependent on incomes from labour or self-employment and markets to cover all their needs, while the cost of living is higher in urban than rural areas mainly due to housing costs.

**Immediate impacts:** Informal activities to continue with high risk of exposure to contamination for themselves and their families as there are no safety nets or social protection or alternative incomes. **Remittances:** an essential source of incomes for many families in both urban and rural areas. In general, migrant remittances surpass official aid and foreign direct investment and remittances flows contribute substantially to economy growth and to household incomes both in urban and rural area.

*Migrants are one of the first at risk of losing their jobs and so neither can they support their families home. The limited access to financial services to transfer or receive money worsens the situation.*

#### **Long-term impacts:**

- Less job opportunities: Formal and-informal: increased competition, including skilled labourers in non-skilled jobs.
- Impacts on the quality of work conditions: reduction on wages, restriction of social insurance and benefits, abusive hours etc.;
- Increased unemployment elongated the women and youth: less demand on services that may affect especially women as main delivery of: e.g. selling prepared food, care services, petty trade, beauty and care services.
- Increase cost of transport that affects mobility and incomes for transport business

*Migrants labourers:* Migrant workers represent 4.7% of the global labour pool comprising 164 million workers with nearly half being women.

**Migrant workers are among the most vulnerable.** Reports document rising levels of discrimination and Xenophobia against migrants and in some cases food insecurity, layoffs, worsening working conditions including reduction or non-payment of wages, cramped or inadequate living conditions, and increased restrictions on movements or forced returns (where they might be stigmatized as the carriers of the virus).

Migrant workers are often first to be laid off but last to gain access to testing or treatment in line with nationals. They are often excluded from national Covid-19 policy responses, such as wage subsidies, unemployment benefits, social security and social protection measures. Where access to Covid-19 testing or medical treatment is available they might not come forward due to the fear of detention or deportation, especially those in irregular status. They are also facing discrimination regarding concerns about mounting of spread of the virus in crowded immigration detention centres and in migrant workers housings. As of mid-April, migrant workers reported:

- Unfair termination
- Unpaid wages
- Poor living conditions
- Employers requiring workers to continue working in jobs that are non-essential; and
- Uncertainty about employment status.
- Running out of money and relying on food distributed to them

**Deaths:** Due to the lockdown, more than 300 deaths were reported till 5th of May, with the reasons ranging from starvation, exhaustion, road and rail accidents, police brutality and denial of the medical care. All these deaths, were of the marginalized migrants and labourers. 80 died while travelling back home on the *Shramik special trains*, in the one month since their launch.

#### V. Mental health:

The covid-19 pandemic has impacts the mental health of people around the world. It is affecting people's social connectedness, their trust in people and institutions, their jobs and incomes, as well as imposing a huge toll in terms of anxiety and worry. This is an epidemiological and psychological crisis. The enormity of living in isolation, changes in the daily lives, job loss, financial hardship and grief over the death of loved ones has the potential to affect the mental health and well-being of many. Social distancing maybe critical to mitigate the spread of this disease, but it will undoubtedly have consequences for mental health and well-being in both the long and short terms. It appears likely that there will be substantial increases in anxiety and depression, substance use, loneliness and domestic violence. With the schools closed, there is a very real possibility of an epidemic of child abuse. Common causes of psychological stress during pandemics include:

- Fear of falling ill and dying
- Avoiding healthcare due to fear of being infected while in care
- Fear of losing work and livelihoods
- Fear of being placed in quarantine
- Fear of powerlessness in protecting oneself and loved ones
- Fear of being separated from loved ones.
- Refusal to care
- Boredom
- Loneliness
- Frontline workers: doctors & nurses experience additional mental health problems.
- **Suicides:** The coronavirus pandemic has been followed by a concern for a potential spike in suicides, exacerbated by social-isolation due to quarantine and social-distancing guidelines, fear of unemployment and financial factors. There are reports of people committing suicide after not being able to access alcohol during the lockdown in India. Many people committed suicide after receiving the hate and backlash after suffering from the disease. According to several reports, 75,000+ 'deaths of despair' are expected in USA alone.

**Long term consequences of Covid-19 on mental health:** According to the Inter-Agency Standing Committee Guidelines on Mental Health and Psychological Support (IASC), there can be long term consequences :

- Deterioration of social networks and economies
- Stigma towards the survivors of Covid-19
- Possible higher anger and aggression
- Mistrust of information provided by official authorities.

#### VI Gender Equality:

The year 2020, marking the 25<sup>th</sup> anniversary of the Beijing Platform for Action, was intended to be ground-breaking for gender equality. Instead, with the spread of the Covid-19 pandemic even the limited gains made in the past decades are at risks of being rolled back. *The pandemic is deepening pre-existing inequalities,*

*exposing vulnerabilities in social, political and economic systems which are in turn amplifying the impacts of the pandemic.*

Across every sphere, from health to economy, security to social protection, impacts of Covid-19 are exacerbated for women and girls simply by virtue of their sex:

- Compounded economic impacts are felt especially by women and girls who are generally earning less, saving less, and holding insecure jobs or living close to poverty.
- While early reports reveal that more men are dying as a result of Covid-19, the health of women generally is adversely impacted through the reallocation of resources and priorities, including sexual and reproductive health services.
- Unpaid care work has increased, with children out-of-school, heightened care needs of older persons and overwhelmed health services.
- As the Covid-19 pandemic deepens economic and social stress coupled with restricted movement and social isolation measures, gender based violence is increasing exponentially. Many women are being forced to 'lockdown' at home with their abusers at the same time that services to support survivors are being disrupted or made inaccessible
- All the impacts are further amplified in contexts of fragility, conflict and emergencies where social cohesion is already undermined and institutional capacity and services are limited.

#### **VII Education:**

The lockdown enforced to prevent the spread has brought economies to the ground and jeopardised the job prospects of many. With employment soaring during these tough times, recent graduates waiting in the wings and looking for their first job feel marooned. This has affected educational systems worldwide, leading to the near-total closure of schools, universities and colleges. School closures impact not only students, teachers, and family, but have far-reaching economic and societal consequences. School closures in response to the pandemic have shed light on various social and economic issues including

- Student debt
- Digital learning
- Food insecurity
- Homelessness
- Childcare
- Healthcare
- Housing
- Internet unavailability
- Disability services

The impact was more severe for disadvantaged children and their families, causing interrupted learning, compromised nutrition, child care problems, and consequent economic cost to families who could not work. In response to school closures, UNESCO recommended the use of distance learning programmes and open educational applications and platforms that schools and teachers can use to reach learners remotely and limit the disruption of education.

This is a crucial time for education sector- **board examinations, nursery school admissions, entrance tests of various universities and competitive examinations**, among others, are all held during this period. School and universities closures will not only have a short term impact on the continuity of learning for more than 285 million young learners in India but also endanger far-reaching economic conditions.

**1. Sluggish cross-border movement of students:** It is becoming more and more clear that this cross-border movement of students will take a beating at least for the next to three years and will lead to a major financial risk for universities in these countries who are already under financial pressure. Many parents will avoid sending students abroad for higher education due to high risk from the pandemic.

**2. Passive learning by students:** The sudden shift to online learning without any planning especially in a country like India where the backbone for online learning was not ready and the curriculum was not designed for such a format has created the risk of most of our students becoming passive learners and they seem to be losing interest due to low levels of attention span. Added to this is that we may be leaving a large proportion of the student population untouched due to the digital divide that is part of many developing nations including India. We are now beginning to realise that online learning could be dull as it is creating a new set of passive learners which can pose new challenges.

**3. Unprepared teachers for online education:** Online learning is a special kind of methodology and not all teachers are good at it or at least not all of them were ready for this sudden transition from face to face learning to online learning. Thus, most of the teachers are just conducting lectures on video platforms such as Zoom which may not be real online learning in the absence of a dedicated online platform specifically designed for the purpose. *There is a risk that in such a situation, learning outcomes may not be achieved and it may be only resulting in engaging the students.*

**4. Changing format of student recruitment:** Universities and colleges worldwide are facing a major risk in the area of student recruitment and retention. The risk of losing student is so high that they will need to re-look at their admission practices, admission criteria and the overall recruitment process itself which will include, new methods of outreach and application process itself.

#### **Graduating Class:**

According to the All India Survey of Higher Education by the MHRD, India saw 32.9 lakh students graduate from the Arts, Commerce, Science and Humanities streams in 2019. Engineering and MBA graduates accounted for around 16 lakh graduates last year, and the numbers may be expected to be comparable for 2020. In an already bleak job market with growing unemployment rates, a majority of these graduates are likely to find it extremely difficult, if not impossible, to secure employment. Covid-19 has not only altered our ways of life radically in the present, it has also thrown the future of lakhs into question.

1. Students facing uncertainty: students who had turned down the idea of pursuing a higher education in favor of jobs have also begun regretting their decisions

2. Repayment of education loans: for many, the prospect of employment after their education was crucial in their decisions to pursue expensive courses. Many took out education loans to complete their studies and pinned hopes on the jobs they would get, to help them repay the loans and ease the financial burden on families

#### **WHAT CAN BE DONE?**

According to ILO a framework consisting of 4 interconnected pillars needs to be followed. Stimulating the economy and employment Supporting enterprises, jobs and incomes Protecting workers in the workplace Relying on social dialogue for solutions.

1. Some measures required to keep the agricultural sector and supply chains working smoothly:

- The government has issued lockdown guidelines that exempt farm operations and supply chains. But

implementation problems leading to labour shortages and falling prices should be rectified.

- Keeping supply chains functioning well is crucial to food security. It should be noted that 2 to 3 million deaths in Bengal Famine of 1943 were due to food supply disruptions- not a lack of food availability.
- Farm populations must be protected from the coronavirus to the extent possible by testing and practicing social distancing.
- Farmers must have continued access to markets. This can be a mix of private market and government procurement.
- Poultry and dairy farmers need more targeted help, as their pandemic-related input supply and market-access problems are urgent.
- Farmers and agricultural workers should be included in the government's assistance package and any social protection programs addressing the crisis.
- As the lockdown measures have increased, demand has risen for home delivery of groceries and E-commerce. This trend should be encouraged with proper guidelines.
- Government should use social safety nets as a bridge between health shock and economic shock.

1. Food and Nutrition security: government warehouses are overflowing with 71 million tons of rice and wheat. In order to avoid exclusion errors, it is better to offer universal coverage of distribution in next few months.

2. Cash transfer: unemployed informal workers need cash income support. The government has provided Rs.500 (\$6.60) per month to the bank accounts of 200 million women via Jan Dhan financial inclusion program. But this too is insufficient, it needs to be almost Rs.3000(\$40)

3. Migrant workers: there are about 40-50 million seasonal migrant workers in India. In recent days, global media have broadcast images of 100s of thousands of migrant workers waking even 1000kms to return to their home. **They should be given both cash transfers and nutritious food and proper arrangements should be made for their travel.**

## **2 Some measures for keeping Tourism sector alive**

- Income tax relief for tourism expenses.
- Income support, mainly to small businesses in form of temporary wage subsidies, tax and debt payment leniency.
- Proper disinfection of workplaces.
- Remuneration for workers in medical quarantine

## **3 Immediate methods which really need to be acquired for the betterment of the employees.**

- Federal Response: federal legislation addressing unemployment insurance benefits and economic stimulus is currently the need of the hour
- Occupational Licensing: Covid-19 presents an unprecedented crisis for states, requiring swift action on many issues, including the process for licensing essential workers.
- Paid Sick Leave: This is one of the most important measures which need to be followed for sure in a pandemic.
- Unemployment insurance benefits: states should respond to the rising employment crisis including expediting the application process for unemployment insurance benefits and expanding eligibility to those under quarantine.
- Teleworking: millions of employees need to move their work spaces to their homes, institutions should

assist them in making this process, less hectic.

#### **4 Measures for healthcare workers**

- Rational use of personal protective equipment
- Proper water, sanitation, hygiene and waste management
- Increment in salaries of healthcare workers, essential workers and police force.
- Treating the above mentioned job profiles with utmost integrity and in an ethical manner.

#### **5 Measures are needed to build a gender-inclusive economic response and recovery**

- Ensure continuity of care for older persons, persons with disabilities and those who recover from Covid-19
- Exempting unpaid family caregivers from lockdown restrictions and providing them with the support and equipment necessary to do their job safely
- Preparing unpaid caregivers and community health workers with information, training, adequate equipment and livelihood support to respond to the Covid-19 pandemic effectively
- Introducing paid reductions in working time/ work-sharing for workers with care responsibilities
- Expanding the reach and benefit levels of social assistance programmes that disproportionately target women, such as cash transfers and social pensions and suspending all conditionality's for the duration of the Covid-19 crisis.
- Introducing new cash transfers, including for women with care responsibilities
- Provide additional bonuses, subsidies and vouchers to hire child services for workers unable to telecommute and extend this to informal workers.
- Prioritize investments in and access to basic accessible infrastructure and public services, including in rural areas, informal settlements and IDP and refugee camps, by:
  - Expanding child care support for working parents where schools, child care and respite care services are closed, with a particular focus on safe and accessible services for essential workers.
  - Continuing school feeding programmes and adapt them to the crisis context by preparing rations for delivery or pickup
  - Ensuring access to sufficient and affordable water, sanitation, and hygiene services for vulnerable groups of women, including in informal settlements, rural areas, and refugee camps
  - Procuring goods and services for infrastructure and public services from women-owned enterprises.

#### **6 What can students do to beat the gloom in the job market?**

- Be proactive in reaching out to companies, write to as many firms with your CV
- Look beyond the traditional avenues, explore the startup ecosystem for job.
- Hone additional skills in your subject of qualification
- Learn a foreign language
- Take up an internship
- Explore remote work through websites that connect with prospective employers.
- Brush their existing knowledge.

#### **7 Improving mental health.**

- Plan for the inevitability of loneliness and it's squealed as populations physically and socially isolate and to develop ways to intervene.

- Place mechanisms for surveillance, reporting, and intervention, particularly when it comes to domestic violence and child abuse.

This difficult moment in time nonetheless offers the opportunity to advance our understanding of how to provide prevention-focused, population-level, and indeed national-level psychological first aid and mental health care, and do emerge from this pandemic with new ways of doing so.

#### **CONCLUSION:**

We are living through unprecedented times. The impact of the novel coronavirus and the disease it causes, Covid-19, has reverberated through every corner of the globe-taking lives, destroying livelihoods, changing everything about how we interact with each other and the world. Decisions made today will have consequences that will last far into the future, affecting people in every region and community. The education of 1.6 billion learners has been disrupted; that is 9 out of every 10 students in the world. 40 to 60 million people are expected to be pushed into extreme poverty in 2020-that is living on less than \$1.90 a day-as a result of the coronavirus pandemic. All we can do right now is to limit its impact and the scars it leaves with the right measures to aim a better back so that the new systems are safer, fairer and more sustainable than those that allowed this crisis to happen.

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## **VIP-C-COVID IMPACT AND RESPONSE**

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### **Abstract:**

World Health Organisation has declared novel coronavirus (COVID-19) “Pandemic”. SARS-CoV-2, commonly known as COVID-19 is an airborne disease and has rapid contagious characteristics. The lockdown method seems to be the most adopted approach by countries across the globe in lieu of curbing the increase of COVID-19. Earlier in March, it has been announced as Notified-Disaster in India. This led to the imposition of quarantine on people coming from other countries.

The outbreak of Coronavirus (COVID-19) first reported in December 2019 at Wuhan, China has now created vulnerability in the entire World. According to reports, China is now able to “flatten the curve” after imposing a curfew-like scenario for months. On March 24<sup>th</sup>, Home Ministry of India issued a notice for a complete lockdown of the entire nation for 21 days to break the chain of transmission.

WHO is at the forefront in leading the global fight against the COVID-19 from the start by tracking the growth, coordinating global information exchange, and providing technical support to countries. By the end of January 2020, 20 countries, territories and areas had reported cases of COVID-19. The number quickly rose to 54 by the end of February, and to 202 by the end of March. By 30 April 2020, 212 countries, territories and areas had reported COVID-19 cases and 174 had reported at least one death from COVID-19. In total there are 3,059,642 cases of infection and 211,028 deaths reported. COVID-19 has spread to all continents except Antarctica, and fewer than 30 countries, territories or areas (mostly in the Pacific islands) have reported no COVID-19 cases.

### **Background:**

The first coronavirus case in our country was reported on 30 January 2020 in Kerala a medical student studying in Wuhan University was tested positive. Initially, neither the government nor WHO understood the seriousness and gravity of this epidemic but every passing day situation deteriorated in the whole world especially in China Spain Italy USA.

While addressing the nation on March 24 PM Modi told 1.3 billion citizens that they are required to stay inside the home for the next 21 days as the government is going to implement a complete lockdown in the country to combat this epidemic which took thousands of lives globally. It was the world’s largest coronavirus directive, not even china the world’s most populous country and the epicentre of this epidemic imposed any strict measure to control the damage and this is the reason behind the widespread infection and death of many people.

### **Introduction:**

Nature has always some way or the other proved its dominance and control over mankind through various catastrophic incidents of natural calamities disrupting the normal lifestyle of Humans. One such unprecedented situation faced by the world in the present time is the Corona Virus (COVID-19), which has been declared as a pandemic by the World Health Organisation (“WHO”) on 11.03.2020.

The outbreak of Coronavirus (COVID-19) pandemic is immensely affecting the global markets, trade and commerce. The worldwide lockdowns and quarantine have started affecting global industries including



manufacturing, services, etc. and the supply chains supporting them. Due to the worldwide spread of Coronavirus, the performances under many contracts will be delayed, interrupted, or even cancelled.

**Digital services have come to the aid of the students undergoing the crucial phase of their education.**

There has been a paradigm shift in the transition towards online classes via webinars and Interactive Learning. Every academician and institute is trying to *Reinvent* its strategy and evolve with emerging trends. Digital platforms such as Zoom, Microsoft teams and Google Duo are facilitating this change and connecting every student. This lockdown and the journey beyond it have extended a plethora of opportunities for us students. With the advent of digital media, there are many areas one can focus on. There has been a surge in digital initiatives and campaigns launched by students in accordance with Covid-19. Over the past month, I have seen and launched numerous campaigns such as online MUNs, fundraisers, boredom busters and symposiums to raise awareness as well as generate donations. It is overwhelming to discern the fervent participation amongst the students and the sheer will to give back to the community

**The Alpha urbane Project, The Maharashtra Summit and Covid-19 Symposium** to name a few are student-run positive and productive campaigns with such a virtuous purpose.

Addressing this issue specifically from a student's perspective, the quarantine has proved to be a golden time. This a hiatus from the rigid and rigorous schedule every student encounters, juggling from college to classes, internships, and other events.

**Impact of Covid-19 on commercial leases:**

Seeking to bail out from COVID-19 impact by either reduction of rentals for a limited period of time or waiver in charges by the lessees at such instances, the revenue of lesser would be at stake. It might also be difficult to defer the payments on part of the lessees as it would only build up their liability. There is no one-size-fits-all solution. The lessee should not pass on the burden to the lessor alone as they have other financial obligations of paying loan interest, property tax etc.

Few Property Owners, Developers, business occupiers have chosen for its specific partner's complete waivers until the lockdown. However, this also seems to be a temporary aid for survival in the short run. During the existence of pandemic, the lessees would not be excused for dues pre or post COVID-19 crisis

While interpreting the disputes which would arise before various courts a holistic approach may be adopted so as to balance the interest of parties. Even otherwise, it is highly unlikely that Courts might interpret a lease contract incapable of performance leading to termination. In addition, tenant's financial strength during the lockdown could also become an aspect for deciding waiver.

Depending on the rise of cases with lightning speed the Government of India may announce protective measures such as exemption from eviction during the crisis then the situation would be like that of a moratorium imposed against the landlords wherein, the rights of the landlord to evict the tenant shall stand suspended. However, in respect of commercial terms, the termination would still be governed by analyzing the contract.

In addition, landlords will also have to be prudent in reasonably considering temporary mutual solutions to navigate through this crisis.

An unprecedented time of COVID-19 is leading not only loss of human life but also disruption in contractual relationships. It is imperative for parties to seek protection through Force Majeure Clauses, assert non-performance by claiming impossibility, to consider possible measures for resolution of the dispute through means of negotiation in the best interest of the Parties for the sake of long term relationship.

### **Does the Judiciary face defeat at the hands of COVID–19?**

We recognize that there is a global panic. Ordinary functions cannot be carried out in times of panic and distress. As stated above the judicial system is paramount for any democratic function. A total stop to any nation's judicial system is harmful to its citizens/residents. This has been recognized nationally and internationally.

The Indian judicial system, though has a few flaws is resilient. In this time, when our entire country is under lockdown, the judiciary is slowed down but it is not stopped. Courts across the country are still hearing urgent matters with the help of technology. The apex court in an effort to ease the panic has taken measures to ensure the lockdown does not adversely affect ongoing cases. It can rightly be said that the judicial system does not face defeat at the hands of COVID–19.

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## COVID-19: IMPACT: A CASE STUDY OF INFORMAL SECTOR IN THAKKAR

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#### Abstract:

In India, large population is engaged with informal sector, employing close to 90% of its working population and contributing more than 45% to its overall GDP. Immediate burden of COVID-19 lockdown in India, like in other developing countries, falls on the informal sector and its workers. The footwear industry of Thakkar Bappa colony in Kurla comes under the category of informal sector. These workers are settled in Dharavi, Kurla to Chembur to some extent and Govandi in Mumbai. In Thakkar Bappa colony, workers are observed from Rajasthan and from Mochisamaj, who have migrated long back. A good number of people work at home or run business as where not only family members are involved but also a few workers are hired on target work basis. Pre COVID 19, this industry has its own recognition in these areas and workers of it stay in slums having complex Socio-economic conditions but now the condition is becoming worst due to lockdown. This research paper estimates impact on footwear makers of informal sector of this colony. COVID-19 is taking human lives every day, but a prolonged economic lockdown may endanger livelihood and survival of these workers for upcoming period.

**Keywords:** COVID-19, informal sector, footwear industry, socio economic condition.

#### Introduction:

The Thakkar Bappa area in Kurla mainly constitutes Kutchi language speaking migrants from Pakistan who migrated to India at the time of the partition of India and Pakistan. Of late, other communities including the Mochi, Maheshwari, Meghwal Samaj and the Regar community, who had migrated from Rajasthan and other parts of India, joined the occupation of footwear making. Footwear making units are household units and informal in the nature.

#### Need of the study:

COVID-19 is a global pandemic which has affected countries across the world. This has also given rise to exemplary efforts by various governments to protect informal sector worker's health and livelihoods. Many governments have successfully contained the spread of COVID-19 and are now working to revive their local economies. In Thakkar Bappa colony, Markets being shut down means no income to run the household. These Home-based workers are concerned about money and income effects. Some reported that past payments aren't being fulfilled, and they don't have the capacity right now to meet contractors and bargain for more. Wholesale markets have shut down across states – this affects multiple trades and vendors across the supply chain. So it is important to study about impact of COVID 19 on this informal sector.

#### Review of literature:

Food and agriculture organization of UNO (2020) the report highlighted the problem faced by informal sector during covid 19 also studies about policy issues, measures taken by government and suggestions for upliftment of informal sector in various countries during lockdown.

S. Mahendra Dev and Rajeswari Sengupta (2020) studied about employment share of informal sector pre lockdown and highlighted the problems like low wages and incomes faced in the pre-Covid-19 period. According to them daily wage labourers and other informal workers will be the worst hit during the lockdown period and will

continue to be adversely affected even when the lockdown is relaxed. With almost no economic activity particularly in urban areas, the lockdown has led to large scale losses of jobs and incomes for these workers.

Balwant Singh Mehta and Arjun Kumar (2020) article estimates the number of most vulnerable informal workers by three ways in the context of the lockdown and its impact on jobs:

the most affected sectors; status of work and vulnerable occupations, where they are engaged in urban areas in non-agricultural sector.

Seeking Justice for the Informal Sector during the COVID-19 Lockdown by IGSSS (2020) This report analyses sectorial assessment of state circulars on homeless, construction workers, street vendors, domestic workers, waste pickers and suggested Policy measures announced from the Central and State Governments.

**Objectives:**

1. To study the Socio economic profile of footwear makers during COVID 19
2. To study problem faced by footwear making unit in Thakkar Bappa Colony.
3. To study about measures taken by government to uplift the situation of footwear makers.
4. Suggestions and recommendation.

**Methodology:**

The study is both qualitative and quantitative in nature. Primary and Secondary sources are explored for data collection. Primary data is collected by taking 50 samples of footwear makers in Thakkar Bappa colony of Kurla. They are selected by adopting random sampling technique. For collecting Primary data a questionnaire is prepared with close ended and open-ended questions. The secondary data is collected from journals, Magazines, Publications, and Reports of industries, books, periodicals, articles, research papers, working papers, theses, websites, manuals and booklets.

**Observations of the study:**

- Based on primary data collected, it is observed that 99% of footwear workers belongs Hindu community and only 1% samples belong to the Muslim communities.
- 100% footwear maker's business affected strongly and saviorly. past payments aren't being fulfilled and wholesale markets are shut
- 80% of sample thinks that there is a risk that their business will permanently shut down because of unavoidable circumstances of coronavirus
- 85% of makers feels that COVID 19 pandemic has affected business due to difficulties in accessing raw material for footwear making, few contracts of footwear making, lower domestic sales to consumers, lack of funds, lack of payments.
- only 40% of makers has though of alternative source of income for this they are ready to make home made food items and ready to sell, mask making and selling and online trading i.e. E- commerce.
- 100% of the workers were agreed that they haven't received any benefits from government schemes. Although there are knowing about various schemes were announced but not implemented in this area.
- 100% of the workers were agreed that they haven't received any benefits from NGOs.

**Suggestions:**

It is very important now to protect the workers in the informal sector, who have been badly affected, and yet have little savings to tide them over the shock. Over and above the fiscal package that the central government has already announced, some more one-time relief measures for the informal sector workers may be considered.

- **Immediate income transfer to all-** In order to reach out maximum number of workers it is imperative to benefit not just the registered and formal construction workers but also the informal construction workers. This should be done with the help of several Trade Unions, NGOs, SHGs, CSOs, Contractors and employers. This would fasten the process of relief for construction workers.
- **Food and dry ration for all-** Many informal workers are deprived of food supply due to lack of ration cards and other legal documents. Therefore, every State Governments must ensure that every informal worker is covered in the Public Distribution System regardless of ration and BPL cards. This should also include the women and children in the family. In this process, the identity cards issued by trade unions and NGOs need to be legitimised by the PDS. Migrant labourers and daily wage earners can also be included in the local authorities food distribution programmes and can help in packing and delivering rations.
- **Additional compensation-** Social security like Pensions, loan and health insurance must be provided to all the registered and unregistered informal workers. A special focus should be on the pregnant and lactating women as well as children. They should be provided all kinds of medical and health assistance.
- **Provision of basic amenities-** Focus must also be on basic services like access to clean drinking water, toilet services, and sanitary napkins. These services should be provided free of cost, and more frequently/24x7. Provide appropriate numbers of hand washing stations and make sanitiser available throughout the workplaces and in public spaces.
- **Protect the wages and incomes-** The state needs to ensure the minimum income to domestic workers. For this, a list can be prepared with the help of CSOs, NGOs, SHGs, Unions.
- To a certain extent, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme works as an automatic stabilizer because if people need jobs they can just apply. The constraint here is that if social distancing has to be maintained due to the Covid-19 outbreak and since economic activity will get stalled; even MGNREGA may not be a viable option right now. The key therefore will be to ensure that the funding is available, and in the hands of the states and panchayats, such that when the appropriate time comes and large number of workers sign up for MGNREGA, the mechanism works as designed. Also the number of days under the program may be increased. A related issue is payments to MGNREGA workers. All the arrears for these workers have to be released.
- A large and comprehensive **re-skilling programme** for those workers, whose jobs may be at risk, including informal workers, workers in malls, cinemas that may not open for some more time, is needed to prepare them to work in other sectors, such as ecommerce.

### **Conclusion:**

Covid-19 has posed an unprecedented challenge for India especially for informal sector. The economy's dependence on informal labour, lockdowns and other social distancing measures would be hugely disruptive. The central and state governments have recognized the challenge and have responded but this response should be just the beginning. Direct transfers have already been announced by state governments such as UP, Punjab and Kerala. The decision by the central government to give wheat and rice at subsidised prices is another step. All governments need to act immediately so that the pain faced by daily wage workers, particularly in urban areas. Policy makers need to be prepared to scale up the response as the events unfold so as to minimize the impact of the shock on informal sector and pave the way for a fast recovery.

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## THE RANGE OF CORONAVIRUS DISEASE 2019 PANDEMIC SOCIO-ECONOMIC INFLUENCE ON GLOBAL IMPOVERISHMENT

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### Abstract:

China originated coronavirus disease 2019 (COVID-19) named by world health organization (WHO) and declared pandemic in January 2020. Several countries in the world imposed the lockdown to contain the spread of this pandemic. Due to this production rate decreased and supply chain is disrupted subsequently financial market got affected. Global growth is decreasing even in India this growth rate for FY20 and FY21 will be only 5.3% & 3.2% respectively. Unemployment rate in America has risen by 14.7% whereas International Labour Organization (ILO) prediction shows that globally 6.7% people will lose their jobs. According to International air transport Association airlines will lost 133\$ billion revenue. This pandemic impact further increase the gap between rich and poor people and create disharmony in the society. Most affected classes of society are daily wage workers, private workers and hawkers. Due to lockdown several people are getting anxious for financial failure, social distancing, and unemployment and consequently domestic violence and suicide rate are increasing. In Indian scenario, most affected social classes are marginalized migrants and labours. Millions of migrant workers heading towards their villages due to loss of jobs and shortage of foods. COVID-19 pandemic paralyzed the socio-economic situation of the whole world. The world should be united to fight this pandemic which affected the whole humankind.

### Introduction:

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Coronavirus commonly infects the nose and upper throat. Most of them are not dangerous but this novel virus originated in December 2019 from Wuhan city of China threatening the whole world. Coronaviruses belong to the family *Coronaviridae* (Groot *et al.*, 2011). They are enveloped viruses have a positive-sense single-stranded RNA genome and a nucleocapsid made of helical symmetry (Cherry *et al.*, 2017). Coronavirus genome size is largest among all other RNA virus with 26 to 32 kilobases long RNA (Woo *et al.*, 2010). Coronavirus name emerged from its club-shaped spiked that protruded from its surface and in electron micrograph image looks like solar-corona. They can cause diseases both in mammals and birds. Novel COVID-19 disease caused by SARS-CoV-2, virus which spreads from person to person. Usually this virus spreads from sick person's cough or sneezes. Droplets of sneezes can spread up to 6 feet away. Virus can be transferred to human from touching contaminated object as coronavirus can live for several hours on surface. This virus attach to the host cell receptor by its spiked proteins, cleaves the cell membrane and enter into host cell by endocytosis for direct fusion (Simmons *et al.*, 2013). The clinical symptoms of COVID-19 may vary from mild flu like symptoms to severe pneumonia like symptoms cause chest congestion and ultimately breathing problems (Liu *et al.*, 2017; Forgie *et al.*, 2009). In India first case of COVID-19 outbreak occurred on 30 January 2020 in Kerala's Thrissur district (Rawat and Mukesh 2020). Health ministry of India has confirmed 230014 cases and 6642 death so far with 114072 recovered people on 6 June 2020. This COVID-19 virus wrapped

the whole world and shaken the global economy and social structure. In the present review we are discussing the impact of COVID-19 on the socio-economic condition of the world and India.

### Impact of COVID-19:

Till now (May 2020) current outburst of COVID-19, has affected 6052421 people and killed 367288 people in around 213 countries and territories around the world and two international conveyances based on geoscheme. Since world war 2<sup>nd</sup> happened until now COVID 19 is considered the critical global health catastrophe of the century and extreme challenge for the humankind. This pandemic COVID-19 has become a menace to society as well as to economy of the world. Maintaining social distancing, standard hygiene and avoiding crowdie places are only option to fight this pandemic. To break the chain of this infectious disease several countries in the world enforced the lockdown. Due to global lockdown, travel is restricted many social, religious, sports, cultural and entertainment events are cancelled or postponed. Consequently, unemployment rate and poverty is increasing, stocks are crashing, and global economy is contracting. Also effect on the lives of people cannot be neglected. Most of the population of the world is self-isolated, experiencing boredom, loneliness, anger, anxiety, fear and financial insecurity (Xiang *et al.*, 2020). Figure-1 given below shows the total cases in the topmost affected countries.

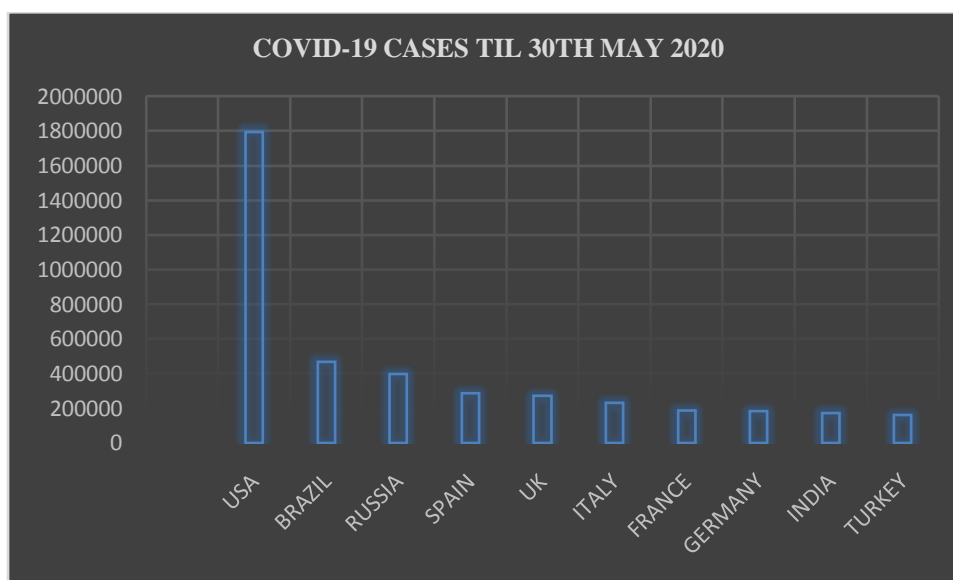


Figure1: Worldwide cases of COVID-19 (Source- Corona Worldometer)

### COVID-19 Impact on global economy:

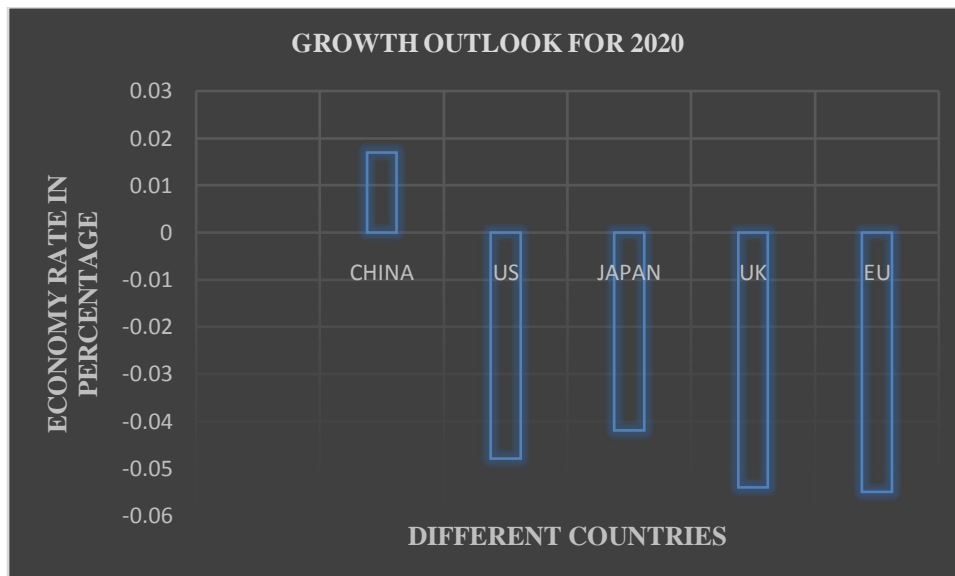
COVID-19 affect the global economy by following three ways-

1. **Directly decreasing production-** According to World Bank report decrease production of Chinese goods will affect the import to japan, Korea & other Asian countries and subsequently their businesses.
2. **Disruption of supply chain-** Many Companies rely on imported input from CS Bhina and other countries. Due to worldwide transportation restriction, supply chain is disrupted. It affect mostly travel and tourism and other small and medium size firms
3. **Financial impact on firms and financial market -** Temporary disruption of inputs stressed the firms with inadequate liquidity. Delayed shipments and production schedules create problems for companies with heavy debts.



**Effect on various sectors:**

**a) Effect on global growth-** According, to Macrobond IMF Rabo research global growth would be decreased worldwide in both 2020 and 2021 financial year by 1.6% and 3.2% respectively. This decrease will be more in US where 0.7% and 0.9% growth is predicted whereas in Eurozone it will be 0.1% and 1.2%. However in India this growth rate for FY20 and FY21 will be 5.3% & 3.2% respectively. IMF on 15<sup>th</sup> April warned that economies in Asia will not see any growth in current year while service sector will be most affected area. Chinese economy will further fallout due to decreased demand of Chinese product worldwide. According to growth outlook report as published in financial express newspaper economy rate of different countries in current year is given in Figure-2



**Figure 2: Economic growth of different countries**

**b) Effect on tourism and travel sector-** According to WTTC this pandemic will affect global travel and tourism sector severely due to imposed lockdown. International flights are canceled and tourist places are closed. International travel could be impacted by 25% this year. Prediction of the International Air Transport Association (IATA) shows that airline could lose \$113 billion in revenue. Various airlines got narrow profit and undergo into debt. Other than impact on airline, international tourism is also affected. According to UN’s International Civil Aviation Organization (ICAO) estimation Japan and Thailand could lose \$1.29 billion and \$1.15 billion of tourism revenue respectively due to fall of Chinese travelers.

**c) Effect on employment-** The Office for Budget Responsibility (OBR) an independent economics forecaster of UK assessed that unemployment in UK might rise, to 3.4 million from to 2.1 million by the end of June. Nearly 2.9 million Americans have filed for unemployment. In April starting data from Spain revealed almost 900,000 people have lost their jobs in the lockdown period from mid-march. Referring to the United Nations Economic Commission Bloomberg reported that about half of jobs in Africa possibly will be loosed as a cause of COVID-19 pandemic. Moreover the International Labour Organization (ILO) has also warned that roughly half of the employees of the global are in trouble of losing their livings. Recently ILO chief stated that COVID-19 impact could cause loss of 195 million jobs (UN NEWS APRIL 2020). World economic forum shows the effect of coronavirus in employment of important G-7 countries given below in Figure-3.

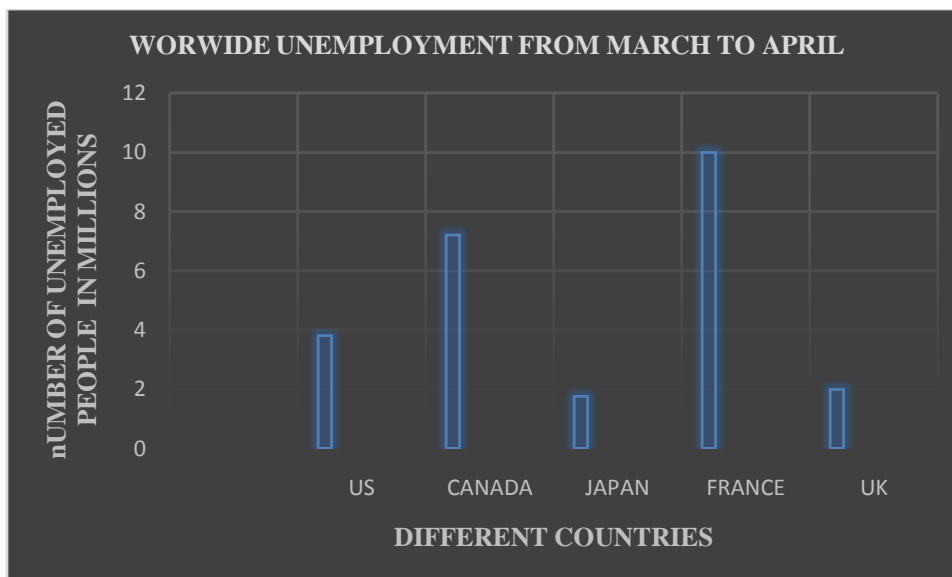


Figure 3: Effect of COVID-19 on employment

#### 4. Impact of COVID-19 on Indian economy:

In the wake of COVID-19 India imposed nationwide lockdown from 23<sup>rd</sup> march to 31st May in different parts. All factories shut down, several business and educational institutes are closed. Social gathering, religious practices are prohibited. During this lockdown period possibly 14 crore people lost employment and many employees got lesser salaries. Unemployment rate in India increased by 26% up to 24 April. According to statista site (2020) gross value added (GVA) for different sector is decreasing as given in Figure -4

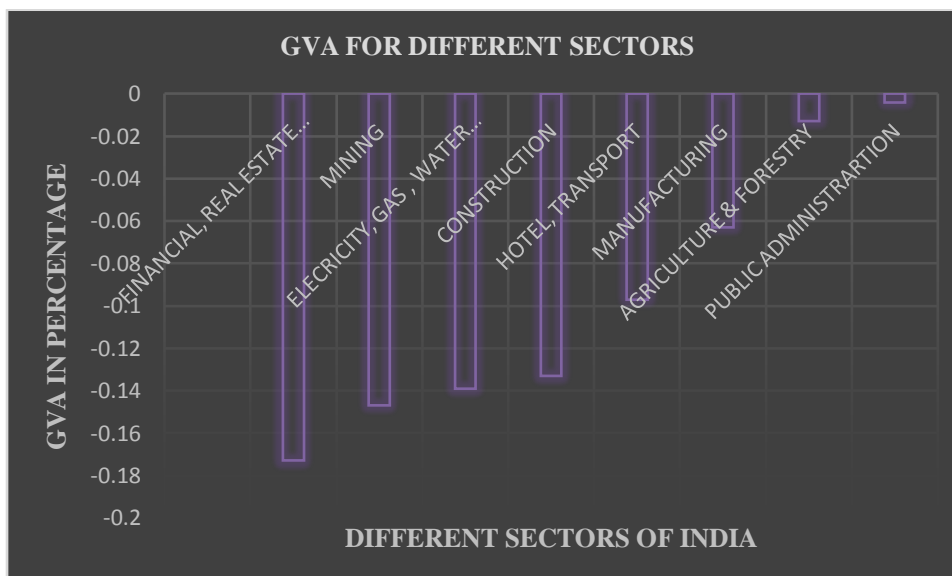


Figure 4: Effect of COVID-19 on GVA of different sectors of India

All industries impacted badly like travel, tourism, food, entertainment and sports. Salaries of workforces related to hotels and airlines business have been cut down. Tourism industry of India loss 15,000 crore from March to April while loss for live event industry is estimated to be 3000 crore. Moreover various agencies predicted India economic growth in financial year 2020 which will be 2% only by Fitch ratings. However government of India

announced various packages to revive the economy. Following financial packages various agencies forecast the GDP of India for financial year 2021. It is given below in Figure-5.

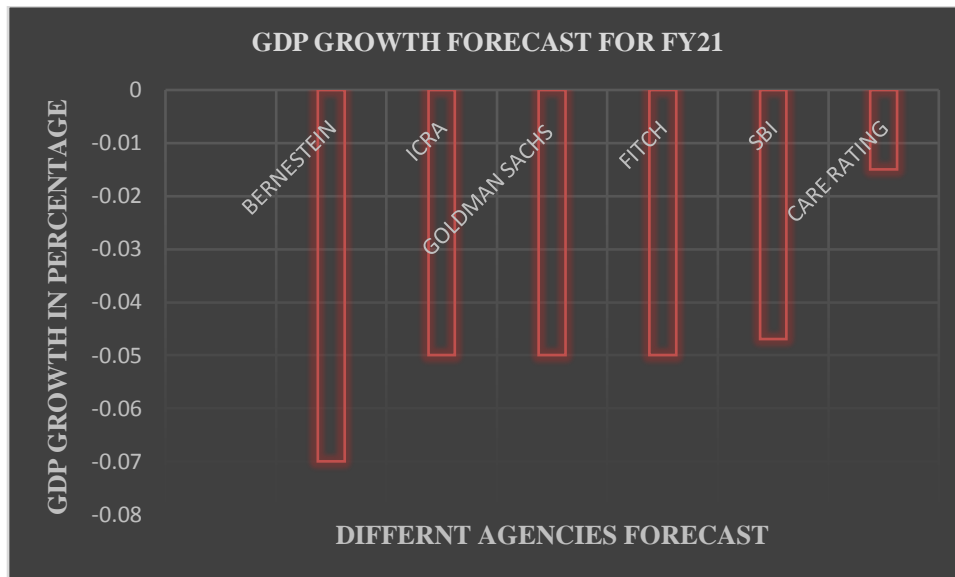


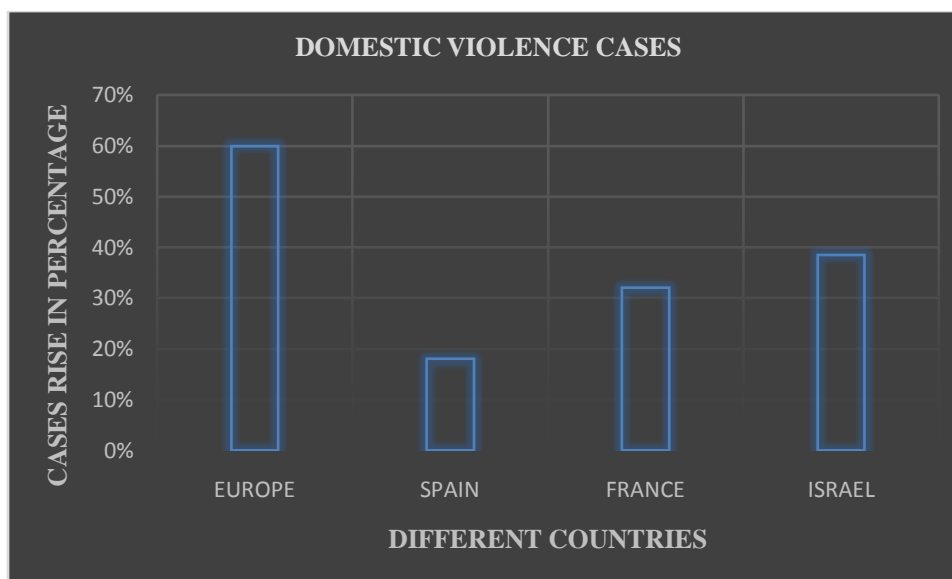
Figure 5: Effect of COVID-19 on GDP growth of India for financial year 2021

Other than these sectors, most affected businesses are roadside businesses including cobblers, hair cutting salons, booksellers, vendors and thelewalas. Meanwhile, effect on agriculture cannot be denied. Collaborated research of public health foundation of India, Harvard TH Chan School of public health and Centre for sustainable agriculture observed that 10% of farmers were unable to harvest their crop in lockdown period subsequently they loss the yield. Most affected agriculture field is Tea industry in which decreased in export is observed which will cause fall in revenue up to 8% (Nahata, 2020; Rakshit 2020).

##### 5) Impact of COVID-19 on the global Society:

During the coronavirus pandemic global society is dividing not only on the basis of low income and high income people but gender gap is also increasing. Most affecting classes of society are daily wage workers, private workers, women and children. Low income individuals are more prone to coronavirus infection as they live in crowded places working atmosphere is also not good while rich people have more access to healthcare facilities. In this way, COVID-19 increasing the gap between two classes of the society. In other way, coronavirus-induced lockdown, self-isolation generated the stress among people. It created fear, anxiety, future insecurity among people, due to this emotional distress is increasing and successively suicidal cases are also increasing. This social-distancing is traumatizing people and creating threat to their health (Mukhtar, 2020). In many countries domestic violence cases are increasing during lockdown period (Figure-6).

Resentment cases can be noticed in various societies in reference to citizens having current travel history. Alike residents answered badly when they were questioned by their neighbors or requested to get tested for COVID-19. Instead of telling truth and self-isolating themselves these people misbehaved in some places. In some cases, neighbors are not treating well such kind of people even if they have no symptoms or tested negative. Shockingly, such kind of hostility has been observed even against Corona warriors like police, sweepers, Doctors and health professionals (Deccan chronicles e-newspaper).



**Figure 6: Effect of COVID-19 on GDP growth of India for financial year 2021**

Many such frontline workers who are living in rented houses have been asked by their owners to vacate the house due to fear of COVID-19 infection from these persons. Another impact of COVID-19 in society can be observed in Panic buying during lockdown. Another aspect is that of Panic Buying, which has been largely observed in all parts of the country during this lockdown (Besson, 2020). High income people or riches purchasing unwarranted things, piling up grocery and other essential items without thinking about shortage which is affecting daily wage workers and roadside vendors. All these situations are generating disharmony among neighbors, jealousy and aggression in low income people and consequently separating the society. Another class of society which is adversely affected includes children. They are living in fear, losing their playgrounds friends and schools. They are unseen victims of this pandemic. According to United nation population fund many female children in Africa will undergo female genital mutilation or married off by 2030 (The Guardian newspaper). China has already recorded severe psychological distress driven by the coronavirus pandemic (Qiu *et al.*, 2020).

#### **6. Impact of COVID-19 on Indian Society-**

In India the society which was most affected is migrant labour class society which depends mostly on daily wages. Due to lockdown imposed in India they were struck down by it leading to a very critical situation for them. Most of the factories are shut, construction works has been stopped, all the small street businesses have been stopped completely which caused the loss of the jobs for these labourers and their livelihood has been jeopardized (Mishra and Ranjan 2020). As per the report presented of the census of the India of 2011 about 450 million of different migrants are there which are dispersed in the whole country in the various fields (<https://blogs.worldbank.org/peoplemove/internal-migration-india-grows-inter-state-movements-remain-low>). After the commencement of nationwide lockdown a wave to panic went through them having fear of losing the job and low survival chances of them in the cities with no money at all. They started going back to their native places with the hope of enough food, work as well as the shelter. As per the guidelines from the government transportation was stopped completely so because of helplessness they started walking towards to their home without keeping in mind of the further consequences (Nayar, 2020). On the date of 10<sup>th</sup> of May it was reported that over more than 350 deaths occurred because of starvation, committing the suicides (The economic times), and exhaustion from the travel,

accidents by road and rail services etc during the migration of the people going back to their native places. Even though there were medical facilities available for them on their way back to their homes (*The Hindu @businessline. 6 April 2020*). Most of the deaths occurred when migrants tried to walk back to their homes or tried to complete the journey on the bicycle (*Hindustan Times 22 April 2020*). After certain time government managed to start some bus services as well as the special shramik trains. Workers which were working in the micro small and medium enterprises (MSME) lost their jobs due to this covid-19 pandemic. In the time of lockdown misbehavior was also reported with several Asha workers, health professionals which went to certain places to help the people as well to give them safety instructions about this pandemic. They were welcomed with the pelting of the stones when they tried to inform the people about not allowing the migrants into the locality and tried to tell them to report it to authorities first. This pandemic hit hard the psychology of the most of the population in India. There is not much data available on the distress caused by this disease in the people but it is undeniable that people are suffering from the mental trauma as well. This can be well understood by the suicide case happened in the capital of India, Delhi. A young man was kept in the hospital in isolation but due to mental stress he jumped from the 7<sup>th</sup> floor of the hospital and put an end to his life. Later test results came negative for that particular person. According to survey of Nelson Vinod Moses more than 150 million people which are frontline health workers, young children, elderly people, women, and differently abled persons are prone to mental stress. Along with this domestic violence and crime rate against women are also increasing continuously. Recent data from the National commission of women website predicts that between 23<sup>th</sup> March to 16<sup>th</sup> April totally 239 cases of domestic violence reported which was very high as compare to the 123 cases reported in the preceding 25 days period.

#### **Conclusion:**

COVID-19 pandemic paralyzed the socio-economic situation of the whole world. The world should be united to fight this pandemic which affected the whole humankind. Government should give grant to the small businesses, support private workers, shopkeepers and farmers. Migrant workers should be supported by whole society and government should absorb them into different works. Together, we can win this pandemic war. The bottommost point is that we all must behave sensibly and support each other to avoid the downfall of socio-economic security of our society. This is very critical period for the governments and society to act carefully, tackle this epidemic with proper measures, to eradicate this vulnerable situation timely and restore the socio-economic conditions.

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## **SOCIO- ECONOMIC IMPACT OF COVID-19 ON INDIA AND WORLD AT LARGE**

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### **Abstract:**

Covid-19 a horrible truth of today's world. This is the first time in a century that such a virus is so dangerous for the world. Even it has hampered the whole economy of the world. Nobody can move from one place to another. No one is allowed to come out of their home. It seems to be unbelievable to face this type of virus which is unseen and there is no medicine of the virus. Whole world is blocked. There is no economic activity in the world since march 2020. Every country is facing with the problem of Corona Virus. Corona Virus has infected the whole world. Each and every country is facing with the problem of virus. Every Economic activity of the world is suffering from lock- down. The economic activity is slower down. No international trade is going today. This is the first time that world market is totally suffering from this type of non- economic activity. Every activity is blocked and world as well as India is suffering down from the straight down in the Economic activity.

**Keywords:** Economic, Virus, World, Market, Socio

### **Introduction:**

Every country survives and progress with its economic activity. No country can be progressed without its economic activity. Economic activities are related to business activity with world. Economic activity includes import, export and enter port of goods and services. To maintain economic condition of each and every country needs some economic transaction

The outbreak of Coronavirus disease 2019 (COVID-19), the world's worst Virus was first identified in Wuhan, the capital of Hubei, China, in December 2019 and since then having spread globally, has been recognised as a pandemic by the World Health Organization (WHO) on 11 March 2020. India is widely affected by this pandemic. As on 29.04.2020, more than 31000 cases of Coronavirus have been confirmed in India with more than 1000 deaths. And as per today's statistics it shows 9558 new cases in India and total death in india is 6642 and total cases in India on 06<sup>th</sup> June 2020 is 2,36,657.

### **Economic Effect on India:**

In India the Economic capital (Mumbai) has affected at large by this virus. It has collapsed the whole economic activity of India. Every industry and every business houses of Indian has badly affected by Corona Virus. India was bound to be affected not only because of its domestic slowdown but also because of international recession. Learning the lessons from the developed countries like Spain and Italy, USA, Britain , Indian Government has to put all its efforts to run the business activity and/or to prevent the disease. Finally Government started as one day *Janta Curfew* on 22.03.2020 by the Prime Minister of India and lockdowns by some of the state governments, the entire country was declared to be under lockdown from the midnight of 24.03.2020, and the same continues to be so till now.

The Finance minister of India has announced in their Union Budget that India's GDP will be 10% during financial year 2020-21. But due to attack of the Corona Virus the situation changed and It is believed that India's aggressive lockdown could bring the country's growth down to 2.5 percent from 4.5 percent it had earlier estimated.

However, as per a statement released by Chief India Economist of Goldman Sachs on 09.04.2020, the economic growth of India has been estimated at a low figure of 1.6% only.

As estimated by Centre for Monitoring Indian Economy (CMIE) on 07.04.2020, the overall unemployment rate may have surged to 23 per cent, with urban unemployment standing at nearly 31 per cent. International Labour Organisation (ILO) has estimated about 40 crores workers of unorganised sectors to be unemployed.

The United Nations Conference on Trade and Development (UNCTAD), has suggested that India's trade impact due to the COVID-19 outbreak could be around USD 348 million. For India, the overall trade impact is estimated to be at 129 million dollars for the chemicals sector, textiles and apparel at 64 million dollars, the automotive sector at 34 million dollars, electrical machinery at 12 million dollars, leather products at 13 million dollars, metals and metal products at 27 million dollars and wood products and furniture at 15 million dollars

### **Economic Effect on World Market:**

After the effect of Corona Virus pandemic, several countries across the world resorted to lockdowns to “flatten the curve” of the infection. These lockdowns meant confining millions of citizens to their homes, shutting down businesses and ceasing almost all economic activity. According to the International Monetary Fund (IMF), the global economy is expected to shrink by over 3 per cent in 2020 – the steepest slowdown since the Great Depression of the 1930s.

Now, as some countries lift restrictions and gradually restart their economies, here's a look at how the pandemic has affected them and how they have coped.

How hard has the economy been hit?

The pandemic has pushed the global economy into a recession, which means the economy starts shrinking and growth stops. It is unbelievable for us that this situation is very dangerous for whole world.

In the US, related disruptions have led to millions filing for unemployment benefits. In April alone, the figures were at 20.5 million, and are expected to rise as the impact of the pandemic on the US labour market worsens. As per a Reuters report, since March 21, more than 36 million have filed for unemployment benefits, which is almost a quarter of the working-age population.

Further, an early analysis by IMF reveals that the manufacturing output in many countries has gone down, which reflects a fall in external demand and growing expectations of a fall in domestic demand.

### **Research Methodology:**

+“A systematic controlled, empirical and critical investigation of hypothetical propositions about presumed relations among natural presumed relations among natural phenomenon is called scientific research.”

- *Fred N. Kerlinger*

Following the outline given under the above said definition, research work was planned adopting methodology as under -

### **Aims & Objectives of Study:**

#### **Aims :**

1. To study and analyse the problems of business houses.
2. To study the working methodology of the Industrialist.
3. To study the administrative policies related to wage & salary of Labourer.
4. To study existing. policies of the Governments made for Covid-Period.
5. To study and analyse welfare Policies of Government.



**Objectives:**

1. To Study the Covid- Period economic activity.
2. To provide better working condition to working class People.
3. To provide proper survival facility to the Society.
4. To maintain Economic condition of the Nation.

**Research Design:**

A research design is a plan of the proposed research work. It represents a compromise dictated by mainly practical considerations. It is a catalogue of the various phases and facts relating to the formulation of research efforts.

A Researcher arranges the conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. It is based, more or less, on methodology. It is prepared on the topic and problem for research. Problem of the research is selected and formulated, objectives outlined properly. Concepts defined and the hypothesis framed properly. In fact, the research design is the conception structure within which research is conducted. It is a blueprint for the collection, measurement and analysis of data.

**Nature of Research:**

The study carried out is based on field survey. The study is descriptive in nature. It is a combination of analytical and descriptive type. The present study has been carried out by describing, discussing and analyzing the major concepts in the study of wages, health and facility provided to the work force .

**Types of Research:**

The quality of a research projects depends, among the other things, upon the suitability of the methods selected for it. The basic types of research are as follows:

- a) Descriptive Research
- b) Applied vs. Fundamental Research
- c) Quantitative vs. Qualitative Research
- d) Conceptual vs. Empirical Research

In this study, the researcher uses the descriptive type of research.

**Descriptive Research Design:**

Descriptive study is a fact-finding investigation with adequate interpretation. It is the simple type of research. It usually forms preliminary study of a research project. It provides background information about an event in question.

**Stages in Sample Design:**

**Universe:**

The sum total or the aggregate of all units/case that confirm to some designated set of specifications is called the universe or population. The set of objective which are clearly defined is the basic stage in developing of any sample design. These set objectives are called universe.

**Population:**

A population may be a group of people, house, workers, students, customers, cultivators, registered voters, legislators and so on. The specific nature of the population depends on the purpose investigation.

**Sampling Element:**

Sample is a portion of total proportion. Each entity (person family, group organization) from the population about which information is collected is called a sampling element.

**Sample Size:**

The size of the sample means number of the items to be selected from the universe as sample. The size should neither be small or large, it should be appropriate. The sample size fulfills the main criterion of flexibility, reliability, efficiency and representativeness.

**Sampling Unit:**

This is either a single member (element) or a collection of members (elements) subject to data analysis and selection in the sample. Researcher decided (Industrialist, Labourer, Business Man etc.) for sample unit.

**Sampling Frame / Source List:**

In case of certain universe list in which information sampling frame is available is called source list which normally contain the names of all the items. Source list available or prepared is the expectative of the universe.

**Type of Sample Design:**

The sample design are classified on the basis of representation are probability sampling and non-probability sampling. One of the method of non-probability sampling is used for the purpose of selecting sample.

**Stratified Sampling:**

This method of selecting sample is used in selecting items when there is no homogenous group in the universe. So the universe is classified in different level of the strata to selected sample belonging to each strata on the basis of chance sampling. Therefore first classification is made and there chance sampling is done. It is known as stratified sampling. In this research, stratified sampling method is used by making strata of worker, business man, customer , citizen of the nation .

**Methods of Data Collection:**

The collection of data is the important task in the research methodology. In this research, the primary data and secondary data is collected for the study as below.

**Primary Data:**

Primary data is collected during the course of doing experiments in an experimental research but in case of descriptive research, sample surveys are conducted and obtain primary data through direct communication with respondents through personal interviews. Observation method, Interview method, questionnaires and schedules are the methods which are in common use.

Primary data is collected by using interview method for securing information through face-to-face association with the parents. For this purpose the schedule of enquiry was structured covering all aspect of the study.

**Questionnaire:**

After finalizing the research topic and selecting the method of data collection, the task of questionnaire construction was undertaken.

**Data Collection and Analysis:**

According to researcher data is collected by the Economist (10) , business man (15) , customer (25) etc.

**Q. 1 Corona virus has disturbed our Economic Activity ?**

RESPONDENT	YES	NO
<b>Economist</b>	09	01
<b>Business Man</b>	15	00
<b>Customers</b>	20	05

**Analysis:** From the above chart it is clear that most of the respondent say yes . They believes that our economic activity has disturbed due to Corona virus.

**Q. 2 Corona Virus has hampered the World trade Activity.**

RESPONDENT	YES	NO	May Be
Economist	<b>10</b>	--	
Business man	<b>12</b>	<b>02</b>	<b>01</b>
Customers	<b>18</b>	<b>04</b>	<b>03</b>

**Analysis:** From the above chart it shows that world trade activity has affected a lot because of corona virus.

**Q.3 Does India survive with this pendamic?**

RESPONDENT	YES	NO	May Be
Economist	<b>08</b>	--	<b>02</b>
Business man	<b>11</b>	<b>02</b>	<b>02</b>
Customers	<b>21</b>	<b>03</b>	<b>01</b>

**Analysis:** Every body believes that India will survive after this Pendamic. Only few persons are in confusion.

**Q4. Does India will be self reliant after Covid-19.**

RESPONDENT	YES	NO	May Be
Economist	<b>07</b>	<b>01</b>	<b>02</b>
Business man	<b>12</b>	<b>02</b>	<b>01</b>
Customers	<b>19</b>	<b>04</b>	<b>02</b>

**Analysis:** India is a democratic country and we believes in unite with each other. But no doubt Corona- Virus has effected a lot still India will become self-reliant.

**Q5. After Covid-19 can worlds Economy improves ?**

RESPONDENT	YES	NO	May Be
Economist	<b>06</b>	<b>02</b>	<b>02</b>
Business man	<b>12</b>	<b>01</b>	<b>02</b>
Customers	<b>16</b>	<b>04</b>	<b>05</b>

**Analysis:**Some of the Economist believes that world economic will survive after this situation. That it will improve, but it takes some time to be regularize the activity.

**Findings:**

With the help of above survey it is found that every person whether he is economist, Business man or Customers believes that Corona Virus has affected the whole world no country including India can survive. It has affected too much on the Economic condition of the nation. Every person is trying best to survive with this pendamic disease. Every class is suffering with this corona-virus affect.

It has affected the whole economic activity, some of them are as follows.

**Suggestions:**

To improve the economic activity of the World Government is regularly trying to improve the different sectors of the Market.

1. Auto Industry:- Corona Virus has affected the Auto Industry a lot . During Covid-19 period auto industry has almost decline by 15% to 20 %. We have to improve the demand of Auto Industry.
2. Shipping Industry:- Due to lockdown period each and every country has stopped its transportation . Shipping industry has collapsed . No ship booking is existed now.
3. Tourism Industry:- Today no tourism work . No tourist at all. No body is travelling from one place to another. It will improve only after lock down period. Conditions will be normalise when lockdown opens and situation will be regularise.
4. Electronic Industry:- Every Industry struggles from the attack of Corona Virus. But Electronic Industry has faced many obstacle . But now Industry has surviving.
5. IT Industry:- Due to Corona Virus almost every industry has suffered a lot but still It Industry has improved its performance. Due to lock down every industry has to face a lot to manage its profit. But It industry has gained due to lockdown, Every Industry has got more ordered from the business.

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## IMPACT OF CARBON EMISSIONS ON CLIMATE CHANGE

### PRE AND POST COVID-19

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#### Abstract:

Awareness and alertness of implication of carbon emissions on global climate make humans better equipped with their role to create a positive difference. Carbon emissions mainly focus on carbon dioxide that is released in the atmosphere in a ton of ways. Excessive carbon emission from fossil fuels burning for power generation and transportation is the main culprit to global warming. The planet is getting warmer by 0.2°C per decade. Recent intrusion of pandemic disease like Covid-19 has shown temporary reduction in carbon emission due to forced confinement of population. No war, no recession, no previous pandemic has had such a dramatic impact on emissions of carbon dioxide over the past century as Covid-19 has in a few short months. If no lesson learnt of how humans by reducing their carbon footprint during such pandemic can alter the climate for better then post-crisis scenario regarding carbon emission would be similar to pre-crisis. For people to thrive well post-crisis, certain changes in their lifestyle and activities may be helpful to restore healthy climate. In the present research paper, authors have made an attempt to comprehend the short-lived impact of Covid-19 on climate by analysing data of carbon emission of selected metropolitan cities of India and countries across the globe.

**Keywords:** Carbon emission, climate, pandemic, Covid-19, AQI

#### Introduction:

In the atmosphere, there are naturally occurring greenhouse gases such as water vapour and carbon dioxide. The function of greenhouse gases is to keep the earth's surface warm by preventing sun energy from radiating back to space directly. The global climate has changed notably since the beginning of the Industrial Revolution. Prior to the Industrial Revolution the atmospheric CO<sub>2</sub> concentration was about 280 ppm. Now it is about 370 ppm and rising (Cirman *et al.*, 2009) due to the increase of human-induced emissions of greenhouse resulting in an increase in the average temperature of the earth's surface. To address this global issue of carbon emission in December 1997 the Kyoto Protocol, a binding GHG reduction plan was adopted and entered into force in 2005. Later one of the major global frameworks to avoid dangerous climate change by reducing the GHGs was the Paris Agreement (COP21). It was the first-ever legally binding global climate change agreement adopted and ratified by over 190 countries. Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognized that this would significantly reduce the risks and impacts of climate change (Paris Agreement, 2015). During the past two decades, greenhouse gas emissions from Asian countries, have been increasing rapidly particularly due to CO<sub>2</sub>, due mainly to industrialization and population growth. Four of the ten countries in the world with the highest CO<sub>2</sub> emissions from fossil-fuel use are located in Asia (Deluna, 2008). The major source of NO<sub>2</sub> is combustion processes. An appreciable quantity of NO<sub>2</sub> is present in rural and urban environments. Further, NO<sub>2</sub> is showing alarmingly high increasing trend in Indian cities due to increase in number of vehicles. PM levels in Indian cities are about 4-5 times higher than in the US cities (WRI, 1996). These high PM levels may have severe impact on public health. The sixteen-year long survey by Dockery *et al.* (1994) has revealed that there is a strong correlation between ambient PM

concentrations and increase in mortality and hospitalizations due to respiratory diseases. PM<sub>2.5</sub> is of specific concern because it contains a high proportion of various toxic metals and acids, and aerodynamically it can penetrate deeper into the respiratory tract. Major concerns for human health from exposure to PM<sub>10</sub> include effects on breathing, respiratory symptoms, decrease in pulmonary function and damage to lung tissue, cancer, and premature death. Ozone, a secondary pollutant formed in the atmosphere, has serious health impacts. Ozone is a strong oxidant, and it can react with a wide range of cellular components and biological materials. Ozone can aggravate bronchitis, heart disease, emphysema, asthma and reduce lung capacity. Irritation can occur in respiratory system, causing coughing, and uncomfortable sensation in chest (WHO, 2000). SO<sub>2</sub> is soluble in aqueous media and affects mucous membranes of the nose and upper respiratory tract. Deluna (2008) has studied anthropogenic carbon dioxide emission in 43 Asian countries from year 1980 to 2004 and observed 265.20% increase in carbon dioxide emission in the time period. According to the study executed by India State-Level Disease Burden Initiative Collaborators (Dandona *et al.*, 2017) and ICMR, PHFI, and IHME (2017), in India, one out of every eight deaths in 2017 is associated with air pollution and is the second major threat causative to infection load after undernourishment in 2016. Therefore proficient air quality mapping and analysis at city scale could be an important means for understanding air quality state and formulating efficient policy for combating the situation of climate change.

#### **Influence of Pandemic Covid-19 on climate change:**

The emergence of COVID-19 was first identified on 30 December 2019 and declared a global pandemic by the World Health Organization on 11 March 2020. Cases rapidly spread, initially mainly in China during January, but quickly expanding to South Korea, Japan, Europe (mainly Italy, France and Spain) and the United States between late January and mid-February, before reaching global proportions by the time the pandemic was declared (Quere *et al.*, 2020). Increasingly stringent measures were put in place by world governments in an effort, initially, to isolate cases and stop the transmission of the virus, and later to slow down its rate of spread. The measures imposed were ramped up from the isolation of symptomatic individuals to the ban of mass gatherings, mandatory closure of schools and even mandatory home confinement. The population confinement is leading to drastic changes in energy use, with expected impacts on CO<sub>2</sub> emissions. Nearly half of the world is under partial or complete lockdown due to the COVID-19 outbreak, leading to the shutdown of industries and motor vehicles and an associated reduction in the concentration of atmospheric pollutants (Lal *et al.*, 2020). Pollution and GHG emissions have fallen across the continents as countries imposed lockdowns and restrictions to contain the spread of the Covid-19. The countries and cities with the highest Covid-19 impact are witnessing clear and sunny skies. Many researchers across the world have assessed influence of Covid-19 on climate change in various countries like China (Bao and Zhang, 2020), Italy (Rugani and Caro, 2020), USA, Spain and France (Muhammad *et al.*, 2020; Berman and Ebisu, 2020), Kazakhstan (Kerimray *et al.*, 2020), Brazil (Dantas *et al.* 2020), India (Bhongale and Shaikh, 2020; Arumugam and Rajathi, 2020; Kumaravadivelan, 2020; Kalidas, 2020). Air Quality Index is assessed for understanding climate change during outbreak of Covid-19. An air quality index is defined as an overall scheme that transforms the weighed values of individual air pollution related parameters (for example, pollutant concentrations) into a single number or set of numbers (Ott, 1978). Many international borders were closed and populations were confined to their homes, which reduced transport and changed consumption patterns. Carbon emissions are falling sharply due to coronavirus. One clear indicator of the pandemic's far-reaching impact is its effect on fossil fuel consumption and carbon dioxide emissions. In China, carbon emissions were down an estimated 18 percent between early February and mid-March due to falls in coal consumption and industrial output, according to calculations first published by climate science

and policy website CarbonBrief. That slowdown caused the world’s largest emitter to avoid some 250 million metric tons of carbon pollution—more than half the annual carbon emissions of the United Kingdom. In China, emissions are already rebounding as the country restarts its factories. The International Energy Agency (IEA) says that the world will use 6% less this year - equivalent to losing the entire energy demand of India. By air and on roads, the world has cut back heavily on travel. Full lockdowns have also pushed global electricity demand down by 20% or more, says the IEA. "If Covid-19 leads to a drop in emissions of around 5% in 2020, then that is the sort of reduction we need every year until net-zero emissions are reached around 2050," said Glen Peters, also from Cicero. "Such emissions reductions will not happen via lockdowns and restrictions, but by climate policies that lead to the deployment of clean technologies and reductions in demand for energy." Amid the COVID-19 pandemic, a nationwide lockdown is imposed in India initially for three weeks from 24<sup>th</sup> March to 14<sup>th</sup> April 2020 and extended up to 3<sup>rd</sup> May 2020. Due to the forced restrictions, pollution level in cities across the country drastically slowed down just within few days which magnetize discussions regarding lockdown to be the effectual alternative measures to be implemented for controlling air pollution.

**Materials and methods:**

**Table-1: Air Quality Index Scale as defined by US-EPA 2016**

AQI	Air Quality	Health Implications	Cautionary Statement (for PM2.5)
0 - 50	Good	Air quality is considered satisfactory, and air pollution poses little or no risk	None
51 -100	Moderate	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.	Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
101-150	Unhealthy for Sensitive Groups	Members of sensitive groups may experience health effects. The general public is not likely to be affected.	Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
151-200	Unhealthy	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects	Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion
201-300	Very Unhealthy	Health warnings of emergency conditions. The entire population is more likely to be affected.	Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.
300+	Hazardous	Health alert: everyone may experience more serious health effects	Everyone should avoid all outdoor exertion

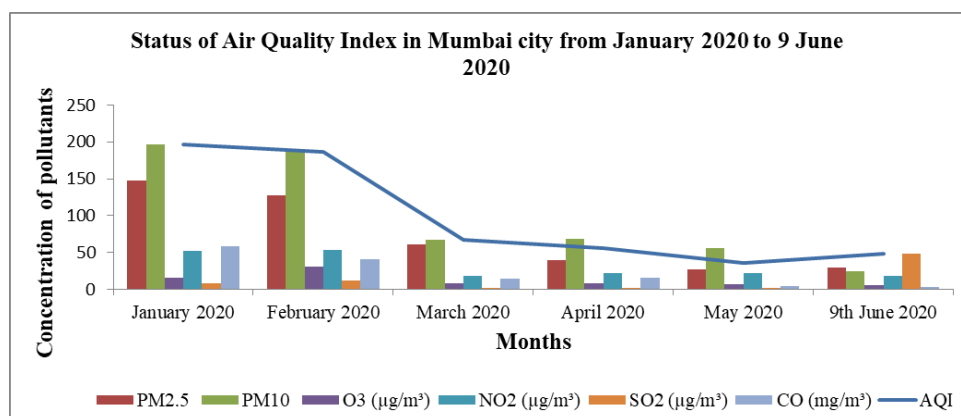
Current study was undertaken using secondary data from National Air Quality Index (Central Pollution Control Board (2020)for Mumbai city (India) for the months from January 2020 to June 2020 (9<sup>th</sup> June 2020) covering pre-lockdown and post-lockdown timeframe for comparison of carbon emission.The results were mainly depicted in terms of Air Quality Index (AQI) and concentration of contributing pollutants.

Air quality was assessed based on Air Quality Index scale as defined by the US-EPA (2016) standard(Table-1). Accordingly, AQI index has six categories with elegant colour scheme: Good (0-50) Moderate (51-100) unhealthy for sensitive groups (101-150) Unhealthy (151-200) Very unhealthy (201-300) hazardous (300+).

**Result:**

**Table-2: Status of Air Quality Index in Mumbai city from January to 9 June 2020**

Months \ Pollutants	AQI	PM2.5	PM10	O <sub>3</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	CO (mg/m <sup>3</sup> )
January 2020	197	148	197	16	52	8	58
February 2020	186	128	186	31	54	12	41
March 2020	67	61	67	8	18	2	15
April 2020	56	40	68	8	22	2	16
May 2020	36	27	56	7	22	2	5
9th June 2020	49	30	25	6	18	49	4



**Figure-1: Status of Air Quality Index in Mumbai city from January 2020 to 9 June 2020**

**Discussion:**

Before first nationwide lockdown was declared on 24<sup>th</sup> March 2020, Air Quality Index (AQI) was very high i.e. 197 (January 2020) and 186 (February, 2020) respectively (table-2) due to pollution from industries and vehicular emission. When entire country was under different phases of lockdown (24<sup>th</sup> May 2020 to 7<sup>th</sup> June 2020) air quality was improved (table-2) showing AQI 67 (March 2020), 56 (April 2020), 36 (May 2020) and 49 (on 9<sup>th</sup> June 2020) due to forced confinement of people in homes. Similarly, figure-I illustrates decline in air pollutants during lockdown due to complete shutdown of transportation and industries except essential services. AQI on 9<sup>th</sup>



June was found to be slightly higher than that of May 2020 due to unlocking of activities from 8<sup>th</sup> June 2020 which led to road traffic. Similar observations are obtained by various researchers across the globe.

The observation of climate change with less polluted and clean air of Mumbai is in complete agreement with the observations made by Mahato *et al.* (2020) for air quality of Delhi, Kalidas (2020) for Bengaluru, Arumugam and Rajathi (2020) for Chennai, Bhongale and Shaikh (2020) for Mumbai and Pune cities. The estimated decrease in daily CO<sub>2</sub> emissions from the severe and forced confinement of world populations of –17% (–11 to –25%) at its peak are extreme and probably unseen before (Quere *et al.*, 2020)

**Conclusion:**

The drop in the CO<sub>2</sub> emissions can be the largest but it will not have any impact on climate change. Scientists estimate a 5% fall in the carbon output in 2020. However, without any structural changes, the emission decline caused by Covid-19 could be short-lived and have a tiny impact on the concentration levels of carbon dioxide in the atmosphere. Investing in less energy intensive technology will change the current direction of CO<sub>2</sub> emissions.

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## CREATING AWARENESS PROGRAMMES OF MENTAL HEALTH DURING LOCKDOWN

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### Abstract:

Mental health is behavioral, cognitive and emotional well-being. Mental health affects the thinking, feeling and the behavior of individual. Mental health is necessary for individual. Mental health affects the daily routine of persons. It affects the work and business of individual. Mental health affects the family relationship of person. If a person's mental health is well he is physically fit. During the COVID-19 the mental health of individual affects. Every person i.e. from Children to old people all affects the COVID-19. All over the world affects the COVID-19. A developed and developing country affects the Corona virus. Mental health affects as the entire world closed down. The virus affects the mental health of person. The person's mental healths affect the person. The entire world stops i.e. Airlines, Trains, Buses, Business, Government Offices, School, Mall and Market. In this situation even the last hope during the lockdown is God and unfortunately all the Temples are also closed. It also focuses on the various aspects of the mental health. This paper focus on the awareness programme of mental health during lockdown.

**Keywords:** Mental health disorder, Yoga, News Channels, Meditation.

### Introduction:

During Lockdown, when all India stop, the news channels continuously showing news of Corona Virus. The continuously awareness of corona virus in news channel affects the mental health of individual. Each person from children, young person and old people affects from the news channels and from newspaper. Mental health of person affects everyone.

The person did not have work and it changes the lifestyle of individual. Even no one know whether the person is disorder from mental health or not. First individual know whether is suffering from mental health disorder. The sign of mentalhealth disorder as under:

### Mental Health Disorder:

- If a person is confused.
- If a person eating less or more.
- If a person has delusions.
- If a person avoid to talk to friends.
- If a person cut relationship from family.
- If a person avoiding to listen music.
- If a person avoiding activities,
- If a person avoiding daily routine works.
- If a person sleeping more or less.
- If a person feeling hopeless.
- If a person using too much consumption of alcohol.
- If a person not doing daily tasks like cooking.
- If a person affect negative thoughts.
- If a person consistently low energy.

- If a person uses too much mobile phones.
- If a person too much uses what's app during late nights.
- If a person is continuously watching same topic in news channels.

For this Mental health disorder, the awareness programme should be necessary to overcome the mental health disorder. The mental health programme as under:

**Awareness programme of mental health during lockdown:**

- Daily Exercise: For Mental health a person should exercise one hour daily. Exercise fits the health and it reduces the mental health disorder. So, a person must exercise daily.
- Talk to Friends: For Mental health, a person talk to friends and thus it reduces the mental health disorder, a person should share his/her problems to their friends.
- Sleep More: It is good medicine form mental health disorder person to sleep more and thus it changes the mental health disorder and it is good medicine for mental health.
- Seating at Sun: A person should seating at Sun, it is also good medicine for removing mental health disorder.
- Meditation: A person should take meditation as many countries recommended that mental health disorder change if a person continuously adoptmeditation, mental health recovers.
- Avoid seeing news channels: It is fact that, watching too much news channels affects the mental health disorder, so a person should avoid watching news channel.
- Listen Music: A person should listen music to avoid mental health disorder and thus the mental health of person improves.
- Yoga: Yoga is best medicine for mental health. Yoga is now adopted by developed countries.
- Keep distance from social Media: A person should keep a distance from social media and thus the mental health improves and person lives life happily.
- Avoid using too much mobile phones: A person should avoid too much mobile phones and thus it helps to improve mental health.
- Spent time with Family: A person should spent time with family and thus it changes the mental health disorder and to communicate with family the problems of person solve and a person feel happy.
- Positive Thought: A person should adopt positive thoughts. It will reduces the mental health disorder.

**Conclusion:**

During lockdown, it is necessary for person to change himself/herself and he/she exercise daily, listen good music, avoid to use too much mobile phones, keep distance from social media, take meditation and Yoga, Seating at sun, avoid to see news channels, sleep more and talk to friends, Spent time with family. It is necessary for a person to change his mind. The positive mind of person fights with the mental health disorder.

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## ACADEMIC STRATEGIES TO MITIGATE THE AFTER EFFECTS OF PANDEMIC IN SHORT RUN AND IN DISTANT FUTURE

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### **Abstract:**

Technology and perseverance are the inevitable future of Education. We are now living in a world where Elon Musk's Tesla has become the first private company to put humans into the orbit. People have been talking about space travel and space tourism. This was not taught by textbooks. Musk in an interview had said, "He looked for evidence of exceptional ability in a potential employee, rather than a degree from a prestigious university. The definition of a "learned" in today's society closes the doors to traditional chalk duster methods (no matter how effective they were) and welcomes with wide arms the unknown, the beyond and the unreachable. No pandemic, epidemic, disaster-manmade or natural should be able to bring education to a standstill like this Covid-19 outbreak did in most countries including India. These outbreaks should not become an excuse to cease our rights to be educated and to educate. The question now remains how well we do as academicians and educators to adapt and reinvent the way we educate. The purpose of this study is to educate about the online platforms supporting ease in providing education like Adobe Connect, Google Classroom, Web Proctored Exams, etc. To encourage educators to adopt Application based academics. To raise support towards the providers of education with fair pay, better mental and physical health and to introduce wellness facilities taking inspiration from private institutes worldwide.

**Keywords:** Academics Post Covid-19, Future of Education, Adapting Technology, Application based teaching and learning

### **Introduction:**

Who knew "Survival of the fittest" a quote made popular by the naturalist Charles Darwin would find its rightful place in all applied sciences in the future. Being fit today has got less to do with hitting a gym or eating greens for building a good physical endurance but has become an umbrella term covering economical, political, social, psychological, cultural and technological endurance.

To be fit means to be able to fit in with the ever evolving environment. Gone are the days when roti, kapda and makaan (food, clothing and shelter) were the ultimate life goals. Artificial intelligence is taking over the world, giving its very own creator a run for their money. As software and mechanisms learn more, their ability will outrun a man's hard work and intelligence and result into a clash of Man v/s Machine.

The fight now to survive involves heavy dependence on the technology that most of us traditional approach loving people are bolting away from. Opposition to any technological change will only result in the collapse of the entire system-education or otherwise. An instance of it has now been witnessed amidst this outbreak of Covid-19. With the way we have treated the mother earth for centuries now, deprived it of its very own nature, no wonder it has been revolting. Calamities and disasters are now inexorable.

Meanwhile when others discuss the aftermath of Covid-19 concentrating more on the economy and safety in general, we as educators, instructors, learners, trainers and counselors have a battle to win of our own.

So how did we get here?

Here, where educators are constantly being questioned as to how they have utilized the lockdown period, what have they done in the lockdown period to help their respective students and respective selves grow. Here, where our academic calendar has become another unsolved mystery. Here, where people are debating if the exams are supposed to be conducted or are the students to be promoted without putting them to any test.

Academic year in India starts June and ends April. This kind of played to our advantage amidst this lockdown, given that we were towards the end where most syllabuses were done with and the only thing in question was to put the students to test. But, what if this pandemic would have tested our education system in December? Would we still have resorted to the same means we have now?

Most developed countries were well trained, well guided and well in advanced prepared to have resources to carry on their work online. In fact they have been following this paperless and non text-book approach for a very long time now. It has been observed that even kindergarten classes are being held online elsewhere in the world. Then why did education sy in our country come to a halt like this?

As a researcher we often happen to take inspirations from the work of our fellow researchers. Similarly as a country we should share the insight and vision of other countries and learn from their innovations and implementations before placing our own untested strategies to work.

The study ahead will enlighten the '**tried and tested**' strategies adopted by developed countries worldwide that can prove useful to our very own education system in the short run.

The study shall further throw light on the how important application based education is today and how the textbooks will lose their value in the near future.

It will discuss the importance of motivating fellow academicians and raising support for their overall well being.

#### **Findings:**

So, how do we get started?

One thing needs to be kept in mind that the only way forward is moving ahead in life and the only way ahead is by taking our education practices "ONLINE". Everything from now on post the pandemic will work purely on trial and error basis.

We are living in the times where there is an abundance of resources readily available to us online, most of them even free of cost. These platforms are easy to use and can be used even by the most technologically backward person. We need to find them and put them to use.

This study will further be divided into three sections:

I] Exploring online platforms making teaching and learning possible anytime and anywhere.

II] Learning about Application based Academics

III] Taking notice of the plight of the educators worldwide

#### **I] Online platforms taking teaching one step ahead and making learning more interactive and productive**

On April 30, 1993 the European Organization For Nuclear Research (CERN) put the web into the public domain. Ever since the basic purpose of internet has been its accessibility anytime and anywhere. It has connected people far and wide and has been used widely in academics right from the time it was first invented. Let us find out how far we have come since.

##### **1) Virtual Classrooms:**

A virtual classroom is an online learning environment allowing similar classroom teaching methods/practices but with far more interactive and learning activities between the educator and the learner.

Following are the most widely used Virtual Classroom software:

- **ZOOM meetings:**

This particular software application is the most commonly used amidst the pandemic worldwide for conducting meetings, online lectures, webinars and training programmes. However it has been overcome with several security threats and bugs which the creators are yet to figure out completely. The use of it has been discouraged by many countries across the globe. But what most people would not know is that, it is not the only online platform available.

- **Adobe Connect:**

It does include the common features like scheduling and arranging a meeting, video and audio calling and video webinars. Other features include:

Compatibility with various mobile devices-One can share files and do white boarding from remote mobile devices. It allows use of various build-in tools enabling more interactive sessions like quizzes and simulation within the classroom.

It operates on a learning management system where it allows tracking and managing a student's enrollment.

It provides with custom layouts and images to give the classroom a personal touch.

- **Blackboard Collaborate:**

This supports all browsers which means one does not have to download any software for using it. All sessions in Collaborate have a unique URL, which can easily be shared as a link to external users.

The providers have the option to customize their settings for each user/learner as per their choice which means it is possible to change the role of each user from a participant to presenter and so on. Lecturers can add a time limit to their open sessions after which nobody can access the sessions.

- Similarly there are other platforms like Cisco WebEx, Google Hangouts to Host at least 150 participants.

Now this was talking about how to conduct live teaching interactive sessions and once this part is done the next discussion is how we get work done through the students and how we test them. Well online tools are available for the same as well.

## 2) **Google Classroom:**

- This is "NOT" a virtual classroom but a 'tool' used alongside the above mentioned software. Anyone with a Google account can easily use this tool free of cost.
- Gone are the days of lost worksheets and homework. Gone are the days when students remaining absent had to beg for help in daily assignments and homework. One can easily have access to notes made readily available by the lecturer themselves using Google Classroom.
- If you are teaching two different classes of the same batch but have finished different lengths of units in each, it is possible to upload different content to each classroom by setting up separate classrooms.
- **A separate classroom can be setup for students who need special attention with certain needs.**
- Digitally organize, distribute and collect assignments, course materials and homework. This saves tons of paperwork, time and energy for both the lecturer and the learners. No longer is time wasted just reading out stuff from reference books or textbooks and this time can be utilised in bringing practical knowledge to the learners.
- An assignment due date can be added easily to the class calendar and it will remind the students to finish their work. It is also easy to see who has and has not finished their work. Google Classroom also allows checking in with individual students privately.
- Announcements can be posted and feedback can be given to each student about their participation, etc.

- Learning to operate these tools and online software is also a click away and any one can easily learn them from anywhere as they are easy to access and easy to use and are free of cost. Advanced features like security and protection online would cost some but even physical classrooms need security.

### **3) Web Proctored Exams:**

Yes, the web has the solution for the problem of conducting exams too. Online proctoring refers to a digital form of assessment which enables its candidates to appear for exams from any location. Monitoring software is used to keep an eye on the candidates through video, establishing credibility and authenticity of the exam. Test takers have the freedom to take the exam at the time of their liking without prior scheduling. A proctor works just like an actual classroom setting. Remote proctoring allows an examiner to assess from any part of the world.

International education becomes more accessible. Students can make use of courses worldwide benefitting their resume. Many American institutes have already put this to use. The Indian Institute of Management (IIM) Kashipur is among the first Indian institutes to have held take-home exams. GMAC is ready to conduct GMAT, a global competitive exam in a similar format. OP Jindal Global University has announced its entrance exams through AI-proctoring. They have their own share of security concerns but development models are in the making and it is getting better day by day.

### **4) Presentations/ Assignments/ Research Papers/ Projects:**

These should be replacing the exams in the long run. Various plagiarism tests are run on students' homework these days. This shows what a student has actually grasped from the teaching process. This is much needed in the education system of most developing nations.

Now let us talk about the strategies that will benefit in the long run.

## **II] Learning about Application based Academics:**

Academics if not put to proper application is purposeless and futile. Seven years of formal college education in most institutions of India doesn't manage to teach the skills that would be required to perform a basic task on the very first day of work.

In the real world most of us have absolutely no idea where to apply our learning and majority of us do not get the right opportunity to showcase what we have learned. We finish our school and college and when an actual job shows up, it is completely different or irrelevant to what we have learned all those years.

How come seven years of teaching, learning, tests and examinations fail to teach what is actually required out in the working world?

The answer is that the learners are not given any practical knowledge about what they are studying or what is the application of their learning so far.

What should be done is that internships and training programmes closely monitored by respective education departments must be introduced at the very beginning, right after school.

Real life working environments must be created at college levels and students must be given real work life tasks. Private and Public sector organizations must participate with the institutions and conduct regular sessions, workshops to give guidance and a taste of the real world to the students. This would be an application based teaching environment.

Apart from teaching them actual work which they will be expected to do, other things which can be used in their respective field must be given undivided importance.

Let us understand this from an example,

There is a group of students who are looking forward to studying about financial markets ( a virtual market where trading of financial securities and derivatives takes place, most popularly termed as a "stock market").



Now these students would be taught by their educators all the basics and the advance level operations and working of these financial markets. Case studies, reference books and talks from people in the industry can be referred to, to provide them with the functioning knowledge of these markets.

However this is not enough. They will never actually learn anything without putting them in charge of all the activities in a real stock market.

Educational institutions need to go one step forward and introduce a detailed training course where a real stock market environment is created and the students are given real tasks to handle and operate it. Complete control right from the point of view of the vendors, traders, brokers, investors and others should be given in the hands of the students. Such initiatives are usually conducted as a one day workshop but these need to be extended as a fulltime practical course lasting for at least a month.

People from the industry can be brought to guide the students through every step. The students should be tested and marked on their skills to perform these tasks and not on the book knowledge that they might have gained. Educational institutions must finance these activities rather than splurging on unwarranted ventures.

This will give rise to a skilled and able future workforce. Employers will not have difficulties in choosing the right person to perform the job required. Economy will have a skilled labour and workforce and the government will save enough time and money. We can at least start by renewing our syllabuses and removing all that from the academics which may not find its application in the near future.

Next is a topic that requires the special attention of the world governments, employers and fellow academicians.

### **III] Plight of the educators worldwide:**

The very people who are responsible in providing multinational companies and the economy with an educated, trained and skilled workforce, the very people providing a country with its president, providing a church with its pastor, providing a CEO to a multi-billion company, the very people responsible to give the world successful scientists, engineers, politicians, lawyers, doctors , the very people without whom the economy will definitely lead towards a downfall- ‘THE TEACHERS’ are paid the least attention to comparatively.

The toughest job in the world is not handling an entire country but to prepare a normal class student to do so. Matches cannot be won without a coach.

An interview published by TIME magazine on August 31, 2018 of a US history teacher Hope Brown teaching at Woodford County High School manifests the hardships faced by people in the noble teaching profession all around the globe.

Brown said in the interview that she has to work 3 jobs and donate blood plasma in order to pay off her bills. In 2018 from Arizona to Oklahoma teachers had risen up to demand increase in salaries, benefits and funding for public education. The country’s roughly 3.2 million full-time public school teachers were and are till date experiencing the worst wage stagnation of any profession, earning less on an average, in inflation-adjusted dollars, than they did in 1990, according to the Department of Education (DOE) data.

Meanwhile the pay gap between teachers and other comparably educated professionals is now largest on record.

In India, the condition has further worsened over the years. With less importance given to quality education, educators in most educational institutions are facing huge pay disparity and also lack job security even after years of being in the same profession. Most educators are over worked and under paid. Educators are responsible for the formation of every person in the society working or otherwise. Educational institutions should spend time and resources on continuously motivating their educators. Importance should be given to the physical and mental health of the teachers.

A good example can be the Google Headquarters in California. Most private companies are taking inspirations from this playful workplace environment these days to get the best out of their employees. This Corona virus outbreak is a lesson learned on how we should all be taking care of the mental and physical health of ourselves and the ones we are surrounded with.

The following changes can be brought in academic work environment:

- Nature retreats, discussions, stress relief programmes and workshops should be organized on weekly basis to boost the morale of these lecturers.
- Institution premises should be equipped with a gym room and yoga or fitness room where the teaching staff and others can relieve themselves in their free time.
- Special dedicated libraries for research candidates should be maintained with updated journals, magazines and resources and complete privacy should be maintained giving research scholars the right space required for undisturbed work.
- Some companies including Google has a 80/20 rule where employees are motivated to use 20% of their total working hours a week to work on a personal project that the employee is passionate about. This could mean social service, reading and researching and also developing better teaching methods and practices in an internal environment.

In the long run this is not only beneficial to the growth of an employee but also to the growth of the institution as a whole and further to the society.

#### **Conclusion:**

In order to recover completely from the loss of time and resources amidst this pandemic we will have to put in a lot more time, effort and most importantly understanding together. We need to stop giving in into the political dilemma and let the people responsible deal with it. What we need to do is raise our voices and concerns over developmental changes that need to be brought about in the society for education and other needs.

**WE ARE ALL IN THIS TOGETHER.**

Divided, we shall fall. So let us all stand united in adapting to changes and reinventing the ways we have been educating and gaining education. What we need to do now is to improve our connectivity and overcome network barriers. We need to take education online, at least major parts of it if not whole.

The biggest concern to e-learning and teaching would be accessibility. We need online education to penetrate in distant remote towns and villages. For this we need to develop high speed internet models penetrating through areas far and wide. We need to start adapting application based learning and teaching into our curriculum paving way for more opportunities.

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3. *International Journal of Innovative Studies in Sociology and Humanities (IJISSH) ISSN 2456-4931 (Online) www.ijissh.org Volume: 3 Issue: 9 | September 2018 © 2018, IJISSH Page 42 A Study on Indian Teachers' Roles and Willingness to Accept Educational Technology Arnab Kundu Research Scholar, Kalinga University, Chhattisgarh, India*

## CHALLENGES TO THE ACADEMIC DOMAIN IN THE AFTERMATH OF COVID -19

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### **Abstract:**

The Pandemic effect has given the society a task of been more alert. As this has been made us more alert in every field. Where Education is said to be a road toward the destiny of today's future. Education is said to be the boon to the society in every mean. One can set the goal and move towards it through the enlightenment of the education, but in today's sencirow education has a great impact on how to handle the huge crowd in the institution. There many precaution to be taken in the academic domain after the reopening of it.

### **Introduction:**

As we see that after the declaration on 15<sup>th</sup> March 2020 the institutes were closed, and after that one by one all the things were close which brought the great impact in the system. As there was declaration by the Minister of *Education* Maharashtra State. Hon'ble Shri. Uday Samant that looking at current situation the Exam can't be conducted and the student will be graded in the upper class. This was done for the student of the Academic year 2019-20 from primary to the UG level of some degree course, but for the last year exam are complusoy. This was the scenario uptill now for this Academic year,. The question arises for the next academic year 20-21. As this will be the challenge to the Institute how to handle the crowd and how to do the necessity to fulfill the students needs. This era will become the era of instruction. This era has taught the Academician to handle the digital world. As some were unaware and some were unware of it. This era will be the era of digital learning. And much precaution has to be taken. There are many Challenging situations the Academic domain has to follow.

### **1. Admission:**

As we see in today's situation there are many Education field like Technical, Non-Technical, Professional Field ,Medical field, Pharmacy, Nursing, Agricultural and many more . Today we see many of the students are studying in different field and from various region and state. As we can see the Red Zone, Orange Zone and the Green Zone indicating the COVID-19 patient. [1]

We all feel safe in the Green Zone. But we can see many best Educational Hub are being situated in the Red Zone and orange zone. This zone will have an impact for the educational hub. Which will have great impact in the admission process of the student as many students will prefer to be in the same region were they are belong. Over 81,700 students were admitted last year in the Technical field. This was one of the examples in today's scenario of last year; we see many of them will hesitate to go in the Red zone or Orange zone for educational process. Which will have an impact on the Private institute regarding the seat vacant?

### **2. Staff Recruitment**

As we can see many of the peoples are working in the private sector in the educational hub, but as we can see that many of them will hesitate to join in the red zone as they have an opportunity is one of the saying, but it will be worst if one has to be out of this race due to less admission as many of the institution salary their staff on the bases of admission of the student which will be a kind of disaster for the staff or we can say the professionals. This may be a kind of Pandemic situation. And those who are there in the job may face the problem salary? As we can just see that this may be the happening which can be in the Academician.

### **3. Digital Handling**

The current scenario made the teacher a kind of techno savy as during the lockdown many of the work were done on the digital mode pattern. After the lockdown in the institution many of the things will be change like teaching learning process, which was on blackboard pattern, but now we all have to be in digital way of teaching mode some of them like YouTube video, Zoom, Khoot, nearpod will be the mode of teaching aid. Which will make the Faculty to learn more about it and have to handle it will be somehow the great task? As many of them are unaware. There will be now compulsory Digital assessment of the paper as which has been started in some colleges but many are unaware of it, Also the digital Assessment of the Assignment and the project as well as case studies. As we all have a Mobile with different function and application so one will have to make the use of it.

### **4. Social Distancing**

As we see that teacher are most one who lives in a crowd ,this will be a panic situation as teacher can not be in crowd in this era as he/she has to maintain the social distancing with the student. As teacher has a addiction to see many student in the class but now he/she will see only 50% at a time in the class as one child has to be seated on one bench. As one has to be more alert irrespective to be in class while delivering the lecture by keeping the social distancing whenever in the class. It should be seen that the student have the mask wore at the time of lecture and major thing will be child is ill or not must be seen.

### **5. Challenge to a Institution**

There will be challenge to an institution to make availability of the classroom which should be clean sanitize. Also like water cooler in the Educational hub there should be some of the sanitizer bottle kept in some of the corridors as one of the precaution measure.[2] There should not be crowd in the institution by any means .The staff should be able to handle digital system.

### **Conclusion:**

As one can see that the Academic domain has to face many challenges after the the lock down it will be irrespective to the other stream and one can say that this will help us to make in India a digital one.

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## **A STUDY ON REPERCUSSIONS IN VARIOUS ASPECTS OF SOCIETY, POLITICAL, ECONOMIC, EDUCATIONAL, CULTURAL AND OTHER SECTORS**

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### **Abstract:**

First, the spread of the virus stimulated social distancing which led to the shutdown of financial markets, corporate offices, businesses and events. Second, the exponential rate at which the virus was scattering, and the heightened uncertainty about how bad the situation could get, led to flight to safety in consumption and investment among consumers, stockholders and international occupation partners. We focus on the period from the start of 2020 through March when the coronavirus began increasing into other countries and markets. We attraction on real-world observations in measuring the obstructive measures, monetary policy measures, fiscal policy measures and the public health measures that were approved during the period. We empirically inspect the impact of social distancing policies on economic activities and stock market indices. The findings reveal that the aggregate number of lockdown days, monetary policy decisions and international travel limitations severely affected the level of economic activities and the closing, opening, lowest and highest stock price of major stock market indices. In contrast, the imposed restriction on internal movement and higher fiscal policy expenditure had a positive impact on the level of economic activities, though the increasing number of confirmed coronavirus cases did not have aimportant effect on the level of economic activities.

**Keywords:** Covid-19, Social distancing, Financial crisis, MF policy, liquidity endowment, Central banks.

### **Introduction:**

The World Health Organization (WHO) has declared the Corona Virus diseases 2019 (covid-19) a pandemic. A global coordinated effort is needed to shop the further spread of the virus. A pandemic is defined as “occurring over a wide geographic area and affecting an exceptionally high proportion of the population”. The last pandemic reported in the world was the H1N1 flu pandemic in 2009. On 31 December 2019, a cluster of cases pneumonia of unknown cause, in the city of Wuhan, Hubei province in China, was reported to the World Health Organization. In January 2020, a previously unknown new virus was identified, subsequently named the 2019 novel coronavirus’ genetics indicated that this was the cause of the outbreak. This novel coronavirus was named Coronavirus Disease 2019 (COVID-19) by WHO in February 2020. The virus is referred to as SARS-COV-2 and the associated is COVID-19. Coronaviruses is a family of viruses that cause illness such as respiratory diseases or gastrointestinal diseases. Reparatory diseases can range from the common cold to more severe disease e.g.

- Middle East Respiratory Syndrome (MERS-COV)
- Severe Acute Respiratory Syndrome (SARS-COV)

A novel coronavirus (Ncov) is a new strain that has not been identified in human previously. Once scientists determine exactly what coronavirus it is, they give it a name (as in the case of COVID-19, the virus causing it is SARS-CoV-2). Coronaviruses got their name from the way that they look under a microscope. The

virus consists of a core of genetic material surrounded by an envelope with protein spikes. This gives it the appearance of a crown. The word Corona means “crown” in Latin. The economic impact of the 2020 coronavirus pandemic in India has been largely disruptive. The World Bank and rating agencies had initially downgraded India's growth for fiscal year 2021 with the lowest figures India has seen in three decades since India's economic liberalization in the 1990s. However after the announcement of the economic package in mid-May, India's GDP estimates were downgraded even more to negative figures, signaling a deep recession. On 26 May, CRISIL announced that this will perhaps be India's worst recession since independence. State Bank of India research estimates a contraction of over 40% in the GDP in Q1 FY21.

### **Review of Literature:**

There are many channels by which a disease influences the country's economy. Direct and indirect economic costs of illness are often the subject of the health economics studies on the burden of disease

According to "German Institute for global area and studies (GIGA)" published an article named "assessing the Political and Social Impact of the COVID-19 Crisis in current scenario" by MerikeBlofield, Bert Hoffmann, Mariana Llanos April 2020.with stated that The COVID-19 pandemic is testing the societies of the world's most unequal continent, where many depend on informal work for their livelihood. Social-distancing measures directly affect their livelihoods, and make immediate social assistance imperative. The crisis is also testing political leadership, as some presidents are emerging as strong, unifying leaders, in a continent where historically trust in formal institutions is low.

According to "The world bank" published on book named "THE CURSED BLESSING OF PUBLIC BANKS" with stated that The center of weaknesses in financial sectors that cumulated during recent years. However, during this crisis, they might be part of the solution by providing countercyclical lending to the most vulnerable parts of the economy.

The Asia Development Bank (ADB) published an article on the Economic Impact of the Covid-19 in the Asian Countries like People's China, India, Bangladesh, Nepal, Pakistan and other countries. The research article named as "The Economic Impact of the Covid-19 Outbreak on Developing Asia" on 6th March 2020. The ADB clearly mentioned that the Covid-19 highly impacted on not only developed countries like United States of America (USA), The Great Brittan (United Kingdom), Singapore, Japan, Italy, Australia, Canada, Russia and other countries. But also for the developing countries like China, India and etc. This journal specifically mentioned about the loss of the country GDP over the Covid-19 Pandemic. The global impact ranges from 77 US Billion Dollars to 347 US Billion Dollars. In nominal case the impact will be the \$76,693 Billion, in the medium case the impact will be \$155,948 and in the worst case the impact will be \$346,975. The Asian Countries including People's China impact ranges from 15 US Billion Dollars to 42 US Billion Dollars. In nominal case the impact will be \$15,658 Billion, in medium case the impact will be \$22,284 and in worst case the impact will be \$42,243.The main reasons behind this situation is that the not functioning of the companies, industries and organized and unorganized sectors. Generally developing countries depend upon the unorganized sector whereas developed countries depend upon organized sector. The position of both sectors is in critical right now.

According to "Committee for the Coordination of Statistical Activities" book named "how COVID-19 is changing in the world" with stated that COVID-19 has turned the world upside down. Everything has been impacted. How we live and interact with each other, how we work and communicate how we move around and travel. Every aspect of our lives has been affected. Although the world is in lockdown, governments,

epidemiologists, school principals, entrepreneurs and families around the world are already planning the next steps: how to safely reopen schools and businesses. How to commute and travel without transmitting or contracting infection, how to support those most affected by the crisis – the millions who have lost their livelihoods or their loved ones, how to ensure the already serious inequalities don't deteriorate further.

Secretary General of the United Nations, Antonio Guterres, said: "With common cause for common sense and facts, we can defeat COVID-19 -- and build a healthier, more equitable, just and resilient world". It is our sincere hope that this report contributes to that cause - with facts based on impartial statistics.

According to the International Monetary Fund (IMF), the global economy is expected to shrink by over 3 per cent in 2020 – the steepest slowdown since the Great Depression of the 1930s. Now, as some countries lift restrictions and gradually restart their economies, here's a look at how the pandemic has affected them and how they have coped.

### **Need of the study:**

The World Health Organization advised the countries to hold the Lockdown to break the Covid-19 chain. WHO strongly believes that the lockdown is the only thing to overcome the problem? By implementing the lockdown in countries it leads to some problems also. Even there is an advantage to break Covid-19 chain; there are some problems to be faced while implementing the lockdown. The financial position of the each and every country irrespective of the development is destroyed. The developed countries, developing countries and least developing countries also facing the financial crises. Because, the Economic Cycle has been broken due to this lockdown. The organized and unorganized sector has been facing the financial crises. The companies, businesses, industries and self-employment are following the lockdown. The Agricultural sector, Industrial Sector and Service sector functions have stopped. So that, the employment cannot be created, money cannot be generated by them. The Covid-19 is not only impacted on the economically but also on the Social events. The educational activities, political activities also stopped.

### **Objectives and Methodology:**

The main objectives of the study are to find out the exact and accurate economic impact of the Covid-19 in India and Worldwide. To find out the problems which have been facing by the people during the lockdown of Covid-19? To see how the Covid-19 is impacting on the education sector and political activities. To understand how the Covid-19 is damaging the relationship among the people because of its nature.

For studying the above things and proofing the objectives, we have taken the secondary data as source. That means, we gathered the information from the government official websites (E.g. *www.ilo.org*, *www.un.org* and *www.india.gov.in* etc.), Government Institutions Data (Data released by *International Monetary Fund* etc.), the Economic Survey Institutions (*STATISTA*, *FECCI*, *MOODY'S*, *KMGF* and etc.), the Government official announcements (*Announced by Indian Finance Minister, NirmalaSita Raman* and etc.), the articles published by another ones, the books published by the national and international statistical institutions (*IMF*, *World Economic Outlook*) and other sources I have mentioned the references of my study in the references section in detail.

### **Results and Discussion:**

**(1) Economic Impact of Covid-19:** Income Cycle is the key component for every country's economy in Income cycle there are some people who sale and purchase the goods and services each other. One person spends and another person receives. That means one person spending is another person income. The person will spend the money to meet his needs and requirements. Then only the money will be circulated in the country economy. If any

one of the two activities like spend and receive will stop then it would be impacted on the economy. Money cannot be circulated as the result there is a possibility to face the inflation and economic recession.

**(2) Education Impact of Covid-19:** The coronavirus disrupted the \$600 billion higher education industry. Educators and students around the world felt the ripple effect of the coronavirus as colleges and universities were instructed to shut down after the coronavirus was declared a public health emergency in many countries. There were school closures of some kind in 44 countries on four continents, including Africa, with hundreds of millions of students around the world facing disruptions. The outbreak had a more severe consequence on schools that did not have an online learning platform. Moody's, a credit rating agency, downgraded the U.S. higher education outlook from 'stable' to 'negative', because 30% of the colleges and universities in the US already had a weak operating performance, and it was difficult for these colleges and universities to adapt with the financial and academic changes required to cope with the coronavirus outbreak. Also, UNESCO reported that the COVID-19 outbreak disrupted the education of at least 290.5 million students worldwide.<sup>21</sup> Public schools in the US were closed, Australia shut down some schools, while countries like Israel, Nigeria, Egypt, Italy, France, and Spain shut down all schools, and this created some form of unemployment for teachers. Northern Ireland's government suspended all examinations in its colleges and universities. Multiple U.S. based universities that ran a study abroad program overseas instructed students to return home from Italy, France and Spain as the coronavirus outbreak became severe in those countries. On the positive side, there were suggestions that the coronavirus outbreak increased the importance of online education and distance learning, but the reality was that only a small percentage of the world's education is taught online.

**(3) Political Impact of Covid-19:** A number of provincial-level administrators of the Communist Party of China (CPC) were dismissed over their handling of the quarantine efforts in Central China, a sign of discontent with the political establishment's response to the outbreak in those regions. Some experts believe this is likely in a move to protect Communist Party general secretary Xi Jinping from people's anger over the coronavirus pandemic. Some commentators have suggested that outcry over the disease could be a rare protest against the CPC. Additionally, protests in the special administrative region of Hong Kong have strengthened due to fears of immigration from mainland China. Taiwan has also voiced concern over being included in any travel ban involving the People's Republic of China (PRC) due to the "one-China policy" and its disputed political status. Further afield, the treasurer of Australia was unable to keep a pledge to maintain a fiscal surplus due to the effect of the coronavirus on the economy. Trump was also criticised for having closed down the global health security unit of the United States National Security Council, which was founded to prepare the government for potential pandemics. The Government of the Islamic Republic of Iran has been heavily affected by the virus, with at least two dozen members (approximately 10%) of the Iranian legislature being infected, as well as at least 15 other current or former top government officials, including the vice-president. Advisers to Ali Khamenei and Mohammad Javad Zarif have died from the disease.

**(4) Society Impact of covid-19:** On 18 March 2020, the World Health Organization issued a report related to mental health and psychosocial issues by addressing instructions and some social considerations during the COVID-19 outbreak. Due to doubts if pets or other livestock may pass on coronavirus to humans, many people were reluctant to keep their pets fearing transmission, for instance in the Arab World, celebrities were urging people to keep and protect their pets. Meanwhile, people in the U.K. tended to acquire more pets during the coronavirus lockdown. The impact on personal gatherings has been strong as medical experts have advised, and local authorities



often mandated stay-at-home orders to prevent gatherings of any size, not just the larger events that were initially restricted. Such gatherings may be replaced by teleconferencing, or in some cases with unconventional attempts to maintain social distancing with activities such as a balcony sing-along for a concert, or a “birthday parade” for a birthday party. Replacements for gatherings have been seen as significant to mental health during the crisis.

**(5) Cultural Impact of Covid-19:** UNESCO World Heritage sites, cultural events cancelled, cultural institutions closed, community cultural practices suspended, heightened risk of looting of cultural sites and poaching at natural sites, artists unable to make ends meet and the cultural tourism sector greatly affected... The impact of the COVID-19 on the cultural sector is being felt around the world. This impact is social, economic and political – it affects the fundamental right of access to culture, the social rights of artists and creative professionals, and the protection of a diversity of cultural expressions. The unfolding crisis risks deepening inequalities and rendering communities vulnerable. UNESCO World Heritage sites, cultural events cancelled, cultural institutions closed, community cultural practices suspended, heightened risk of looting of cultural sites and poaching at natural sites, artists unable to make ends meet and the cultural tourism sector greatly affected.

**General policy response:**

The policy measures introduced by policy makers around the world to cope with the coronavirus- induced global recession can be divided into four categories: (i) monetary measures, (ii) fiscal measures, (iii) public health measures, and (iv) human control measures.

**Table 1: Some fast policy response during the 2020 global recession**

S.No	Type	Fast policy response adopted by policy makers	Countries
1	Monetary policy measures	Granting (i) regulatory forbearance to banks, and (ii) principal or interest moratorium to debtors affected by COVID-19	Ireland, China, Nigeria and Italy
		Central banks’ provision of liquidity to financial (bond and equity) markets	China and US
		Central banks’ purchase of bonds and securities that were plunging in value rapidly	Australia, EU and Canada
		Lowering interest rates by Central banks	Turkey, US, New Zealand, Japan and UK, Nigeria, South Korea and Canada
		Sustained flow of credit to banks, SMSEs, public health sector, individuals and essential businesses	Australia, Nigeria, US and UK
2	Fiscal measures	Governments approving a large federal stimulus package for sectors and industries most affected by the COVID-19 pandemic	UK, US, Australia and Nigeria
		Provision of income support for individuals	Australia, US, UK and India
		Social welfare payments to support each household	Australia, US
3	Public health measure	Public quarantine	India, US, UK and almost every country
		Border quarantine	Poland, Vietnam, India, UK, US, Pakistan, Australia and Colombia
		Issuing a stay-at-home policy	Italy, Iran, Nigeria and UK
		Social distancing policy	South Africa, US, UK, UAE, Singapore, Nigeria, Japan, China, India, Germany, Pakistan, Australia, South Korea and Israel

4	Human control measures	Temporary release of prisoners from overcrowded prisons	Iran and US
		Shut-down of air, land and sea borders	Taiwan, India, Mexico, US., Germany, Serbia and Nigeria
		Shutdown of schools	UK, Spain, Italy, South Africa, Nigeria and US
		Using the military to enforce a coronavirus stay-at-home lockdown	Malaysia, Italy, US, Israel, South Africa and Spain
		Travel ban	EU, US, Argentina, Austria, Australia, Bolivia, Cambodia, Canada, China, Cape Verde, Cambodia, Colombia, Croatia, Denmark, Egypt, Germany, Greece and Haiti
		Visa denial and suspension	South Africa, Canada, Singapore, China, Nigeria, Ghana, Kenya, Bolivia and Brazil

**Policy response by developing (CEEMEA) countries:** Some policy response (and measures) taken by Central and Eastern Europe, Middle East and Africa (CEEMEA), India countries as of March 24 in 2020 are shown in table 2

**FTR: Foreign travel restrictions; ITR: Internal travel restrictions; SED: State of Emergency declared**

**LMG: Limiting mass gathering; CDS: Closing down of schools; RSR: Restricting shops and restaurants**

	FTR	ITR	SED	LMG	CDS	RSR	Remarks
Czech	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(i) Closure of shops & restaurants to reopen on March 25
Hungary	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		(i) State of emergency declared, indefinitely.
Poland	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(i) Shops have limited working hours, (ii) restaurants and entertainment venues closed until March 28
Romania	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(i) Decisions announced days after the new government was voted in on March 16
Russia	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		(i) Restricted flights from and to high risk areas, (ii) schools closed for 3 weeks
Ukraine	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(i) All air travel suspended, (ii) shop and/or local transport closure varies by region or city
Egypt	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		(i) Partial suspension of mass gatherings - does not ban religious gatherings, but places some limitations on the size
Israel	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(i) Emergency measures to be enforced by the police, (ii) 80% of employees to stay at home.
Lebanon	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-
Saudi Arabia	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-
Turkey	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(i) Curfew imposed on citizens 65 years old or older, (ii) around 10,000 people arriving from abroad under quarantine
Ghana	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		
Kenya	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		
Nigeria	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		(i) Closed all kinds of school, (ii) partial shutdown of offices
South Africa	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(i) State of national disaster declared, 21-day lockdown announced on March 23
India	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Announced a 21-day nationwide lockdown

Source: Goldman Sachs Global Investment Research (exhibit 4)

**Monetary policy measures:** Expansionary monetary measures were adopted by many central banks to stimulate the economy through interest rate adjustments, as shown in table 3

**Table 3: Monetary Policy Measures Announced to Mitigate the Negative Economic Impact of COVID-19 in Central & Eastern Europe, Middle East and African countries**

Countries	Monetary policy rate			New asset purchases	Credit and liquidity facilities	Additional
	As of January 1	Current rate	End of 2 <sup>nd</sup> Quarter			
Czech	2.00	1.75	1.00	Government bonds	Increased FX swap stock	-
Hungary	0.90	0.90	0.90	-	-	Grace period for loans extended to firms under FGS scheme
Poland	1.50	1.00	0.50	Government bonds	-	Decreased reserve requirement and increased interest rate
Romania	2.50	2.00	1.50	Government bonds	-	-
Russia	6.25	6.00	6.00	FX sales	-	-
Ukraine	13.50	10.00	8.50	FX Sales	-	-
Egypt	12.25	9.25	9.25	-	-	Measures discussed to reduce loan burden on firms and households
Israel	0.25	0.25	0.10	Government bonds	-	-
Saudi Arabia	2.25	1.00	-	-	-	-
Turkey	12.00	9.75	-	-	-	Wide range of measures such as new credit facilities, reduced reserve requirements, etc.
Ghana	16.00	14.50	14.50	-	-	Reduced primary reserve requirement and other ratios to release liquidity
Kenya	8.50	7.25	-	-	-	Reduced cash reserve ratio, extensive loan restructuring
Nigeria	13.50	13.50	-	-	-	Measures towards moving away from multiple FX regimes, reduced intervention rate, reducing federal interest rate.
India	5.15	4.4	-	-	3.74 lakh Crore liquidity injected	Reduced CRR to 3%. Three-month moratorium on term loans outstanding. Total liquidity injection 3.4% of GDP
South Africa	6.50	5.25	4.75	-	-	-

Source: Goldman Sachs Global Investment Research (exhibit 6). GS refers to Goldman Sachs

**Sector wise impact of Covid-19 in India:** Every sector is succumbed for the Covid-19. No one is escaped from it. According to the economists and statistical survey agencies in India the GDP growth rate will be recorded either positive or negative. In worst cases it will record negatively in normal cases it will record minimum and in effective case it will record as earlier (Example: -0.8% , 2.6% and 6% respectively). The impact of Covid-19 on the Indian sector will be negatively that means the Percentage of amount will be declined or not contributed to the GDP

according to one statistical agency that is STATISTA. This survey agency sector wise impact of Covid-19 is as shown in the following table.

**Table 4: Sector Wise impact of Covid-19 in India**

Serial No	Sector affected by the Covid-19	Growth Rate
1	Financial, real estate & professional service	-17.3%
2	Mining & quarrying	-14.7%
3	Electricity, gas, water supply & other utility service	-13.9%
4	Construction	-13.3%
5	Trade, hotels, transport, communication & broadcasting service	-9.7%
6	Overall Gross Value Added	-9.3%
7	Manufacturing	-6.3%
8	Agriculture, forestry & fishing	-1.3%
9	Public administration, defense& other service	-0.4%

Source: STATISTA survey agency

**Table 5: Latest World Economic Outlook Growth Projections (% Change) : Estimation of GDP Growth**

Description	Estimation	Projections	
	2019 (%)	2020 (%)	2021 (%)
<b>World Growth Rate</b>	2.9	-3.0	5.8
<b>Advanced Economies</b>	1.7	-6.1	4.5
A. United States of America	2.3	-5.9	4.7
<b>European Area</b>	1.2	-7.5	4.7
A. Germany	0.6	-7.0	5.2
B. France	1.3	-7.2	4.5
C. Italy	0.3	-9.1	4.8
D. Spain	2.0	8.0	4.3
Japan	0.7	-5.2	3.0
United Kingdom (Britain)	1.4	-6.5	4.0
Canada	1.6	-6.2	4.2
Other Advanced Economies	1.7	-4.6	4.5
<b>Emerging Market</b>	3.7	-1.0	6.6
<b>Emerging &amp; Developing Countries</b>	5.5	-1.0	8.5
A. China	6.1	1.2	9.2
B. India	4.2	1.9	7.4
C. ASEAN	4.8	-0.6	7.8
<b>Emerging and Developing Europe</b>	2.1	-5.2	4.2
A. Russia	1.3	-5.5	3.5
<b>Latin America and the Caribbean</b>	0.1	-5.2	3.4
A. Brazil	-1.1	-5.3	2.9

B.	Mexico	-0.1	-6.6	3.0
<b>Middle East and Central Asia</b>		1.2	-2.8	4.0
A.	Saudi Arabia	0.3	-2.3	2.9
<b>Sub-Saharan Africa</b>		3.1	-1.6	4.1
A.	Nigeria	2.2	-3.4	2.4
B.	South Africa	0.2	-5.8	4.0
European Union		1.7	-7.1	4.8
Low-income Developing Countries		5.1	0.4	5.6
Middle East and North Africa		0.3	-3.3	4.2

The Worldwide countries GDP has also assessed by the International Monetary Fund in the Month of April in 2020. The International Monetary Fund (IMF) released the assessment data for the countries in the form of Advanced Economies, Emerging and Developing Asia, Emerging and Developing Europe, Latin America and the Caribbean, Middle East and Central Asia, Sub-Saharan Africa and Low income developing countries. The above countries GDP growth rate is shown in the following table

#### **Findings and Suggestions:**

Overall, the results showed that the increasing number of lockdown days, monetary policy decisions and international travel restrictions imposed at the peak of the coronavirus crisis severely affected the level of general economic activities and the opening, lowest and highest stock prices of major stock market indices. On the other hand, the imposed restriction on internal movement and fiscal policy spending had a positive impact on the level of economic activities while the number of confirmed cases was positively related to the opening, highest and lowest stock prices of major stock indices. The implication of the findings is that fiscal policy spending appears to be more effective in mitigating the effect of the covid-19 pandemic than monetary policy decisions particularly because the adoption of accommodative monetary policies by many central banks can exacerbate inflationary pressures that could worsen macroeconomic stability in the short term. Economically the Covid-19 Lockdown impact on the country people purchase power and also government spending. When the governments spends money towards the social welfare schemes that leads to increase the purchase power of the consumer then only the consumer is ready to purchase anything otherwise he cannot able to buy the goods and services in the financial crises time. The negative impact of the Covid-19 socially is Culture changes, Psychological issues, impact on Education and Miscellaneous factors.

**Political Suggestions:** Political impact of the Covid-19 leads to disputes among the people. Some of the politicians used this Covid-19 as the political promotional tool. The USA president Trump and some other countries Prime Ministers and Presidents also criticized the china government. They said that the China released virus intentionally. Due to these political arguments among the country, it damages the friendship among the countries. In federal government system, the central government doesn't allocate the money for overcoming the Covid-19. The main reason behind it is, there is one party in the central government and there is another party the state government.

**Educational Suggestions:** The country educational system slowly running towards for the online mode. In future most of the educational things will be conducted through online only. The mode of conducting of classes, the mode of conducting of examinations and other things will be done through online mechanisms. For covering the syllabus the schools and colleges are advised to use the Zoom App, Cisco WebEx meeting, Google Meet, Zoho Meet and

other applications. For conducting the quizzes they are advised to use the Google Forms, Microsoft Forms and Zoho Forms and etc.

**Culture Suggestions:** The cultural Suggestions should be followed by the people this will help to break the Covid-19 chain. The Indian people do the marriages as the part of their culture. Usually, they call the number of people for their marriages and other functions. Try to concise the number of guests for their marriages. Promote the marriages with limited number of guests. Should not follow the people gathering things until vaccine comes into the world. Don't promote the useless things by spending the money. While going to temples, churches, and other places devotees are advised to maintain the social distance and keep the masks to their mouth. People are suggested to sacrifice the cultural events for the Covid-19 period. The cases are spreading to the people who attended for the birthday parties, cremations, marriages, functions and etc. Don't encourage these things and don't be the part of virus spreaders

**Society Suggestions:** Covid-19 mainly impacts on the people health. It passed through the people touch and personal closure. By which it leads to untouchability system in future. The patients of the Covid-19 are also faced the same kind of problem. People are advised not to make it as the panic just maintains social distance to break the chain that's it. Don't treat the people as untouchable persons. We don't know what will happen in the future at that time no one is ready to care about you. We don't want to happen for us, but don't do like that.

**Economic Suggestions:** One of the suggestion (again present in both documents) goes further to suggest the launching of “helicopter money”, an additional fiscal transfer from the state to businesses and individuals in order to stimulate the economy (that is “paid” for by the Central Bank itself, showing up as a reduction in the bank’s capital, essentially acting as a transfer from the bank to the government). Saez and Zucman suggest that the state should provide liquidity to businesses and individuals, with the state acting as payer of last resort, ensuring a certain baseline level of funding to enterprises and people unable to work. Among the other progressive policy suggestions, Tyler Cowen in “Plans for economic mitigation from the coronavirus”, in Act Inclusively, goes a little further and recommends direct unconditional cash transfers to the people by the state (despite his generally conservative ideological stance). There is also the more radical suggestion that this is the moment to implement systems of Universal Basic Income (UBI), an idea that is rapidly being accommodated by the mainstream of economic thought (as evidenced by its suggestion in both documents). The \$1.5 trillion bailout by the United States in response to the crisis, in fact, contains a one-time cash transfer of \$1,200 to individuals; it has widely been *suggested* that this should be transformed into a recurring payment of a greater amount of money. The European states have announced measures that reinforce traditional social security arrangements such as unemployment insurance. Lawmakers in many countries supported an extended social distancing policy, damning the consequences of social distancing on the economy. The recession that followed, which many countries experienced, was a reflection of the difficult choice that policy makers had to make in choosing whether to save the economy before saving the people or to save the people before saving the economy; many countries chose the latter. There were criticisms that the policies were too fast, premature or insufficient, and that the policies contradicted one another in some areas, for instance, the accommodative monetary policy encouraged economic agents to engage in economic activities while the lockdowns and social-distancing (stay-at-home) policy prevented economic activities from taking place. On the bright side, the coronavirus-induced public health crisis created an opportunity for many governments to make lasting reforms in the public health sector. Countries like the UK and Spain repaired their public health care system, and fixed other shortcomings in public infrastructure such as the transition to online education, transportation systems and the

disease detection systems in public hospitals. Some governments also used the crisis as an opportunity to fix the economic system and the financial system with the planned federal stimulus package.

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## GLOBAL RESPONSE TO COVID-19: DESIGNING A BETTER SYSTEM TO FIGHT AGAINST PANDEMIC

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### **Abstract:**

Due to Covid-19 pandemic, the world is facing an unprecedented challenge. The outbreak has created a global health crisis. Many countries have lockdown their activities to control this virus. Social distancing and quarantine are some common words in our day-to-day life. As the situation continues to sweep around, many countries are facing the second wave of corona virus. India at present is in that stage of second wave transmission. Every country is fighting against this deadly virus and trying to save their people's life. Physical distancing, mental stigma and social separation have changed everything. The world is coming together to fight against the corona virus. This pandemic is bringing the Government, Organizations, and Private Institutes and Global health partners to a common platform of fighting against Covid-19. The vaccines are in trial and going to take time. Many countries are helping to combat the effect of this virus. The responses to corona virus differ from country and country. Among global health partners, World Health Organization is the leading corporation. WHO is supporting countries to prevent, detect and respond to the pandemic? The present paper studies the global response to Covid -19 and how well one can design a better system to fight this pandemic.

**Keywords:** Global, Response, Corona Virus, Covid-19, Pandemic, System, Countries.

### **Introduction:**

“The new corona virus disease is attacking societies at their core, claiming lives and people's livelihoods”

- Antonio Guterres

Since the formation of United Nations, The UN Chief in his recent report described the impact and scale of the corona virus as the greatest test and challenge. In their new report “Shared responsibility, global solidarity: - Responding to the socio-economic impacts of Covid-19”, they highlighted that the potential impact of Covid-19 has long term effects and it is going to affect the global economy in an adverse way. This health crisis demands a well coordinated and innovative policy from the world. The worst affected people are poor. They have lost their income and employment. The impact of this virus is as strong on that economy that has weakest health system. India now in its worst situation and the effects can be seen after unlock of lockdown in the first phase. The focus of global response should be on most vulnerable. Till June 8, 2020, there are total 6,931,000 confirmed cases of corona virus with total death cases of 400,857 across the world. Every country that is facing this pandemic striving very hard to deal with this disease. United States of America is leading the cases of corona virus infected people.

Many countries have received the overwhelming support from the technology companies to fight this pandemic. Through virtual communication, most of the countries are connected to each other to give the collaborative response to Covid -19. The countries are in serious health crisis condition. The most important solutions to screen the population and to tackle the infection are possible due to technological response. Designing target for the response by the various countries is in action. They are striving very hard to fight against this



pandemic. Every country's administration is concerned about the outbreak of covid-19. In collaboration with Public Health Centers and frontline workers, the response is coming forward to end this virus.

#### **Literature Reviewed:**

World Health Organization is leading in fighting against the Novel corona virus. WHO is coordinating various countries by collaborating their efforts under one string. Its main objective in relation to corona virus is to prevent, detect and control this pandemic. With the help of following points, we can see how WHO is responding to Covid-19.

1. WHO has introduced the concept of Digital Health and Innovative Efforts?
2. WHO Procured PPT with a purpose to ship it to 135 countries.
3. The clinical trial of vaccine is in process. More than 100 countries joined in this trail.
4. Research and development for the developments of tests and vaccines
5. WHO Solidarity Response Fund was launched.
6. Through Strengthened Laboratory Capacity initiative, the organization sent 1 million test kits to 100 countries.
7. Experts are deployed worldwide. There are 100 emergency medical teams.
8. WHO is also using the platform of Global Partnerships by collaborating with multi sectors?
9. Raising donations and initiating other fundraising activities for strategic preparedness and response plan.

#### **Objectives:**

As Covid-19 continues to grip the world, the need for its vaccine is of urgent need. Many countries are responding to this virus. New Zealand recently became one of the countries to be corona free and uplifting all the activities. It depends upon the country response how they are fighting with this deadly virus. The present study aims to study the global responses to Covid-19. By keeping in mind the aim of the study, the following are the objectives of my study –

1. To evaluate the responses of the country to fight Covid-19.
2. To measure the various tools require designing a better system against this pandemic.
3. To inform others how the global response can eradicate this virus from the world.

#### **Global Response:**

The responses to corona virus differ from country to country. An effective response ensures the less impact of this virus. Weaker the response, higher the cases is the reality. In this section of the research paper, the global response is taken from the various sources of different countries -

##### **1. Hong Kong:**

The first case is of Hong Kong. This independent country has given the world a lesson to curb corona virus. The population of this city is 7.5 million. This city recorded only 4 deaths. From starting, they effectively imposed the measures like social distancing, quarantine and swift surveillance.

##### **2. South Korea:**

South Korea uses comprehensive system of testing. They trace and isolate people immediately which kept their infectious rate low. The citizens were supporting and abiding the rules.

##### **3. United States of America:**

People are not happy with the US Federal system. Before India declared lockdown, USA's President Mr. Donald Trump declared emergency in USA. In spite of lockdown, the cases were increasing and New York was

the worst affected city. This somewhat somewhere shows a weak response from the most developed country to the Covid-19. They have passed many guidelines for Sterilizers, disinfectants and air purifiers. They have prepared guidelines for preparing the workplace for Covid-19.

**4. New Zealand:**

New Zealand has eliminated the virus. They are lifting all the norms for social distancing and eliminating restrictions on businesses. They worked on the “Te Punaha Matatini Colleagues” modeling. They adopted high surveillance system and effective risk assessment strategy and management.

**5. United Arab Emirates:**

One must take into consideration the case of United Arab Emirates. Their main focus was safety first. They at very early stage informed and regulate the virus. They used directive approach. The vital sector of the economy was exempted from the lockdown to boost the economic activities. Adopting social distancing and sending virtual meetings were encouraged. Various government funds and financial relief packages were announced by the time of March. They conducted highest number of tests. Citizens used to receive messages on their mobile phones about the high alert. Overall, the response of UAE on corona virus is commendable and appreciable.

**6. India:**

In India, from March 25, 2020 the lockdown was initiated to ensure social distancing. In the history, it was first time that the Railway was shut down. Arogya Setu App was launched by the Government to aware and addresses people. Now, India is unlocking activities slowly and gradually. With the unlock 1.0 of economy, the cases are on rise and creating a challenge for the government. It shows the poor response in terms of cases to Covid-19. Though, comparative to other countries in terms of population, the cases are less but are on rise. The response of India to Covid-19 is weak now-a-days.

**Tools for designing a better system:**

**1. Global Cooperation:**

The spirit of global cooperation is absent. The best example one can see is the case of USA and China. Even, during this situation, they are fighting for global partnership by blaming and cursing each other. The price war on oil is going on between Russia and Iran. This is not a time to fight. Together, every country must support and cooperate each other by mainly focusing on vaccine.

**2. Strong Decisions:**

This pandemic has created a matter of uncertainty in terms of employment, income, health and business activities. No one is able to predict when it is going to end. The Global forums like G20 should take strong decisions and actions about the response amount. The decisions like moratorium on debt payments by low income countries were taken but that is too little. The low income countries need to have the option of debt write-offs.

**3. Fast Delivery of Medical Equipments:**

The example of fast delivery of medical equipments can be taken from United Arab Emirates. When the first case was detected in their country, they boosted the delivery and logistic arrangements of medical equipments. The rules related to quarantine and self isolation was strict and was monitored by the Government strictly.

**4. Telecommunication Tracking:**

Telecommunication tracking is important to overlook and monitor the movements of people who are supposed to be in quarantine. Their movements can be tracked with the help of their mobile phones. Countries like UK

are sharing data with third party to aid into the monitoring and enforcement of social distancing by tracking their telecommunication devices.

#### 5. Quarantine Enforcement:

India is stamping people coming from red zone and orange zone to quarantine them. Strict enforcement is absent in the case of India. While, in other countries it is implemented and monitored strictly. In Hong Kong, administration is imposing the use of bracelet and an app is developed for all travelers. South Korea is using GPS to track the locations of quarantined people to ensure that the rules are followed. Ecuador is also using GPS data on mobile phones.

#### Conclusion:

Covid-19 is primarily a respiratory disease and it is infectious in nature. Many researches are going on to find a vaccine for this virus. The first case of Covid-19 emerged from China. Now, this virus has spreader its wings in more than 150 countries. India is among top 10 worst affected countries. The global response to Covid-19 is not remarkable in many countries. As, these countries are recording deaths and cases of infections in thousands and Lakhs. Some countries like New Zealand recently reported zero corona virus cases and now uplifting all the barriers. While, the most developed country like USA is the worst affected country in all over the world.

The health and socio-economic policies by the countries will determine the impact and recovery of corona virus. A coordinated approach is required to fight against this pandemic. The global response to Covid-19 is mixed and differs in terms of its implementation. Country like UAE has adopted directive policy. Designing a better system is a need to fight against this pandemic otherwise this virus will not leave and will remain stay with the human beings.

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## **IMPACT OF COVID-19 ON THE SOCIO-CULTURAL BELIEFS OF MUMBAI**

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### **Abstract:**

Mumbai never sleeps. Mumbai Never weeps. Mumbai a shelter to thousand dreams and a powerhouse of million creative junkyards. With all that City faced before, Mumbai stood tall again with more pride and honour than before. The recent strike of the pandemic, COVID-19 changed the face of Mumbai. It gave the Mumbaikars the gift of 3 things that were never dreamt by any: Confinement, Social Distancing and Work from home. Mumbai as a city belonged to cosmopolitan culture. Geographically at the west coast but psychologically it's the heart of India. It is also the economic hub of the country. Mumbai's cultural life reflects its ethnically diverse population. The Social life of the city also has great reflection seen in its multilingual population. The culture of Mumbai is a combination of tradition, religions, cuisines, music and fine arts. The social setup of the city lies in its fun-loving attitude. This is evident from the way the festivals are celebrated. During festivals, Mumbai changes into a kaleidoscope of colour, vibrance and people. Shopping from local streets, bussing around the corners and being always in the nosiest place is what defines the socio-cultural belief of the city. The paper aims at highlighting the impact of the pandemic on these very beliefs of Mumbai. Questionnaire Survey method through google forms will be used for Data Collection. Sampling method used will be simple random sampling. The conclusion will focus on the strategies that can be applied for safeguarding the spirit of city amidst COVID-19.

**Keywords:** COVID-19, pandemic, socio-cultural, Confinement, Social Distancing and Work from home

**Research Problem:** COVID-19 pandemic will have socio-cultural impact on Mumbai City.

### **Objective of Research:**

The objective of the research is to understand the impact of COVID-19 on socio-cultural beliefs of Mumbai. Mumbai has always stood high after any kind of calamity be it natural or man-made. The spirit of Mumbai as rightly coined, has always been indomitable. The paper aims at finding the very same spirit in the light of socio-cultural beliefs of Mumbai post COVID-19. The research aims at understanding the beliefs of people associated with Mumbai in regards to the new way of being in Mumbai with the three pillars of lock down, social distancing and Work from home.

### **Introduction:**

The 75- year history has never seen such Global health crisis. This pandemic is killing people, spreading human suffering and upsetting the otherwise set life of people. It is a human, economic and social crisis. The coronavirus disease (COVID-19), which has been characterized as a pandemic by the World Health Organization (WHO), is attacking societies at their core. The COVID-19 outbreak affects all segments of the population and is particularly detrimental to members of those social groups in the most vulnerable situations, continues to affect populations, including people living in poverty situations, older persons, persons with disabilities, youth, and indigenous peoples. It also has a profound impact on the social and cultural lives of individuals. Mumbai is no exception to it. A hub of all economic activities, a centre of all foreign gatherings and most importantly the cultural kaleidoscope of India. People without access to running water, refugees, migrants, or displaced persons also stand to suffer disproportionately both from the pandemic and its aftermath – whether due to limited movement, fewer

employment opportunities, increased xenophobia etc. As emphasized by the United Nations Secretary-General, during the launch of a COVID-19 Global Humanitarian Response Plan on 23 March 2020 “We must come to the aid of the ultra-vulnerable – millions upon millions of people who are least able to protect themselves. This is a matter of basic human solidarity. It is also crucial for combating the virus. This is the moment to step up for the vulnerable.” (As mentioned in Everyone Included: Social Impact of COVID-19 in United Nations Department of Economic and Social Affairs Social Inclusion)

**Material and Methods:**

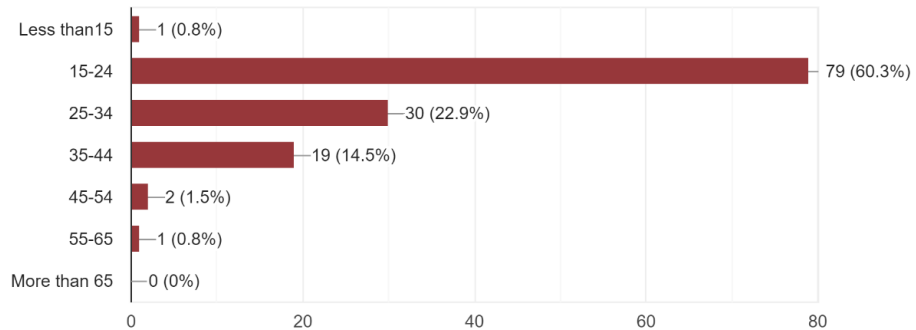
Methodology adopted for the research includes sampling, preparation of questionnaire, data collection and graphical representation to analyze the data. Researcher prepared a questionnaire (with a Likert Scale, Semantic Differential, Dichotomous) comprising of close ended questions on major note and a subjective question to understand what efforts the respondents have applied towards the thought of socio-cultural impact on Mumbai. The method of sampling was stratified random sampling for 150 respondents.

**Results**

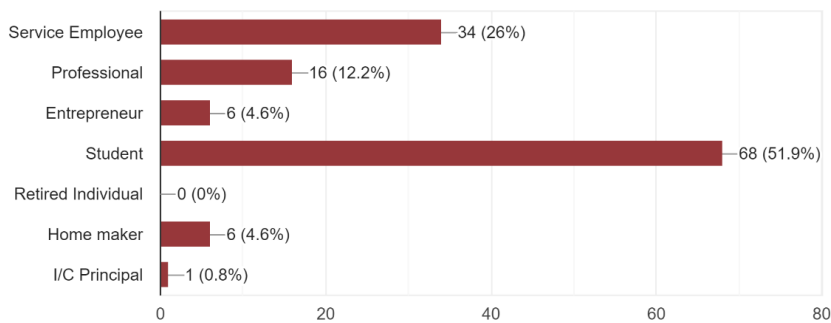
Out of 150 respondents, 131 surveys were valid. Remaining 19 surveys were not properly filled and cannot be considered for analysis. The analysis is done on the following main categories:

1. Respondents connect with the City, here Mumbai
2. Applicability of COVID-19 on Social set of Mumbai
3. Expected change of culture post COVID-19 on Mumbai

Age  
 131 responses

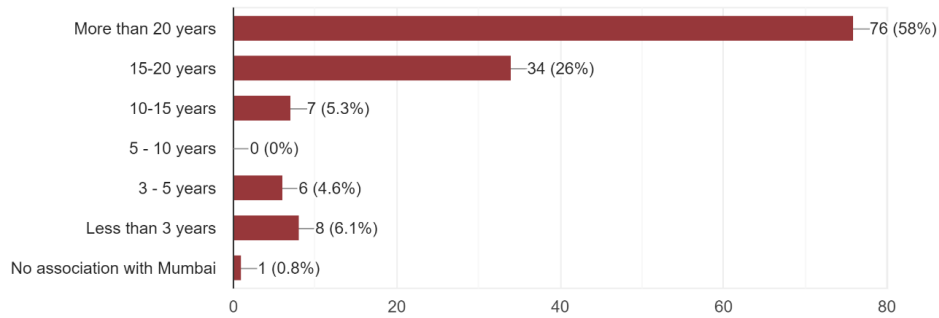


Profession  
 131 responses



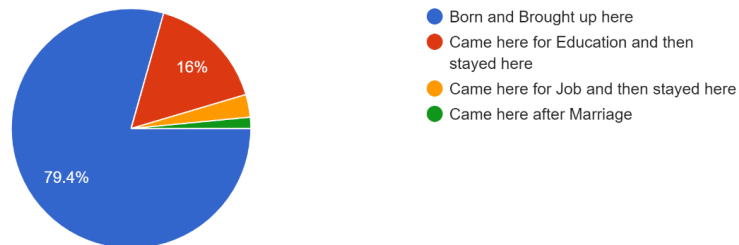
How long have you been associated with / lived in Mumbai?

131 responses



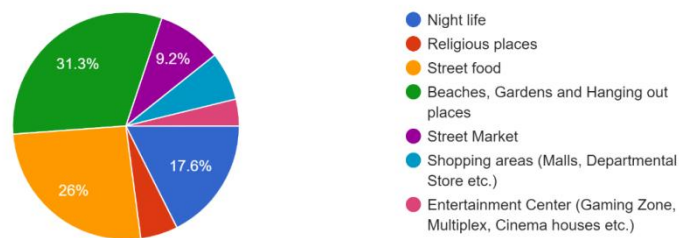
Choose Purpose of Stay in Mumbai? (You can tick more than one option)

131 responses

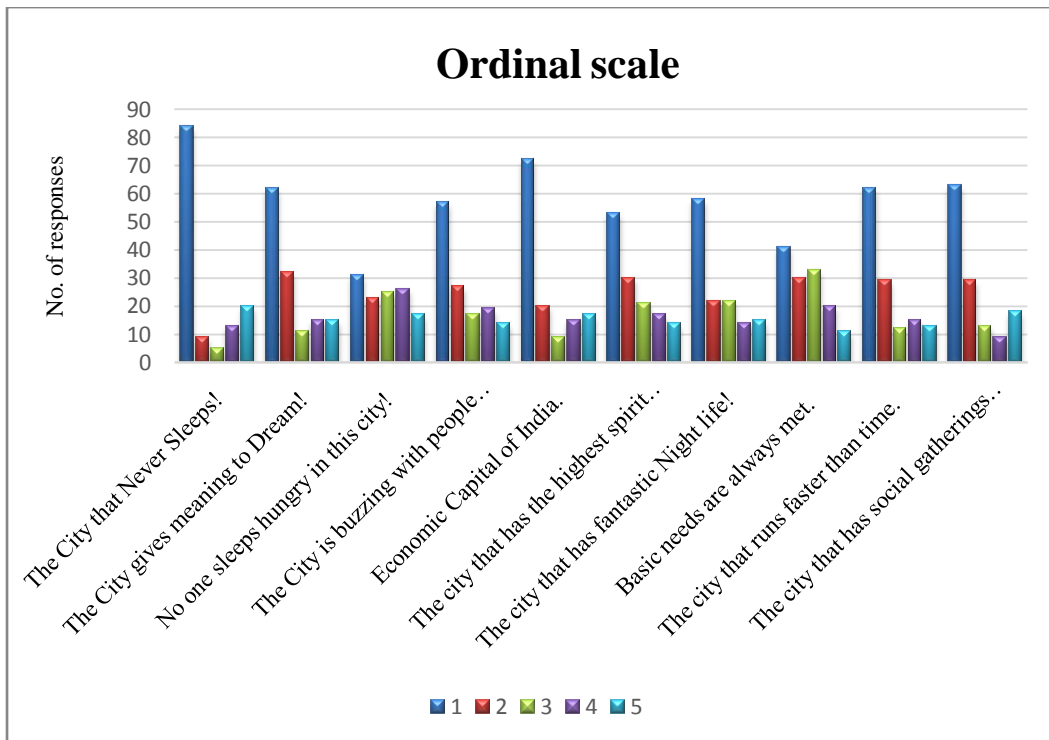


What do you enjoy most in Mumbai?

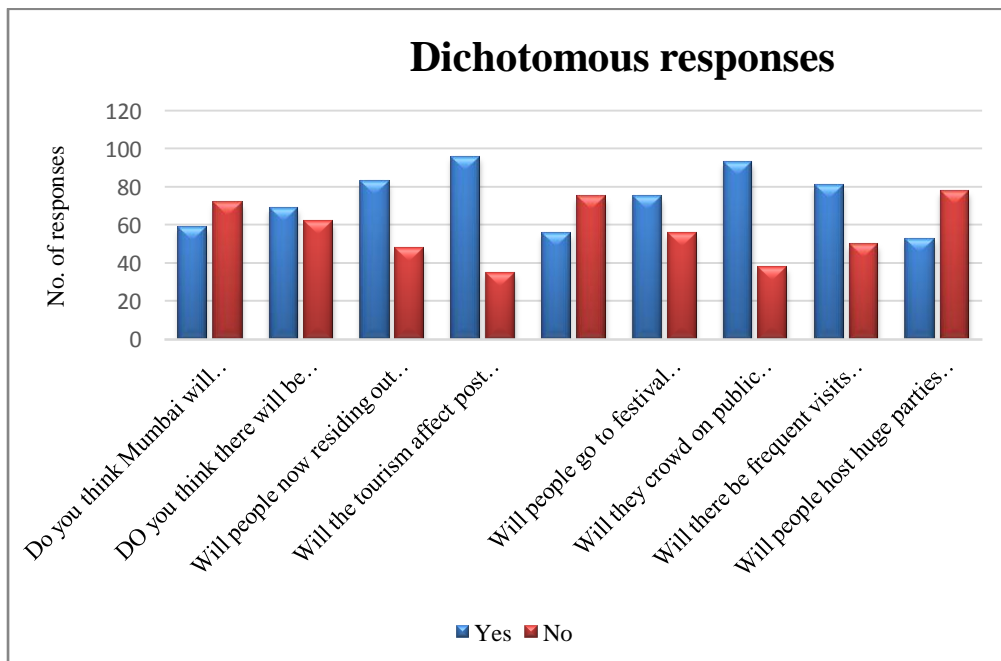
131 responses



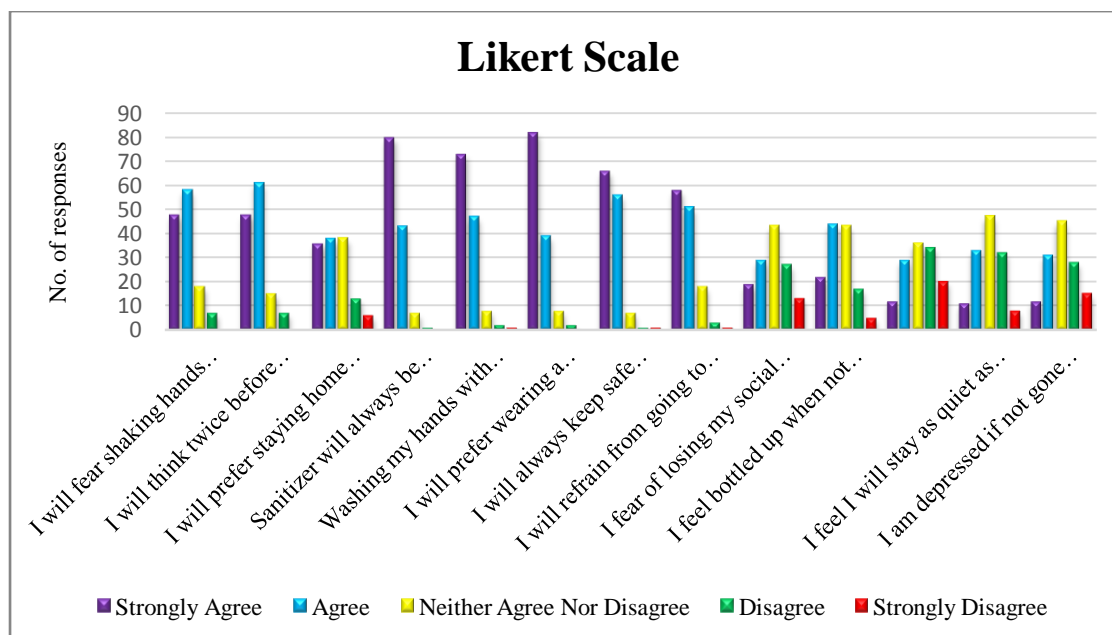
Which statement according to you defines Mumbai? Rate the following statement as 1 being the most suited definition and 5 being the least suited definition.



Kindly tick the appropriate option.



Following are some statements to the post Lockdown state. Kindly tick the appropriate option that suits you.



**Conclusion:**

From the above research work, it can be concluded that, spirit of Mumbai truly lies in the heart of Mumbaikars. (people residing in Mumbai are referred to as Mumbaikars in local parlance.) The research clearly highlights that there might be a fear in the minds of the individuals before going out to any public places. The usual gesture of hugging and shaking hands will now be taken in caution and majorly avoided. The otherwise not so taken care of cough will now be of social importance. Things might not be same for a few months but it will be normal. Rather everyone should be focusing on eating healthy food and boosting their immunity and not be afraid as they say the show must go on, we should get back to normal lives with proper care. To sum it up, the social life of Mumbai will change but will find the new normal for the next generation. Having said so, the cultural heritage of Mumbai will remain with Mumbai and that will truly spark the spirit of Mumbai. COVID-19 will be remembered for years to come and will be a learning lesson for future generations.

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## CURRENT RESEARCH SCENARIO CONCERNING COVID-19 AND RECENT DEVELOPMENTS

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### Abstract:

The latest outbreak of Coronaviruses has brought about many complications throughout the world. COVID-19 is a disease caused by SARS-CoV-2 (Novel coronavirus). Currently there is no direct acting anti-viral agent and vaccines for the recently emerging coronavirus (2019-nCoV). Hence implementation of high vigilance for 2019-nCoV and appropriate prevention and control measures are of utmost importance to check the further spread and control of this virus. Researchers all over the world are working tirelessly to combat the ongoing 2019-nCoV outbreaks. They are trying to identify the possible origin of this novel virus, the genomic nature of this virus and to design and develop effective vaccines and therapeutics. The variant nature of the Coronaviruses among the affected populations, is posing a challenge to make one vaccine compatible to all. Studies involving the details of the virus, including its molecular biology, immunology, adaptive genetic changes, mutations and recombination events are underway. The scientific world has also stimulated the process of rapid publication to enrich knowledge sharing and also to promote research through funding opportunities. Many publishers have made coronavirus content freely available thus aiding unlimited information for the research and health community on COVID-19. This paper provides an overview of the current research scenario and recent advances on vaccines and therapeutics for COVID-19.

**Keywords:** Coronavirus, SARS-CoV-2, 2019-nCoV, COVID-19, Pandemic, Public Health Emergency.

### Introduction:

Coronaviruses (CoV) are RNA viruses which belong to the family Coronaviridae. CoV is known as a human pathogen since 1960's. There are seven types of CoV reported so far. Out of the seven types, three types namely SARS-CoV-1 (Severe Acute Respiratory Syndrome coronavirus-1), MERS-CoV (Middle East Respiratory Syndrome coronavirus) and SARS-CoV-2 (Novel coronavirus) cause severe respiratory infections. COVID-19 is a disease caused by SARS-CoV-2 and presently poses many scientific challenges. SARS-CoV-2 evades innate immunity and replicates 50 times faster than other viruses. It creates cytokine storm leading to multi-organ failure in patients. More potent and efficacious drugs are yet to be developed. Though vaccine against COVID-19 is still under development, clinical trials are rapidly underway.<sup>1,2</sup>

During December 2019, the CoV based epidemic appeared in the city of Wuhan, China. The patients exhibited pneumonia-like symptoms followed by serious complications in the respiratory tract. On Jan 7<sup>th</sup>, 2020, the CDC (Chinese Center for Disease Control and Prevention) confirmed that a new coronavirus has emerged and was named 2019-nCoV. In addition to China, around 24 other countries from Europe, Northern America and Asia reported rapid increase of confirmed cases of this disease. Mainly person to person contact imparted more disease burden in family clusters and medical workers. The WHO (World Health Organization) assessed COVID-19 outbreak around the clock and as per observation declared it as a 'Public Health Emergency of International

Concern' on January 30<sup>th</sup>, 2020. The number of affected countries increased eightfold on 11 March 2020, and the situation changed from an epidemic to a pandemic.<sup>3,4</sup>

#### **Prognosis:**

Through various developments in materials related to sensor technology, CoV detection is carried out. Pathogen identification and analysis are effectively done with developments in nanoparticles, aptasensors etc. The novel researches on genomics and genetics, quantitative, are helpful for understanding emerging CoV disease. Currently, the origin of the virus, its particular receptor, clinical spectrum and host species preference is unknown. Scientists all over the world are engaged in investigating the genomic nature of this virus. Additional environment-based studies are helpful to predict risks earlier.<sup>5-9</sup>

#### **2019 -nCoV- Research:**

Researchers across the globe are working tirelessly to combat the current ongoing 2019-nCoV outbreaks. They are trying to identify the possible origin of this novel virus, and to design and develop effective vaccines and therapeutics. Scientists from countries like China and Australia have reported successful isolation of the 2019-nCoV virus from infected patients. This has opened doors for further research to design rapid diagnostics and vaccine development for nCoV. Further research is warranted on establishing animal models for the current 2019-nCoV unrevealing viral events of replication, transmission, and pathogenesis in humans. To pave ways for effective prevention and control, ongoing research in clinical pathology and pathogenesis, zoonotic potential, human-to-human transmission events etc. are being accelerated towards success.<sup>10,11</sup>

#### **Vaccines and Therapeutics**

A variety of approaches to develop vaccines against human coronavirus infection are underway for the past two decades. However such vaccines are greatly limited due to the extensive diversity in antigenic variants within the strains. Though such therapeutic options have proven efficacy in the *in vitro* studies, most of them haven't passed animal or human trials efficiently.<sup>12</sup> Thus they are of limited use in our present 2019-nCoV scenario. Many vaccines for COVID-19 are under development across the world. A few of them are either waiting or under human trials to understand its efficacy for the safety and protection. The variant nature of the Coronaviruses among the affected populations, is posing a challenge to make one vaccine compatible to all. The mRNA-1273 coronavirus vaccine, developed by the US National Institutes of Health (NIH) and Moderna's infectious disease research team, was given to the first participant on March 16, 2020. Researchers at Tianjin-based CanSino Biologics and the Academy of Military Medical Sciences successfully developed a phase 1 clinical trial of a coronavirus vaccine recently. Pennsylvania-based INOVIO is testing its novel DNA vaccine for COVID-19, known as INO-4800. German immunotherapy company BioNTech and American pharma giant Pfizer are developing an mRNA-based vaccine against the novel coronavirus.<sup>13</sup>

A method known as Plasma Therapy is also underway to fight against COVID-19. In Plasma Therapy the plasma of the recovered patient containing the antibodies that can fight against COVID-19 will be transferred to the person who is struggling to develop their own antibodies. This therapy will only act as a stopgap measure until better vaccine is developed through research.<sup>14</sup> Doctors from many countries including China, India, Britain and America are using trials using Plasma Therapy

#### **Drugs for successful treatment:**

Several potential drugs for COVID-19 are under global trial. The drug Remdesivir is proving hope against COVID-19 by stopping viral replication by inhibiting a key viral enzyme, the RNA polymerase. Remdesivir a novel

nucleotide analog prodrug is used for the treatment of Ebola virus disease. It has anti-coronavirus activity due to its inhibitory action on the SARS-CoV and MERS-CoV replication. At present a Combination therapy with 2019-nCoV specific monoclonal antibodies and Remdesivir is considered as the ideal therapeutic option for 2019-nCoV. Several attempts are made to accelerate different therapeutic and vaccine designing approaches against coronaviruses and also to evaluate in terms of potency, efficacy and safety.<sup>15</sup>

The drug Lopinavir also inhibits the protease of HIV, so the combination of drugs (Ritonavir/lopinavir), is also used as an option to treat COVID-19. The drugs chloroquine and hydroxychloroquine either individually or as a combination treated some COVID-19 patients effectively by decreasing the acidity in endosomes.<sup>16</sup> Due to some heart problems caused by the hydroxychloroquine in some patients WHO has recently restricted these drugs.

#### **Scientific Initiatives:**

The current pandemic situation has created a great concern among many leading research funding organizations, NGOs, etc. So they have opened up many funding opportunities for public health. The scientific world has also stimulated the process of rapid publication to enrich knowledge sharing and also to promote research through funding opportunities. Fortunately many publishers have made coronavirus content freely available. About 30 leading publishers have committed to making all of their COVID-19 and coronavirus-related publications, and data accessible in PubMed Central and other public repositories. All these steps have enabled unlimited information for the research and health community on COVID-19.<sup>17-19</sup>

#### **Conclusion:**

Adaptation of hygiene, massive diagnosis, quarantine, and complete lockdowns are the activities undertaken by many countries to understand and prevent COVID-19. Worldwide scientists, researchers, and various health agencies are working round the clock with very high efforts by designing appropriate vaccines and therapeutics to keep away any pandemic situation. Timely collaborative efforts, implementation of effective prevention and control strategies, rapid networking, and exploring advances in science and technology and designing effective vaccines and therapeutics will enable to combat all kinds of coronavirus challenges more effectively. In the current scenario, many webinars, virtual conferences and research and development consortium on COVID-19 are conducted to make worldwide network for sharing knowledge and technology beyond boundaries. Although research needs to be developed further, steps towards global solutions would play an essential role in combatting COVID-19 as well as such diseases in the future.

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## THE ROLE OF LITERATURE IN THE TIMES OF PANDEMIC

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### Abstract:

Literature is the mirror of society. It captures the currents and the undercurrents of the social behaviour of a contemporary society. A literary work of art is a creative document of the contemporary social life. Being a work of fiction, a literary work encodes the depiction and represents in a transformed form. It takes note of the static and dynamic aspects of the social conditions of human societies. Pandemics have exerted deep impact on the human societies across the times and space. Right from the ancient times to the present, the epidemics have cast devastating impacts on the human societies. Literature has captured the onslaughts of the pandemics at various points of time. It has documented the effects of pandemics on mankind with subtle details. These details provide information and illustration to the succeeding generations and thus help, at least in some measures, to get prepared for the onslaughts of the pandemics. They also showcase how mankind has fought pandemics and survived. The pandemic literature is multifarious. Either it would depict the effects of pandemic on the contemporary human societies or it may depict the nature of pandemic in the futuristic way. A literary work of art also depicts various moods and responses associated with pandemics like suspicion, hatred, fear, anxiety, and hope and so on. This paper attempts to capture some of these aspects of literature written during and/or after the pandemics with reference to the writers like Jack London, O'Henry, and Rabindranath Tagore.

**Keywords:** Literature, Representation, Pandemics, Contagion, Futurism, Fear, Hope

### Review:

The image of society is always reflected through literature. Whenever something unusual is noticed in the society the literature has been produced for it. Due to the growth of science and technology society has been living cozy and comfortable life. Humans forget that something is beyond the capacity of ours and that is power of nature. Pandemics are not new for society. Pandemics are mass murderers. It is great invisible foe to the mankind. Diseases like Plague, smallpox, influenza, cholera ruined the families, destroyed towns and gave impact upon the generation. These are the major pandemics which changed the worlds view:

- 1350 – Black Death.
- 1665 – The great plague of London.
- 1817 -First cholera Pandemic.
- 1855- The third plague Pandemic.
- 1918 – Spanish Flu.
- 1981- HIV.
- 2003 – SARS
- 2019—Covid -19.

Loneliness, Anger, Stress, Fear of Death are the major mental issues which generations faced during the times of pandemics. All these things we get depicted in the literary works of the times. In the ancient times Plague and pandemic were frequent calamities and ordinary people witnessed scary reports about their terrible ravages. In

the ancient Society public trust over science was not very high, by the 20<sup>th</sup> Cen. People believed that epidemics were no longer caused by supernatural events or divine punishment. They discovered that they were caused by germs that infect humans and become the cause of death. When plague spread no medicine could help and no one could stop it from striking. The great fear was there in the minds and Jack London attempted to capture it through his novel *The Scarlet Plague* published in 1910.

The story takes place in 2073 America, where the Red Death pandemic has recently depopulated the planet. Smith is the hero of the story, Smith recounts the story of his life before his grandsons Edwin, Hoo-Hoo, and Hare-Lip. His grandsons are young and live as primeval hunter-gatherers in a heavily depopulated world after the plague. He is professor of English. Public trust in science is high in the 21st century society but the people get soon frightened by the astonishing quickness with which this germ destroyed human beings, and [by] the fact that it inevitably killed any human body it entered. ... From the moment of the first signs of it, a man would be dead in an hour. Some lasted for several hours. Many died within ten or fifteen minutes of the appearance of the first signs. Through details of the course of the illness, London made the plague more realistic and even more frightening:

The heart began to beat faster and the heat of the body to increase. Then came the scarlet rash, spreading like wildfire over the face and body. Most persons never noticed the increase in heat and heart-beat, and the first they knew was when the scarlet rash came out. Usually, they had convulsions at the time of the appearance of the rash. But these convulsions did not last long and were not very severe. ... The heels became numb first, then the legs, and hips, and when the numbness reached as high as his heart he died.

Smith witnesses his first victim of the scarlet plague while teaching when a young woman's face turns scarlet. She dies quickly, and a panic soon overtakes the campus. He returns home but his family refuses to join him because they fear he is infected. Soon, pandemic overtakes the area and residents begin rioting and killing one another. Smith meets with colleagues at his college's chemistry building, where they hope to wait out the problem. They soon realize they must move elsewhere for safety and begin trekking northward. But there was no escape. Germs were spreading, fast and uncontrolled. Nothing could stop it, and the world was in a state of sheer panic never experienced before. People started behaving unreasonably:

... we did not act in this way when ordinary diseases smote us. We were always calm over such things, and sent for the doctors and nurses who knew just what to do.

The population reacted to the outbreak of the plague in two ways: most tried in vain to isolate themselves and fled to avoid the contagion, whereas a minority, mainly rioters, begun drinking, robbing, and sometimes even killing:

In the midst of our civilization, down in our slums and labor-ghettos, we had bred a race of barbarians, of savages; and now, in the time of our calamity, they turned upon us like the wild beasts they were and destroyed us. And they destroyed themselves as well.

The anarchy spreads all over the country due to the Fear of Death. Each and every human being attempted to rob of the life that they never got. Suddenly people started realizing that, they have to go somewhere else if they have to survive but that was also too late. Smith's entire party dies shortly, and he remains the only survivor. He lived there for three years on his own with the company of a pony and two dogs. Eventually, his need for social interaction compelled him back to the San Francisco area in search of other people. He finally discovered a sort of new society has been created with a few survivors, who were broken into tribes. Smith gets worried as he was the

last to remember the times before the plague. He recalled the past life, quality of food, social classes, his job, and technology. As he realizes his time was growing short, he tries to impart the value of knowledge and wisdom to his grandsons. His efforts were in vain, however, as his grand children ridiculed his recollections of the past, which sound totally unbelievable to them.

As London shows in his novel, pandemics can bring forth deeply rooted fears and modify human behavior greatly. He used the plague theme to criticize contemporary social structure: the destruction that follows the plague is both to be welcomed and despised. Indeed, the pandemic breaks the class barriers, but it also leads to the ruin of civilization. According to London's socialist values, only human brotherhood enables society to survive. Despite the political views of the author, the pandemic Fear compelled to control the human behavior and anarchy.

For overcoming from the disaster of Pandemic the Devotional Service is very important for survival humanity. The appreciative work has been performed worldwide always. In the Indian English Literature Noble Prize owner Tagore's literary contribution and devotional work was really appreciable. Tagore lost his mother in his early age. Many epidemics like Cholera, Smallpox, came during the time so he was deeply heaved by the concept of Death. He had great interest in medicine he wrote *Puratan Bharitya* in 1895. Even his family (in 1920) suffered due to Influenza virus which was new at his times. "War time Fever" is also mentioned by him this new disease also killed 18 million people in India alone during the time 1918-1920. This situation occurred due to the negligence and lack of doctors. This fever entered in Gurukul School run by Tagore himself. With the help of doctor Tagore prepared Aurvedic Medicine and distributed it among his students this feeling of devotion and compassion has been reflected through his poem *Puratan Bharitya*. Tagore was from a rich Bangali Family. In his poem *The Old Man Servant* there is a story of a Bangali Zaminidar. The family has been served by a Bangali servant whose name is Keshta. Keshta has been repeatedly abused by Zamindar's wife. She considered Keshta as good for nothing fellow. But Keshta has great sense of devotion. Zamindar realized it when he get contracted by Small Pox and all his Friends and relatives servants left him alone. In return to the service of his master, Kesta get contracted with the disease and Zamindar was unable to save him. This shows great devotion to duty and compassion.

O Henry's short story *The Last Leaf* is about "Hope". When the pandemic strikes even youngsters get contracted and may lose life, loose hope of survival. Nobody can save the humans but the will power. In the story the author attempts to give the message how to survive in the utter hopeless situations like Pandemics. O' Henry, in 1907, wrote a short story "The Last Leaf". It was published in 1907 in his collection *The Trimmed Lamp and Other Story*. The story is set in Greenwich Village during a pneumonia epidemic in New York.

It is about a young artist named Johnsy who becomes victim of pneumonia epidemic which hits New York City. She was seriously ill. A doctor assesses her, and informs Sue that Johnsy's chances of survival are one in ten, largely because she has lost the will to live. Johnsy's illness was that she was suffering from pneumonia. The doctor said that she seemed to have made up her mind that she was not going to get well and so medicines would not be able to cure her. She could only be cured by her willingness to live:

Johnsy lay there, very thin and very quiet. Her face was turned toward the window. Sue stopped singing, thinking that Johnsy was asleep.

Sue becomes panic and decides to live with Johnsy. In Johnsy's room, Sue works on an illustration for a magazine.

As she worked she heard a low sound, again and again. She went quickly to the bedside. Johnsy's eyes were open wide. She was looking out the window and counting—counting

back. “Twelve,” she said; and a little later, “Eleven”; and then, “Ten,” and, “Nine”; and then, “Eight,” and, “Seven,” almost together. Sue looked out the window. What was there to count?

She hears Johnsy quietly counting the leaves left on the old and struggling ivy vine that clings to the brick of the neighboring building. Johnsy gets psychologically connected with The Ivy Vine. Johnsy says there are only six left, and she has known now for three days that she will die when the last leaf falls. The ivy vine gradually shedding its leaves as autumn turns into winter, and she has taken the thought into her head that she will die when the last leaf falls. Sue tells the same thing about Johnsy to his fellow artist Behrman:

Old Behrman shouted his anger over such an idea.

“What!” he cried. “Are there such fools? Do people die because leaves drop off a tree? I have not heard of such a thing. No, I will not come up and sit while you make a picture of me. Why do you allow her to think such a thing? That poor little Johnsy!”

“She is very sick and weak,” said Sue.

The old man attempts to save the life of a young neighboring artist, dying of pneumonia, by giving her the will to live. Johnsy asks Sue to bring her a mirror:

Something has made that last leaf stay there to show me how bad I was. It is wrong to want to die. I’ll try to eat now. But first bring me a looking-glass, so that I can see myself. And then I’ll sit up and watch you cook.

At story’s end, we learn that the old artist, who always wanted to produce a masterpiece painting but had never had any success, had one night spent considerable time painting with great realism a leaf on the wall. Furthermore, the old artist himself dies of pneumonia contracted while being out in the wet and cold. As London shows in his novel, pandemics can bring forth deeply rooted fears and modify human behavior greatly. He used the plague theme to criticize contemporary social structure: the destruction that follows the plague is both to be welcomed and despised. Indeed, the pandemic breaks the class barriers, but it also leads to the ruin of civilization. According to London’s socialist values, only human brotherhood enables society to survive. Despite the political views of the author, the pandemic issue would have appealed to London.

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## IMPACT OF COVID-19 PANDEMIC ON THE INDIAN ECONOMY

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### **Abstract:**

In order to build a country's economy, it needs to have sufficient resources to strengthen its means of income. Once the economy is established, all the income factors in those countries have to be reconciled with the expenditure. It would be wrong to say that the country has only an abundance of money and that the economy is strong. However, the economy is boosted by the resources purchased using this money, like infrastructure, complementary tools for the service sector etc. Only when the cycle of income-generating resources is running smoothly is it possible to adjust the situation elsewhere in the country. The situation in the country is somewhat uncertain. Uncertainties like earthquakes and tsunamis cause huge damage to the country. But if the scale is globally dire, the means of earning an alternative income will be shut down. Currently the same situation has arisen in the year 2020. This situation has hardly hit the economy of an agrarian and developing country like India. The paper seeks to examine the factors on which the country's economy is based, the means of earning a living, and the impact it has had on human life. It also studies how the deadly corona virus, which has spread across India, is affecting the economy. In this research paper we tried to investigate the economic issues in India especially due to Covid – 19 stand for novel coronavirus.

**Keywords:** Lockdown, Losses, Impact, pandemic, curfew

### **Introduction:**

Corona viruses have been infected in 215 countries over the world. Born in the Chinese city of Wuhan, the virus has created a dangerous situation around the world. On December 31, 2019, the Wuhan city of China was informed the outbreak of the Novel Corona virus. On January 7, 2020, it was discovered that the virus had spread worldwide. Then on January 31, 2020, this virus entered in India. At the time, it was temporarily renamed 2019 – nCov. Many people in the country were affected by this giant and many of them came from abroad. The government had to take drastic steps to prevent the spread of the virus. After the virus spread to India, it became clear that the virus was spread through human contact. Moreover, the government had to take tough decisions like lockdown in the situation as there was no concrete treatment or medicine to eradicate the virus. The decision was taken to lay off work mainly on workers working in industries and businesses required to run the country's economy. The closure also put restrictions on taxes, and hence the government's main source of income got locked. Along with industry, there were personal crises for workers in the service sector.

India, which has an agrarian economy, used its income from agribusiness to take steps towards progress. However, due to the outbreak of this novel corona virus, a decision like a curfew was taken in the country. As a result, agricultural laborers were restricted from coming to work. However employees in the service sector, such as banks, had to work hard to exchange money. Due to this pandemic, huge losses were incurred in various sectors.

### **Objectives of the study:**

- To introduce impact of other countries to India due to covid-19.
- To study the impact of various income gaining sector.
- To study the impact of pandemic on human life cycle.

- To overview impact of such virus on Indian economy.
- To suggest some measures to balance the economy.

**Research methodology:**

For the purpose of the research the secondary data method has been applied. Various articles, newspapers and website, online webinars has been used to collect information. Also professional books like academic syllabus has been collected to gathered information.

**Impact of covid-19 (pandemic) on Indian economic:**

**1. Consumption Slowdown:**

Employment in all sectors has been curtailed to prevent the spread of the corona virus. People stopped getting the means of income. Closing in income led to a decline in consumption of luxury goods beyond essentials. Even those who maintained a high standard of living were forced to adopt a simple standard of living, lack of employment. Consumption rates have plummeted due to the ban on food shops such as malls and hotels. In some areas, it is time for employees to work for lower wages in shops that supply essential commodities, such as groceries and drug stores, to industries that follow government policies. As a result, despite having half the means of income available, consumption had to be kept low to cope with future viral situations.

**2. Agriculture & food processing:**

The corona virus also affected the poultry business, which is considered an ancillary business to agriculture. India is the third largest egg producer in the world. It is also the fifth largest producer of broilers. The lockdown, announced in the country to curb the spread of the corona virus, forced the sale of goods brought to entrepreneurs at half the purchase price. The prices of several commodities including soyabean and Chana have fallen.

In rural areas, the majority of employment is the main device of employment spreading the roots. It was time to sit in the house. Considering the whole of India, the agricultural sector and food and manufacturing companies had to bear a loss near of Rs. 150-200 crore per day. In rural areas, especially in summer, onion and paddy are widely grown. For agricultural work at this time, a large number of laborers are required. However, workers were banned from working together to prevent the spread of the corona virus. As a result, entrepreneurs along with traders had to close their businesses due to shortage of raw materials from agriculture. Literacy rate is low in rural areas. At the same time, it is not considered how true the news coming through media like Facebook and WhatsApp. In the early days of the lockdown, rumors spread everywhere that the outbreak was coming from animal birds, especially those produced on poultry farms. Believing it, more than 50 per cent of the rural population banned meat. In such a situation poultry entrepreneurs had to bear huge losses by selling at a price lower than the purchase price.

**3. Tourism:**

Another important element in strengthening the Indian economy is tourism. Many people of many countries are traveling to domesticities for which reasons. Considering India, the number of passengers traveling from one state to another is higher than other countries in the world. Also, due to the rich natural resources of the rural areas, many travelers come for the purpose of tourism. Along with tourism, small scale businesses like local eateries and autorickshaws also get employment. The curtain law was implemented across the whole country to prevent the inferiority of Corona virus. The movement of tourists were stopped from one country to another country or from one state to another. With all of these, the boundaries of income available to the government as tax get stopped. There has been drop in inbound and outbound tourism of about 67% to 52%.

Transportation is a large scale for domestic travel. Apart from one place to another, the trains, state transport corporation, including traffic services like train, state transport corporation. All these traffic services have arranged online booking to take advantage of services. However, this time around nearly 90% booking of hotels and flights for the peak time have been cancelled. The statistics of the booking held in the railway and bus service were huge. The entire result was affected on tourism Industry and also employees working in Industries. Many employees were removed from work for a period of time. Due to Lockdown, the speed of the overall tourism business slowed down the economic strength of the country.

#### **4. Hospitality:**

Hospitality sector the meeting, conference and exhibition are popularly known as MICE segment. India is a developing country. In the year, progressing development phase of improvement, taking advantage of various opportunities, making the benefit of various opportunities. Whenever we go on tour be it a business tour or family trips the most thing that we look for or rather expect is good hospitality Services in India. Starting with the hotel we stay in a restaurant we go to dine in or any amusement park that we visit. Hospitality Services include several services like housekeeping providing at restaurant, bars, travelling and so on. Hospitality Service industry is one of the most flourishing industry and can never wither away. Tourism can never be put to halt. That's why this industry is rising and changing continuously. Enterprises like restaurant, hotels, cafes, inn and travel agencies continuously strive to provide better services to its customers so that they can get a good words out about their facilities and establishment. This gets them more customers and a better reputation among their competitors.

However, due to the global outbreak of the corona virus, celebrations, birthdays, and company meetings were banned. This has led to restrictions on companies providing hospitality services. Hospitality services play an important role in huge crowded places like various hotel, malls in India. However, in the current lockdown situation, the hospitality industry has also reached a recession due to the influx of people of any kind. At the same time, many three and five-star hotels in India employ people from rural areas. These workers were given work leave to prevent outbreaks. As a result, their livelihood was lost. Planning for large business meetings was disrupted. A number of entrepreneurs had organized seminars to increase annual sales, and had to cancel due to this situation.

#### **5. Share Market and Capital Market:**

The parties are seen as a current capital source for the company. The company is building a business in the money that is sold by selling shares. Dividend given to investors as a refund of investment. Many shareholders in India are developing their own business on returns from shares. However, the business of the companies taken by the government has closed. It results to shortage of raw material to various industries. The whole result occur on decline in profit of the company. Simultaneously the price of each share decline. Stakeholders began to suffer. At the same time, the Nifty and the Sensex fell sharply. Many shareholders sold their shares as the Nifty plunged to 7500 points. Selling parts of portfolio at the lower prices arose in shareholders. The prices of the shares are shown to be sold for more rapidly.

#### **6. E-commerce:**

With a view to prevent community spread of covid-19, the government has issued advisory for social distancing and isolation by asking corporate to allow work from home to their employees. Several State Government have impose city lockdown as a preventive measure. There is need to ensure safety of all citizens. It is suggested that unintended consequences of any lockdown on the E-Commerce industry be looked into.

No one knows exactly how long the pandemic will last or how many lives will be lost. The SARS outbreak of 2003 was much smaller and it cost the global economy a whopping 40 billion dollar and China several month of economic contractions. However pandemic also affected on buying strategy of customers, wholesalers and retailers. As they postponed their current buying commodity due to lockdown and some measures for actions taken over by government of India. Due to policy of lockdown the phone customers and businessman even producer can not dealing with each other. There were huge losses in manufacturing, also weekly Bazaar or market which organize especially in rural area get ban his wholesaler in situation how to bear losses, because of decrease in a sales.

**7. Entertainment/Events/Sports:**

India is a country steeped in diverse traditions. People of many castes and religions live in this country. Festivals, weddings, etc. are celebrated according to their customs. However, a curfew has been enacted to curb the spread of the corona virus in India and the rest of the world. Therefore, especially in western India, summer festivals like Yatra were banned.

Cinematheatres, shopping malls and gyms are the most income source factor of the government as imposing taxes. But lacks of pandemic situation cinemas, shopping malls, where people come together in huge coverage area has been banned to overcome transformation of coronavirus. Also small shops likes hotels in shop nearby the shopping mall get losses. This loss is difficult to calculate presently. But some estimates suggest that theatre in Delhi alone may have to incurs loss of rupees 2 to 10 lakh per week. The nationwide lockdown has also adversely impacted the television and Film Industry several sports events have been either postponed or cancelled and this brings huge losses for the sport industry for instance cancellation of IPL matches alone could mean a loss of rupees 10,000 crores for the industry.

**8. Electricity consumption:**

Before lockdown period many more functions as like marriage, festival etc. had arrange. Between pandemic situation all the events and festivals get cancelled and electricity consumption by them reduced. On the other hand source of consumption of electricity is industry. Also industry get shutdown which lead to result in lower electricity consumption. Due to banned in manufacturing process, industry consume lower electricity as compared with earlier of lockdown. Because of all situation Government of India could not get revenue and hence economic balance get disturb.

**9. Financial services and Fintech:**

Fintech is emerging as a backbone for the banking industry and canplay increasingly important. Financial technology is the technology and innovation that aims to compete with the traditional financial method in the delivery of financial services. As banking industry and fintech are the two sides of same coin because technology contribute more share in banking industry when any person or any industry require small amount of capital and apply through online channel by website. Instead of presenting physically in bank, one can easily apply through website.

Around the World the covid-19 pandemic has changed the way. We think about life and work. India remains in lockdown field operation have been shut down and work from home is implemented across-theboard. Much of the fintech startup ecosystem will have to wait and watch to see how the situation unfold after the official lockdown is over. The covid-19 pandemic will affect the income and mode of payment to farmers in India. Agricultural practices are largely labour incentive and manual. This applies to you tilling, plowing, sowing and and harvesting. due to the restrictions imposed because of the pandemic money lenders will embrace the idea of digital payment and farmers will does the aligned to do so as well. in the coming months

digital payment collection should see large scale adoption in rural area through methods such as UPI, IMPS and auto debit facility.

Especially at a time when RBI is laying focus on promotion of a digital banking. Measures are required to support the fintech sector to enable players to provide support to the banking sector at the current juncture.

#### **10. Saving ability of people:**

The most important source of government to get finance from people living in rural and urban area is saving schemes. Before covid-19 Pandemic, the ability of people to save the money in various profitable saving scheme where more. People saved their extra income through insurance, postal life saving schemes and so on. Furthermore as government announce global lockdown over the world, people could not get income for even their family's daily needs. Due to unemployment in pandemic saving ability of people in various insurance schemes decline.

As the people ability decline on account of savings, the Government of India could not get finance to provide loans to the entrepreneurship development, MUDRA schemes etc. Lacks of low money generation in the financial sector, Government suffer huge losses while organizing various development program and hence, overall balance of economic get disturb.

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- ❖ Sanjiv Kumar (2017), stated that India has a financial system that is controlled by self governing regulators in the sectors of banking, insurance, Capital Market, operation and various service sectors.
- ❖ Dr. D. Suresh Babu, the capital Market, money market along with the foreign exchange market and government security Market enable businessman, industrialist as well as government to meet their credit requirements, role of financial system in economic development of country, International Journal of multidisciplinary research and development

#### **Conclusion:**

From this, it can be concluded that even the smallest factor in the country is responsible for strengthening India's economy. The government has taken concrete steps to overcome the crisis in the country. However, considering every sector that strengthens the economy, the losses are increasing at the same rate. If every citizen strictly adheres to the rules laid down by the government like lockdown, curfew, it will not take long for the economy to recover, alternatively for the creation of industries and jobs.

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## A REVIEW OF COVID-19 PANDEMIC WITH REFERENCE TO INDIAN AYURVEDA

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### Abstract:

Wuhan city in China experienced a sudden increase of pneumonia cases in Dec2019. In the beginning, its human to human transmission was not adjudged. As a result, this communicable disease lead to a pandemic. World Health Organisation (WHO) named this viral disease COVID-19 caused by Severe Acute Respiratory Syndrome Corona virus 2 (SARS-CoV-2). The count of infected people worldwide is continuously increasing even today. Different prophylaxis and therapeutic strategies have been exercised worldwide to curb this menace. In the present study, an Indian way of addressing this pandemic is reviewed. Success of Traditional Chinese Medicine (TCM) to address this pandemic has been reported. In ayurveda, an elaborate causation and management of epidemics (*Janapadodhwamas*) is discussed in detail. Accordingly, Ministry of AYUSH (Ayurveda, Yog, Unani, Shiddh, Homeopathy), Government of India has issued preventive advisories and their follow ups are monitored nationwide through medical and paramedics. In ayurveda, suggested preventive measures can really play a vital role to curb the spread of this COVID-19.

**Keywords:** TCM, Ayurveda, COVID-19, AYUSH

### Introduction:

Wuhan city in China experienced a sudden increase of pneumonia cases in December 2019. On 31st December 2019, World Health Organisation (WHO) office in China was reported about this ailment by the Chinese authorities. In the beginning, the human to human transmission of this respiratory disease could not adjudge. Hence, soon the communicable nature of this disease lead to a pandemic. Almost every country of world got infected by this disease. The novel corona virus disease covid-19 caused by severe acute respiratory syndrome corona virus-2(SARS- CoV-2). The spread of this covid-19 affected the whole globe with approximately 6.982 million confirmed cases, 4.022 million deaths and 3.413 million recovered cases as on 07June 2020, which is an alarming figure. This count is continuously increasing with alarming rate despite the sincere rigorous efforts to contain it. Different prophylaxis and therapeutic strategies have been continuously undertaken to curb this menace. In this article, an Indian remedy this pandemic is reviewed. In Ayurveda, an elaborate causation and management of epidemics (*Janapadodhwamas*) is discussed in detail. It is worth to notice that the China has almost controlled it and epicenter of this disease has been shifted to Europe, USA and other Asian countries from the place of origin of this covid-19. It has been reported that Traditional Chinese Medicines (TCM) in which traditional herbs are prescribed for prevention and treatment has played significant role parallel to other therapeutic trials. It has also been reported that these traditional medicines were successfully used to treat about thousands of cases in China. Earlier also, TCM has helped significantly in treating the patients of SARS COV, influenza AH1N1, influenza AH7N9 and Ebola virus. The Qing Fei Pai Du decoction has been demonstrated to be 90% effective in treating covid-19 patients.

### Discussion and Results:

In line with TCM, ayurvedic way of treatment must be looked into to address this quickly communicable pandemic. In ancient India, ayurveda had successfully managed the epidemics spreaded time to time. Ayurveda

stresses about mental, physical and social well being of the patient for his comprehensive remedy. Ayurvedic line of treatment actually maintains equilibrium among different body organs and tissues. As per Ayurveda, the spreading of any disease should be stopped at the earliest possible stage (Sanchaya & Prokapa). In case of infectious or communicable diseases, it is always recommended that stopping the further progression is the most ideal for controlling the disease. At the same time, immunity of the whole community, whether innate or acquired should be boosted by various means as suggested. These preventive measures and immunity boosting therapies ultimately ensure, that even with the exposure of the infectious disease pathogens, disease is not going to be manifested in the body.

Ministry of AYUSH, Government of India has issued preventive advisories to boost one's immunity against this pandemic. Indeed, we should take this situation as an opportunity to spread and rely on our own well-established AYUSH therapies. Here in this article, Ayurveda has been reviewed as a therapy to mitigate the spread and effect of this pandemic and convey the strength of AYUSH to curb such epidemics. It is found as per covid-19 epidemiology and pathogenesis that about 80% of the reported cases require only primary medical treatment. Out of remaining 20%, 15% require immediate attention with secondary healthcare facilities, only 5% patients are critical who require intensive care with tertiary healthcare facilities including ICU and ventilators. Proposed Ayurveda interventions in COVID-19 outbreak and their rationale<sup>a,b</sup> is given below

(Source: <https://doi.org/10.1016/j.jaim.2020.04.002>)

#### **1. Unexposed asymptomatic group:**

Common health keeping approaches of Ayurveda including healthy diet, healthy life-style, adequate sleep, physical activity, good conduct, care for retainable and non-retainable urges, and avoidance of disease causing factors (excessive cold and exposure to pollutants). In addition, Chyavanprasha, Brahma Rasayana, Amrit Bhallataka, Sanjeevani vati, Swarna prashan.

#### **2. Exposed asymptomatic (Quarantined):**

Sanjeevani vati, Chitrakatdi vati, Chyavanprasha, Brahma Rasayana, and decoction of a combination of herbs, *Tinospora cordifolia*, *Zingiber officinale*, *Curcuma longa*, *Ocimum sanctum*, *Glycyrrhiza glabra*, *Adhatoda vasica*, *Andrographis paniculata*, *Swertia chirata*, *Moringa oleifera*, *Triphala* and *Trikatu*.

#### **3. With mild COVID-19 symptoms:**

Pippali rasayan, Go Jihvadi Quath, Kantakari Avaleha, Chitrakadi vati, Vyaghri haritaki, Dashamul kwath, Sitopaladi, Talishadi, and Yashtimadhu etc.

#### **4. With moderate to severe COVID-19 symptoms:**

Pippali rasayan, Laghu Vasant Malati, Sanjeevani vati, Tribhuvan Keerti rasa, Brihata Vata Chintamni rasa, Mrityunjaya rasa, Siddha Makardhvaja etc.

**Note:** <sup>a</sup> The proposed interventions are supposed to be practiced under the supervision of authorized Ayurvedic practitioner without compromising the conventional advisories by government authorities including frequent hand-washing with soap till 20 s, cough and sneeze etiquette, physical distancing and universal mask usage.

<sup>b</sup> Dosage of individual formulations are to be judged carefully by an experienced Ayurvedic physician on the basis of roga and rogi bala with an utmost care for vulnerable population like children, pregnancy and elderly. In almost all cases hot water may be considered as preferred anupan (post drink) during the treatment.

In those 5% critical cases, it takes 9 -10 days to reach to Acute Respiratory Distress Syndrome (ARDS). This syndrome may be followed by an uncorrectable hypertensive shock, multi organ failure and eventually death. It has also been observed that people with older age, who are diabetic, hypertensive or having cardiovascular problems, are more susceptible to reach to ARDS.

In ayurveda, regular care of individual lifestyles including food habits are elaborated in a very articulate manner. These recommendations strengthen and rejuvenate our immune system. Since, an extremely poor number (approximately only 0.015 percent of total population) in India is covid-19 positive as on 07th June 2020, shows that our most of the population is healthy. Hence, ayurvedic recommendations to keep them healthy even under this critical situation of pandemic must be followed. These are very helpful to these apparent healthy people for enhancing their immunity so that infection related pathogenesis can be suppressed. These recommendations include Healthy lifestyle, adequate physical activities such as yoga, pranayam, asanas etc. and keep distance from infected persons. Fumigation of home by different ayurvedic herbs such as garlic peel, turmeric powder, ajwain seeds and loban (resin of *Styrax Benzoin* and *Boswellia* species) are very useful to disinfect our living areas. It has also been reported that community-based Swarnaprashan ( i.e. oral intake of Swarna bhasma ) and mass prophylaxis through Rasayan (Brahma Rasayan and Chyawanprash) having predominant effect on respiratory tract are very useful. Rasayan acts as anti-stress, anti-inflammatory, antimicrobial and boost immunity against diseases. According to ayurveda, Rasayan therapy along with distancing from infected people not only constitute a core strategy to curb communicable diseases but also saves any asymptomatic healthy person from infection. Actually, most of the world population belongs to this unexposed asymptomatic group only. Hence, these recommendations are really effective to curb this pandemic. However, exposed asymptomatic (quarantined) group with mild covid-19 symptoms and with moderate to severe symptoms are to be treated as per the above prescription given under the guidance of authorised ayurvedic practitioner. It has also been reported that for unexposed asymptomatic group of people haridra with cow milk (5 gram haridra boiled in 250 ml of milk and reduced to 200ml) and chyawanprash avleh 10 gram once before breakfast is very effective on everyone to combat this infection after improving one's immunity.

#### **Conclusion:**

With the review of literature published to address present situation arose with Covid-19, it is well understood that prevention is the only solution available for this pandemic as there is no approved medication available at present. It has been observed that preventive measures taken in consonance with Ayurveda which include both intake of suggested herbs, decoction etc along with yogic exercises are one of the best available option to curb the spread of this virus. With the ayurvedic prescriptions, even if someone gets infected, he can recover faster. The credit of faster recovery in India may be attributed to Indian ayurveda. At present, it appears inappropriate and premature to recommend any therapies for COVID-19, however, immunity of the healthy person and immune compromised can be enhanced with these recommended ayurvedic line of action to defend against this pandemic.

Indian ayurveda has potential to curb and treat such epidemics and pandemic provided sincere efforts are to be made from the authorities to identify the potential of AYUSH. Ministry of AYUSH, Government of India should take appropriate initiatives to promote and feed these indigenous health services in India and abroad. This will not only keep the population healthy but also give opportunities to young medical practitioners to incline towards these noble ways of treatments for both practicing and research.



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## **IMPACT OF COVID-19 ON GOVERNANCE IN INDIA: LESSONS AND CHALLENGES**

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### **Abstract:**

COVID-19 has taken the world by surprise. It has presented itself as a crisis as well as an opportunity. Different countries are adopting different measures to fight the pandemic. Governance in India has always been of a similar character: a crisis and an opportunity both. In this paper, a study is made to explore the different governance measures adopted by India during present crisis. Certainly, it has made the government to venture into new arenas to come out with a solution to the current problem. With its hit and trial method in framing policies how well has India put up to a fight against the deadly virus? This paper investigates different challenges faced by the government during and even after the pandemic. What lessons can be learnt from this pandemic to rise up to a similar problem in the future? Are we witnessing a rise of cooperative federalism? What changes will this bring in political discourse? The pandemic has been global but its response has been local and contextualised. The paper seeks to answer these questions while discussing a way forward to come out from such critical yet vitally important situations.

**Keywords:** COVID-19, Governance, Challenges to Governance, Governance Post COVID-19

### **Introduction:**

COVID-19 or the Coronavirus Disease 2019 has taken the world by surprise. Some call it a ‘black-swan’ event as it has brought a new phase of reforms and governance, both globally and at national level. It has posed unprecedented challenge before the modern governments which were earlier characterized by free-open markets, limited governance and charters of freedoms and civil liberties. All of the above characteristics have suffered a huge shock and have gone all as water under the bridge. Today, chaos and agility have become the new normal of governance in Corona times. The pandemic poses a threat to both the lives and livelihoods. The governments are in dilemma between different aspects, such as globalism or nationalism, privacy or protection, health or civil liberties etc. To strike a balance among all has proved to be an onerous task for the national governments. As the World Health Organisation chief said that we will have to live with the virus, the question remains- How, and to what extent, the governance around us has changed during the pandemic? What challenges do pandemics like these pose before the modern system of governance? And above all, will the mode of governance change for all times to come? How will it be conducted in future times? Since governance is a public good, it is universal and is available to all.

The coronavirus has a cross-domain character, i.e. changes in one domain lead to changes in the other domain as well. For e.g. this was a public health crisis but it became a governance crisis when governments used hit and trial method to tackle with the disease. The policies which proved beneficial were continued and shared as best practices both at inter as well as intra-State/nation level. Some of these measures were- implementing social distancing, enforcing nation-wide lockdowns and imposing quarantines, restriction or ban on national and international level on travelling etc. In some countries these measures were based on citizen’s voluntary compliance while in others they were forced upon citizens from top to bottom by using extraordinary governmental powers.

What have been the different governance policy measures adopted by the Indian government during this pandemic? Are these governance measures different from the earlier governance mechanism of Indian government?

Woodrow Wilson, the Father of Public Administration, had mooted the famous question of separation between public and private administration and had advocated for public policy administration as the basis of governance. Since then, this public administration and governance has come to acquire different organizational structure, hierarchy, values etc. The era of 1970's bring in the phase of welfare and development administration models. A significant turn came in with the Washington Consensus, calling for liberalisation and globalisation. This lead to a corporate style governance through public-private partnerships and minimum government. This culture favoured privatization and democracies started treating citizens as consumers. The pandemic poses challenges to this democratic governance of the modern national governments. What are these different challenges to the governance in India?

No doubt that these are challenging times which require a different mode of governance. The only way to learn from them is to prepare through anticipation so that the expectations are met. Each government today is trying to do so and thus, learning through their experiences. This brings out certain questions when we look at present times and try to learn from it. Where did we lack? There must be sectors/areas which were left out earlier by us in governance, which need our immediate attention. This also requires a re-definition of the role the governments and civil society plays.

This paper addresses these questions through a study made of different modes/measures of governance used by Indian government during this global pandemic. It investigates various challenges which are being imposed to the governance models by this global crisis event and attempts to give certain suggestions for carrying out good governance in the times to come.

#### **Indian Government Response to Covid-19:**

Indian Government's approach to the pandemic has been a proactive one. The government had started releasing advisories since the news from China had started coming up. Travel advisories for immigrating passengers started coming from as early as 17<sup>th</sup> January. The first case of coronavirus was confirmed in Kerala on 30<sup>th</sup> January.

After the first case was confirmed in Kerala, screening of passengers was made compulsory for those returning from China and E-visas were suspended for Chinese passport holders. International travel was banned for China, Japan, South Korea, Indonesia, Vietnam and Malaysia and universal screening of the passengers from all countries was ensured. In a proactive step, export of any PPE or masks was banned. The main focus was on preventing the virus from entering the Indian soil through international travel and controlling its spread in stage 1 of the virus. Banning of international travel and sealing of national borders. 14 days compulsory quarantine for passengers who had travelled abroad and clinical testing for COVID-19. Prohibition on export of essential commodities and PPE kits as well as certain medicines such as Paracetamol and Vitamin B-12. Listing of certain products as essential goods to be available to all and fixing their prices. Advisories to refrain from mass gatherings and closure policy of school/university and educational institutions.

The entire country went into a nationwide lockdown from 25<sup>th</sup> March which was called Lockdown 1.0. Till now, there have been four lockdowns namely, Lockdown 2.0, 3.0 and 4.0 till 31<sup>st</sup> May 2020. "Break the Chain" was the motive of the government to prevent the Stage 3 of the disease spread during Lockdown 1.0. This also lead to economic crisis and thus, the government came up with relief packages along with financial aid. Some of them were- Rs.1.7 lakh crore COVID-19 relief package under PM GareebKalyanYojna, DBT of Rs.500 per month to

women having Jan Dhan account, releasing Rs.11,092 crores to State Disaster Relief Fund, Rs.20 lakh crore economic package, Rs.3,100 crore allocated from PM CARES Fund. Apart from these several relief and credit support was given to MSMEs, NBFCs and HFCs.

Indian government also urged the citizens to download the AarogyaSetu App and the AYUSH ministry came up with measures for boosting immunity.

Since the schools and educational institutes were closed, CBSE and MHRD directed schools to promote all students from class 1-8 and promote students of class 9 and 11 based on their projects and internal assessments. MHRD also started the campaign “Bharat Padhe Online” to improve online ecosystem for students. Various competitive exams were postponed and UGC decided to start new academic year from September 1.

Until 31<sup>st</sup> May, 2020, 1,82,143 confirmed cases of Coronavirus were there, out of which 89,995 active, 86,984 recovered and 5,164 deaths were confirmed. In front of such a population, these numbers appear meagre. India has flattened its curve and has been keeping its death rate low. In all, we can say that as the problems presented themselves, the government responded in the same way. It is a close and concentrated effort and coordination of all the ministries in the fight against COVID-19.

### **Indian Governance Model:**

Different countries have different governance models and a response to such a dynamic virus must be local and contextualised. Let us look at the governance model of India during the pandemic and different policies:-

**Strong central government control:** When there is a challenge to public health security, people look up to the government. The central government in India had a huge control over all the sectors including the health sector. Countries with a functioning public sector catering essential health services are better equipped to fight pandemics. United States of America and England are examples where the privatised health sector gave pains to the government. So the first step which India took in public health sector domain was to make the essential goods available to all and fixing its prices and restricting its exports. Also, the Supreme Court advised all the private testing labs to not charge money for economically weaker sections. The central government also started regulating advisories and educating the public regarding COVID 19 prevention and control. Since, this crisis is also an “infodemic”, the government issued regulations and penalties for those circulating fake news about the pandemic. From lockdown to giving financial aids through DBTs and PDS, from bringing Indians stranded abroad to migrants within the country, from Junta Curfew to Aatmanirbhar Bharat and being Vocal about Local, central government definitely played an important role.

**Transparency and democracy:** To be truly democratic, a country’s governance should be contextualised, based on the practices of its culture and including citizen’s participation. India followed the same path. The Janta Curfew and Thanking Corona Warriors were some of the ways through which citizens’ participation in this pandemic and their voluntary support to governmental policies was seen. The nation showed its solidarity and the government adopted those measures which suited its people well.

The government has been transparent with the information sharing regarding the cases with its people as well as WHO. The government even created a website dedicated to COVID-19 to reveal the daily data of cases, guidelines, FAQs etc.

**Expert based advices:** The government lead by its team of experts had focussed on flattening the curve so that the spread could be limited and controlled. Therefore, lockdown and cross border travel between states was closed. This

was done to contain the virus where it had originated. Different containment zones were made and hotspot districts announced to curb the spread of virus.

**Centre-state coordination:** When it comes to state governments, the pandemic response has been more local. We have witnessed a rise of state governments which took the centre stage in fighting the pandemic. A return of cooperative federalism can be seen which was advocated by our PM. He has given the state governments a free hand in framing policies on contextual basis. The measures to enforce lockdown or to exit lockdown were to be adopted by the states themselves. This can be seen in the frequent meeting of CMs and PM and health ministers of different states. Thus, the approach of Indian government has been multilateral both nationally and internationally.

**Local/state governments' response:** The state governments in India have come to the forefront in these times. The nationwide lockdown has brought them into the spotlight. Not only they have cooperated with the central government and worked with them hand in hand, they have also come up with their own measures to tackle the virus. The strengths and weaknesses of the state governance were brought to the fore. Some significant measures of certain states are discussed here-

**Kerala**, the God's own country has been a Coronavirus slayer. The state which was the first one to have the first corona positive case has used its experience of Nipah virus in tackling with the COVID-19 too. As of now, it has highest recovery rate, least death rate and the slowest progression in the country. With this, it has been able to flatten the curve. A few reasons for its success are- the decentralised governance system, highest number of Public Health Centres in India, quick response and community governance.

Kerala took advance actions even before the first case was detected. Once the cases started increasing it scaled up its contact tracing which was put in the form of a map. The health department led surveillance system was a boost to track the cases and scree the patients on airports. The surveillance system was community based which involved the elected local government representatives, panchayats, members of a SHG called "Kudumbashree" and even the citizens themselves. The state was also the first one to come up with a separate law for COVID-19. The Kerala model has been successful due to its robust three-tier public health system, having a culture of thriving grassroots democracy with devolution to powers to the village councils. All this helped in the community outreach, rigorous contact tracing and mass quarantine. All this are the result of investing in health and education more than any Indian state.

The state of **Odisha** being experienced in Disaster Management and having an efficient bureaucracy and strong panchayat system has been able to keep the numbers low.

**Uttar Pradesh** had excellent relations with the Centre and with the strong leadership of the CM, the state has tackled the crisis with strong lockdown measures. Although the state's public health infrastructure is less than the average, the effective use of police force has been beneficial in contract tracing and enforcing quarantine. With the quick decision making the state had sealed its borders with neighbouring states and sent buses to Delhi and other States to bring back the migrants and stranded students. The government has also announced jobs to migrant workers within the state as well as sending incentives to the daily wage earners.

**Citizen's response:** The governance model of India has been highly contextualised involving the active citizen participation. The citizens' voluntary acceptance of the curbs in civil liberties and restricted movement can be seen by their overwhelming support during different Citizen centric initiatives launched by the Government. Be it "Janta Curfew" or "Celebrating the Corona Warriors", the citizens have shown solidarity with the government in these challenging times.

The restriction on movement and lockdown have proved beneficial for India and the Indian citizens have shown compliance to citizens' voluntary code of conduct and have stayed away from large social gatherings even of religious groups. The religious leaders have also urged their followers to practice social distancing and stay at homes.

There has also been a nation-wide volunteerism to help in the community kitchens and various NGOs and SHGs have come pup to the forefront to help the Front Line workers and Corona Warriors. Also, huge donations have been made to the PM Cares Fund and people have imbibed all directives given by the government. They have showed their enthusiasm in downloading AarogyaSetu app.

**Changes Observed:**

There have been a certain shift in the form of governance during the Pandemic which shows the lessons we have learnt and which shall mark a new phase of governance in such extraordinary times to come. Some of the significant changes are-

- **Bureaucracy to the forefront:** the COVID-19 crisis has highlighted the role of respective ministries and ministers but due to the response being local, bureaucrats have been the face of government in its fight against the COVID-19. The local District Magistrates have taken the charge along with SPs and CMOs. This can be seen in frequent meetings of Union Ministers with the DMs, SPs and CMOs. The success stories of Bhilwara and Agra are itself a witness of the victories of the local government. This can be helpful in the future times to enlighten and educate the citizen regarding politics and lay foundation for responsive government.
- **Digitalisation:** “We say two years of digital transformation in two months”- remarked SatyaNadella. This is true in context of Indian governance. This digital transformation is here to stay as it has become a new example in governance. The digital-inertia which was till now present in the majority of governing agencies has been shed off and that too for good. There has been evidence based policy making whether it be contact tracing through use of AarogyaSetu App or donation to PM Cares Fund, such online public collaboration can also be practised later in the future. Also, this can reduce the money spent on holding expensive meetings and conferences and put an end to red-tapism.
- **Cooperative Federalism:** In the past six years of majority government led by politically aggressive PM, the state were feeling neglected. The GST and demonetisation had made the states roll back from the centre stage. But this novel Corona Virus gave a new boost to sleeping federalism in India. PM had emphasized on Cooperative Federalism as he wanted states to be the frontline warriors. During this pandemic, he gave a free hand to states to come out with their policies and measures during and after the lockdown. Frequent conferences were held between the PM and the CMs of all the states to have better coordination and information and an exchange of complaints and suggestions.
- **People's participation:** the citizens of India have shown close participation in the efforts of the government. They have shown community solidarity and have contributed through resources, finances as well as by boosting the morale of Frontline workers. Various campaigns were organised to disseminate information and to celebrate the works of corona warriors. Many stories and videos were shared on social online platforms where people came out of their way to help in the governance activities and people associated with it.
- **Recognition of the role of civil society organisations:** The government has recognised the role and importance of civil society organisations to combat this crisis. The government set up a national call to 92000

civil society organisations with registration to report to Ministry of Home Affairs about work being undertaken for COVID-19. Many of these organisations have started running free community kitchens to migrants, distributing free meal packets, providing essentials in remote areas etc. many of them have collaborated with the government to identify COVID-19 hotspots and deliver services to vulnerable group.

- **Innovation:** the government has worked in close coordination with the private sector in developing new technologies to help mitigate the effects of COVID-19. Entrepreneurs and innovators have devised new apps, robots and ventilators to help combating the pandemic. For e.g. Asimov Robotics, a start-up based in Kerala, which has deployed robots to distribute hand sanitizers and deliver public health messages. Other such step was the development of AarogyaSetu App which the government launched in April, 2020. The app helps in contact tracing and information dissemination through use of cell phone location. Start-ups including KlinikApp and Practo have provided COVID-19 tests at home and online consultation with doctors. Start-ups such as Nocca Robotics, Aerobiosys Innovations and AgVa Healthcare have developed low cost and easy to use portable ventilators which can be deployed in rural areas. Innovative behaviour communication strategies have been adopted by the government especially PM to enable people to communicate new concepts such as social distancing and remaining in homes.

#### **Challenges:**

- **Migration of labour:** It has been one of the key challenges for the central as well as state governments during this crisis. Due to lockdown and closure of all economic activities, the labour force living in different states was forced to migrate back to their homes. This looked very similar to the call of Rousseau- “Back to Nature”. The sight of thousands of labourers returning to their homes has been pain striking. The Shramik express was an answer to such a woe, but due to lack of coordination and poor implementation, it has been a curse than being a boon.
- **Health Care:** Health was always been the neglected sector in India. According to the economic survey 2020, the health expenditure has been 1.6% of the GDP. The National Health Policy 2017 stated that this expenditure should be 2.5% of GDP by 2025. Amidst such a health care crisis and a global health emergency, lack of health infrastructure, Primary Health Centres, hospital beds etc. and the inability for their indigenous production have been the weak points in India’s fight against COVID-19. Within India, the states with better health infrastructure have proved to better responders.
- **Saving livelihoods:** Governments had to choose between lives and livelihoods during the initial stage. But once the pandemic is over, focus must shift to saving and securing livelihoods to millions who have lost their jobs. This will be huge and onerous task before the government. With the economy going down, providing adequate means of livelihood will be a key challenge facing the government in a country which is on 102<sup>nd</sup> position out of 117 countries in the Global Hunger Index 2019.
- **Economic challenges:** there is no doubt that the economy has received a severe blow. There has been a global recession. The unemployment ratio will shoot up after the pandemic is over and huge burden on agriculture sector will be witnessed. Providing jobs will be a key challenge facing the government.
- **Increasing domestic violence and crimes:** due to the pandemic and its psychological-economic impact, crimes are bound to increase. National Commission of Women had mentioned that in March 1<sup>st</sup> week, there were 116 cases of domestic violence which rose to 257 cases in the last week of March. Also, an NGO called



Child Line India mentioned in a report that from 5<sup>th</sup> March to 4<sup>th</sup> April, 92000 calls of domestic violence were received. This is a vital challenge facing the police as well as judicial administration in the coming days.

- **Digitalisation as a challenge:** Digitalisation and use of technology is a boon as well as bane. With more and more people using technology and big data available online will lead to cyber frauds and cyber-crimes. Also, the infodemic caused by this will have no gatekeepers as in the physical world, where fake news and media can easily circulate. With education turning into e-learning a challenge will also be faced with areas having no internet connectivity. Therefore, digital infrastructure and crime will pose challenge to the effective governance in coming digital era.

### **Discussion and Way Forward:**

While the world still struggles with a global pandemic, the response has been mostly local. However, different modes of governance have been employed by the national governments to tackle this situation. How and what our future will be is decided by the choices we make today. The lessons we learn today can prove beneficial for times to come.

The government of India, like other national governments, is facing challenges in these critical times. But as PM Narendra Modi said- “let’s turn this crisis into an opportunity” is what the Indian governance has been doing and will do in the near future. These are the best times to bridge the gap between consumer values and citizen values and to come out with a proactive policy approach. Some points are to be pondered upon are:-

COVID-19 has proved the old saying, “Prevention is better than cure”, to be true. Health sector needs priority in India. There is need both on manufacturing as well as service side. **More infrastructure and hospital furniture are needed along with more doctors and paramedical staff. Innovation, research and development also need investment.** Along with this, mental and emotional health need immediate attention. After easing lockdown, public safety and policing will require new protocols unwitnessed before.

**Sensitisation of police forces** and their enhancement is also needed. They need to be defter in handling, beginning and acknowledging crimes arising out of impassioned moment and psychological-economic trauma which the people are facing due to these times. A post-pandemic safe society is needed.

Another domain requiring immediate attention will be the economy. With the migration of labour, there will be increased burden on the agriculture sector and due to break in demand-supply chains, there will be acute case of unemployment. Agriculture, MSMEs, petty businesses will top the attention chart. **Transfer of resources should be made towards the daily wage earners, small earners, seasonal workers and those associated with informal sector. Quotas and rationing of essentials** will also be needed to check hoarding and rise in prices. **Reduction in fees of educational institutions and user charges of basic amenities** will reduce the burden on individuals. **Direct Benefit Transfers** can be the other way to help the elderly, pensioners, unemployed and economically weaker sections.

**Decentralisation of power** and a **bottom to top approach** needs to be practised in India. The three-tier system of Panchayati Raj has only been added to the Constitution. In reality, there has been less or no devolution of powers to these local elected institutions. Many opinion surveys have reiterated the citizens’ faith in their local leaders and the **time has come to have the Gandhian way of Gram Swaraj.** Kerala has been an example in this regard. With its decentralised system of governance and community governance, it has been one of the success stories in India’s fight against COVID-19.

**New regulations need to be more flexible** to ensure work from home to upgrade the skills of the students as well as employees as this will in turn reduce carbon footprint and save petrol.

**Monitoring the technology** will be needed as it can lead to an increase in cyber-crimes. This will require encryption of our back end protocols and programming especially in public sector. Stricter protocols and laws should be made for spamming, phishing, hacking and other cyber-crimes.

As PM Narendra Modi said “Many feared that India will become a problem for the world when Corona hits India. But today, through sheer confidence and resilience, we have transformed the way the world looks at us.” These are the times which test us and what doesn’t kill us, makes us stronger. Despite several challenges India has tried to keep the boat sailing, but more challenges await us as we move into Unlock 1.0. It should be kept in mind that while we practice isolation, alienation must be prevented.

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## COVID -19 PANDEMIC: ACCELERATING NEW INNOVATIONS

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### **Abstract:**

**“It is not the strongest of the species that survives, nor the most intelligent, it is the one that is most adaptable to change”**

COVID-19 pandemic has engulfed this world, is a catastrophe of our own creation. A zoonotic disease caused by severe acute respiratory syndrome coronavirus 2 has put the world on a virtual standstill and post this pandemic many challenges has to be faced. These problems will require in-depth research in the viral particles to stop their next outbreak and many strong medical weaponry to protect the lives in future pandemics. The critical transmissibility of the disease left health care workers in a position of vulnerability as they become hosts or vectors of virus transmission. The primary approach in any safety effort is that the hazard to the workmen should be eliminated or controlled by engineering methods rather than protecting the workmen only through use of personal protective equipment (PPE). Testing strategies, care-seeking behaviour, and hospitalization thresholds should be incorporated with fields like Artificial intelligence (screening, monitoring) and nanotechnology (improved PPE cleaning nano techniques, use of nanomaterials for PPE manufacturing). Extensive research has been done to save lives from outbreak of COVID -19 and its derived diseases, system-biology approach and establishment of strong health defence system. Some of the attempts are the development and usage of Drugs like favilavir, remdesivir, lopinavir etc. But since it is a novel virus every step is unprecedented. Every problem has a solution, it is just our thoughts which need to be changed.

**Keywords:** Artificial Intelligence, Nanotechnology, PPE, Medical weaponry, System- biology approach.

### **Introduction:**

Corona Virus Disease 2019 caused due to SARS-CoV-2(severe acute respiratory syndrome coronavirus 2) is widespread that has led to great lose to humanity.[1] This zoonotic virus was found similar to SARS-CoV of 2002 -2003 and to MERS-CoV (Middle East Respiratory Syndrome) of 2013 -2014 and hence was initially called 2019-nCoV. SARS-CoV-2 is closely related to two bat-derived severe acute respiratory syndrome-like corona viruses, bat-SL-CoVZC45 and bat-SL-CoVZXC21 [2]. First reported in Wuhan, the capital city of Hubei province in China, in late December 2019, the outbreak of the novel coronavirus has spread globally. The outbreak was declared a Public Health Emergency of International Concern on 30 January 2020 by the World Health Organization (WHO) and On 11 February 2020, the institution announced the new Corona Virus Disease as COVID 19 [3].

Recent studies showed that the CT features of COVID-19 are related to the duration of infection and can be divided into four stages: early stage, progressive stage, peak stage, and absorption stage. The early stage is an asymptomatic incubation period with or without detectable virus; Progressive stage is a non-severe symptomatic period with the presence of virus; Peak stage represents a severe respiratory symptomatic stage with high viral load. After the peak stage of the disease, the pneumonia will begin to resolve, and the consolidation will gradually be absorbed in the following days [4].

The COVID-19 pandemic represents a massive global health crisis. The pandemic has led to a massive global public health campaign to slow the spread of the virus by increasing hand washing, reducing face touching, wearing masks in public and physical distancing.

A number of researchers are focusing their concern to find ways by which the disease can be completely eliminate the virus. Some of the research topics include natural history, transmission and diagnostics of virus, animal and environmental research on the virus origin, and management measures at the human-animal interface , epidemiological studies; clinical characterization and management, infection prevention and control, including health care worker's protection; candidate vaccines and social sciences in the outbreak response.

According to Public Health Emergency of International Concern (PHEIC), the new research should be based on following two objectives[5-6].

1. To ensure that those affected are promptly diagnosed and receive optimal care; while integrating innovation fully within each research thematic area.
2. To support research priorities in a way that leads to the development of global research platform(s) pre-prepared for the next disease X epidemic; thus, allowing for accelerated research, R&D for diagnostics, therapeutics and vaccines and their timely access.

We live in a world that is globally connected, in terms of the movement of people, goods, and food, while even within close knit communities, such as those currently locked down and elsewhere, the ideal conditions exist for the virus to spread from person to person. In one of the most cited research papers from the 1990s, Watts and Strogatz showed that the “small world” structure of society facilitates rapid disease propagation between distant and apparently unconnected communities, resulting in sporadic outbreaks that seem to start spontaneously, undermining even the most stringent attempts at containment.[7-8]

The rapidly expanding novel coronavirus disease 2019 (COVID-19) pandemic, caused by severe acute respiratory syndrome coronavirus 2, has challenged the medical community to an unprecedented degree. Physicians and health care workers are at added risk of exposure and infection during the course of patient care. Because of the rapid spread of this disease through respiratory droplets, health care workers who come in close contact with the upper aerodigestive tract during diagnostic and therapeutic procedures, such as otolaryngologists–head and neck surgeons, are particularly at risk. A set of safety recommendations was created based on a review of the literature and communications with physicians with firsthand knowledge of safety procedures during the COVID-19 pandemic [9-10].

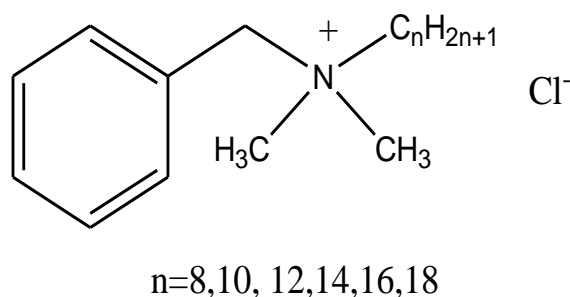
#### **Discussion:**

Pandemic is not a word to use lightly or carelessly. It is a word, if misused, can cause unreasonable fear, or unjustified acceptance that the fight is over, leading to unnecessary suffering and death. In the time of pandemic we should be careful and take care of all the precautions. Thus, need arises for new innovations in healthcare. As terrible as the currently unfolding Coronavirus epidemic has been, it's been fascinating to observe how quickly academic and research communities across the world have scrambled to start understanding this virus and its potential impact.

#### **WASH:**

“Precaution is better than cure.” Thus, we should try to prevent and reduce the risk of this disease. This can be primarily achieved by the WASH technique. WASH stands for water, sanitation and hygiene. The importance of hand hygiene in preventing infections has been known for more than a century. It is important for each and every to

maintain proper hygiene in their surroundings for as to prevent its spread. For this, one such disinfectant used is alcohol-based hand sanitizer. According to WHO, both ethanol and 2-propanol reduced virus to background levels in 30 seconds, with reduction factors of 4.8 to  $\geq 5.9$ , and a concentration of  $\geq 30\%$  of either ingredient was effective in killing SARS-CoV-2, the virus that causes COVID-19. The main chemical in these is iso-propyl alcohol which is extremely effective in killing various micro-organisms. But it causing various disadvantages as it can lead to alcohol poisoning, if ingested and can cause drying and cracking of skin if used frequently because it wash away skin's natural oils. Moreover, it is a Class I Flammable Liquid substance and instantly catches fire. Thus, **Benzalkonium chloride (BZK, BKC, BAK, BAC)**, also known as **alkyl dimethyl benzyl ammonium chloride (ADBAC)**(Fig-1) and by the trade name **Zephiran** is a substitute for iso propylalcohol.[11] It is an organic salt classified as a quaternary ammonium compound and is a cationic surfactant. Benzalkonium Chloride is primarily used as a preservative and antimicrobial agent, and secondarily used as a surfactant. It works by killing microorganisms and inhibiting their future growth. It thus used as a replacement for iso- propyl alcohol. Sanitation is thus an integral part of hygiene and a primary approach to spread oneself from this disease.



**Figure 1: alkyl dimethyl benzyl ammonium chloride**

**PPE (Personal Protective Equipments):**

Another approach which should be employed in healthcare facility includes use of personal protective equipments (PPE). PPE Kits are Coveralls and body suits are made from non-wovens and laminated with varying levels of resistance to permeation, penetration, and degradation by hazardous substances. Material used for the suits must be not only fluid-resistant but virus-resistant and yet “breathable”.But it very difficult to work with these as they can restrict comfort, movement, breathing, vision and communication. They elevates the risk for heat stress and dehydration and can create psychological stress for the worker including symptoms of claustrophobia and panic attacks. The biggest disadvantage of PPE is that it should not be shared and once contaminated cannot be reused as can expose others.

New material are being designed which are **tightly woven fabrics** with a **water-repellent** (silicone or fluorochemical) finish and have microporous (pore size  $< 2-3\mu\text{m}$ ) membranes or coatings (polyurethane, acrylics, or polyamino-acid etc.) on cotton nonwoven fabrics with hydrophilic membranes or coatings (such as polyurethane-based thermoplastic elastomer); and smart or intelligent polymers (shape memory polyurethane, or cotton fabric coated with N-tert-butylacrylamide-ran-acrylamide).To prevent growth of any trapped infection, antimicrobial finishes (e.g., silver/metal compound finish, quaternary ammonium compounds finish, N-halamines finish) are often applied to fabrics used to produce reusable medical gowns. Thus, the new material developed helps to overcome the above disadvantages but is still not reusable. [12-13]

A pandemic of this magnitude takes a "huge level of health worker commitment," citing shortages in workers and personal protective equipment to treat the current number of COVID-19 cases. Moreover, such a large

amount of waste is generated from these materials which cause dumping issues. Thus, to overcome this problem we need to design

**UV chambers** which can be utilized to sterilize the contaminated kits and masks. Moreover, ultrasonicator machines using Hydrogen peroxide and UV drying should also be promoted.[14]

**Masks:**

Masks are also widely used to protect oneself from this disease as it prevent the droplets from other person to enter our nose and cause infection. Normal cloth masks reduce transmission of infection from aerosols. But the cloth masks cannot stop the virus completely and thus the other practices like social distancing should be followed along with wearing masks.

Surgical masks made out of a tea towel are also used nowadays but they can be used for a single time so are creating huge problems for need and dumping. These can be made reusable and recyclable by graphene coating on these masks with outstanding superhydrophobic and photothermal performances. The coating makes the masks superhydrophobic, which reduces the chances of infectious drops adhering to them, while graphene's strong light-absorption properties makes it possible to sterilize them with exposure to sunlight.[15]

Another masks used are N95 masks which effectively prevents viral spread. These masks, when properly fitted, seal closely to the face and filter out 95% of particles 0.3 microns or larger. But N95 masks are in serious shortage even for medical professionals, who are exposed to the highest levels of SARS-CoV-2 and are most in need of the strongest protection against the virus. They help infiltrating surgical smoke or plumes, filtering specific amounts of viruses or bacteria, reducing the amount of and killing viruses, bacteria, or fungi, or affecting allergenicity. Thus, these are widely used by healthcare workers and can be reused by cleaning with nanotechnology.

**Artificial Intelligence (AI):**

Artificial Intelligence (AI) is an innovative technology which is helpful to fight the COVID-19 pandemic. This technology is helpful for proper screening, tracking and predicting the current and future patients. The major applications of this AI are for early detection and diagnosis of the infection. AI is used for the development of drugs and vaccines, and the reduction of workload of healthcare workers. Using AI technology to screen patients for attributes like WBC, Eosinophil count, Eosinophil rate, 2019 novel coronavirus RNA (2019n-CoV) and Amyloid-A, a team from China developed a faster method to achieve COVID-19 diagnosis with a improved confirmed diagnosis rate for clinical use.

Healthcare organizations are in an urgent need for decision-making technologies to handle this virus and help them in getting proper suggestions in real-time to avoid its spread. AI works in a proficient way to mimic like human intelligence. It may also play a vital role in understanding and suggesting the development of a vaccine for COVID-19. This result-driven technology is used for proper screening, analyzing, prediction and tracking of current patients and likely future patients. The significant applications are applied to tracks data of confirmed, recovered and death cases.[16-17]

**Drugs:**

Scientists around the world are working on potential treatments and vaccines for COVID-19. Several companies are working on antiviral drugs and vaccines. An effective drug against COVID-19 has to pass through these clinical trial stages.[18-19]

- Phase I. The drug is given to a small number of healthy people and people with a disease to look for side effects and figure out the best dose.
- Phase II. The drug is given to several hundred people who have the disease, looking to see whether it works and if there are any side effects that weren't caught during the initial testing.
- Phase III. In this large-scale trial, the drug is given to several hundred or even up to 3,000 people. A similar group of people take a placebo, or inactive compound. The trial is usually randomized and can take 1 to 4 years. This stage provides the best evidence of how the drug works and the most common side effects.
- Phase IV. Drugs that are approved for use undergo continued monitoring to make sure there are no other side effects, especially serious or long-term ones.

Three medications trusted source had received emergency use authorization (EUA) from the Food and Drug Administration (FDA) — the anti-malaria drugs chloroquine and hydroxychloroquine, the anti-viral remdesivir, and a drug used to sedate people on a ventilator.

- Hydroxychloroquine - It's an antibiotic and has chemotherapeutic properties. So far it has been used for treating malaria. SARS—CoV—2 is transported from early endosomes to endolysosomes which is required to release its viral genome. HCQ is capable of blocking new virus particle transport, virus release and virus assembly. It is expected to work against the cytokine storm seen in COVID-19 positive patients so its anti-inflammatory actions can prove helpful.
- Remdesivir -In 2017, it was developed to treat Ebola virus. Due to its antiviral action observed earlier, it is expected that it can have positive effects against SARS-CoV-2. It has proven to be effective in vitro and has been tested on very few patients. It is suggested by some studies that remdesivir with interferons beta can have better responses against SARSCoV-2.
- Lopinavir- It belong to the class protease inhibitors and has been tested for treating HIV. Some reports suggest that this drug can inhibit the action of 3-Chymotrypsin like protease which play an important role in replication of viral(SARS-CoV 2) RNA, thereby hindering viral replication and inhibiting it's release from the host cells.
- Kaletra - This is a combination of two drugs — lopinavir and ritonavir —that work against HIV. Clinical trials are being done to see whether it also works against SARS-CoV-2. One small study found that it did not improve outcomes in people with mild or moderate COVID-19 but another study found that people who were given this along with two other drugs — ribavirin and interferon beta-1b — took less time to clear the virus from their body.

These drugs are still being tested in clinical trials to see if they are effective against COVID-19. This step is needed to make sure the medications are safe for this particular use and what the proper dosage should be.

So it could be months before treatments are available that are known to work against COVID-19. It could be even longer for a vaccine.

#### **Vaccines:**

A vaccine is designed to protect people before they're exposed to a virus — in this case, SARS-CoV-2, the virus that causes COVID-19. A vaccine basically trains the immune system to recognize and attack the virus when it encounters it. Viruses can't infect people who are vaccinated, which means vaccinated people can't pass the virus to others(Herd Immunity). Experts say that availability of vaccine after being tested is likely to be in summer or fall of 2021. [20-21]

- Moderna. In March, the company began testing its messenger RNA (mRNA) vaccine in a phase I clinical trial in Seattle. The company has developed other mRNA vaccines before. Those earlier studies showed that their platform

is safe, which allowed the company to skip certain animal testing for this specific vaccine. In early May, the company received permission from the FDA to start a phase II study of its vaccine and begin a phase III clinical trial in July and the FDA agreed to fast-track regulatory review if the trial goes successful.

- Inovio. When COVID-19 appeared in December, the company had already been working on a DNA vaccine for MERS, which is caused by another coronavirus. This allowed the company to quickly develop a potential vaccine for SARS-CoV-2. Company officials announced the phase I trial in the end of April. It is preparing to start a phase II/III clinical trial this summer.
- University of Oxford in England. Oxford officials said the potential vaccine uses a modified virus to trigger the immune system and has an 80% chance for success. The university has partnered with pharmaceutical company AstraZeneca. The company reported in mid-May the vaccine was effective against COVID-19 after it was given to six rhesus macaque monkeys. The company expects to begin a late-stage clinical trial by the mid of the year and if it is successful, they could deliver 30 million doses by September.
- University of Queensland in Australia. Researchers are developing a vaccine by growing viral proteins in cell cultures. They began preclinical testing stages in early April.
- Pharmaceutical companies. Johnson & Johnson and Sanofi are both working on a vaccine of their own. Pfizer has also teamed up with a German company to develop a vaccine. Their initial clinical trial with 200 participants was given the green light in late April and has begun human testing in the US in early May.

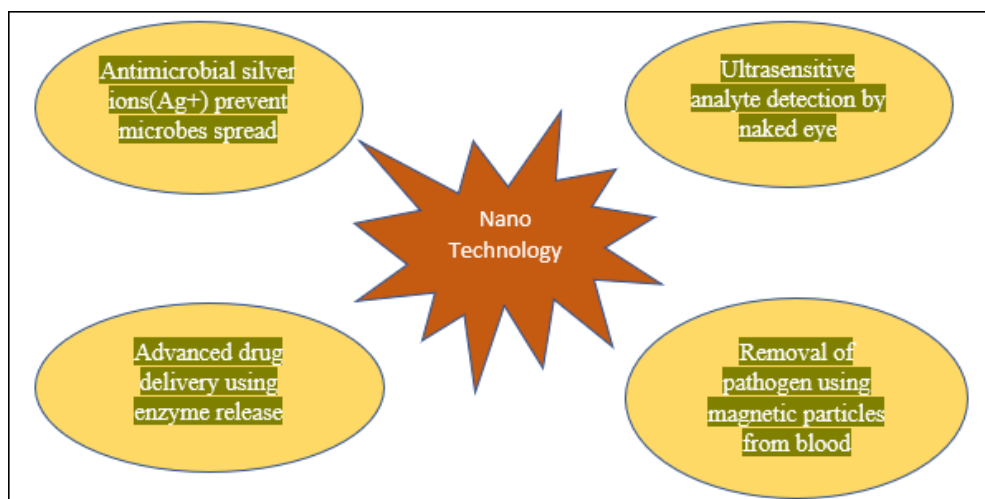
Some scientists argue that a “human challenge trial” could speed up the vaccine clinical trials. A human challenge trial raises many ethical questions due to lack of information about this disease. For such trials, the WHO recently released ethical guidelines to navigate these tricky waters. Meanwhile, some clinical trials are underway in the Netherlands and Australia to see whether existing vaccines for tuberculosis might also protect against SARS-CoV-2. There’s a lot of uncertainty with vaccine development so it is essential to make sure the vaccine is safe and will elicit enough of an immune response.

#### **Use of nanoscience:**

For detection of this disease nano-based biosensors can be used. They have provided a wide range of conductivity, sensitivity, selectivity and linear response for electrochemical biosensors. However, the detection of rare cells at single cell level requires a new class of nanocomposite-coated electrodes with exceptional sensitivity and specificity. Such a biosensor will lead to the development of low-cost, quick-detection tools, which can help confine outbreaks of fast-spreading viruses like coronavirus.

Nanotechnology is a new technique and has helped to find the cure for various chronic diseases such as cancer. Thus, it can be used to treat coronavirus as well by the effects of microbiome and diet on Covid infection and prevention. It can also help in cell membrane mimicking nano decoys.[22-23]





### Conclusion:

Innovation has spurred world's response to COVID-19. Across the country, entrepreneurs and innovators have quickly devised new apps, robots and ventilators to help overcome the pandemic. Timely diagnosis and treatment are key to providing a better prognosis for patients with COVID. Like drugs, potential vaccines have to pass through the same clinical trial stages trusted source. This is especially important when it comes to safety, even during a pandemic. A rush into potentially risky vaccines and therapies will betray that trust and discourage work to develop better assessments. To even imply that the global changes brought about by COVID-19 are not necessarily all malevolent, may sound sacrilegious. This Corona virus has brought humankind to its knees. The world has turned upside down and will never, ever be the same again.

Worldwide there have been hundreds of calls for immediate innovations to address thousands of problems directly and indirectly resulting from the pandemic. Innovation is the process of translating an idea or invention into a service that creates value – is revenue generating to be self-sustaining. The pandemic is turning out to be a universal wake up call for such innovations. Scientists, clinicians, hardware and software developers, product designers, economists, innovators and inventors in every conceivable industry have come together to help the world and themselves.

The global impact of COVID-19 has reaffirmed that pandemics do not care about geographical borders. Similarly, innovations need to be applicable worldwide. We in India, have a once in a century opportunity to ensure that “Make in India” “Digital India” truly become a reality. The happenings around us are teaching us to change our lifestyle and think about animals also from them we have taken their habitat. Thus, we need to learn the lessons that are being shown from this pandemic otherwise the situation can turn even worse.

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## COVID-19: UNDERSTANDING DETECTION METHODS

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### **Abstract**

Covid19 is the worst pandemic ever in the world's history. Originating in Wuhan city of China it has spread throughout the world in just two months. SARSCoV-2 is a novel RNA virus of zoonotic origin which is also capable of human to human transmission. SARSCoV-2 primarily affects the human respiratory system. Covid-19 virus is capable of inserting its nucleocapsid in the human cells by the fusion of its spike protein (S protein) with the angiotensin converting enzyme 2 (ACE2) present in abundance on the surface of human lung cells. It hijacks human cell machinery to replicate itself. The incubation period of this disease is 1 to 12.5 days. The detection of the novel Corona virus was a mystery which was resolved by the tests known as the viral detection test and the serological test. Viral detection test provides information regarding the infection present by detecting the virus genome or antigen. Serological test reveals the presence of antibodies from the previous infection. Serological test can be used for population surveillance which may attribute to wards identifying antibodies corresponding to virus antigen. Such tests are also the cornerstone of the research for the treatment of Covid19.

**Keywords:** Covid-19, Sprotein, ACE2 receptor, viral test, Serological test.

### **Introduction:**

Coronavirus belongs to a large family of diverse RNA viruses that were first identified in domestic animals. The first human coronavirus was discovered in 1960s (Hamre and Procknow, 1966). These viruses are able to infect different vertebrates including bats, snakes, birds, mice, humans and other wild animals (Weiss and Leibowitz, 2011). The disease caused by coronaviruses range from common cold to severe acute respiratory syndrome (SARS). The Covid -19 disease outbreak originated from a local seafood market in Wuhan city of China during December 2019 (Zhou *et al.*, 2020). The most prominent feature exhibited by coronaviruses are their crown like projections due to the presence of spike protein (S protein) radiating from the surface. These virions are enveloped, possessing a positive sense and single stranded RNA genome. The entry of virus in host cell is mediated through S protein interaction with hosts ACE2 receptor.

### **Detection tests:**

As the symptoms expressed by COVID 19 is not very specific therefore molecular testing is more accurate to detect the infection. Two types of diagnostic tests have been approved by FDA for the detection of COVID 19. The first category of test includes the detection of virus itself viz, its genome or antigens, while the second category of test includes serological or immunological assays (CDC, 2019). Viral tests confirm the presence of virus at the time of testing thus identifies the individual with active infection. However serological tests identify the individuals with developed immunity owing to past infections by the virus.

### **Virus test:**

Virus tests include Reverse transcription polymerase chain reaction (RT -PCR), isothermal nucleic acid amplification and antigen testing. As the genomic sequence data is available the primer and probes can be designed

to perform molecular tests (Tan, 2020). Nucleic acid testing is preferred for disease diagnosis (CDC, 2019). For testing the sample is collected from nasal and oral region of the individual with the help of sterile swabs.

### 1. Reverse transcription polymerase chain reaction

RT-PCR is a method which is used to amplify RNA collected from a specific pathogen so that it can be utilized for further research. The collected sample is used to extract the genome (RNA) in case of COVID 19, in pure form which is free of protein, fats and other materials (IAEA, 2020). The first step involves the reverse transcription of the viral genome using enzyme reverse transcriptase and viral genome specific primers. The cDNA obtained is then exponentially amplified as shown in Fig. 1. Real time monitoring can be done by using fluorescent markers. The detection of viral cDNA can be accomplished after 40 cycles of amplification (VanGuilder *et al.*, 2008). Till now RT-PCR is the most widely used method for detection, but it is time consuming and requires laboratory skilled personnel.

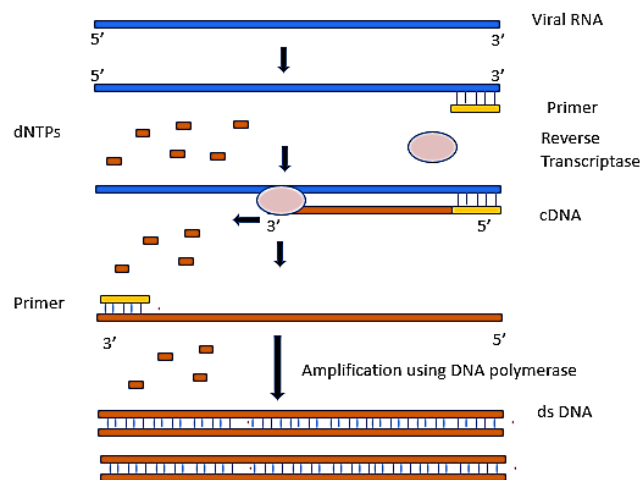


Figure 1. Diagrammatic representation of RT-PCR

### 2. Isothermal Nucleic Acid Amplification

RT-PCR requires variations in temperature which requires special thermal cycling instrument. Therefore, Isothermal nucleic acid amplification is used as an alternative strategy to amplify viral genome at a constant temperature. Various methods are present but CRISPR based assays give quick and more accurate results. Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) are a family of nucleic acid sequences found in bacteria which can be recognized and cut by a group of enzymes, called CRISPR-associated enzymes (Cas9, Cas12, and Cas13). Certain enzymes in the Cas12 and Cas13 families can be programmed to target and cut viral RNA sequences. Zhang *et al.*, has developed the Sherlock method which uses Cas 13 to confirm the presence of viral genome. The samples collected from the patient is amplified using isothermal recombinase polymerase amplification. The amplified DNA is again transcribed into RNA by using T7 transcriptase. The Cas13–RNA complex attaches to the target sequence, which results in the activation of nuclease activity of Cas 13 resulting in the cleavage of target sequence and the reporter RNA having a fluorophore at one end and a quencher at the other end. As the reporter RNA is no longer quenched the resulting fluorescence can be assessed using lateral-flow readout slip which allows rapid detection as shown in Fig. 2.

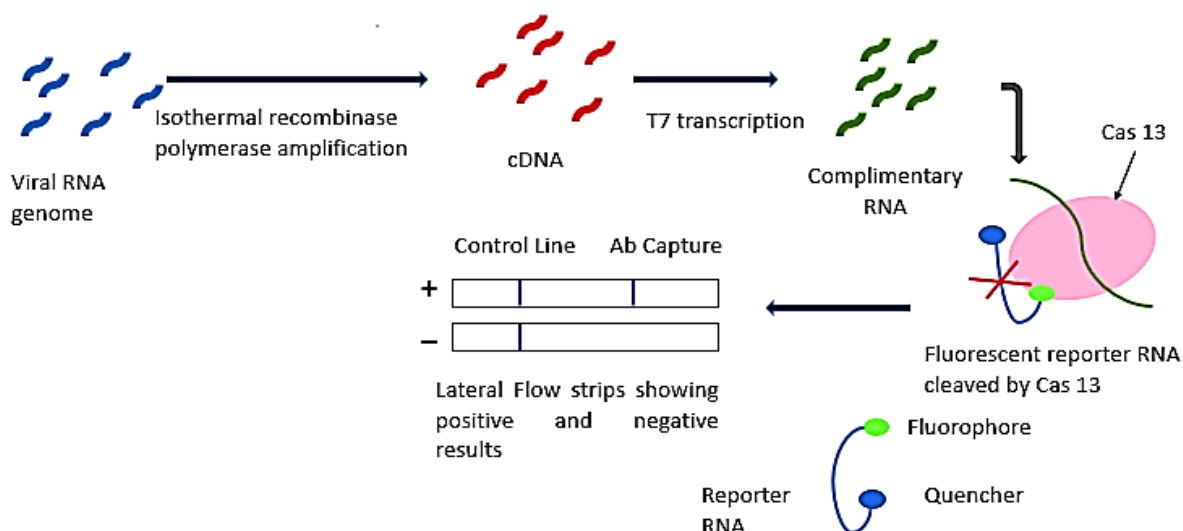


Figure 2. Illustrative representation of SHERLOCK assay

### 3. Antigen detection

This method utilizes the presence of viral antigens in the respiratory tracts of infected person that can be utilized for detection of acute infection. Human immune system detects the foreign antigen displayed by pathogen and produces antibodies against it, which helps in destruction of these pathogens. This antigen antibody interaction forms the basis of antigen detection test. The test kit is simple plastic cassette having nitrocellulose and a conjugate pad coated with gold labelled antibodies (reporter antibodies). Monoclonal antibodies directed against N protein of SARS CoV2 is coated on nitrocellulose membrane. The nasopharyngeal sample is diluted using buffer, then the strip is dipped into the sample as exhibited in Fig 3. Presence of reddish-purple line only at Control line (C) indicates negative result while reddish purple colour present both at control and test line indicates positive result (Mertens *et al.*, 2020). This antigen detection test is very fast and can be used for first line detection.

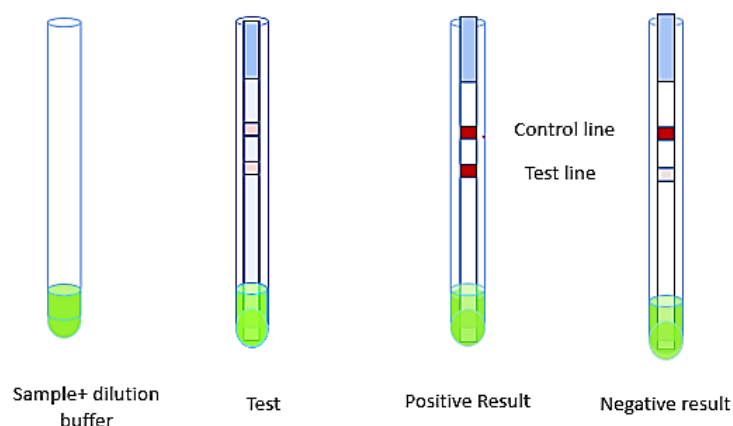
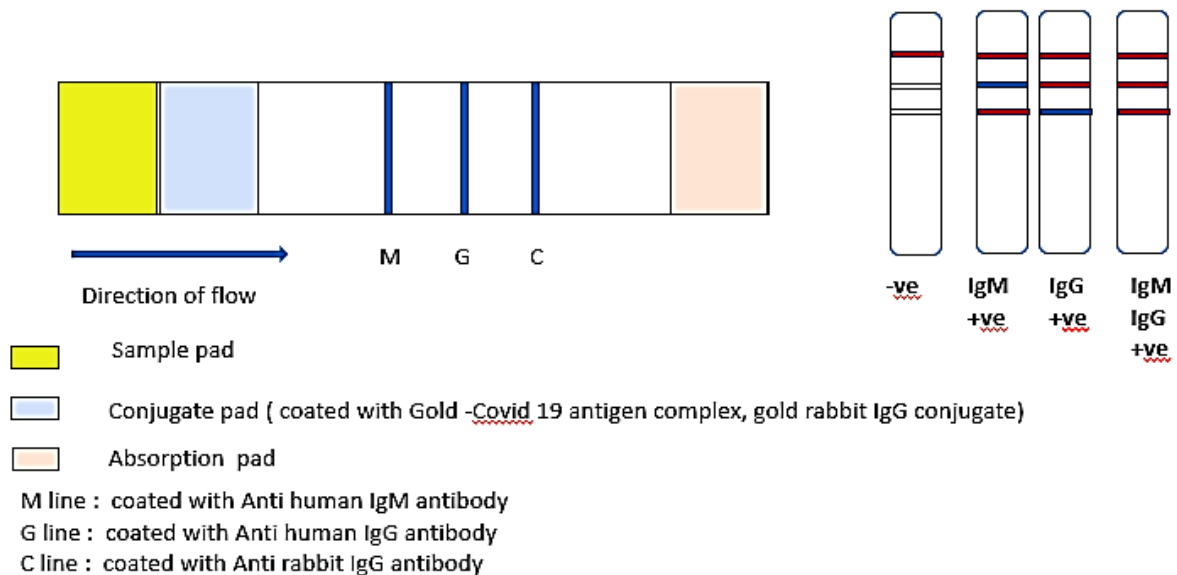


Figure 3. Diagrammatic representation of Antigen test

### Serological test:

Antibody or serological tests refers to the analyses of blood plasma for immunoglobulins, generally IgM and IgG. IgM first becomes detectable after few days of infection and stays for few weeks in circulation. IgG takes over in later stages of infection and is involved in secondary response. Zhang *et al.* detected IgG and IgM from human serum of COVID-19 patients using an enzyme-linked immunosorbent assay (ELISA). Lateral flow assays can

also be used to detect immunoglobulins. Serum samples containing the immunoglobulin M and immunoglobulin G when added to the sample site binds with viral antigen coated on the conjugated pad. Antibody -antigen complex then migrates to test region 1 (T1) for IgM / test region 2 (T2) for IgG, where it is seized by the secondary antibody to produce a red reaction line (Fig. 4). The result is considered positive when a red line appears in the test region and control region. The result is considered negative when no red reaction line is in test region.



**Figure 4. Representation of serological test kit**

**Conclusion:**

By understanding the mode of infection by SARS CoV 2 the therapeutic targets can be visualized. The role of diagnostic methods in early detection of the infection helps in proper management to limit the spread of virus. Newer, fast and reliable detection methods will help in reducing the rate of disease transmission. Even serological test can be used for population surveillance which will provide information regarding individuals who are immune against the virus. This information in turn can be used for plasma therapy. This article provides a comprehensive overview of various diagnostic methods for COVID 19.

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## PANDEMIC, POVERTY AND PREPAREDNESS: REFLECTIONS ON COVID-19

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### **Abstract:**

Pandemics, Epidemics, Contagion have continued to destabilize the human societies across the globe since the known history of human civilizations. The earliest pandemics noted have been plagues, followed by various types of flues and later on HIV/AIDS. Human societies across the time and globe have somewhat identical responses to the epidemics. Initial rejection by the government and the people alike, the fixing of source on foreign lands and peoples, rumours, hiding or misrepresenting of the facts, social divide, discrimination and distancing, curative and preventive measures, and research for effective medicine/vaccine are some of the recurring patterns of human responses to the contagion. Sanitization, personal and social Hygiene, isolation, physical distancing, preventive measures and vaccinations have been common procedures for tackling diseases. Pandemics have had large scale effects on all walks of human life. They have drastically affected the existing modes of human transactions. The most commonly and severely affected are the poor and weaker sections of the social scale. The present COVID-19 pandemic in India has severely destabilized the BPL working class section of the society along with many other sections of the society. The displacement, migration and loss of means of livelihood could pose a great threat to the existing social stability. Personal & social health & hygiene, rehabilitation of the normalcy, safety of the disabled, stabilization of the economy, and the maintaining of the social order are the emergent challenges during and after the pandemic state. The preparedness refers to the plan of action of the governing authorities at various levels. The governing agencies at various levels have to ensure the adequate measures to tackle the issues pertaining to the present pandemic. Some of the essential measures need to be taken at these level are efficient health & hygiene services, procuring means of livelihood & essentials, education & social protection, cash flow and the subsidized services for the poor, disabled, weaker sections of the society.

**Keywords:** Epidemic, Human Society, Poverty, Governance and Disaster Management, Relief.

### **Review:**

Since the known history of human civilizations, the human societies across the times and space have continued to pass through multifarious challenges posed either by the natural or by the human calamities. The human societies have a glorious history of progress and development. But at the same time, they have been subjected to various types of adversities as well. The inventions in science and technology have provided comfort and ease of living. With the help of advanced technology, human beings have successfully managed the resources offered by nature. The human efforts in prediction, prevention and/or rehabilitation after the calamities have been phenomenal. The natural calamities like earthquakes, volcanic eruptions, cyclones, hurricanes, floods, famine, avalanches, landslides etc have posed life threatening challenges to the human beings. Likewise, the human calamities caused by different types of wars, invention and deployment of hazardous war weapons, excessive use/misuse of natural resources; various kinds of pollutions have put the human beings across the globe in jeopardy. The epidemics, pandemics and contagion have continued to ravage the human societies. The plagues, popularly known as ‘the Black Death’ have had a long history of human devastation. From ancient times to the early decades

of the Twentieth century, the plagues have caused much distress to the social establishments. Cholera and flues have also had a notorious history of human devastation. The human beings have devised effective means for fighting back the onslaughts of the contagion by means of devising medicines, vaccines and other necessary preventive and curative procedures. Yet the newer kinds of contagion sourced from various origins have really posed challenges to the invention and development of human science and technology, including the medical sciences. The present pandemic known as COVID-19 is one of the many contagions faced by the human societies.

The history of mankind shows that responses of the people and the governing authorities to the epidemics, pandemics or contagion have been identical. There have been mixed reactions and responses of fear, suspicion, hatred, aggression, and so on. The sources of the pandemic or contagions usually have been located in one or the other parts of the world and thereupon they have traveled across the globe through the human migration for various reasons. As such, preventive measures have been the part of tackling the onslaught of the contagions. The forced confinement of the infected, delimiting of the territories, banning of various social activities that include social gathering, the insistence on personal and public hygiene and health, procuring of adequate medical and paramedical facilities, the invention of preventive and curative drugs have been usual practices during and after of the pandemics across the nations. The effects of pandemics or contagion have been far wide and multifarious. The contagions are different from other diseases. They not only have deep and wide spread effects on the human health at mass scale, but rather they have effects and mostly adverse ones, on almost all sections of human transactions. The means of transportation, economy, public and private sector, health and hygiene, agricultural and allied produces, industries, tourism, day to day commercial transactions etc get severely affected. Especially in the current world scenario, looking at the pace of human transactions owing to the means of transportation and telecommunications, one could imagine the consequences of locking down the wheels of transaction. The advanced technology has transformed the world into a global village in every sense of the term. So the human transactions have global dimensions and thus global reach. Obviously, when the transactions are put on hold mode, the consequences are widespread. That's why the effects of the pandemics and contagion are felt severely today. Earlier due to the restricted and limited scope of human transactions, the severity of the contagions also was confined to the places of origin. Now with the faster and effective means of transportation and communications, if there is convenience of worldwide transactions, there are equal risks of proliferation of the contagions.

The present pandemic COVID-19 originated in Wuhan, China. But within a very short while it took almost the globe in its coverage. By the time people and the governments across the globe could apprehend the severity of the disease and start preparing for the measures of preventing and curing the disease, the pandemic has severely affected all aspects of human affairs. The current pandemic has revealed the limitations and shortfalls of the human progress even in the 21<sup>st</sup> century. Even the developed nations of the first world, for instance, the USA, Italy, Spain, Russia, and UK, just to name a few among many others are seen struggling to survive the devastating effects of the current pandemic. On this backdrop, one can easily understand the challenges before developing nations and particularly before the underdeveloped nations. That the present Corona virus contagion has put the health systems of the world at the alarming level is obviously seen. But, the pandemic has put literally everything on the suspended mode. It has affected each and every aspect of the human transactions at multiple levels. The world economic systems have received a major jolt and the world is progressing toward imminent depression. The economic depression has hit hard at every section of the society. But the effects are more glaringly felt on the poor and the working class sections of society who have limited or sometimes no means left for the survival. The prolonged

deadlock on the human transactions, as they have been warranted by the prevalent contagion, throws alarming concerns for the poverty ridden sections of the society and if not alleviated promptly and in time, could result into serious issues of social stabilization. The governing agencies at various levels from global to local have to devise appropriate and effective mechanisms to address the issues pertaining to this section of society along with others sections as well.

As far as the present pandemic is concerned, it has hit worse at the poverty stricken sections of the society. The workers on daily wages, in small scale production units, the street vendors, the skilled and unskilled labourers etc have to suffer the brunt of the present contagion. The compulsory and customary lock down and the concerned advisories issued by the governing agencies at the respective levels have put great pressures on this section of social scale with reference to means of survival. Right from the health care facilities to shelter and food security, this section of society has to literally struggle for survival and especially during the times of pandemic, it becomes a dire situation in these terms. The social distancing is one of the customary measures to restrict and prohibit the spread of contagion. The social distancing is not just confined to the public places. It also includes the places like homes shared by the people. To observe the distancing at home, the adequate space is needed. To observe social distancing at the places people live adequate space is needed. But the habitats of the poverty-stricken sections of society could possibly do not provide enough space. The over-populated habitat is one of the major concerns during and after the present pandemic. Even in the homes, there live a large number of people in considerably small place. The sanitary facilities, safe drinking water, clean and hygienic toilets and bathroom and other health facilities pose big challenges. Apart from these issues, there are other alarming issues like the employment, the means of livelihood, and the education facilities are also of greater significance. And herein lays the role of governance at various levels.

The governing agencies, right from the central government to the local government, have to work for ensuring the necessary facilities during the emergencies like the contagions. This refers to the concept of preparedness. Obviously, the preparedness cannot be an operational procedure gearing in only after the eruption of a problem. The preparedness refers to the strategic planning of the holistic development of the infrastructure necessary to fulfill the basic needs of the various sections of the society. However, the governing agencies have to understand that the poverty-stricken sections of the society, owing to meager means of income source, need special attention and assistance. The government agencies have continued to devise various plans pertaining to ease of living of the weaker sections of the society. These measures have to be accelerated in the circumstances like the pandemic. Some of the essential measures needed to be taken at these level are efficient health & hygiene services, procuring means of livelihood & essentials, education & social protection, cash flow and the subsidized services for the poor, disabled, weaker sections of the society. For the better tackling of the present pandemic as well as other such crises in the times to come the preparedness at the level of the governing agencies is of paramount importance.

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## COVID-19 AND NEED OF ACCURATE SCIENCE COMMUNICATION

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### **Abstract:**

In December 2019 Covid-19 pandemic starts in China. Now it spreads in more than 213 countries in the world. W.H.O. gives name that disease is Covid-19 in Feb. 2020. Long form of Covid-19 is corona virus disease-19. It is infectious disease, most people infected with the covid-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease and cancer are more likely to develop serious illness.

So to fight against covid-19 it is necessary to know about covid-19. It is necessary to know about Covid-19 and accurate science communication. It is the purpose of this paper.

**Keywords:** Covid-19, Accurate Science communication

### **Introduction:**

Corona Viruses are a family of viruses that can cause illnesses such as the common cold, severe acute respiratory syndrome (SARS) and middle east respiratory syndrome(MERS) in 2019, a new corona virus was identified as the cause of a disease outbreak that originated in China. In March 2020, the world Health organization (WHO) declared the Covid-19 outbreak a Pandemic.

To fight against Covid-19 it is necessary to know about covid-19 symptoms, prevention, effect of this disease. Some people may have only a few symptoms and some people may have no symptoms at all. So every people have to contact our doctor or clinic right away for medical advice. For that we have to aware about covid-19 and accurate science knowledge about symptoms and prevention ways of Covid-19. That is the purpose of this paper.

### **Objects of the paper:**

The objectives of the paper are as follows:

1. To study about the covid-19 pandemic.
2. To study the risk factor, symptoms and prevention ways of covid-19.
3. To study accurate science communication about Covid-19.

### **Discussion:**

Covid-19 starts in December 19 at China. Now it spread more than 213 countries. In every Country so many people are affected and more than thousands are died. In every country every person have fear about covid-19. America, France, India, Russia, Briton and so many developed countries are also restless by Covid-19. No one can invent the medicine or vaccine of covid-19. All are trying at their best level.

### **Risk Factor, Symptoms of Covid 19:**

Emergency signs and symptoms areas are as follows.

1. Trouble breathing
2. Persistent chest pain or pressure.
3. Inability to stay awake

4. New Confusion
5. Blue lips or face
6. Fever
7. Coughing
8. Trouble in throat
9. Weakness.
10. Sore throat
11. Running nose.

The virus appears to spread easily among people, and more continues to be discovered over time about how it spreads data has shown that it spreads from person to person among those in close contact (within about 6 feet, or 2 meters) The virus spreads by respiratory droplets released when someone with the virus cough, sneezes or talks. These droplets can be inhaled or land in the mouth or nose of a person nearby.

It can also spread if a person touches a surface with the virus on it and then touches his or her mouth, nose or eyes, although this isn't considered to be a main way it spreads.

**Risk Factors:**

**Risk factors for Covid-19 appear to include:**

- Recent travel from or residence in an area with ongoing community spread of covid-19 as determined by CDC or WHO.
- Close contact with someone (6 feet or 2 meters) who has covid-19 for more than 5 minutes or being coughed or sneezed on by an infected person.

**Because of covid-19 complications can include as follows:**

1. pneumonia and trouble breathing
2. Organ failure in several organs.
3. Heart problems.
4. A severe lung condition that causes a low amount of oxygen to go through your blood stream to your organs(acute respiratory distress syndrome)
5. Blood clots
6. Acute kidney injury
7. Additional viral and bacterial infections.

**Prevention ways:**

Although there is no vaccine available to prevent covid-19, you can take steps to reduce your risk of infection. Who and CDC recommended following these precautions for avoiding Covid-19.

1. Avoid large events and mass gatherings.
2. Avoid close contact (within about 6 feet) with anyone who is sick or has symptoms.
3. Stay home as much possible and keep distance between yourself and others. Keep in mind some people may have covid-19 and spread it to others even if they don't have symptoms or don't know they have covid-19.
4. Wash your hands often with soap and water for at least 20 seconds, or use an alcohol based hand sanitizer that contains at least 60 % alcohol.

5. Cover your face with a cloth face mask in public spaces, such as the grocery store, where it is difficult to avoid close contact with others, especially if you are in area with ongoing community spread. Only use nonmedical cloth mask, surgical masks and N-95 respirators should be reserved for health care providers.
6. Cover you mouth and nose with your elbow or a tissue when you cough or sneeze. Throw away the used tissue. Wash your hands right way.
7. Avoid touching your eyes, nose and mouth.
8. Avoid sharing dishes, glasses, towels, bedding and other house hold items if you are sick.
9. Clean and disinfect high-touch surfaces, such as doorknobs, light switches, electronics and counters, daily.
10. Stay home from work, school and public areas if you are sick. Unless you are going to get medical care. Avoid public transportation, taxis and ride-sharing if you are sick.
11. If you have a chronic medical condition and may have a higher risk of serious illness, check with your doctor about other ways to protect yourself.

**Accurate Science communication about Covid- 19:**

We have knowledge about science behind Covid-19.

<b>Each and every person have to know</b>	Importance of Cleanliness
	Virus creates in dirty places.
	Covid-19 Test result
	Procedure of Covid-19 spreadness
	Causes of Covid-19
	Precaution for Covid-19
	Remedies on covid-19
	Effect of Covid-19.

**If your Covid-19 test is Positive then:**

<b>If your Covid-19 test is Positive then</b>	1) Stay home
	2) Get rest and stay hydrated
	3) Stay in touch with your doctor
	4) Separate yourself from other people.

**If your Covid-19 test is Negative then:**

<b>If your Covid-19 test is negative then</b>	1) You probably were not infected at the time your sample was collected.
	2) However, that does not mean that you will not get risk.
	3) It is possible that you were very early in your infection when your sample was collected and that you could test positive later.
	4) A negative test result does not mean you won't get sick later

**Conclusion:**

**From above discussion conclusions are as follows:**

1. Prevention is better than cure.
2. For every ones healthy body we aware about symptoms, precautions, medicine of Covid-19 pendamic.
3. We have to know science behind Covid-19 and aware about it.

**Recommendations:**

1. People have to be Patience.
2. Follow rules of Government
3. Continuous aware about your health and have quick medicine for your sickness.
4. Be aware about social distance.
5. Stay home stay safe

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## **COVID-19 AND ITS IMPACT ON THE INDIAN TOURISM INDUSTRY**

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### **Abstract:**

In late December 2019, a previous unidentified coronavirus currently named as the 2019 novel coronavirus, emerged from Wuhan, China, and resulted in a formidable outbreak in many cities in China and expanded globally, affecting 215 countries and territories around the world. The COVID-19 outbreak has brought the world to a standstill with unparalleled and unforeseen impact in our lives, our economies, our societies and our livelihoods and there are growing risks of a global recession and a massive loss of jobs. The spread of coronavirus disease 2019 (COVID-19) is becoming unstoppable and as on June 3, 2020 it has infected more than 6.3 million people in 215 countries across the globe. While COVID-19 presently looms large on the global stage, the future will undoubtedly bring with it more crisis and shocks, many of them unparalleled in terms of their nature, scope and reach. The global outbreak of COVID-19 has demolished the global economy and there are no qualms that the tourism & hospitality industry is exception. With airplanes grounded, millions of people in quarantine and hundreds of travel bans in place, COVID-19 has engulfed the globe and has brought the global tourism industry to a grinding halt. In order to maintain checks and balances for control of spread of nCovid-19, the travel advisories and restrictions which are enforced by the nations across the world, have crippled the business and economy which has resulted in revenue and job losses. The impact of this virus is so severe that the aviation and travel sector is expected to incur a business loss of Rs. 8,500 crore or even much more. Social distancing has become a norm in today's COVID-19 world and hotels need to re-evaluate and update their strategies to adapt to this change. Considering the unparalleled and fast-evolving nature of crisis, it is extremely challenging to estimate the impact of COVID-19 on Indian tourism industry. The paper seeks to analyze the impact of COVID-19 on Tourism and Hospitality industry in India.

**Keywords:** Coronavirus; COVID-19; Outbreak; Tourism; Hospitality, India

### **Introduction:**

In late December 2019, an outbreak of a mysterious pneumonia characterized by fever, dry cough, and fatigue, and occasional gastrointestinal symptoms happened in a seafood wholesale wet market, the Huanan Seafood Wholesale Market, in Wuhan, Hubei, China (Huang et al., 2020). The initial outbreak was reported in the market in December 2019 and involved about 66% of the staff there. The market was shut down on January 1, 2020, after the announcement of an epidemiologic alert by the local health authority on December 31, 2019. However, in the following month (January) thousands of people in China, including many provinces (such as Hubei, Zhejiang, Guangdong, Henan, Hunan, etc.) and cities (Beijing and Shanghai) were attacked by the rampant spreading of the disease (WHO Report) Furthermore, the disease traveled to other countries, such as Thailand, Japan, Republic of Korea, Viet Nam, Germany, United States, Singapore and India. The first case of the Covid-19 pandemic in India was reported in Kerala on 30 January 2020. As of June 03, 2020, more than 6.3 million confirmed cases with 0.375 million deaths globally were documented by WHO, involving at least 215 countries and territories (WHO Report). The pathogen of the outbreak was later identified as a novel beta-coronavirus, named



2019 novel coronavirus (2019-nCoV) and recalled to our mind the terrible memory of the severe acute respiratory syndrome (SARS-2003, caused by another beta-coronavirus) that occurred 17 years ago.

In 2003, a new coronavirus, the etiology of a mysterious pneumonia, also originated from southeast China, especially Guangdong province, and was named SARS coronavirus that fulfilled the Koch's postulate (Ron et al., 2003). The mortality rate caused by the virus was around 10% - 15% (Perlman, 2020; Peiris, 2003). Through the years, the medical facilities have been improved; nevertheless, no proper treatment or vaccine is available for the SARS (Peiris, 2003). The emergence of another outbreak in 2012 of novel coronavirus in Middle East shared similar features with the outbreak in 2003 (Zaki et al, 2012). Both were caused by coronavirus but the intermediate host for MERS is thought to be the dromedary camel and the mortality can be up to 37% (Perlman, 2020). The initial clinical manifestations for both SARS and MERS are usually nonspecific except that the majority of patients presented with fever and respiratory symptoms. Unprotected hospital staff who were exposed to patients' droplets or through contact prone to be infected and nosocomial infections ensue (Huang et al, 2020; Peiris, 2003). Furthermore, cases associated with travel had been identified for SARS, MERS, and COVID-19 (Perlman, 2020; Chan Jasper et al, 2020; Holshue et al, 2020; Rothe et al., 2020; Pgab et al, 2020). Because of global transportation and the popularity of tourism, COVID-19 is a genuine threat to India.

#### **Objectives of the study:**

The present study is a brief overview highlighting the most salient features and facts with regards to COVID-19, an emerging coronavirus infection, its causative virus (SARS-CoV-2), the current worldwide scenario, recent developments and currently ongoing progresses to contain and control this disease which have now spread to more than 215 countries across the globe. The paper also seeks to analyze the impact of COVID-19 on Tourism and Hospitality industry in India.

#### **Research Methodology:**

The present study was carried out through comprehensive review of secondary data, collected particularly from various journals, magazines, publications and periodicals of ministry of tourism, government of India, Hotel Association of India, FHRAI, World Tourism Organization (UNWTO), World Travel & Tourism Council (WTTC), etc.

#### **Virology:**

Coronavirus is an enveloped, positive single-strand RNA virus. It belongs to the Orthocoronavirinae subfamily, as the name, with the characteristic "crown-like" spikes on their surfaces (Perlman, 2020). Together with SARS-CoV, bat SARS-like CoV and others also fall into the genus beta-coronavirus. On 14 March, the union government declared the pandemic as a "notified disaster" under the Disaster Management Act, 2005, enabling states to spend a larger part of funds from the State Disaster Response Fund to fight the virus (Srinivasan and Chandrashekar, 2020). The genus beta-coronavirus can be divided into several subgroups. The 2019-nCoV, SARS-CoV, and bat SARS-like CoV belong to Sarbecovirus, while the MERS-CoV to Merbecovirus (Zhu et al, 2020). SARSCoV, MERS-CoV, and 2019-nCoV all cause diseases in humans but each subgroup may have mild different biologic characteristic and virulence (Perlman, 2020; Peiris et al., 2003; Zaki et al., 2012).

The exact origin, location, and natural reservoir of the 2019- nCoV remain unclear, although it is believed that the virus is zoonotic and bats may be the culprits because of sequence identity to the bat-CoV (Perlman, 2020 and Zhu et al., 2020). According to previous studies on the SARS- and MERS-CoV, epidemiologic investigations, their natural reservoir is bat, while palm civet or raccoon dog may be the intermediate (or susceptible) host for

SARS-CoV and the dromedary camel for MERS-CoV (Perlman, 2020; Zhu et al., 2020). A field study for the SARS-CoV on palm civet ruled out the possibility as the natural reservoir (low positive rate); instead, the prevalence of bat coronavirus among wild life is high and it shares a certain sequence identity with the human SARS-CoV (Lu R et al., 2020). Therefore, bats are considered the natural host reservoir of SARS-like coronavirus (Zhu et al., 2020). However, the origin or natural host for the 2019-nCoV is not clear, although it might come from a kind of wild life in the wet market (Huang et al., 2020). Theoretically, if people contact or eat the reservoir or infected animal, they could be infected. However, to result in large scaled person-to-person transmission as in the past SARS outbreak, the virus must spread efficiently. Initially, the 2019-CoV outbreak was reported as limited person-to-person transmission and a contaminated source from infected or sick wild animals in the wet market may have been the common origin (Huang et al., 2020 and WHO Report). But more and more evidences came out with clusters of outbreaks among family confirmed the possibility of person to person transmission (Chanet al., 2020; Rothe et al., 2020; Pgabet al., 2020; Chen et al., 2020; Li Qet al., 2020). In addition, the involvement of human angiotensin-converting enzyme 2 (hACE2) as the cellular receptor (like SARS) made droplet transmission to the lower respiratory tract possible (Perlman, 2020; Wang et al., 2020). Furthermore, contact transmission like SARS is also likely although the survival time in the environment for the 2019-nCoV is not clear at present. Currently, there was no evidence of air-borne transmission. Viral RNAs could be found in nasal discharge, sputum, and sometimes blood or feces (Huang et al., 2020; Holshue et al., 2020; Rothe et al., 2020; Zhu et al., 2020; Chen et al., 2020). But whether oral-fecal transmission can happen has not yet been confirmed. Once people are infected by the 2019-nCoV, it is believed that, like SARS, there is no infectivity until the onset of symptoms (Chen et al., 2020). However, one report describes infection from an asymptomatic contact but the investigation was not solid (Rothe et al., 2020). The infectious doses for 2019-nCoV is not clear, but a high viral load of up to 10 copies/mL in patient's sputum has been reported (Rothe et al., 2020). The viral load increases initially and still can be detected 12 days after onset of symptoms (Holshue et al., 2020). Therefore, the infectivity of patients with 2019-nCoV may last for about 2 weeks. However, whether infectious viral particles from patients do exist at the later stage requires validation.

#### **Impact of Corona Virus on Indian Tourism Industry:**

The Covid-19 pandemic has placed the tourism industry under immense financial strain. What has unfolded around the world in the past couple of months is unprecedented. In this time of uncertainty, all industries are reeling but it is the tourism and hospitality sector that has been hit the most given all the border closures, travel restrictions and lockdowns. Airlines, cruise operators and hotels are seeing instant effects of the pandemic.

As per the World Economic Forum (WEF), the coronavirus pandemic is putting up to 50 million jobs in the global travel and tourism sector at risk. Of the 50 million jobs that could be lost, around 30 million would be in Asia. The cascading effect of the coronavirus is crippling the Indian tourism and hospitality industry. The coronavirus pandemic would have a debilitating impact on India's tourism sector with the industry estimating an overall loss of Rs 5 lakh crore and job cuts for 4-5 crore people. As estimated by Confederation of Indian Industry (CII), of the total losses, the organized sector in the industry - branded hotels, tour operators, travel agencies which are the mainstay of the sector - may be hit the hardest with an estimated loss of around Rs 1.58 lakh crore. The industry body has projected that branded hotel groups are set to lose as much as Rs 1.10 lakh crore, online travel agencies Rs 4,312 crore, tour operators (inbound and domestic) Rs 25,000 crore, adventure tour operators Rs nearly 19,000 crore and cruise tourism Rs 419 crore.

The CII expects that the industry will see cash flows only beginning to improve in November, 2020 and perhaps get to normal levels by early 2021. Foreseeing bankruptcies, closure of businesses and mass unemployment, the Federation of Associations in Indian Tourism & Hospitality (FAITH), the umbrella body of the industry, has urged the Prime Minister to highlight the devastating economic impact of the coronavirus pandemic on the tourism industry, seeking his intervention in terms of financial relief for the industry to tide over the crisis.

Among a slew of demands, FAITH has urged that there should be a twelve-month moratorium on EMIs of principle and interest payments on loans and working capital from financial Institutions (both banking & non-banking), double working capital limits and on interest free and collateral free terms, which will prevent all the tourism businesses from going bankrupt.

Besides, it has sought the deferment of twelve months for all statutory dues, whether GST, advance tax payments, PF, ESIC, customs duties at the central government level or at any state government level, excise fees, levies, taxes, power and water charges, bank guarantees and security deposits and deferment of all renewals, across the tourism, travel, hospitality and aviation industry.

FAITH also urged the government to set up a support fund for twelve months on the lines of MNREGA to support basic salaries with direct transfer to affected tourism employees. The apex body has demanded the Centre to defer introduction of TCS (tax collected at source) on travel that has been proposed in Finance Bill 2020 to be levied from April 1, 2020 as it will displace business from India to overseas, which will lead to shutting down businesses of most Indian tourism companies.

Other demands include deferment of increase in any insurance premium for a period of 12 months such as for standard fire and special perils rate for fire, loss or profits, a complete GST holiday for the tourism, travel and hospitality industry for a period of twelve months.

With almost nil revenues there is hardly going to be any GST collection. This will make a very strong statement and will promote both domestic and inbound travel, it said. FAITH believes the government should grant a 200% weighted exemption for twelve months on expenses to Indian corporates to hold exhibitions, conferences and incentive trips in India. This will be a big shot in the arm and will help revitalize the industry.

#### **Conclusions:**

Worldwide scientists, researchers, and various health agencies are working days and nights with very high efforts to stop the further transmission and spread of SARS-CoV-2 by following strict vigilance, intervention strategies, heightened prevention and control policies, and are in a race to fight COVID-19 by designing appropriate vaccines and therapeutics to keep away any pandemic situation which may arise otherwise if this virus could not be halted. Although that many aspects, derived from the research, are still to be developed, as is the case that facing the pandemic of COVID-19 many elements in certain age groups, as occurs in pediatrics not year clear. Finally, one health approach would play an essential role in combatting COVID-19 as well as such diseases in the future. That is not a magic bullet, but yes, the world needs global solutions to prevent still or mitigate a pandemic.

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## THE CHALLENGES AND RESPONSES IN THE SPORTS ARENA DUE TO COVID-19

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### **Introduction:**

The COVID-19 pandemic is the defining global health crisis of our time and the greatest global challenge the world has faced since World War II. It has had a deep impact on the way we perceive our world and our everyday lives. According to A Dictionary of Epidemiology, a pandemic is “an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people.”<sup>1</sup> Yes, no doubt COVID-19 is one of the worst pandemic not only in terms of health but also the impact it has made on every field, every discipline and in all walks of life. The COVID-19 crisis has affected societies around the globe and will permanently reshape our world as it continues to unfold. While the fallout from the crisis is both amplifying familiar risks and creating new ones, change at this scale also creates new openings for managing systemic challenges, and ways to cope up with them. The impact of covid-19 has made an indelible mark on every spectrum of our life. Throughout its wide spread journey starting from China to every nook and corner of the globe, it has created a lot of chaos in every field from health, education, Economy, Industry, Business, Entertainment and what not. Sports ecosystem is no different. Indeed it has affected the field of sports in many ways. This article enumerates some of the challenges in the sports field caused by Covid-19.

### **The impact on calendar of sports events:**

In the International arena of sports the mega events are being planned many months and sometimes few years back. The participating teams, individuals and countries were looking forward to these events. Participating in Olympics and winning a medal is life time dream of many sports persons. But Covid has shattered all the dreams. The governments across the world have implemented travelling restrictions, social distancing norms and complete or partial lockdowns and ban on large gatherings. It is a situational demand that National and International sports event has to be either postponed or cancelled. The IOC President Thomas Bach, and the Prime Minister of Japan, Abe Shinzo, have announced that “the Games of the XXXII Olympiad in Tokyo must be rescheduled to a date beyond 2020 but not later than summer 2021, to safeguard the health of the athletes, everybody involved in the Olympic Games and the international community. The leaders agreed that the Olympic Games in Tokyo could stand as a beacon of hope to the world during these troubled times and that the Olympic flame could become the light at the end of the tunnel in which the world finds itself at present”<sup>2</sup>.

These words ignite a ray of hope, no doubt, but if we peep into these scenes behind the curtain, it reveals lot of agonies, pain and burden. These cancellations have created a big economic burden for the organizers. For example, in the case of 2020 Tokyo Olympic games, the organizers have to employ the personals involved in the event for one more year which means an additional financial burden in terms of salary, maintenance and more hygienic standards to cope up the current Covid situation.

### The disruption in the training protocol:

Unlike other fields like Education, Art, Business etc, which are to some extent substituted by online modes, Sports training cannot be compensated by any other means.

Coaches, athletes, federations will look for new protocols for training and competitions. Not used to being indoors for long, deprived of their normal training facilities and change in training schedules—it has been a challenging time for sportspersons, too.

Chandrakant Pandit, former Indian wicketkeeper and one of the most successful domestic coaches in India, told THE WEEK, "It will definitely be difficult once lockdown is lifted. Everyone involved will have to find a way which suits a particular age group, he said. "Elite cricketers have access to solo training. It will be tougher for junior cricketers." "Break the trainees into small groups and maintain a 30m distance if you have a big academy. I have one academy and I have decided to take another 1-2 months once lockdown is lifted, to resume training. Let things normalize as much as possible. I simply feel coaches and support staff will have to work longer—possibly whole day, doing staggered training in groups. This way they can take care of 25-odd students." This statement is just a sample. The challenges and responses will vary from game to game depending upon

- The nature of the game like contact sports, non-contact sports and semi contact sports
- The age group of the players/ athletes
- The availability of infrastructure like grounds, equipment, hygienic environment etc.,
- The availability of coaches and time to coach athletes / players in small groups
- The psychological constraints like fear of contaminating the virus and social distancing on the minds of players and parents.



### Transformation in the mindset of athletes:

The athletes and players whether they are professional or amateur, novice, mediocre or elite are in a mental trauma because of the uncertainty in the organization of events and tournaments. The following image clearly depicts the sports events that are affected by Covid.

At present many of the International and National sporting events are cancelled or suspended or postponed. The terminologies are different but the impact is same. Mental stress and strain and shift in the training protocol are



wearing and tearing the players. Elite athletes may or can afford to train in their personal training space with a personal coach but the players from downtrodden are facing a huge halt in their training regimen. They have to wait till public places are open. Even if it is going to resume, they are facing the threat of Covid -19 spread. Sometimes parents might put a full stop to the dream of kids who are otherwise emerging players or athletes.



### The transformation on coaching strategies:

The responsibilities of coaches are redefined now. The first challenge in front of them is to keep up the skill level of elite athletes because most of them were in their pre-season training just before the competitions like in case of Olympics or IPL in cricket. But the postponement of the events has made them to turn into their off season training which will vary from sport to sport. The coaches are now confused whether to go for conditioning of the athletes or to the specific training. In case of training the novice, coaches will have to strive hard to bring back the fitness level which might have gone down due to lockdown and staying indoors for a long time. The major challenge is to bring them again into the sports field and stadium once the lockdown is over. Some might lose interest and quit sports and parents might be reluctant to send children out of fear. So the coaches and academies should devise a hygienic and well planned coaching strategies and above all techniques to motivate and boost the confidence.

### The deep blow to the revenue generating aspect of sports:

Sports is occupying a very important niche in the society not only for the role it plays on the individuals and countries, but also for major role it plays on revenue generation for many who are directly or indirectly involved in it. The major blow is to the sports broadcasting companies who were making millions and billions from live telecast of many International and domestic events. Without any live events they are losing their sponsorships and viewership. BCCI is expecting a massive loss of about Rs 4,000 crore in revenue should IPL this year be cancelled due to the coronavirus pandemic. The revenue for sports bodies usually comes from media (broadcasting) rights, sponsors, sale of tickets, advertisements etc. But in the current scenario of zero sports events, these sports bodies, broadcasting companies and television channels are suffering a huge revenue loss. This will have its own way of impact in the future like increase in the rates of tickets, advertising cost and decrease in payment to persons involved

in these job sectors. Many companies are at present paying their brand ambassadors and their contractual players for no use. The contracts are going to be in vain because as per legal procedure, they have to pay the players without extracting anything from them. The other industries that are suffering are sports goods manufacturing units, private coaching academies and entry level coaches who earn their living through coaching camps especially in summer vacation. Many are indeed now jobless and doubt if they would take up their original jobs in coaching after lockdown. These are only a few sectors that I am touching but in reality the blow is more than what we could imagine.

**Conclusion:**

Covid-19 has dealt the world of sports its biggest blow ever. The present is dark; the future is uncertain. How athletes, coaches, sports bodies, sports channels, sports organization and partners in sport can collectively cope with such adversity including fitness maintenance, psychological balance, emotion regulation, coping skills, resilience, mental health stigma, and well-being strategies is the hot topic of research and debate now. The message of Kenyan Olympic marathon champion Eliud Kipchoge<sup>5</sup> “I said to myself that this is a big challenge, but I am a marathoner, and the marathon is like life. We have many courses in the world – flat courses, uphill and downhill – and this period of COVID-19 is like an uphill course, where we need to live in a slow way, in a positive way, in order to finish the race well.” “Be patient, think positive and respect the authorities’ directives” will be the well-fitting one. Sports are always about hoping for the best and let us hope that we all face the challenges with sportsmanship and come out with success.

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## MITIGATION TEMPLATE TO CONTAIN COVID-19 IN INDIAN PERSPECTIVE: POST LOCKDOWN

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### Abstract:

Severity of COVID-19 can not be understated by the reported number of deaths, recovery rate, and active cases; but has to be evaluated in terms of lack of curative treatment regimen for seriously affected people, changing strains of the genome virus and its global spread leaving no country as an oasis amidst this crisis of Pandemic scales. Writing a paper on 1<sup>st</sup> of June after a twist to, Medico-Socio-Geo-Economic scenario by Trumptised and Jinpinged face off, and notion of Self-reliance (Aatam-Nirbhar Bharat), an Indian perspective need to be evolved for Policy making. Population density and diversity of India in Socialising, its strong immunity and stoicism, and robust Bounce-back response, lack of awareness, deep digital and economic divide, inter alia other equally important strengths and pitfalls require an indigenous template to mitigate, contain and recover in immediate Post Lock Down months. This Paper is essentially a review of the practised and possible strategies, their efficacy and practicability, knee Jerk Aatam-Nirbhar Push in this empirically interdependent world need to be studied for its feasibility. Possible Best measures as per our review studies are reported for the policy makers and community at large to ameliorate prevailing conditions of utter dismay.

**Keywords:** COVID-19, Aatam-nirbhar Bharat, Indigenous Template, Indian Perspective

### Introduction:

COVID-19, a novel Beta Corona Virus having a diameter of 60-100 nm with Oval enveloped virions and highly infectious mainly through droplets, with a up scaling fatality pattern with age and comorbidities , reportedly broke out from Wuhan, China, with a 57 year old, identified as patient ‘zero’ in December 2019[1,2]. Declared by WHO as a pandemic on 30<sup>th</sup> January, 2020 it is threatening the epidemiological and pathogenic frontiers as a disruptive precursor, unsettling the extant remedial regimens with a sure shot curative intervention. There are many reported studies on various parameters and their relation to its infectious potency [3,4,5] . Strategically two main containment measures are being taken across the globe, first one, to adopt mitigational measures, second, stringent, suppressing and confronting measures. Second one adopted by countries like China, South Korea and many others have intervened fairly well and reflected in the death count for such countries.

The Indian response and its concomitant vestiges in Economic, Educational, and productivity of Human resources, Medical response and other spills-over is to be assessed for its efficacy and mitigational quotient.

**Analysis of Indian Measures:**

**(i) Social and Economic Perspective**

Staple immediate response to such a virus spread was Lock Down as it was in many other countries also. A sudden Lock Down, in a country of size like India with deep fault lines of Rural-urban, population spread, economic activity concentration and digital divide, democratic federal structure, interstate and overseas transportation, Medical aid accessibility inter alia many other equally important divides, coerced a monolithic pan Indian containment plan, a humonougs task for the federal Government which effected it with fair degree of success, perhaps necessitated at that time but laden with apprehensions of delayed and disastrous scenario. When the heterogeneity of such divides start to manifest, local aspirations demand local responses and the chaotic evolution takes place. And hence we saw a 360 spectrum of space-time and percolating Central Intervention. Inherent uncertainty, of time framed exit plans compounded by serialised extensions brought in a fear Psychosis and exodus of unpaid workers force, in a typical Indian set up proved to be an anathematic firmament to the effective Lock Down measures. In an already slowing down economy it can trigger despondency in most micro sectors of Indian entrepreneurship staring a deep recession in the most important indicator of a country’s health, economy, as money makes the mare go. Reported immunity of a large part of population, demographic profile, stoicism, and reconciling attitude of average Indian with social distancing has done quite a service after being sensitised during the Lock Down phase yielding better results so far. We are now, unfortunately heading towards exponentially growing curve post Lock Down, and reportedly two – three months away from flattening Curve as stated by the AIIMS Delhi Director.

As on 6<sup>th</sup> of June, 2020 India with 2,46,520 confirmed cases of Covid-19 infections stands at the fifth place among affected countries, with a death toll nearing 7000, doubling rate of about seventeen days and recovery rate of 48% [6,7]. A study undertaken by National Centre for Disease Control (NCDC) India’s Reproduction Rate (RO), average number of persons infected by a single infected patient has increased between Lock Down1.0 and the beginning of Lock Down3.0 [7]. India needs about 621 million recoveries to achieve Herd Immunity, a possible barrier to stop the spread of infection or a reproduction rate of less than one [7, 8]. There are many other indicators suggesting that we are on a growing trajectory. With already deficient Health infrastructure Indian health system rose to the occasion in providing the maximum possible support paraphernalia.

The envisaged target of \$5 Trillion economy in next five years in the presented Union Budget for FY 2020-21 is seriously thwarted and at this stage seems an improbable preposition. Growth of GDP as shown in the following graphic with Q-4 growth at 3.1% has given inkling to the eventual Macroeconomics [9].

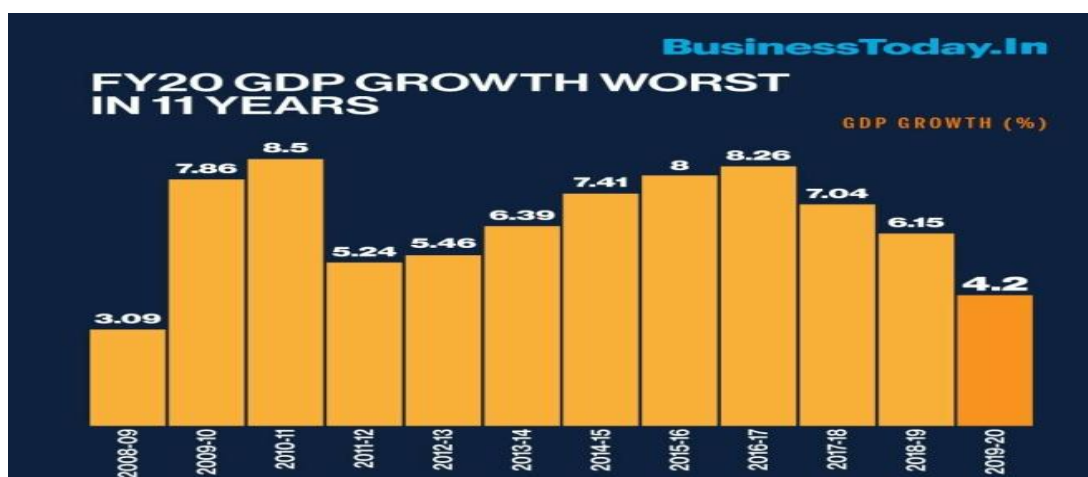


Figure 1: GDP Growth of India from 2008-09 to 2019-20 on Year to Year Basis [9]

Though the Economic slowdown started down ward trend from 2016-17 onwards yet the rate of decline is very significant and threatening this year. With a good scope for improvement as projected by various agencies is reflection on the flexibility and wherewithals for Indian Economy[10].

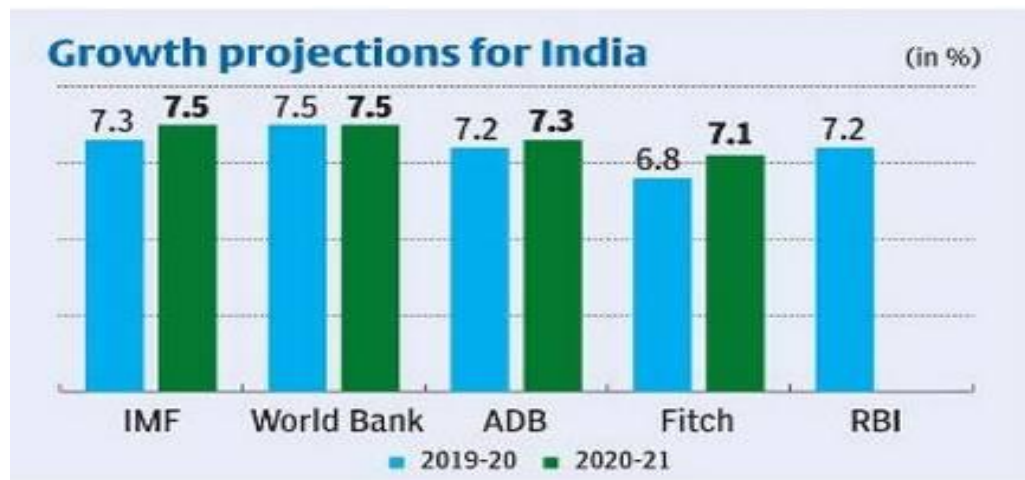


Figure 2: GDP Growth Projections for India given by various agencies

Growth of Indian economy, given by National Statistical office in the last week of May, 2020, at 4.2% , far notches below the projections given by various agencies, is an 11-year low. In Q-4 it fell to 3.1% reflecting the effect of Lock Down starting from March 25<sup>th</sup>. Drop in Industrial production is the main worry whereas Government expenditure and agriculture proved the saviours. Post Covid, Hospitality and Tourism sectors are there for a big and sustained blow.

Socialisation has to normalize to the new normals evolved during the Lock Down and socio-economic landscape is for a revamp by the changed mindset and craving for security by being in the native places.

## (ii) Educational Perspective

Most Potent tool of Empowerment, Education is all set to new contouring in this Pandemic Phase. Schools and Colleges are closed since 15<sup>th</sup> March, 2020 leaving the students mostly on on-line mode. India, with a significant population under poverty line, is not on-line ready for all the students. This will create a divide in terms of skill enhancement and knowledge gain. There is an urgent need for striving and providing a Level Playing Field. Otherwise this divide of today will spill to following generations and will be an impediment for an equitable social set up.

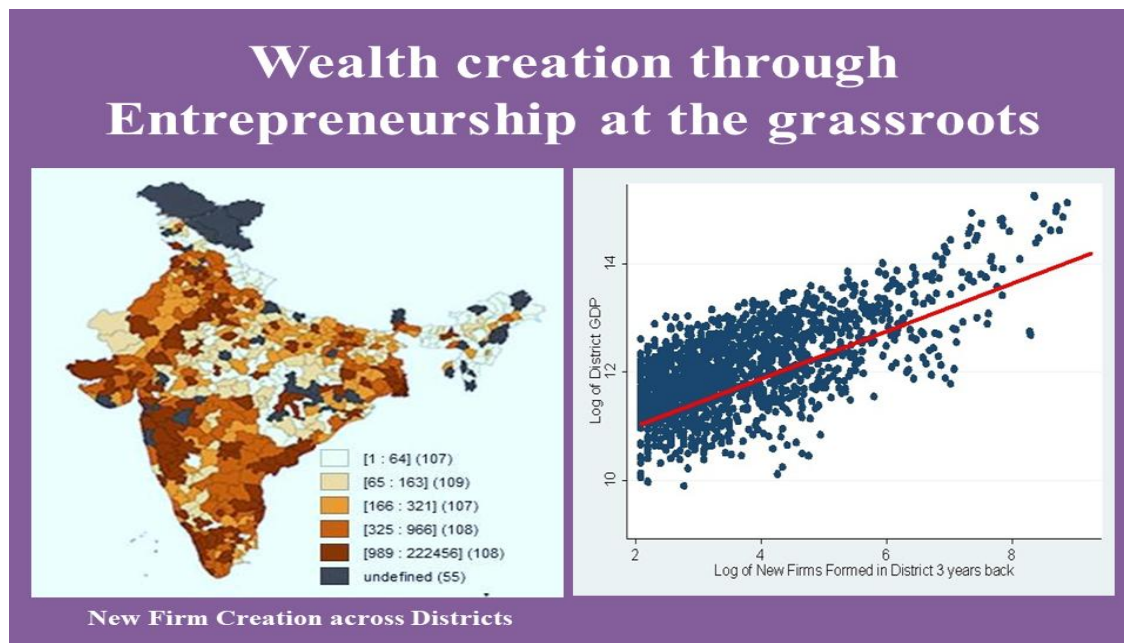
## 1. ROADMAP AHEAD

### (i) Aatam-Nirbhar Bharat

The notion of Aatam- Nirbhar Bharat propounded by the Prime Minister of India in the above Graphic could be Roadmap out of the Present morass. But it needs a critical analysis of this notion, put forward by Gandhian Philosophy also, long years back. To the best of intentions of the Prime Minister its sound bite is against the grain of symbiotically interdependent global set up. In the scenario of shrinking or stagnant economies we need foreign investment and technology which incurs a lot of investment, and needs attractive, conducive and positive sound bites. We need to identify our core competencies and capitalise to the hilt on this count. Like excellent software Developing Industry which is among the best in world need to be furthered with signature products.

(ii) **New opportunities**

Every crisis presents opportunities also. The case in point is the huge expansion in the Health infrastructure employing a lot of people and facilitating our long pending requirements. This is a right time to go for a big expansion and employment in this sector, whose global demand is bound to increase drastically. Covid is bound to create a new economic map for India as most of the Hot Spots are in the main metropolis of the country in which major part of the economic activities are located owing to colonial legacy. This is right time to change the economic map of India with an equitable matrix.



**Figure 3: District wise distribution of New Firm Creation by Grass root Entrepreneurs in India [11]**

(iii) **A possible new employment Method**

Union governments and state governments, the biggest employer of the country need to change the induction mechanism of the employees, as stated by Abhijit Banerjee, the Nobel Laureate, in an interview to NDTV 24\*7 News Channel, that we should start with apprenticeship based induction of employees, initially at fixed and slightly more than subsistence amount and employing a large number of eligible people ,creating a wider pool of human resources and wider percolation of the government expenditure. After assessing the performance for few years, only required number of apprentices should be inducted permanently, others should also be absorbed by a graded skill component-linked induction in other government or private sectors or facilitated to start their own venture in tune with their skill compatibility with graded wage- structure. This will create a work force with right skills.

(iv) **Evolution of new Social Normals**

Since social distancing in most of the hotspots located in high population density areas is impracticable, we need to resort to the second strategy of stringent, suppressive and confrontive measures. Pan Indian solution for this pandemic must be avoided.

(v) **New Education Imparting tools**

Since students from different socio-economic background need to be taken along to avoid differentials in terms of accessibility open broadcast of E-contents should be systematically implemented and monitored to fill in as a temporary measure. We should not think of supplementing the traditional educational set up with these temporary

measures. As education is not all about knowledge gain, it prepares an individual to face contribute to the growth of the world. On-line learning should be encouraged in a big way in complimentary role. Government should acknowledge its complimentary utility and systematize this mode. In Higher Education On-line training programmes for the teachers must be recognized , to make the entire education On-Line prepared.

### **Conclusion:**

Confronted with a pandemic, in an era where the supremacy of scientific solutions reigns, whole world is grappling with this virus to firm up a definitive plan amongst many proposed elusive counter measures. The differential spread of virus across the globe possibly due to studies linking potency with different parameters, has presently started to spread heavily and rapidly. Policy makers should evaluate and incorporate given out Road Map .We should participate in the global scenario with our maximised skills and resources and the idea of self reliant India in the nuanced perspective as depicted in the above graphic of MyGov should be taken forward, devoid of any chauvinistic overtones.

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## CHALLENGES TO THE ACADEMIC DOMAIN IN THE AFTERMATH OF COVID-19 IN INDIA

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### **Abstract:**

There had been a situation of crisis going on in academic sphere, much before the covid-19 crisis happened, as many schools and college going students were not being equipped with the fundamental skills needed to excel in professional life by the schools and universities across the country. The education sector badly needed structural reforms to adapt to the international standards. There is no denying the fact that in India most of the students cannot read, write or understand until they reach the age of ten and the outbreak of this pandemic has worsened the situation even more. The problem needs to be resolved on urgent basis else the incompetent learners will not catch up with abrupt and sudden changes happening in the education sector and this in turn will add to the problem of drop outs and poor academic performance on the part of the examinees.

**Keywords:** Introduction, Challenges in India, three most affected area of academic domain, opportunities, Conclusion

### **Introduction:**

The present day situation where the entire world is confronting a pandemic situation is a live testimony of the effectiveness and usefulness of information and communication technologies. The country is under complete lockdown and educational institutions are in no position to run their regular curricula. The problem is being handled and addressed to some extent using ICTs.

Needless to say, the pandemic has brought about fundamental changes in teaching methodology and the chalk–talk teaching technique has given way to digital classrooms. This disruption in the delivery of education is pushing policymakers to figure out how to drive engagement at scale while ensuring inclusive e-learning solutions and tackling the digital divide.

In this time of crisis, a well-rounded and effective educational practice is what is needed for the capacity-building of young minds. It will develop skills that will drive their employability, productivity, health, and well-being in the decades to come, and ensure the overall progress of India.

Many steps have been taken to ensure the void created by the crisis. Education departments resorting to TVs, Radios etc. to reach rural students, Government providing e-learning platforms where there has been witnessed a sudden upsurge in number of subscribers, using digital platforms for continuous learning to cope up with the situation and stay on track are to name a few. Nevertheless, the possibility of education sector being exposed to turmoil and disruptions cannot be ruled out.

### **Challenges in India in Education Sector:**

1. Lapses in Learning
2. Socio-Economic Consequences
3. Course Completion

4. Preparing exam timetables and guidelines
5. Addressing less privileged students
6. Parents' preparedness
7. Dealing with digital learning aids
8. Parent's and Student's counseling cell
9. Use of audio-visual or any teaching tool for better learning and explanation
10. Alternative grading system

#### **Most Affected Area of Academic Domain:**

##### **1. Learning**

Innovations in teaching-learning aidsthrough various technologies are having a significant impact on education systems at all levels. Online courses, teaching aids, educational software, social networking tools, and other emerging technologies are disrupting the traditional classroom environment. Late starting of academic year is going to disrupt the lives of the student tremendously and so is the case with the parents and teachers.

Appropriate planning should be done to reduce the impact through remote learning strategies.Many developed countries are better prepared to move online learning strategies and most of them are already using these techniques. However,in developing countries like India, the situation is somewhat different. Many of these countries are not aware of these technologies and the ones who know can't afford the e-Learning tools. If we do not act appropriately, the condition of the academic sector will get worst.

Many students do not have books, internet connectivity, PCs/Laptops at home. Many of them do not get support from theirparents. These arethe biggest challenge of present day education sector and it affects thepoor studentslearning even more.

Today, we see that the teaching-learning tools are being used more creatively by integrating social network platforms like Facebook, WhatsApp, Telegram etc. Many live classes, webinars, e-Workshops and faculty development programs has been taken through various social network platforms. Teachers can communicate effectively with the students and provide guidelines, instructions and structure of learning process using content delivered via radio or television.

Today, distance learning is not all about online learning. It is learning with the objective of reaching as many students as possible.

##### **2. Staying Engaged**

In present scenario, keeping the interest of the children alive, particularly young higher class students is critical. Going to school or college is not only about learning the subjects, but also about leaning social relationships, soft skills and transferable skills

This is the time for students to accept the challenge and develop their social and emotional skills and learn how to contribute to society. Moreover, it's the responsibilities of education institutes to engage the students and provide tips and advise them on how to develop skills with the help of social media platforms.

##### **3. Meals**

In many parts of India, meal programs offered by schools provide children with their most nutritious meal of the day. These are essential for their good health and wellbeing. Though bit challenging, yet the countrysould find a way to provide these meals using the school buildings, community halls or distribute directly to the families if need be.

If delivering meals is not possible in any way during this pandemic, cash transfer programs should be implemented to compensate the parents. But planning is needed as we all are aware about the present situation of pandemic is changing day-by-day.

#### **Opportunities to Reform Education System:**

Many education institutes are considering this to be the best time to experiment and implement new pedagogies to make education delivery meaningful and effective. Many are leveraging it as a chance to be more productive and efficient while developing innovative and improved professional skills through online learning assessment. Due to this pandemic situation the nation too has come up with many opportunities viz.

- ✓ Blended learning approaches will be tried, tested and increasingly used.
- ✓ Teachers will receive more respect, appreciation and support for their important role towards society.
- ✓ Quality of teaching and learning materials will be improved and widely used.
- ✓ This crisis will help us to come together across the boundaries.
- ✓ Digital Transformation of Education System will take place.
- ✓ Increase Government Interventions

Much has been planned and implemented and more improvement is underway. The future of education certainly looks bright.

#### **Conclusion:**

However, the reopening of Educational Institutes will take longer time, as government doesn't want to take risk of second wave of pandemic, which can affect the country adversely. But good news is that many of the improvements, initiatives and investments that the education system has taken like, **to help students continue their learning in pandemic situation, various e-learning portals and apps being launched by the government and education bodies such as Digital DISHA programme, Shreyas programme, e-Pathshala, Swayam etc. has imparted the much needed strength to the education sector.** This will have a positive long-lasting effect. There is no doubt that the crisis though has necessitated the adoption of ICTs to deliver education, however, it will surely help strengthening the Digitization of country's Education System in the long run.

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## IMPACT OF COVID-19 IN INDIAN ECONOMY

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### Abstract:

The outbreak of the Covid-19 pandemic is an unprecedented shock to the Indian economy. The economy was by then in a parlous state before Covid-19 struck. With the drawn out nationwide lockdown, worldwide financial downturn and related interruption of interest and gracefully chains, the economy is probably going to confront an extended time of log jam. The size of the financial effect will rely on the term and seriousness of the wellbeing emergency, the span of the lockdown and the way where the circumstance unfurls once the lockdown is lifted .The size of the financial effect will rely on the term and seriousness of the wellbeing emergency, the span of the lockdown and the way where the circumstance unfurls once the lockdown is lifted. This is halted a significant number of financial exercises because of infectious ailment and has no relieved till date to battle with crown. It has delivered monetary effect on globe and India. It might create downturn in numerous piece of the world..This research paper primarily focuses on the various aspects of economic as well as the financial impact occurs due to the outbreak of COVID-19, and also to analyze the policies that have been announced so far by the central government and the Reserve Bank of India to ameliorate the economic shock and put forward a set of policy recommendations for specific sectors.

**Keywords:** Covid-19, financial downturn, recession, economic impact, fiscal policy.

### Introduction:

We are in the middle of a global Covid-19 pandemic, which is inflicting two kinds of shocks on countries: health shock and an economic shock. Given the nature of the disease which is highly contagious, the ways to contain the spread include policy actions such as imposition of social distancing, self-isolation at home, closure of institutions, and public facilities, restrictions on mobility and even lockdown of an entire country. These actions can potentially lead to dire consequences for economies around the world. In other words, effective containment of the disease requires the economy of a country to stop its normal functioning. This has triggered fears of a deep and prolonged global recession. On April 9, the head of International Monetary Fund, Kristalina Georgieva said that the year 2020 could see the most exceedingly awful worldwide financial aftermath since the Great Depression during the 1930s, with more than 170 nations prone to encounter negative per capita GDP development because of the furious coronavirus pandemic. India recorded the first case of the disease on January 30, 2020. Since then the cases have increased steadily and significantly.

To limit the impact in the economy brought about by the COVID - 19 episodes, the Union Finance and Corporate Affairs Minister, on March 22, 2020, declared a few significant help estimates taken by the Government of India, particularly on legal and administrative consistence matters identified with a few divisions. The Central Government, among others, declared truly necessary alleviation quantifies in zones of Income Tax, GST, Customs and Central Excise, Corporate Affairs, Insolvency & Bankruptcy Code (IBC) Fisheries, Banking Sector and Commerce, proposed to help the economy.

### Objectives of the study

- To analyze the financial impact of COVID -19 in India
- To analyze the various sectors affected due to COVID-19

### Research Methodology:

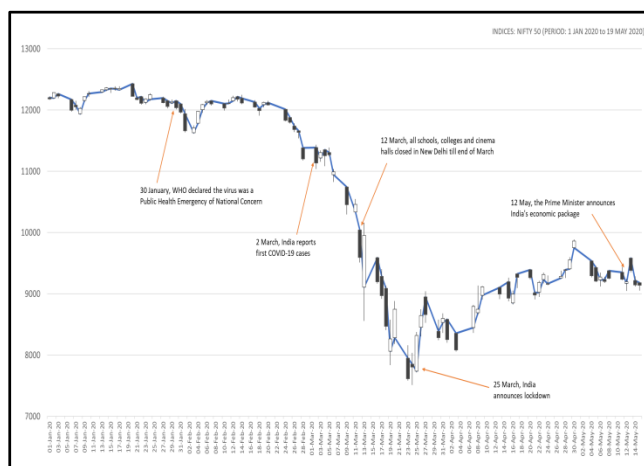
The data for this study were collected from the secondary sources such as articles, websites, RBI records, etc.

### GDP estimates:

In April 2020, Credit rating offices and World Bank has minimized India's development for the financial year 2021 with the most minimal figures, India has been ever found in three decades since India's New Economic Policy in the year 1991. On 12 April 2020, a World Bank report concentrating on South Asia said that India's economy is relied upon to become 1.5% to 2.8% for FY21. In mid-April the International Monetary Fund projection for India for the FY21 of 1.9% GDP improvement was up 'til now the most raised among G-20 nations. Confederation of Indian Industry (CII) evaluated that India's GDP for FY21 will be somewhere in the range of 0.9% and 1.5%. On 22 May the RBI Governor Shaktikanta Das additionally said India's GDP development will stay negative in FY21.

### Stock Markets:

On 23 March 2020, Stock Markets in India have confronted the most exceedingly awful misfortunes in the history. SENSEX has fell 4000 focuses (13.15%) and NSE NIFTY fell 1150 focuses (12.98%). Nonetheless, on 25 March, one day following a total 21-day lock-down was reported by the Prime Minister, SENSEX posted its greatest gains in 11 years, including an estimation of ₹4.7 lakh crore (US\$66 billion) for speculators. On 8 April, following positive sign from the Wall Street that the pandemic may have arrived at its top in the US, the financial exchanges in India rose steeply indeed. By 29 April, Nifty held the 9500 imprint.

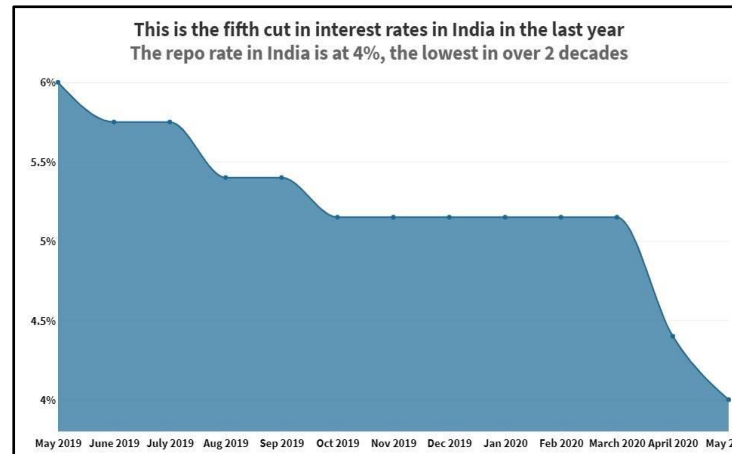


Effect of COVID-19 on National Stock Exchange of India NIFTY 50 (1 Jan 2020 to 19 May 2020). "The NIFTY 50 is NSE's benchmark expansive based financial exchange file for the Indian value advertise."

### Banking sector:

In absence of a liquid and well-functioning bond market, given the extra-ordinary nature of the crisis and given the dependence of the Indian economy on banks, the banking system needs to step up to provide the necessary credit to firms as well as households. Otherwise far too many enterprises will get destroyed and unemployment will

go up dramatically. The reverse repo rate (the rate which banks get for parking funds with the RBI) has also been reduced to 3.35%.



Source: Secondary Source

### **E-commerce:**

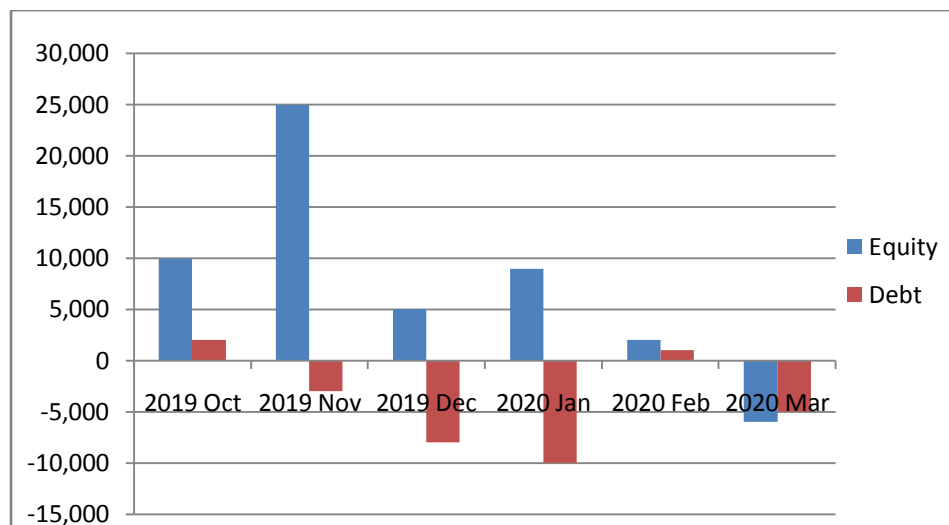
In the third week of March, Amazon declared that it would stop offer of unimportant things in India so it can concentrate on fundamental needs. Amazon has followed a similar technique in Italy and France. On 25 March, Walmart-possessed Flipkart briefly suspended a portion of its administrations on its internet business stage and might be selling and disseminating basics. BigBasket and Grofers additionally run confined administrations, confronting disturbances in administrations because of the lockdown. Delhi Police started giving conveyance specialists time limitation goes to make it simpler for them to keep the gracefully chain open. Internet business organizations additionally search for lawful clearness identified with what are "basics". On 20 April, Telangana stretched out the lockdown to 7 May. Swiggy and Zomato won't be permitted to work during this augmentation period.

### **Financial markets:**

Since the flare-up of Covid-19, there has by and by been disturbance in the obligation markets. Credit spreads of corporate obligation papers have raised strongly to levels higher than what was seen in the fallout of the IL&FS emergency of September 2018. Obligation common assets, even those that contribute at the short finish of development – fluid assets, ultra-brief span reserves and so forth have endured genuine shots to their net resource esteems (NAVs) making financial specialists anxious. These assets are viewed as speculations second just to bank stores regarding security and subsequently decrease in their NAVs involves concern.

### **Supply chains and logistics:**

Following the lockdown, certain essential supply chains fasten broke. Britannia Industries, supporting the lockdown, encouraged the administration to guarantee between state developments of the crude material for the food handling industry was not hampered. The Managing chief of Britannia expressed that "if even one connection in the flexibly chain is broken, the nation could come up short on supplies of bundled food in the following 7-10 days." Although between state travel has been restricted, it doesn't make a difference to fundamentals, and in places like Maharashtra the state police are yet to smooth out the procedure, upsetting gracefully chains. Vidya Krishnan writes in The Atlantic that because of the lockdown even development of clinical products were influenced.



Source: Secondary Data

### Foreign Trade:

China has been India's biggest wellspring of imports since 2004-05, shows information from the Center for Monitoring Indian Economy (CMIE) database. In 2018-19, the most recent time frame for which yearly information is accessible, it had a portion of 13.7% in India's all out imports. Any significant interruption in the Chinese economy can disturb these imports and henceforth both creation procedures and flexibly of purchaser products in India.

### Suggestions and Recommendations:

Like its partners over the globe, the Indian government has declared a huge number of measures to forestall all out breakdown. In any case, it isn't sufficient. This attempts to mitigate a portion of the agony, not counter it. My feedback (or one barrel of oil) on what the administration should do:

- Slacken its tote and burn through cash on framework improvement – 'Remake India, Rejuvenate India'.
- Public part budgetary foundations should be additionally promoted and bumped by the RBI to loan out low-ticket advances underneath INR 1 Crore through working cash-flow to guarantee that liquidity returns into the framework.
- Banking division should be bumped to give rate slices instigated by RBI to the borrowers
- Individual tax breaks and expense occasions for 6 – a year can be embraced to restore utilization, which will help prod financial development.

### Conclusion:

There are a few scenes like coronavirus pandemic, which stay engraved in one's memory for a life expectancy, for its effect isn't confined to a specific geography nor is it restricted to a specific bit of society, yet covers roughly every aspect of people life. India revealed the main affirmed instance of the coronavirus disease on 30 January 2020 in the condition of Kerala. From that point forward, COVID-19 cases in India have crossed one lakh with loss of life of more than 3000. In any case, the lockdowns are additionally pushing one of the quickest creating economies for example India to the skirt. The monetary effect of the coronavirus pandemic in India has been fundamentally upsetting. For any lucrative movement there must be a gracefully side and a related interest side

and absence of both of the side impedes the action. During the various variants of lockdown in India, there has been a noteworthy fall in the flexibly side of the financial chain due to network remaining at home.

The profitability just as gracefully has been diminished because of the absence of work inputs inferable from social separating and lockdown, as there are no HR working in the ventures, no cultivators developing their property and no transporters to take products from their assembling focuses (industrial facilities) to definite shoppers. As per the Economic Survey 2020, private last utilization added to around 60 percent of India's GDP. Be that as it may, the lockdowns have additionally decreased the private utilization, in light of the fact that the locals have curtailed their utilization to their fundamental thing needs and swearing off their optional costs. The private speculations also have watched a log jam primarily in view of lower credit stream. Government consumption, however, is anticipated to give some alleviation and add to the GDP development. One progressively significant worry for the Indian economy is its huge casual division which represents around 94 percent of the all-out business and around 45 percent of the creation in the nation. Furthermore, this casual part gives work to the most affected individuals as a result of the lockdown viz. provisional laborers or day by day workers and transient workers. Thinking about this, India had revealed a Rs.1.7 trillion alleviation bundle under PM Garib Kalyan Yojana, containing about 1% of GDP to help poor people and every day workers to support during these tough situations. The coronavirus flare-up has affected both Indian money related foundations and customer opinions with the continuous liquidity and credit concerns. To support the moneylenders, the Reserve Bank of India (RBI) has started a few measures to constrain more rupee liquidity into the financial framework through its 'Long haul Repo Operations' and decrease of 25 premise point in its opposite repo rate.

The World Bank and credit rating agencies have reduced India's growth for fiscal year 2021 with the lowest figures, India has glimpsed in three decades since India's economic liberalization in the 1990s. The International Monetary Fund (IMF) has estimated a gross domestic product (GDP) growth of 1.9 per cent for India in FY 2020-21. So as to experience all these financial tribulations, the Prime Minister Modi thought of a huge Rs.20 lakh crore upgrade bundle to resuscitate the economy hit by COVID-19. Along these lines, if this noteworthy financial help (10% of GDP) from the focal government and up and coming hot and muggy months control this abhorrent infection, what we have to do is to revive good faith and revamp India.

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## A STUDY OF HABITS THAT CHANGED DURING THE LOCKDOWN

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### **Introduction:**

Many disasters happen all over the world. The nature of these disasters are frequently local. It is short-lived. But Corona's entry into human life in this century has been frightening. It has never happened in the last hundred years. This epidemic is creating darkness in the lives of many. The grief of losing relatives was shared by many. Many lost their jobs and handicrafts forever. Lockdown One, two and now the fifth lockdown has started. Citizens in urban and rural areas also understood what lockdown means. Many doctors, nurses, police, ASHA workers, teachers, administrative officers, ministers, people's representatives, drivers, general workers are working day and night to reduce the risk of corona. But many citizens do not understand the seriousness of this. The administration from time to time showed its law budge and made it compulsory to sit at home in lockdown. Rules of stay home, work from home started. People were happy for the first few days but it didn't last long. The daily scary breaking news started to feel the same today.

Has there been any change in a person during such a lockdown period by staying at home for sixty or seventy days in a row, have the habits changed? The subject of the present dissertation was chosen to explore this. People use which kind of ntertainment devices, mobiles, TV. Did people learn anything new during this time with the purpose of seeing time, exercise, diet, rest, what is the nature of the new work? Did an addiction start in your spare time? Did the tendency to help increase? This was taken into account. What is taken care of to stay away from Corona was also inspected. As it was not possible to conduct the interview, the questionnaire was filled out through Google Forms. Conclusions were drawn by using a random sample selection method.

### **Objectives:**

1. To see what kind of entertainment devices are used during the lockdown.
2. To see how many hours a day are used for different purposes in Lockdown.
3. Find out if they exercise during lockdown.
4. To see dieting and resting habits have changed during the lockdown.
5. To see if there are any new things learned during the lockdown.
6. To find out if there are addictions during lockdown
7. To see what care is taken by the citizens regarding Corona.

### **Assumptions:**

Habits may have changed drastically since the lockdown in 2020.

The number of exercising hours will be less.

The amount of taking food may have increased.

Entertainment time for employees and students may have increased.

Many at home may have learned new things.

Fearing corona, everyone must be following health habits.

### **Methodology and Procedures:**

In this research survey method is used. This research has been done by survey method. The age of the respondents was not taken into consideration. The responses were taken through Google Forms. The number of questions was fifteen. There were multiple choice questions. Some questions were allowed to choose more than one option. Conclusions were drawn by collecting and sorting the information.

### **Research Scope Limits:**

Answers to questions on mobile. There was no specific age group concerned here. Respondents from any part of the Maharashtra state. The number of respondents was limited.

### **Sample Selection:**

A stratified random sample selection method selected 500 respondents out of about 2000 respondents.

### **Data Analysis and Discussion:**

The collected data was separated and analyzed as the information received. Type of respondents was 42% students, 41% workers, 12% farmers and others, 5% house workers. Area wise analysis shows respondents from rural areas 50% are urban and semi-urban 48% respondents while from hilly areas 2% respondents. In short there are all kinds of respondents.

The pandemic born lockdown is clearly having an impact on the living habits of people and their social behavior. A cross-sectional, observational study Data shows lockdown impacts on daily routines and habits of people. Sleep, eating habits and internet uses has found significant differences. Majority of participants accepted to get affected by lockdown in their routines and habits. The research was done recently on Impact of Corona virus Imposed Lockdown on Indian Population and their Habits. (1) But researcher of this paper found in A Study of Habits That Changed during the Lockdown survey done in Maharashtra. Many means of entertainment are in use in society. Respondents were given options such as sitting games, watching TV, using mobiles, operating computers and internet for work or entertainment.

One research was done 42% Study participants reported more frequent use of mobile phone since lockdown to talk to their family/ friends frequently as compare to 33 % of before lockdown. 43% Study participants agreed that they are spending more time in front of TV since lockdown as compare to 21% before lockdown. A recent research study conducted by AZ Research et al reveals in their finding that since lockdown time, television use with an average watching time 3.30 hours a day that was 2.48 hours pre-lockdown. (2)

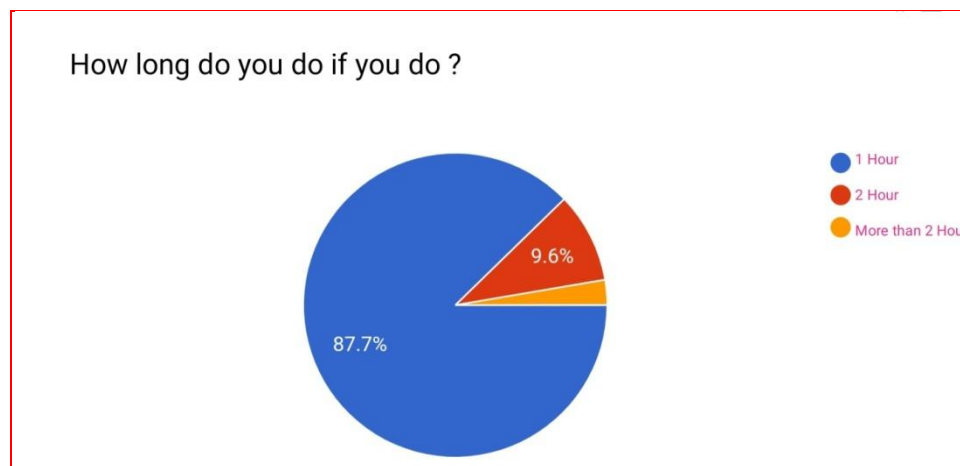
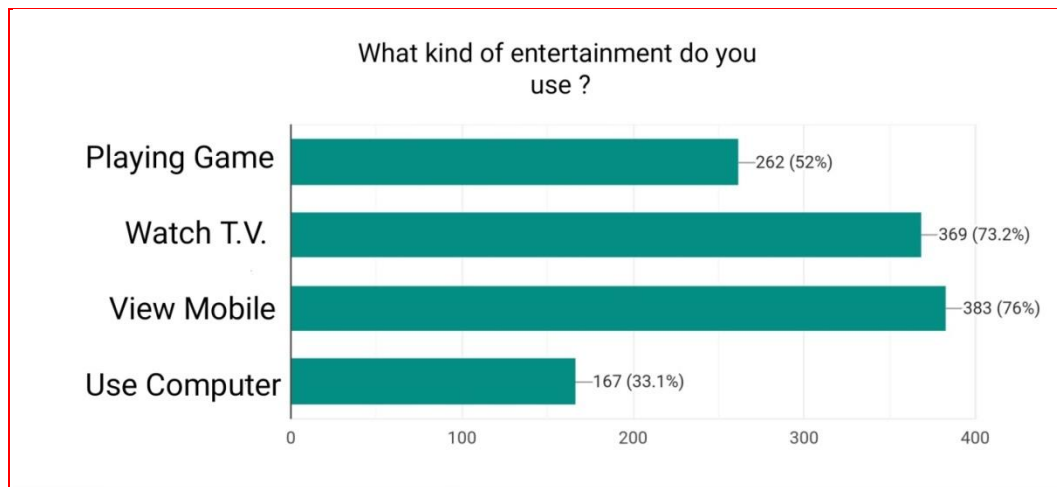
But the data collected in fifth lockdown says 76% respondents use mobiles for entertainment, 73% of people watch T.V., 52% respondents were playing sitting games and 33% use computers. More than one option was chosen by the majority of respondents.

Watching TV during the lockdown was the popular type of response. Looking that how many hours they spend watching T.V., 84% of those who watch for two hours and 14% of respondents watch for four hours. Minimum only one percent watch T.V. for six hours. Also one percent of viewers watch T.V. for eight hours daily.

When asked how many hours they use mobile, it was found that 75% of people spend an average of two hours on mobile and 19% spend four hours on mobile. While 4% were engage in mobile for 6-8 hours. Two percent respondents were spending 10-12 hours daily.

The habits changed more were related to exercise. 85% of respondents exercise during the lockdown period. Prior to the lockdown, 50% of them were exercising consistently. In general, 88% exercise for an hour. But 10% respondents exercise for two hours. Least 02% exercise more than that. Of course this habit was not current.

They were daily exercising. Now a days all the exercises were done in home because of Lockdown. The graph shows how long they do exercise .



The next findings were related to diet. Before that explanation one research paper was explaining that Eating habits changed during lockdown and he found 75% participants agreed that they are cooking more and spending more time in kitchen compare to pre lockdown. A recent study title as “COVID-19 virus outbreak lockdown, What impacts on household food wastage?” revealed that about 89% of respondents claimed to be aware of food waste and most of the respondents have set up a strategy of saving, storing and eating leftovers (3). As lockdown implemented people proceed to work from home this have an unexpected impact on family mealtime and eating habits. (4)

But in this paper researcher would have looked at whether there had been a change in diet during the lockdown period .About 84% of respondents who set the daily meal times. During this time, when everyone was at home, all the families were busy in eating different foods. Does the diet go higher than before? This question did not differ among the 42% respondents but 29% are eating more than that of before Lockdown.

Rest is important to human being. Covid19 impact study shows some facts Indians expected it to be, discovers the latest pan-India survey of over 1,500 respondents, conducted by sleep solutions firm, Wakefit.co.ile 67

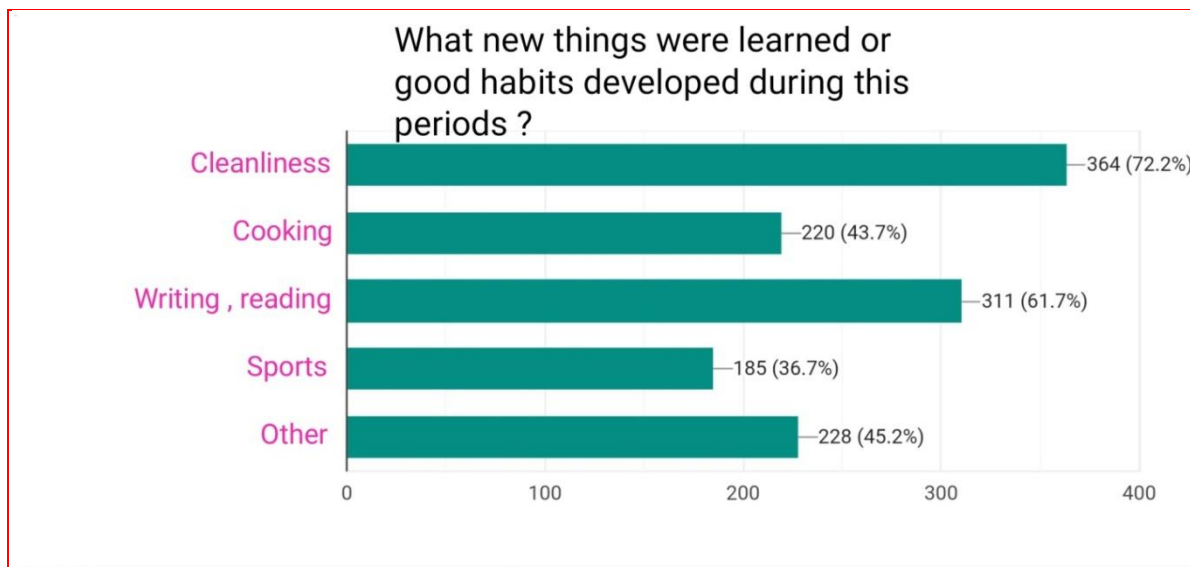


per cent reported that working from home has altered their sleep schedule, 50 per cent believed it has disrupted their sleep patterns.

A Study of Habits That Changed during the Lockdown survey gives details of the rest by respondents. According to 03% of respondents they get twelve hours of rest, 13% of respondents get ten hours of rest, 49% of respondents means about half of the respondents get eight hours sleep while 35% always get six hours rest which has never changed. In survey question was asked which type of work they do in Lockdown time or in which work they help. About 63% respondents were helping in housework, 14% do farm work and the Remaining 23% do other types of work depending on what they do during the lockdown period.

The research was based on spending or lazier time in Lockdown. As during lockdown people are spending all their time at home, 36 % of study participants preferred to spending time in reading books, newspaper or any other literature as compared to 21% before lockdown. Advance Field and Brand Solution conducted a survey to determine the effect of the lockdown on 'reading habits' and 'time duration' by people. Results shows that readers who spent more than half an hour in reading newspapers increased from 42% before lockdown to 72% and consequently the average duration increased from 38 minutes to 1 hour. (5)

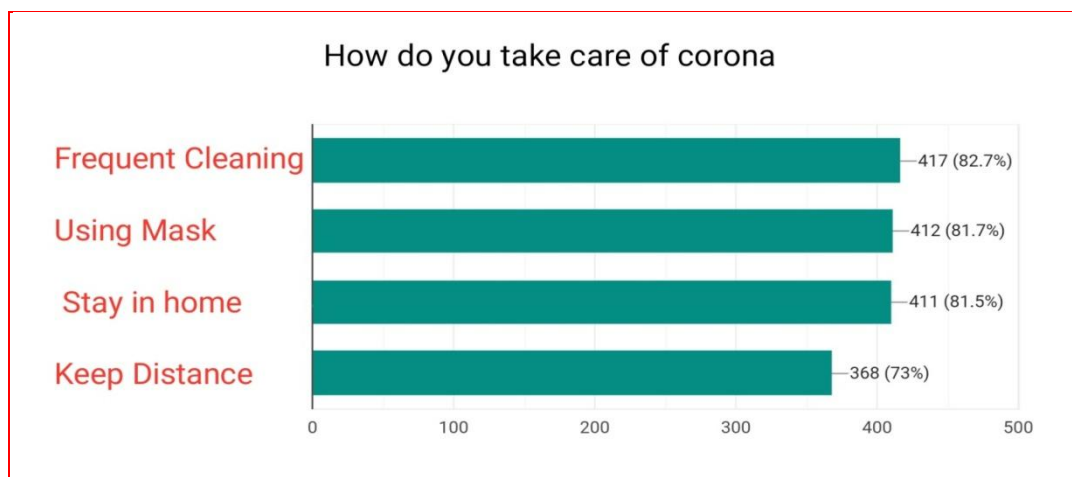
Here in this research there was an open question with more than one answer to choose or respond. What they learned or got into good habits during the lockdown. As we can see in the the graph, there were various type of responses given by respondents.



In Corona, hygiene is so important that 72% of the people focus on it. They choose and learn the habit of cleanliness. 62% respondents still do their favorite thing of reading and writing. About 44% respondents are learning some new recipes in kitchen. Sports interested respondents were less i.e.37% Free time during lockdown means inviting many unwanted items and bad habits. One of them is addiction. About 4% of respondents are addicted. Being in the family 96% are unaffected by addiction. The addiction is related to drinking tea which is not hazards. But some get habit of tobacco.

The nature of human is helping each other. During Lockdown there is not possibility of going outside the home .But when they get outside the home in relaxation period or from home also they help each other by much way. Economically and by giving necessary things like food was given to needy people. There were lots of people helping others during the lockdown. According to the response 80% of people are helping others locally.

Proper care is taken to stay away from the corona while sitting at home. On average, 82% of respondents emphasize hand washing, frequent cleaning. 82% care about using masks when going out, while 82% do not go out of the home anywhere during the corona period according to the rules made during the lockdown period. 73% of the respondents keep distance themselves from the other persons. The habits are changed during Lockdown students and other peoples were aware of this Corona disease. What to do and what not will be soon the part of their living thing with Corona.



**Conclusion:**

The following conclusions were drawn from the information received.

1. A variety of entertainment devices are used during the lockdown. Two tools are most commonly used. Mobile is used by 76% and 73% respondents use T.V. for their entertainment respectively.
2. The proportion of mobile users up to two hours in a day is 75%, while 2% are engaged in it for ten to twelve hours.
3. About 84% of the viewers watch TV for two hours in a day, while 2% spend six to eight hours in it.
4. During lockdown 85% of people exercise at home, 15% are not doing any exercise. Out of that who is exercising 88% respondents exercise for an hour.
5. 84% of people did not change their diet time during the lockdown period. Averagely 42% of respondents ate the same amount of food that they were taking before lockdown. The diet of 29% of people has increased during this period.
6. Adequate rest for eight hours is taken by 49% of the respondents. Only 3% of the respondents get 12 hours of rest during lockdown days.
7. Hygiene habits were introduced to 72% of the respondents. Reading and writing habits were adopted by 62% of the respondents. 44% of the respondents tried to learn to cook in lockdown.
8. About 4% of respondents became addicted to tobacco and tea during the lockdown.
9. During the Corona period, 80% of respondents are those who helped others by various ways.
10. People learn how to take care from Corona during lockdown. About 82% of the respondents insisted on not going out of the house. 82% of the respondents take care by using of masks and frequent cleaning.
11. Personal habits were found to have changed during the lockdown period.

**Recommendations:**

- Not only during the lockdown period but also during other times, if many good habits are followed, epidemics like corona and other diseases will not spread.
- Everyone should take care of their own health and the health of others.
- Personal hygiene care should be followed by every citizen.
- Research on Effect of lockdown and corona on schools ,colleges related to behavioral changes should be done.

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## POST COVID PARADIGM SHIFT IN EDUCATION SECTOR

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### Abstract:

Education has been hit particularly hard by the COVID-19 pandemic with 1.53 billion learners out of school and 184 country-wide school closures, impacting 87.6% of the world's total enrolled learners. Drop-out rates across the globe are likely to rise as a result of this massive disruption to education access. Appropriate use of technology in teaching, learning and evaluation will help a lot education sector from the pandemic affect. Innovative solutions utilizing technology may help to bridge the educational gap for residents during this unprecedented circumstance. The present article tries to propose innovative solutions for effective delivery of education as well as presents SWOC analysis of online education in the COVID pandemic.

**Keywords:** COVID, Education, Technology, Innovative, SWOC.

### Introduction:

COVID-19 is the infectious disease caused by the most recently discovered corona virus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. COVID-19 is now a pandemic affecting many countries globally. Corona viruses are a large family of viruses which may cause illness in animals or humans. In humans, several corona viruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered corona virus causes corona virus disease COVID-19. All over the world. total confirmed cases are 50,61,476, confirmed deaths are 3,31,415 and 216 countries , areas or territories with cases are declared by WHO reports. While in the midst of this COVID-19 crisis, it is crucial that the academic educational community learns from the experience and prioritizes a forward-thinking and scholarly approach as practical solutions are implemented.

This COVID 19 pandemic has significantly disrupted the higher education sector and it also effected badly to the nation's economy too. Due to COVID pandemic, it was unavoidable to shut down the commercial as well as service activities to control the spread of the disease. But coin has two sides, on one hand lockdown resulted to slow increase in the number of corona cases but another hand it totally shattered the industry , economy and education sector. It will surely take a lot time to fill up the massive loss in future. This is a critical time for the education sector specially , because board examinations, school admissions, entrance tests and final exams of various universities and competitive examinations, among others, are all held during this period which been cancelled or pending till date. As the days pass by with no immediate solution to stop the outbreak of Covid-19, school and university closures will not only have a short-term impact on the continuity of learning for more than 285 million young learners in India but also bring about far-reaching economic and societal consequences. This pandemic situation has transformed the chalk-talk teaching model to technology mode.

### Shift in the Medium of Delivery of Education:

This drastic change in the delivery of education is ensuring e-learning solutions will take up the lid in bridging the gap between students and their education institutions. During this pandemic period all the educators

must cater the needs of education of learners through online sources/ E platforms such as Open-source digital learning solutions, Learning Management Software, mobile-based learning models. But it is also need to reconsider that all schools and institutions or the students don't have digital devices. So while revising the educational policies this should be noted. Many platforms such as Moodle, MOOCs, Google classroom, Edmodo, Google Quiz, Google Forms, Online databases, Online conferences through Google meet, Teams, Zoom and other platforms can be used for delivering the knowledge.

### **SWOC Analysis of Online Teaching, Learning and Evaluation:**

Online teaching is like a two side coin. This has benefits and limitations too. India has mixed population of rural, semi urban and urban areas. And for all income groups its highly impossible to arrange techno-devices useful for digital learning. Right now many people have lost their jobs, or can't do their job coz of lockdown and pandemic situation. In such disastrous situation keeping mentally and physically fit to people has become the first priority so government had taken decision of lockdown which extended for long period than expected. So now need of the hour in the education sector is to arrange classes and continue work of educating and keeping the students on the track of education. So adoption of digital devices for dissemination of knowledge and information became solution for bridging the physical gap between educational institutions and students. Many institutions still have incomplete curricula and pending examinations and thus results in the form of degrees are waiting. It is leading different problem of delaying into employability and thus in earning too. This needs to be focused so educators are now taking steps forward to online teaching. Let's see what are the strengths, weaknesses, opportunities and challenges before education due to COVID 19 outbreak pandemic situation in India.

#### **Strengths:**

Online education has access to anyone at anytime. Anybody from any corner of nation can access to online contents just at one click. Students no need to visit to college/ institution for learning purpose, and there is no time bound. The contents of online teaching or the material that we share on digital devices can be permanently saved on E platform and can be reused in future. It has important benefit that if while working also class can be attended via online, wider contents can be shared and it has less costly to institution as well as to the government too. There is reduction in campus maintenance expenses, educator's salary and in human resource etc. Even it reduces the cost of travel of the students from rural and remote areas.

#### **Weaknesses:**

Though online education serves to lot of humans at the same time with low cost but on the other hand it has no human/ emotional touch while delivering knowledge and this creates gap in students and teachers. All students' psychology or learning ability will never be the same, and hence teachers emotional contact is also important which lacks during online education. Not only the students but also some teachers are also technophobic, it became disastrous to them to go for adoption of technology instead of chalk and board. Also it has risk to reduce students and teachers access to library. Online exams and evaluation is possible in digi-education but it has also risk of ignorance, postponement of assignments or copying too. It should be considered very seriously that adoption of technology is not possible for low income parents to manage android phone/ laptop/PC/Internet connection. One of important drawback of online education is that teachers can teach but immediate learners query or reply is not possible, individual attention cannot be given and it needs good speed of internet to access online contents.

**Opportunities:**

Digital education has enhanced learning environment for students, and teachers too. From variety of resources information can be gathered. This has opened new doors of earning for teachers through streaming on YouTube Channels. Online education enhanced technology use. Due to online teaching all are getting updated with the world, adoption of new techniques in changed educational environment. Also it brought opportunity to reach wider number of students at the same time and increase in Cross border learning.

**Challenges:**

Online teaching is not cup of tea for everyone, it needs language fluency, training and expertise using digital devices otherwise the show gets flop immediately and learners lost their interest. There is increase in cost of maintaining databases and online library. Also Difficulty in maintaining students concentration on limited format of online teaching, because students can use options like split screens and easily cheat on class. It has one more challenge to maintain student's ratio in the institution, otherwise due to online classes drop outs may increase. Online distractions may affect online teaching as well as learning.

**Conclusion:**

Although e-learning will help the teachers and students get in touch with the education but the students and teachers must have to quickly adjust their old routines to this new paradigm shift in the education. But conducting examinations at large bases is quite difficult through online portal. Few disciplines like language, medical, mathematical requires detail and practical exams which is not possible through online platform and even though it is implemented, we cannot surely guarantee about duplication or copying during exam. So evaluation will also get affected. In this time of crisis, a well-rounded and effective educational practice is what is needed for the capacity-building of young minds. It will develop skills that will drive their employability, productivity, health, and well-being in the decades to come, and ensure the overall progress of India. It is for sure that the post pandemic shift in the mindset of educators as well as students is highly required to cope up with the digital advancement in education sector. Social, Intellectual and pedagogical issues must be addressed through online education then it will result in fruitful way.

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## **SOCIO-ECONOMIC IMPACT OF COVID-19 ON SOCIETY, ECONOMIC AND EDUCATION**

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### **Abstract:**

The global impact of COVID-19 on economy and labour market both have the policy and recommendations on lowering the effects and also improving the fastest recovery. Most of the business is to ensure employees health, safety and productivity. Here we discuss the challenges for work from home connectivity and collaboration remotely. The next priority is connecting with the various customers, client-server, suppliers, buyers and partners. Finally we are focusing on confirmation business continuity and resilience in building. What are the impact happening in the lockdown period where it effects the supply-chain uncertainty and global markets. The paper consists of Managing the Employee and Workforce Experience, Leveraging Digital Technologies, Optimizing and Remaining IT, and Increasing Organizational Resilience.

**Keywords:** COVID, client-server, lockdown, leverage

### **Introduction:**

Coronaviruses are a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). A novel coronavirus (COVID-19) was identified in 2019 in Wuhan, China. This is a new coronavirus that has not been previously identified in humans. The COVID-19 pandemic has resulted in over 4.3 million confirmed cases and over 290,000 deaths globally. It has also sparked fears of an impending economic crisis and recession. Social distancing, self-isolation and travel restrictions have lead to a reduced workforce across all economic sectors and caused many jobs to be lost. Schools have closed down, and the need for commodities and manufactured products has decreased. In contrast, the need for medical supplies has significantly increased. The food sector is also facing increased demand due to panic-buying and stockpiling of food products.

### **Impact on Society:**

#### **Agriculture:**

The resilience of the agricultural sector has been tested by the COVID-19 outbreak. A global crash in demand from hotels and restaurants has seen prices of agricultural commodities drop by 20%. Countries around the world have imposed a number of protective measures to contain the exponentially increasing spread. This includes social distancing, avoiding unnecessary travel, and a ban on congregations. Advice on self-isolation upon contact with suspected carriers of the virus is likely to impact the number of available inspectors and delivery staff critical to ensuring verification and transportation of products. This will have pronounced implications for perishable goods such as meat and vegetables. Furthermore, markets have gone a step further by shutting down floor trading which has impacted the ability to exchange commodities. The Chicago Mercantile Exchange is a recent example. 'Panic buying' is further complicating shortages beyond supermarket shelves. The American Veterinary Medical

Association (AVMA) have expressed concern over low levels of animal pharmaceuticals from several large drug suppliers.

**Industry:**

A survey conducted by the British Plastics Federation (BPF) explored how COVID-19 is impacting manufacturing businesses in the United Kingdom (UK). Over 80% of respondents anticipated a decline in turnover over the next 2 quarters, with 98% admitting concern about the negative impact of the pandemic on business operations. Importation issues and staffing deficiencies stood out as the key concerns for businesses due to disruption to supply chains and self-isolation policies. Indeed, for many roles within a manufacturing company, 'working from home' is not a viable option. As the UK is adopting similar protective measures to the rest of the world, and due to the global overlap of supply chains, we can expect these anxieties to transcend borders. The Chemical Industry is predicted to reduce its global production by 1.2%, the worst growth for the sector since the 2008 financial crash. Major chemical manufacturing companies such as BASF who were in the process of up scaling production in China have had to delay their activities, contributing to a slowdown in predicted growth.

**Education:**

COVID-19 has affected all levels of the education system, from pre-school to tertiary education. Different countries have introduced various policies, ranging from complete closure in Germany and Italy to targeted closure in the United Kingdom for all but the children of workers in key industries. Additionally, over 100 countries have imposed a nationwide closure of educational facilities. UNESCO estimates that close to 900 million learners have been affected by the closure of educational institutions. COVID-19 has had an impact on social mobility whereby schools are no longer able to provide free school meals for children from low-income families, social isolation and school dropout rates. The impact of long-term school closure is yet to be seen. COVID-19 has also influenced the tertiary sector. As well as the impact on undergraduate education, the most significant impact is on the postgraduate research community with research into many non-COVID related topics being placed on hold. Outside of the healthcare research setting, several institutions have put research in fields such as the humanities and social sciences on hold with Harvard University closing all laboratories in the Faculty of Arts and Sciences.

Additionally, concerns have been raised regarding the number of scientific conferences that have been cancelled or postponed. These conferences are the key to scientific research in many disciplines, allowing dissemination of research as well as providing networking opportunities for collaboration and job-seeking. Many conferences have moved online, however these 'virtual conferences' are often not as amenable to networking and informal means of scientific communication.

**Society:**

Lockdown and social distancing measures to prevent spread of COVID-19 have heightened fears of increasing levels of domestic violence, which includes physical, emotional and sexual abuse.

Refuge, one of the UK's domestic abuse charities, has reported a 25% increase in calls made to its helpline since lockdown measures were announced.

The concentrated time spent in lockdown means that vulnerable people are more exposed to abuse and it is more difficult for them to seek help. In response to increasing concern, the UK government has published guidelines on how to recognize domestic abuse, how to report it and where, with a list of all the services available.

In addition, a significant impact of the COVID-19 pandemic has been seen within the video-gaming industry. With many individuals self-isolating and/or remaining home under strict governmental regulations, online gaming has



seen the emergence of record numbers of players, which has facilitated a boost in revenue for many companies. Conversely, negative impacts include cancellation of the annual and major trade event E3 2020, alongside the rescheduling and/or cancellation of popular Esport leagues.

**Conclusion:**

With fears of a new recession and financial collapse, times like these call for resilient and strong leadership in healthcare, business, government and wider society. Immediate relief measures need to be implemented and adjusted for those that may fall through the cracks. Medium and longer term planning is needed to re-balance and re-energise the economy following this crisis. A broad socioeconomic development plan including sector by sector plans and an ecosystem that encourages entrepreneurship is also needed so that those with robust and sustainable business models can flourish. It is prudent that governments and financial institutions constantly re-assess and re-evaluate the state of play and ensure that the ‘whatever it takes’ promise is truly delivered.

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## IMPACT OF ONLINE TEACHING IN THE ACADEMIC SCENARIO

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### Abstract:

In recent times, the online teaching learning process has become day to day activity. The students get details of the learning management tools and the meeting applications from the teacher so that it is enabled. In each new change that has to be done, one has to accept the situation and adapt oneself with that. In the present scenario of covid-19 pandemic many have started teaching and learning online. Initially, teaching learning was hardly online but now it seems to be routine exercise. With the news Technology and the technological advancement there comes many aspects with it. In this online teaching learning process, there is negative impact with positive side of the coin. Present research paper aims at throwing light on the details of this online teaching learning in the academic scenario. This aims at focusing on the problems along with the positive aspects.

**Keywords:** Education, online, teaching, technology, learning

### Introduction:

India has always been known for the knowledge. In the ancient times, there was Guru- Shishya tradition. The Indian academic scenario has been drastically changed with the arrival of British raj in India. English education was introduced in India which made Indians to know the ideals prevailing in the world. There was introduction of English as a language by British which helped them to form a platform of many Indian people at the mercy of English rule. The Universities were setup in the year 1857. (Krishnaswamy and Krishnaswamy 66) Indian education in the modern period developed with the policies of British. Post- independence the criteria of British for education in the Indian context was applicable for many years. Many decades the aims, objectives, syllabus, system of education was based on traditional British model. (Ness and Lin 624-625)

There are many different aspects in the academic field. Indian education scenario is somewhat different from other countries. Indian education is different because of large classes, inclusion of mother tongue learning English and Foreign languages. India is a developing country so there is incapable infrastructure, lack of use of technology, less online teaching-learning management. The year 2020 is revolution in the field of education. All the sections and sectors of the country are affected by the disease called covid-19. The world is at the mercy of fate created, designed, planned by the unprecedented crisis. The education sector is also affected by this pandemic. In the academic scenario, many new experiments were done. The teaching and learning did not stop even with lockdown. Staying at home just was done for physical distancing. Learning is a perpetual process and on-going phenomena. Covid-19 just asked human beings to stay at home but not stay away from learning.

### Changed Parameters in Education:

No one has probable idea of resuming all the systems in the world. Hence many different options which were there in the world were re-opened to the world. Some options were newly created taking into consideration various needs. The parents who were against using of phones by the children, had to permit them to use for the process of learning. This is applicable to all the age groups of learners.

The teaching started taking place on the online mode. It is sometimes personal (one to one) and sometimes group classes. The use of online teaching- learning management systems like google classrooms, Edmodo, etc is increased. The teachers also attempted to take online lectures. Some go with the YouTube lectures. The meeting

apps like WebEx, Google Meet, Zoom are in full swing. There are online quizzes, tests, examination, evaluation, result of the students by the teachers. The hobby classes, personality development classes, exercise classes are conducted online along with the traditional teaching. All these things are created many positive vibes with the negative once. The aspects related to this are being discussed further.

**Impact of Online Teaching:**

The positive impact of the online teaching learning is home based teaching outcomes. This helped in curbing the physical contact and thus preventing corona. The physical distancing is made easy by the teaching learning on the screen which is small in size. The other positive impact is flexibility. Many times, the timing of the classes was decided and taken accordingly but the teaching- learning management applications made it easy by uploading the videos and material online. This made students learn when they wanted to.

The students who have no facility of connecting to the process of online teaching- learning had to go away with the learning activity. The poor, who hardly can afford learning online are stuck in the vicious circle of inactivity. This impacted the students at many different areas too. Many different teachers teach online, for them it is only one hour. The student who joins the batch had to join many such batches which resulted in lack of interest, sleepiness, boredom, disturbance. The students have to go through many different physical problems. The overuse of mobile phone affected the overall general health in the tender age of childhood and adolescence. Eye- problem is the major affected area because of the direct contact of the screen and the eyes. Back ache due to continuous sitting and improper posture, head ache due to non- stop screen watching made the teaching experience worse.

The physical classes help teachers to go through the emotions of the students which can be seen by the facial expressions. As there is no direct contact of the teacher and learner with the intermediary (gadget) between, the rapport of the student- teacher is disturbed. It is unstable and improbable as the network of the phone. The students cannot be connected to the teachers which hampered the relation of the teacher- learner. The teacher cannot be there on phone for each and every student always. This affected the mental and emotional health of the student at a great extent. The students are not always committed to the online mode of the learning. They get distracted early with the options of entertainment available on the phone. If the video and audio in the class are muted, the activity of the students cannot be traced out. This paved the way of students going astray from what they are meant to do.

The network consumption is high all the time and thus the poor connection disturbs the audio and video quality which is major hurdle in the teaching- learning process. As the students cannot be traced out sometimes the audio of the students irrelevant to the topic disturbs whole class. These and many more are the impacts of the online education.

**Conclusion:**

This paper aims at discussing the pros and cons of the impact of online teaching-learning process. This will enable getting the overview of the present problems from the students' point of view. Online teaching cannot be an option of the physical teaching in the present world. After retaining the lives to normal one has to go back to the traditional teaching- learning process with few alterations in that. There are indeed positive aspects of online teaching and learning but it comes with the negative impact hand in hand. The overuse of any medium is harmful. If used well, online teaching learning is a boon even the hard times.

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## INDIAN ECONOMY SURGES AMID COVID-19

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### **Introduction:**

Indian economy is characterized to be the fastest growing economy in the world with world's fifth largest economy by nominal GDP and third largest by Purchasing Power Parity. The growth rate in GDP was 4.2% in 2019. Internally agricultural Sector contributes for 15.4%, Industrial sector contributes for 23% whereas Service sector stands for 61.5% of country's GDP. Country's Export stood for 330 billion USD in year 2018-19. Growing speedily the economy got interrupted by a pandemic named COVID-19. Covid-19 is a disease caused by virus named Corona which was first detected in China's Wuhan city. In India the virus was first detected in a student who returned from Wuhan to Kerala, further slowly and gradually the disease started spreading all over the country due to international travellers. After WHO declared COVID-19 as Pandemic, country was forced to take strict preventive measure which included nationwide lockdown. This lockdown caused a deteriorated impact on Indian economy as well as on World economy. India's GDP was estimated to be negative in coming years. Every single was affected by the lockdown. Agriculture sector was badly affected as the agricultural products were wasted due to halt in supply chain. Manufacturing industries faced more than 50% of loss due to halted manufacturing process. E-commerce was also hit by loss; the demand for essentials saved their places. Banking Sector too faced the impact as due to lockdown halted, right from individual to huge firm bank announced 3+3 months of moratorium which affected the revenue of banking sector. Even the Government faced huge revenue loss. As in whole though the govt. is trying to cope with the situation it will take around 2 to 3 years to be on normal track.

Let's start with the individual sector. Lack of labour

### **Agricultural Sector:**

Though the demand for essential goods were on its peak, the productivity was slowed. Many agricultural product were harvested but around 22% of farmers had to store their productivity, 12% farmers tried to sell their productivity and 44% managed to sell their productivity. According to a research conducted by Harvard TH Chan school of public health, Public health foundation of India and centre for sustainable agriculture from May 3<sup>rd</sup> to May 15<sup>th</sup> 2020. 40% of farmers faced loss due to lack of labour, storage facility and transport, Where already the condition of small and marginal farmers in our country is worse, such a lockdown condition adds to the depleted condition. As per the estimation agricultural productivity has increased but due to lockdown the problem was the distribution and transport was halted and lack of storage facilities. There was 20% decline in the price of fruits and vegetables. There was a surge in procurement price. Lack of transport affected the life of perishable good.

### **Industrial Sector**

The sector was affected tremendously as its productivity lowered, Sales gone down and unemployment reached to its peak. Some key sectors which were affected are as follows:

**Table 1: Impact on COVID-19 lockdown on manufacturing industries in 2020**

Sector	Productivity
Auto and Advanced industries	-70%
Textiles	-50%
Metal And Mining	-35%
Oil and Gas	-20%
Power	-20%
Consumption and Retail	-20%
Chemical	-15%
Pharmaceutical	-10%

In the above table it can be seen that Auto industries faced a huge loss of around 70% and textile around 50%, the two sectors alone contributing for more than 14% of GDP.

**Service Sector:**

Service sector is the major growing sector in the economy which includes medical, transport, tourism, communication etc. The sector faced the growth of 61% contributing in country's GDP leaving behind agricultural sector and industrial sector. Service sector was majorly hit by the COVID-19 lockdown where transports were shut down, hotels were closed, school colleges were also closed.

**Table 2: Loss occurred in different industry of service sector (in billion USD)**

Industry	Loss
Hotel	3.1
Airlines	3.6
Exhibition and trade	2.2
IT Service	3.3
Tele communication	1.5

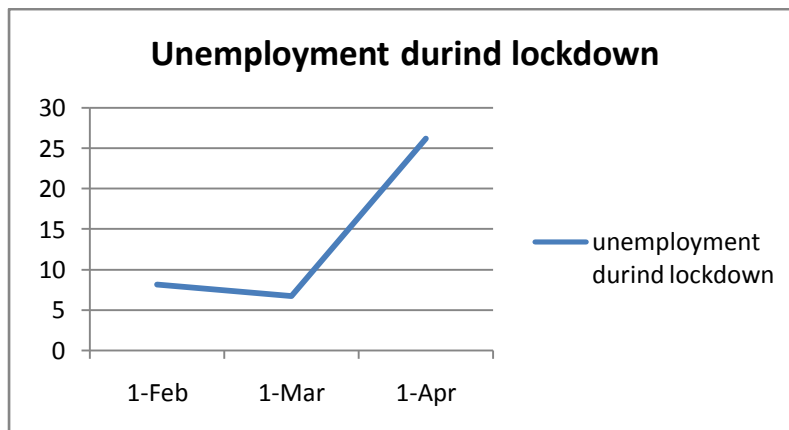
It can be seen in the table, that the loss incurred by the sector is huge. Government from its side is trying to cope with the situation.

**Banking Sector:**

Indian banking system consists of 18 public sector, 22 private sector bank, 46 foreign banks, 53 regional rural banks, 1542 urban co-operative banks and 94,384 rural co-operative banks. The sector faced a major hit back due to COVID-19 lockdown. Major industries were closed down and which led people to stay far from workplace, though government requested to pay salary and wages to the labour and workers, the companies paid only 30% to 50% of salaries where around 40% of population has home loan and major population has vehicle and personal loan were not able to pay the EMI. Same was the condition of industrialist. In addition government introduced 03+ 03 months moratorium which was a major hit for the banking sector. There was an increase in the bad loan further Asset ratio soured to 9.3%.

**Unemployment:**

Amid Covid 19 lockdown where major industries, manufacturing units, offices, construction fields etc. were closed, there was a steep fall in house hold income which was around 46 %. The inflation rate also increased in goods and services including essential goods. Where major labourlabour belonged from unorganized sector, social distancing actually distanced them from work.

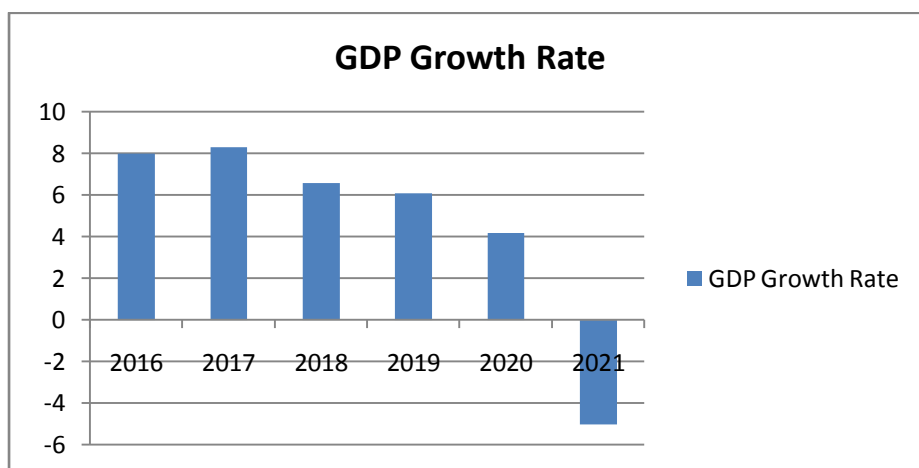


**Figure 1: Unemploymentrate due covid 19 lock down in India (in %) (Source: Statista 20)**

It can be seen that there is a steep rise in unemployment rate. The unemployment rate was 8.1% on16th February 2020, 6.7%on 15<sup>th</sup> March 2020 and suddenly rose to 26.2%on 19<sup>th</sup> April 2020.

**Gross Domestic Product of India:**

The lockdown as a whole had a major impact on the total GDP of the country. India was considered as one of the fastest growing economy. Country’s GDP was estimated to increase by7.2% in 2021, but Covid 19 not only decreased the growth rate but pulled it to negative rate.

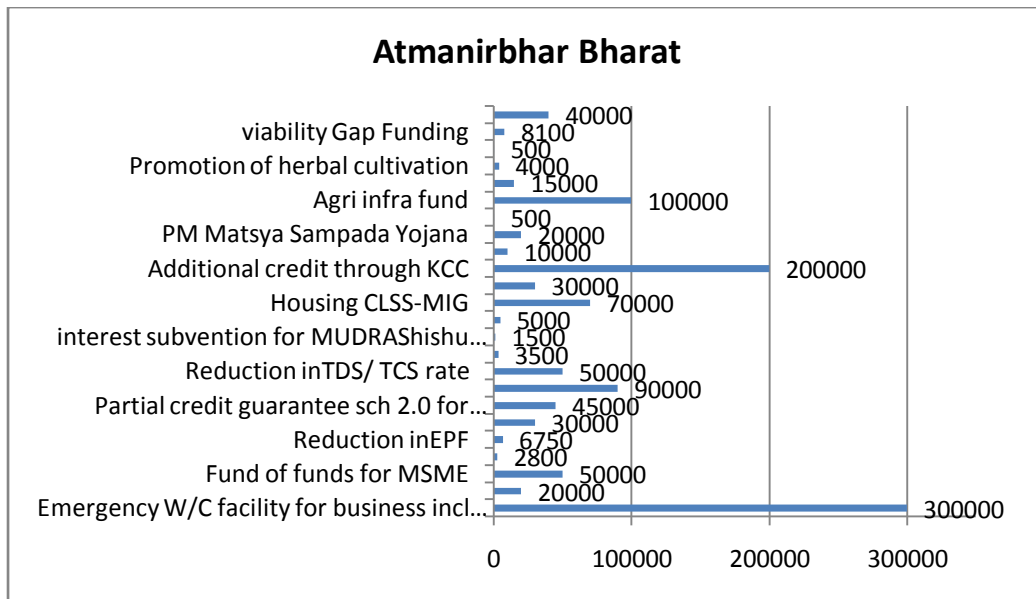


**Figure 2: Growth rate of GDP of India (in %)**

Where Indias growth in2019 was 6.1% which would fall to 4.2 post covid impact and further decline to - 5% due to recovery of economy from covid.

**Atma-Nirbhar Bharat (Self Reliant India):**

On 12<sup>th</sup> May 2020 P.M. of the country declared an economic package of 20 lakh crores named Atma-nibhar Bharat, theaim was to make India self-reliant. Below is the bifurcation of AtmanirbharPackage.



The Atma-nirbhar package consists of investment in different sector which include support to business and defense, collateral free loan, creating employment etc.

**Conclusion:**

Though the period of March to May 2020 was a challenging period for the country where it had to focus on all the aspects simultaneously which included handling covid patients, prevention of spreading virus, handling the unemployed labors, fulfilling the demand of essential commodities and much more. But still there seems to be a light in the darkness. It is expected that the country would reconstruct its domestic market and regain its place in international market.

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## IMPACT OF CORONAVIRUS (COVID-19) ON INDIAN ECONOMY AND SUPPLY CHAIN

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### Abstract:

At present time world is facing from the coronavirus disease known as Covid-19. COVID-19 has disrupted the Indian economy and is spreading globally. This has spread all over the world and called as a pandemic by World Health organization. The evolution of the disease and its economic impact is highly uncertain which makes it difficult for policymakers to formulate an appropriate economic policy. The outbreak of the Covid-19 pandemic is an unprecedented shock to the Indian economy. The economy was already in a parlous state before Covid-19 struck. With the prolonged country-wide lockdown, global economic downturn and associated disruption of demand and supply chains, the economy is likely to face a protracted period of slowdown. After the spread of Covid-19 many countries have shut down their sea ports and airports. They have banned the import and export activities. Also, China is the major distributor of the raw materials which affect the manufacturing activities across the globe due to lockdowns. India is the developing country due to the Covid-19 spread the cases reported in the India government has lockdown the country which affected the manufacturing activities and majorly it affects the supply chains and economy of the country. It appears that only essential services should be open for the citizens of India and the national lockdown should be carried on for next 2-4 weeks. In the present paper we have discussed the effect of Covid-19 on Indian economy and on supply chains in India. There are many critical barriers are found out which affected the supply chains in the India. It is expected that this study will help the researchers to develop the conceptual models to overcome from this issue.

**Keywords:** Covid-19; Indian economy; supply chain; manufacturing industries; barriers

### Introduction:

After the great depression of 1930 in which the global economy has faced the worst recession is now facing the global pandemic of corona virus that has laid the adverse effect on all the .Economic activities across the world. The entire country is facing a situation where everyone is recommended to stay at home to curb the spread of coronavirus. The Indian Government has requested people to avoid human contact and maintain social distancing. A nationwide lockdown is imposed, due to which businesses and retail sectors have been most impacted. The economy is at stake as most of the offices and production companies are shut. Companies ready with products for sale are unable to send it to the retailer because of the weak supply chain. Numerous reports suggest that the lockdown is going to impact consumer behaviour, retail stores, product demand, logistics, and more. It seems that the growth expected by the companies in 2020 is going to be affected by COVID-19. The impact of Covid-19 across the world has been as unprecedented as it has been devastating. Equally unprecedented has been the response of the nations of the world, with bans on travel, closure of borders, closure of businesses, and in several cases, complete lockdowns. Even before the imposition of the lockdowns and the spread of Covid-19 across the world, the severe disruptions in China were having a ripple effect on global trade flows. In India, certain industries have become more and more dependent on Chinese imports. These industries are under significant risk. This includes pharmaceuticals



(China supplies almost 70 per cent of active pharmaceutical ingredients (API) requirement for the industry); automobiles (10-30 per cent of the raw materials and base components are imported from China); chemicals and textiles. The renewable energy sector relies on China for 80 per cent of the sector's requirement of solar panels. Finally, and potentially most problematically, several micro, small and medium enterprises (MSMEs) are dependent on Chinese imports. Manufacturing plays an important role in the development of nations by contributing to the GDPs. Now the production of the low margin and high volume products have shifted towards the low economies. Due to the Covid-19 issues around 35% of manufacturers have reported the disturbances in the manufacturing practices. At present there are huge demands of many products in which the face shields and pharmaceutical products are main. The demand of these products has increased in last two months. The manufacturing units in most of the countries have shut down due to Covid-19 spread and most of the countries are facing from the lack of the labour due to the fear of Covid-19 spread. Supply chain across the nation is disrupted. The Indian government has already held the high level meetings to set the new manufacturing strategies. Indian government is now focusing on the try and establishing India as an alternative to the China for manufacturing for both the local and global market. Most of the countries have shifted their production out of China due to the disruption of the supply chain between major trading partners. Supply chain is also disrupted in India at local level due to some barriers which are discussed in the present study. In the present paper we have discussed the effect of Covid-19 on Indian economy and on supply chains in India. There are many critical barriers are found out which affected the supply chains in the India. At a high level, most economists believe that there will be limited medium to longer-term economic impact on most industries, and overall growth trends will remain fundamentally unchanged. In the short term, however, the consumer sector, which contributes the most to economic growth, will be the one that hurts the most. In the first half of this year, catering, retail, and travel services will all experience tremendous cash flow pressure due to declining sales and high fixed costs, and the shortfall in cyclical consumption will not be made up after the epidemic. Over the past month, we have seen many high profile consumer companies downgrade earnings expectations due to COVID-19 and reduced consumer demand in China. In contrast, the impact on manufacturing so far has been relatively limited. In the short term, influence lies mainly in supply chain obstructions and difficulty in recovering production due to the delayed return of workforces, lack of personnel mobility, and traffic restrictions. The magnitude of these disruptions increases as the time to recovery lengthens. And the impact on the industry will be far more significant if the spread of the virus impacts other key industrial countries beyond China. In the long term, the manufacturing industry should get back on track.

#### **Literature Review:**

As per different papers available in literature, there are a few studies that focus on the effect of the pandemic of the various sector of the economy of nation. The Indian economy has been experiencing significant slowdown over the past few quarters. In the third quarter of the current fiscal, the economy grew at a six-year low rate of 4.7%. The impact on the Indian economy could be significant if the virus continues to penetrate the country which will have a longer lasting effect. While the impact on economic prospects due to activity being affecting in countries like China, S Korea, Japan, Italy, etc. would be through trade, investment and services routes, it could be more damaging if there is any shutdown in India. Supply chain across the nation is disrupted. The Indian government has already held the high level meetings to set the new manufacturing strategies. Supply chain is also disrupted in India at local level due to some barriers which are discussed in the present study. In the present paper we have discussed the effect of Covid-19 on Indian economy and on supply chains in India. Apart from India, a few

models are also available for other countries primarily for China, Italy and USA as the number of infected patients was high. Studied like worked on various mathematical models to determine the spread of the disease, predict the number of in-feted patients, commenting on the preparedness for each country in tackling COVID-19 spread and finding the patterns of flattening curve in different conditions. A lot of researches are still in preprint stage for the world level and are yet to be peer reviewed. With respect to the research activities conducted in the Indian region, the studies are yet to work on the impact of different policies working towards containment of the corona virus. Even in the preprint databases, there are fewer evidences available which worked in the Indian region with more granularities and came up with analysis that can support the decision making of the various administrators in India to curb the lockdown and work on future strategies.

### Research Methodology:

In this study I have taken survey reports & study reports by various agencies like CRISIL, FICCI, CII, McKinsey & Company and CARE Ratings for detail study. I have chosen the reports mostly published in March and April months to understand the impact of COVID-19 on Indian economy and various sectors. Also, I have studied few research papers and News articles which publish in these two months.

### Findings and Discussion:

The findings of the different types of data analysis conducted on various types of datasets are presented in the current section as follows

#### Impact of COVID 19 on Indian Economy:

The Indian economy was grappling with its own issues and COVID-19 made the matters worse. India's GDP has been on a consistent decline after peaking out at 8.1 in Q4 of FY 2018 to 4.5 in Q2 of FY 2020. The industry was facing demand problems, due to which business houses were reluctant to undertake capex plans, unemployment was at its peak and exports which were consistently down for several months. India has the problem could be more acute and longer lasting; the economy was in parlous state due to Covid-19 struck.



#### India's Growth Projections Revised Down:

Most multilateral agencies and credit rating agencies have therefore revised their 2020 and 2021 growth projections for India keeping in view the negative impact of coronavirus-induced travel restrictions, supply chain disruptions, subdued consumption and investment levels on the growth of both global and the Indian economy.

**Fitch Ratings** - Fitch has also cut its forecast for India's economic growth to 4.9% for 2019-20 from 5.1% projected earlier.

**Moody's** - Moody's Investors Service has revised down its growth forecast for India to 5.3% for 2020 from its earlier estimate of 5.4% made in February.

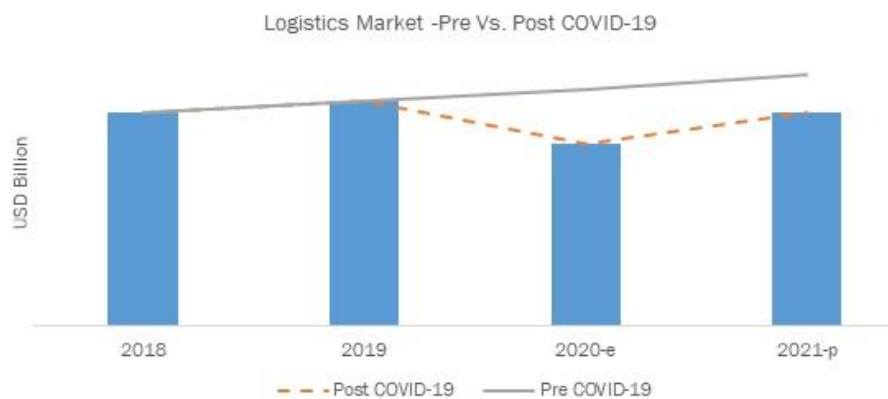
**S&P Global Ratings** – S&P has lowered India's economic growth forecast to 5.2% for 2020 as against 5.7% projected earlier.

**Barclays** – Barclays has lowered India's economic growth forecast to 5.6% for 2020 as against 6.5% projected earlier.

#### **Impact on Logistics & Supply Chain Industry Market:**

COVID-19 Impact on Logistics & Supply Chain Industry Market by Industry Verticals (Automotive, FMCG, Healthcare, Energy & Utilities, Industrial Machinery & Equipment), Mode of Transport (Roadways, Railways, Airways, Maritime). The global logistics market size is projected to grow at a Y-O-Y growth of 17.6% from 2020 to 2021, to reach USD 3,215 billion in 2021 from USD 2,734 billion in 2020. The projection for 2021 is estimated to be down by over 10-15% as compared to pre-COVID-19 estimation. The major drivers of this market are increasing supply of essential commodities, creation of supply chain stabilization task force to fight COVID-19, and growing demand and distribution of personal protective equipment.

**COVID-19 Impact on Logistics Market (Pre Vs. Post COVID-19 Analysis)**



Roadways and railways are relatively less affected by the COVID-19's impact on the logistics sector when compared with airways and waterways. Due to heavy restrictions on international transport, roadways and railways have emerged highly important to maintain the optimum supply chain, especially for essential commodities. Being the preferred mode of transportation for essential goods, road transport is heavily relied upon for the continued supply of food, medicine, and other essential products.

FMCG is one of the industries facing significant logistics challenges. Countries having a huge consumer base are facing major challenges when it comes to ensuring the continued supply of essential commodities. With limited availability of fast-moving consumer goods, consumers are experiencing a change in their lifestyle as they are receiving fewer products because of COVID-19 impact on the logistics and supply chain industry. However, FMCG companies are continuously tracking the current situation and are coming up with new strategies to contain the pandemic.

#### **Demand side shock:**

The coronavirus pandemic is a "severe demand shock" for the Indian economy and could lead to further moderation in the country's GDP growth as the coronavirus-induced lockdown is causing significant disruption across multiple sectors. The various facilities and services provided by the Indian government and private sectors

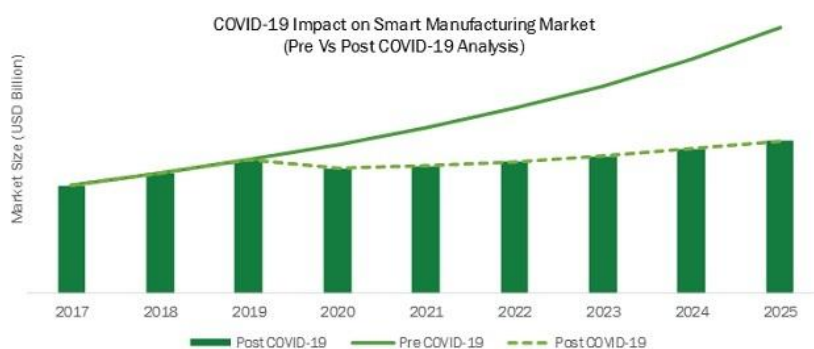
such as Tourism, Hospitality and Aviation are the major sectors that are facing maximum loss in the present crises. Tourism that account for 9% of GDP may decline at least next 2-3 quarters. Aviation that contributes around 2.4% of GDP has severely impacted and these sectors include employees around 42.7 million of people. Sectors such as auto, that contributes 10% of GDP and employee around 40 million of people, is declining continuously due to less of demand and due to which the marginal firms and other industries has forced to shut down. The hotel services are catching huge cancellation from business travellers from various conferences, workshops seminar that got cancelled on such a large scale. Closing of cinema halls, declining in shopping from complex malls has affected the retail sector too and also to the consumption pattern of consumer in terms of essentials and luxury goods. It is accounted for a loss of \$4.5 billion every day of the lockdown.

**Supply side impact:**

Due to the lockdown and global pandemic the business is hampering with the production cycle that will further affect the investments. There is about 55% of electronics are imported from china that has slid down to a percentage. India imports about 85% of active pharmaceuticals ingredients (API) from china and due to the factor there is a possibility of shortage in availability and thus prices may go on hike. Some targeted industries in the supply side go for the shutdown that is the marginal firms. India being the highest exporter of raw material and import source of goods that are required for their intermediate and final goods are on pause now due to the delay in supply of goods from china. Various sectors such as pharmaceuticals, automobiles, electronics and chemical products etc. are facing a shortage of required component.

**Impact on Smart Manufacturing Market:**

Factors that drive the growth of the smart manufacturing market include the increasing demand for smart manufacturing products & solution propelled by COVID-19, the importance of digital twin in maintaining operations within the manufacturing ecosystem, and the emerging & expanding role of collaborative robots in healthcare and manufacturing sectors. Smart Manufacturing Market by Enabling Technology (Condition Monitoring, Artificial Intelligence, IIoT, Digital Twin, Industrial 3D Printing), Information Technology (WMS, MES, PAM, HMI), Industry. The global smart manufacturing market size is estimated to grow from USD 181.3 billion in 2020 and projected to reach USD 220.4 billion by 2025, at a CAGR of 4.0%. The estimation for 2020 is down by -16% as compared to pre-COVID-19 evaluation.

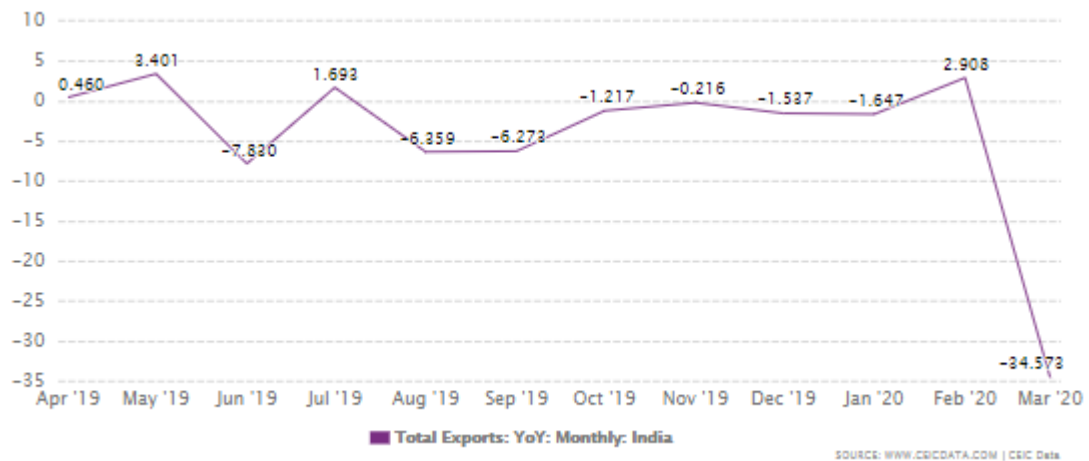


Source: Press Release, Investor Relation Presentation, Annual Report, Expert Interview, and MarketsandMarkets Analysis

**Impact on International Trade:**

The unexpected decline the trade and production has negative consequences on the business and households. The aspect of international trade the government may look for the countermeasure for the indigenous production and to reduce the dependency ratio on a single country that will somehow boost the production of domestic industries and reduce the trade deficit. According to UNCTAD, India’s trade impact is about to be 348

million dollars. India stood in among 15 most affected economies due to fall in the production of chinathat is disturbing the entire trade pattern of world. For India, the estimated trade impact to bemost on chemical sector at 129 million dollars, textiles and apparel at 64 million dollars,automotive sector at 34 million dollars, electrical machinery at 12 million dollars, leatherproducts at 13 million dollars, ,metal and metal products at 13 million dollars and wood productsand furniture at 15 million dollars. China being the highest foreign trade with India and it is major market for many Indian products like sea food, gems and jewellery, petrochemicals etc. Due to the fall in export the fisheries sector has shown a fall of Rs. 1300 core. For the April-February period, India’s current fiscal exports have dropped by 1.5% to 292.91 billion. The UN economist has announced drop by of USD 50 billion drop in manufacturing exports around worldwide. India majorly export 7500 commodities to 190 countries and import around 6000 commodities from 140 countries. India shares its trade surplus with USA, UAE, and Bangladesh and have trade deficit with China, Switzerland, Saudi Arab. India’s total export growth from April 2019 to March 2020 is shown in figure.



### Impact on global manufacturing and supply chain:

Many of global industries are depends on the China for the materials and parts. The manufacturing units in China have already shut down and will be shut down for next few months. Supply lead time have also affected due to Covid-19it takes around 30 days for shipping from China to U.S or Europe. It means if China has shut down their manufacturing units in January then shipments will arrive in February and there will be spike in the temporary closure of manufacturing units in the mid-March. For example Fiat Chrysler automobiles have already announced for temporary shut down their production in Serbia as the parts imported from China.

Similarly, Hyundai has also announced to suspend their assembly lines in the Korea due to the disruptions in the supply chain because of n-CoV.Covid-19has affected the manufacturing firms and their supply chain over the world. COVID-19 is affecting our supply chains and manufacturing operations daily. The peak of COVID-19 virus have already affected the supply chain and forced thousands of industries to throttle down or shut down their assembly lines temporarily in the U.S and Europe and now in the developing nationslike India.The effect of Covid-19has already visible to world as there is decrease in 40% of departures from the ports of China due to Covid-19outbreak which is showing that there is a major effect on the manufacturing worldwide. There are three impact areas which are majorly affected due to the Covid-19which are.

1. Workforce: To limit the impact of coronavirus government has already instructed their people to stay at home where in developing nations like India, government has already advised their employees to stay at home. Some of

the industries are depends on other industries for goods in which supply chain has disrupted due to n-CoV. Now, the industries having very less workforce to meet the customer demands.

2. Products: The n-CoV has transformed the competitive landscape. Suppliers are at risk to lose their market value and share as clients are now seeing the other options when they are not receiving the good products or on time.

3. Costs: There has been increase in the costs of the products due to increase in the shipping charges of products and industries are now also meeting with their financial objectives. There is Increase in some of the products due to the n-CoV effect as it disrupts the supply chains. There are multiple challenges for the industries at present such as: at the same time they have to work?

For the protection of their workers and also safeguard their operational viability.

### **Barriers in Supply chain during COVID-19 in India:**

India is the developing country and Covid-19 has disrupted the supply chain of India. Global supply chains are also disrupted by the Covid-19. Many countries has banned on the import and export of many goods which affected the manufacturing firms across the globe. The barriers for the Indian supply chain caused by the Covid-19 are found out with the academia discussion and supply chain experts. There are many barriers were found out in the study which is discussed below:

- 1) Lack of Labour
- 2) Lack of raw materials for production
- 3) Unavailability of Imported goods
- 4) Shortage of livestock feed and their availability
- 5) Bottleneck in last mile delivery
- 6) Lack of transportation
- 7) Slow movement of goods
- 8) Lack of availability in local transport
- 9) Ban on overseas transportation
- 10) Decline in consumption of High value food commodities
- 11) Lack of awareness in People regarding Covid 19 (affect the chicken and egg demands)
- 12) Lack of buyers
- 13) Perception of scarcity among masses
- 14) Increased shortage for perishables
- 15) Slow credit flow from banks and non-banking financial companies
- 16) Lack of cash flow
- 17) Pressure from local laws enforcement
- 18) E-Pass issues

These barriers have the great influence on the Indian supply chain. Although these issues in the supply chain are very generalized which needs further study and prioritization of these barriers will help the industries to overcome from the supply chain issues due to the Covid-19. These barriers can be studied with the MCDMs techniques such as AHP, ANP, TOPSIS, DEMATEL, MAVT, MAUT, VIKOR, Fuzzy set theory based MCDMs and other model validation can be done by data analytics techniques such as: SEM, ANOVA, and ISM.

### **Conclusion:**

In the present study the effect of Covid-19 on Indian economy and supply chain is studied. This Study also reported about the Covid-19 effect on global manufacturing and supply chain. Covid-19 has affected the manufacturing firms and their supply chain over the world. COVID-19 is affecting our supply chains and

manufacturing operations daily. The peak of COVID-19 virus have already affected the supply chain and forced thousands of industries to throttle down or shut down their assembly lines temporarily in the U.S and Europe and now in the developing nations like Indian the study with consultation with experts total of 18 critical barriers were identified which affects the supply chain at local level in India. This study can be extended by assessment of barriers with the multi-criteria decision making approaches. Interrelationship between the barriers can be identified with the interpretive structural modeling.

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## **MITIGATING SOCIO-ECONOMIC IMPACT OF COVID-19: A COLLABORATIVE APPROACH OF SELF HELP GROUPS (SHGs) and MICRO SMALL AND MEDIUM ENTERPRISES (MSMEs)**

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### **Abstract:**

The COVID-19 pandemic has jolted the economies of the world. Millions have lost livelihoods in the modern capitalist mode of production. Developing countries like India have strived towards Self-Reliant economy based on the vocal for local initiative to mitigate the pandemic impact. Micro Small and Medium Enterprises (MSMEs) in collaboration with Self Help Groups (SHGs) can play an important role in inclusive economic development and vocal for local initiative, as they serve 40% of the total population of India i.e. for the second largest workforce after agricultural sector. Their labour intensive nature and geographical distribution results in employment opportunities for both rural and urban population promoting equity and inclusive growth. Further, micro finance institutions provide the financial assistance through formation of Self Help Groups (SHGs). It will help in timely availability of proper financial resource, technical guidelines and administrative hints. It can nurture and support development of new age entrepreneurs who have the potential to create globally competitive businesses from India. The aim of this paper is to find out the long term solutions for the after effect of COVID-19 pandemic through collaborative approach of SHGs and MSMEs. The researcher has used the secondary data for the purpose of study. The research variables are identified from the literature review relating to collaborative approach of SHGs and MSMEs.

**Keywords:** Collaboration, COVID-19, Micro Small Medium Enterprises, Self-Help Groups, Self-Reliant

### **Introduction:**

The UN's Framework for the Immediate Socio-Economic Response to the COVID 19 Crisis warns that "The COVID-19 pandemic is far more than a health crisis: it is affecting societies and economies at their core. While the impact of the pandemic will vary from country to country, it will most likely increase poverty and inequalities at a global scale (UNDP, 2020). India, being the largest democracy is no exception. To mitigate this pandemic impact, small and medium enterprises in collaboration with Self Help Groups can play an important role in the economic development of the country, as they serve 40% of the total population of India i.e. for the second largest workforce after agricultural sector. The collaboration of Self Help Groups (SHGs) and Micro, Small and Medium Enterprises (MSMEs) can foster inclusive development as micro finance institutions provide the financial assistance for small business projects through formation of Self Help Groups (SHGs). Their labour intensive nature and geographical distribution results in employment opportunities for both rural and urban population promoting equity and inclusive growth.

### **Review of literature:**

As far as the history of human civilization is concerned there are instances of severe outbreaks of diseases caused by a number of viruses. The present outbreak of COVID-19 affects all segments of the population and is



particularly detrimental to members of vulnerable social groups, including people living in poverty situations, older persons, persons with disabilities, women, youth, and indigenous peoples (UN DESA, 2020). It has rapidly spread around the world, posing enormous health, economic, environmental and social challenges to the entire human population. The coronavirus outbreak is severely disrupting the global economy (Chakraborty, 2020). The present crisis is quite different from previous ones. The factors that have to be considered for the successful mitigation of the socio economic impact of COVID19 are investment required in small and medium enterprises, global marketability of domestic products, availability of low cost workers, geographical distribution of industries, skill and technology availability, availability of raw materials and profitability of product (ILO, 2020). In India Micro, Small and Medium Enterprises (MSME) contribute almost 8 percent of the India's GDP, 45 percent of the manufacturing output value and also 40 percent of the exports (Ministry of Micro, Small and Medium Enterprises). They have also become nurseries for entrepreneurship and innovation to develop. MSMEs have a wide geographical dispersion across the country and have developed the capacity to produce a diverse range of products and services to meet the needs of several markets, both local and global and in taking part in contributing to the national and international supply chains (Heilman & Chen, 2003). Eapen (1996) states that the finance plays an important part in the MSME sector, and the concept of group lending has the potential for such financing. Group lending in India became popular in the form of self-help group movement which began in the 1980s. Today, these Self-Help Groups are seen as more than just a conduit for credit, they also act as a delivery mechanism for various goods and services (Kumar et al.). The COVID-19 pandemic and the associated socio-economic crises are posing huge challenges, by raising many unknowns crisis. Crises are global, but their impacts are deeply local. The policy response to these crises needs to be rapid and sector specific (UNDP, 2020).

#### **Research Methodology:**

The purpose of this research work is to analyze and describe the collaborative approach of Micro-Small-Medium Enterprises (MSME) and Self-Help Group (SHG) towards mitigating the post COVID impact. Hence the research is descriptive in nature. For the purpose of this study the researcher has used the secondary data. The secondary data has been collected from various government and private organization's websites, government reports, research papers, magazines and journals of the relevant fields.

#### **COVID19 and its socio-economic impact:**

Pandemics in general are not merely serious public health concern, rather these trigger disastrous socio-economic and political crises in the affected countries. As it is implied in the name-COVID-19, 'CO' stands for 'corona,' 'VI' for 'virus,' and 'D' for disease, and 19 represents the year of its occurrence. Coronavirus is a single stranded RNA virus with a diameter ranging from 80-120 nanometers. The first modern COVID-19 pandemic was reported in December 2019, in Wuhan, Hubei province, China and most initial cases were related to source infection from a seafood wholesale market (Huang et al., 2020). Since then, the disease rapidly circled the globe and has eventually affected every continent except Antarctica. It has been categorized as a pandemic by the World Health Organization (World Health Organization, 2020). COVID-19, apart from becoming the greatest threat to global public health of the century, is being considered as the largest disruptor in the social and economic advancement.

#### **Social Impact:**

Poverty increases vulnerability to shocks. Vulnerability depends not only on people's exposure to shocks, but also on their individual and collective resilience. Poor households are less resilient to shocks because of their low

level of income, fewer assets and limited opportunities to borrow. They face a double shock from the spread of the virus and the ensuing economic depression, and a stark trade-off between safeguarding life and livelihoods. Alternative livelihoods options remain limited due to lockdowns, the ensuing economic crisis, and the lack of skills necessary for alternative jobs such as those that require digital and computer literacy, as well as internet access. Thus, they tend to resort to destructive coping strategies, such as choosing to forego health care, selling their assets or withdrawing children from school. Social distancing can also erode social cohesion and mutual support.

The pandemic is causing massive job and income losses, disproportionately affecting people in informal employment. The impact is sudden for millions of people who are daily and hourly laborers, domestic and cross-border migrants. Migrants and displaced persons are severely affected by the pandemic. Measures taken by governments to suppress COVID-19 and corresponding disruptions to economic activity in migrant destination countries are causing massive numbers of migrants to return to their home countries, often having lost their livelihoods overnight. At the same time, most migrants and daily laborers lack health insurance, so they can't afford tests or treatment. A massive humanitarian crisis has been unfolded in India, with 100 million internal migrant workers returning in large waves to their homes amidst a nationwide lockdown, having lost their livelihoods.

The pandemic-induced crisis also has gender-differentiated economic impacts, reducing women's economic opportunities. Crises have a disproportionately negative economic impact on women, who make up the majority of part-time and informal workers, generally with lower pay. Recent evidence points to a marked rise in domestic violence, and in discrimination at the workplace as employers may see women overloaded with care obligations as less competitive and committed than male colleagues. Simultaneously, women's engagement in economic, social and political activities is decreasing, reducing their voice in decision-making.

Social and physical distancing measures, lockdowns of businesses, schools and overall social life, which have become commonplace to curtail the spread of the disease have also disrupted many regular aspects of life, including sport and physical activity. The disruption in education and learning could have medium and long-term consequences on the quality of education

#### **Economic Impact:**

Jobs, production, employment and entire economy are either shut down or partially functioning, causing global economic slowdown. COVID-19 pandemic directly affects the GDP of each country in the major economics. For each month there will be an approximate loss of 2% points in annual GDP growth. The tourism sector alone faces an output decrease as high as 50% to 70%. According to World Trade Organization (WTO) and Organization for Economic Cooperation and Development (OECD) have indicated COVID-19 pandemic as the largest threat to global economy since the Global Financial Crisis (GFC) of 2008-2009. Thus present crisis has been termed as Corona Financial Crisis (CFC).

Lockdown has put great stress on the supply chains of essential commodities, therefore, many of the Indian companies have focused on the production and supply of essential items only, thereby stopping all other production activities, hence bringing down the production graph. Likewise, the other sectors like agriculture being the primary sector and the tertiary sector are also not free from its impact. There is hardly any manpower available for the agricultural purposes in different states. Lockdowns have manifestly made the farmers difficult to take their produce for sale to the markets. Informal sector of India, the backbone of its economy, is hardest hit in view of economic activities coming to a total standstill. These lockdowns and restrictions on commercial activities and public gatherings are necessarily likely to strongly impact domestic growth. As estimated by Centre for Monitoring Indian

Economy (CMIE) on 07.04.2020, the overall unemployment rate may have surged to 23 per cent, with urban unemployment standing at nearly 31 per cent. International Labour Organisation (ILO) has estimated about 40 crores workers of unorganized sectors to be unemployed. The United Nations Conference on Trade and Development (UNCTAD) has suggested that India's trade impact due to the COVID-19 outbreak could be around USD 348 million (Gupta, 2020).

**Mitigation of impact:**

**Self Help Groups:**

A self-help group is defined as a self-governed, peer controlled information group of people with similar socio-economic background and having a desire to collectively perform common purpose. The concept of empowering the poorest of poor by Muhammad Yunus, Bangladesh gave birth to Self-Help Group (SHG) which is now seen as a village-based financial intermediary committee consisting of 10-20 members, preferably women.

In India, SHGs first emerged within the Mysore Resettlement and Development Agency (MYRADA) in 1985. From then it started a long journey to reach the present destination. In 1992 SHG-Bank linkage was launched after NABARD issued guidelines to provide the framework for the same. Following these footsteps SHG continues to play a pivotal role in empowering the rural women rendering them financial independence.

Following principles guides the SHG movement:

- Self-help supplemented with mutual help can be a powerful vehicle for the poor in their socioeconomic development;
- Participative financial services management is more responsive and efficient;
- Poor need not only credit support, but also savings and other services;
- Poor can save and are bankable and SHGs as clients, result in wider outreach lower transaction cost and much lower risk costs for the banks;
- Creation of a common fund by contributing small savings on a regular basis;
- Flexible democratic system of working;
- Amounts loaned are small, frequent and for short duration;
- Periodic meetings non-traditional savings.

**Micro, Small and Medium Enterprises:**

MSMEs are defined based on investment in Plant and Machinery / equipment. In terms of Chapter III – 7 (1) of MSMED Act, 2006, MSMEs are classified into Manufacturing and Service Enterprises these are:

**Manufacturing enterprises** engaged in the manufacturing or production of goods pertaining to any industry specified in the first schedule of the Industries Development and Regulation Act, 1951, defined in terms of investment in plant and machinery.

**Service enterprises** engaged in providing or rendering of services defined in terms of investment in equipment. The segmentation into micro, small, and medium is based on investment in plant and machinery (in case of manufacturing) or in equipment (in case of services). This is detailed in table 1.

As per India Briefing Report, India's Micro, Small, and Medium Enterprises (MSMEs) base is the largest in the world after China. The sector provides a wide range of services and is engaged in the manufacturing of over 6,000 products – ranging from traditional to hi-tech items (Rastogi 2020). Given the government of India's 'Make in

India' push, along with a push to attract greater FDI, the Indian MSMEs sector is poised for rapid growth and integration with major global value chains.

**Table 1: Segmentation into micro, small, and medium is based on investment in plant and machinery**

Definition of MSME		
Classification	Manufacturing Enterprise (Investment in Plant and Machinery)	Service Enterprise (Investment in Equipment)
Micro	Up to ₹ 25 lakh	Up to ₹ 10 lakh
Small	Above ₹ 25 lakh to ₹ 5 crore	Above ₹ 10 lakh to ₹ 2 crore
Medium	Above ₹ 5 crore to ₹ 10 crore	Above ₹ 2 crore to ₹ 5 crore

**Collaborative approach for mitigation:**

The mitigation of COVID-19 socio economic impact necessitates multipronged cohesive and collaborative action from all sectors. SHGs and MSMEs are formed for the purpose of economic development, social empowerment, economic empowerment, political participation, and are willing to undertake many activities which have the potential for strengthening of overall governance infrastructure which has been severely hit by the COVID19 pandemic. The attitude of the SHG indicates the favorable inclination for collaboration with MSMEs towards mitigation of aftereffect of the current pandemic.

Collaboration among the SHGs and MSMEs can be explained at four successive matrix levels, with each reinforcing the other matrix. First Collaboration at the level of financial planning; Second Collaboration at the level of human resources development; Third Collaboration at the level of local development; Fourth Collaboration to empower the Governance.

**Collaboration at the level of financial planning:**

One of the primary benefits of SHG and MSME collaboration is the opportunity to save regularly, access formal savings institutions and participate in the management of these savings. With the collaboration of SHG and MSME these microfinance are channelized for productive economic growth. A corollary of collaboration in SHGs and MSMEs is an improvement in access to credit. The financial mobility due to participation in the SHG leads to improvement in the quality of life. Overall, many families become able to address their basic needs better than before. Some of NGOs reports have shown that the record on the repayment of loans by women was often better than that of men, and that women were also more likely to spend the income earned, on their families, leading to improved health and nutrition of the poor population and for improving the quality of their lives. In the process this collaboration at the financial planning level not only has positive economic impact but also has an affirmative social impact.

**Collaboration at the level of human resources development:**

SHG has generated Self-employment opportunities for the rural poor. The progress of the program since inception assisted in formation of 65 lakh (NRLM, 2020). SHGs and equivalent number of Swarozgar is being establishing as their own micro-enterprises. After joining the self-help group the rural people especially women are economically and socially empowered. This empowerment can be transformed into self-employment if SHGs collaborate with MSMEs. Small and medium enterprises are labor intensive. Through proper utilization of resources Small and medium enterprises can keep low level of capital investment per unit of output. Microfinance movement

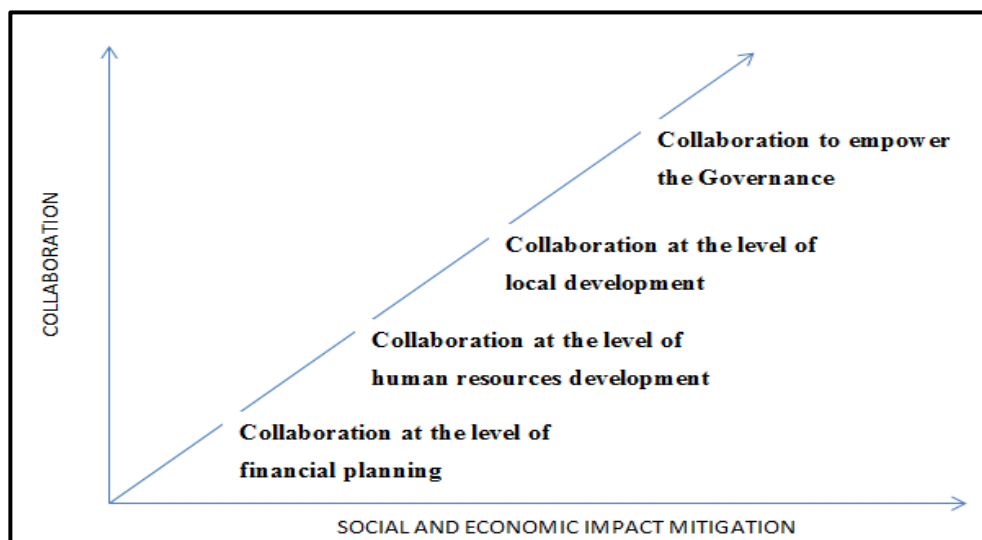
is having a good impact on members, in their ability to express their feelings and has made people more confident to express themselves.

**Collaboration at the level of local development:**

SHG empowered the rural people especially women to know about their local political institutions such as the Gram Panchayats and have better knowledge of where to report certain types of grievances. As part of the political empowerment process, it is a pertinent fact that many women have not only been elected to the Gram Panchayats but have become the role holders too. This has increased their voice in local development. Further for setting up of industrial estates and to develop infrastructure facilities for MSMEs, the Integrated Infrastructural Development (IID) model has been put in place which covers rural as well as urban areas with a provision of 50 percent reservation for rural areas and 50 per cent industrial plots are to be reserved for the micro enterprises. The model also provides for upgradation/strengthening of the infrastructural facilities in the existing industrial estates. In this integrated infrastructure development model, the collaboration of SHGs and MSMEs can play a catalytic role for local development in the post pandemic era.

**Collaboration to empower the Governance:**

COVID 19 pandemic and subsequent lockdown has shaken the governance infrastructure as people at the grassroots level have been distanced from the strategic decision making process. To mitigate this impact, the SHG program has the potential to increase the popular involvement in decision-making, awareness about various programs and organizations, increased access to such organizations, increased access to health and education services, encourage women to participate in the decision making process and give them confidence and increased self-respect. Women led MSMEs have reported to perform better as they operate on consensus oriented decision making process and involve all the stakeholders. Small and Medium Enterprises owner management is a possibility, which ensures quick decision making reduces red-tapism. Therefore the collaboration of SHGs and MSMEs can mitigate the overall impact of pandemic through empowerment of the governance infrastructure as this collaboration not only ensures political empowerment but also social and economic empowerment.



**Figure 1: Level of collaboration beginning from the financial collaboration to empower the governance**

The graph shown in figure 1 depicts that the level of collaboration increases at each level beginning from the financial collaboration to empower the governance. With the increasing level of collaboration the scope for the

mitigation of the COVID-19 impact also increases as the increasing levels of collaboration represents greater cohesiveness, communication, integration, and inter-relatedness between the MSMEs and SHGs.

**COVID-19 Mitigation Initiatives:**

The Government of India, based on these collaborative approaches, has taken milestone initiatives for mitigating the socio-economic impact of COVID 19. Some of them are listed below:

1. Collateral free automatic loan for SMEs up to 3 lakh crore which means not a single MSME unit needs to pay any collateral or guarantee for the loans availed under this scheme. They will also not be required to pay any principal component of the loan for the first year. The tenure of the loan will be for 4 years. This will benefit 45 lakh units resume business activities and safeguard jobs, said the FM.
2. Rs 20,000 crore subordinated debt for stressed MSMEs facing an equity problem. It will help functioning MSMEs which are either NPA (non-performing assets) or are economically stressed. Around Rs 2 lakh MSMEs qualify under this category. The government will provide Rs 4,000 crore partial credit guarantee support to banks and promoters of the MSMEs will be given debt by banks in the form of equity infusion.
3. Fund of fund for the infusion of Rs 50,000 crore as equity into MSMEs. This will benefit MSMEs with potential and viability by providing them greater support in capacity expansion and for the purpose of market-listing. This will cover MSMEs that are performing very well and can use the opportunity to expand.
4. The definition of MSME is being changed to encourage MSMEs to grow bigger without losing on the benefits availed by MSMEs. The investment limit that defined an MSME is being revised upwards along with the addition of turnover as criteria to categorize MSMEs. In addition to these, differentiation between manufacturing and service MSMEs is being removed. New criteria have been explained in table 3.

**Table 2: Revised MSME Classification**

<b>Revised MSME Classification</b>			
<b>Composite Criteria: Investment and Annual Turnover</b>			
<b>Classification</b>	<b>Micro</b>	<b>Small</b>	<b>Medium</b>
Manufacturing and Services	Investment<Rs. 1 crore And Turnover<Rs. 5 crore	Investment<Rs. 10 crore And Turnover<Rs. 50 crore	Investment<Rs. 20 crore And Turnover<Rs. 100 crore

For micro-enterprises in both the manufacturing and service sectors, the investment limit is being raised from Rs 25 lakh and Rs 10 lakh respectively to Rs 1crore with a maximum turnover of Rs 5 crore. Similarly, for small enterprises in both the sectors, the investment limit is being raised from Rs 5 crore and 2 crore respectively, to Rs 10 crore with a maximum turnover of Rs 50 crore and finally for medium enterprises in manufacturing and service sector, the investment limit was being raised from Rs 10 core and 5 crore respectively to Rs 20 crore with a maximum turnover of Rs. 100 crore.

5. The government procurement tenders up to Rs 200 crore will no longer be open to global tenders/players, allowing MSMEs the chance to compete. The government said it will make necessary amendments to General Financial Rules to enable this provision
6. Post COVID-19 trade fares will be difficult, therefor e-linkage market is being provided to MSMEs. In addition to this, the government has promised to clear all receivables due to MSMEs in the next 45 days (Sahay, 2020).

In the 1.76 lakh crore stimulus package announced to fight COVID 19, one of the announcements included doubling collateral free loans to women Self Help Groups (SHGs) from Rs 10 lakh to Rs 20 lakh. This will help 63 lakh SHGs covering 7 crore families, as per the announcement. The measure announced has the potential to have a substantial impact on the rural economy (Mishra, 2020).

**Conclusion:**

The aim of this study was to make an in-depth analysis of how Indian MSMEs and SHGs can withstand itself in the global pandemic crisis and bailout market despite the numerous challenges in the various forms. It was found that there are number of collaborations that are inevitable for the successful mitigation of socio-economic impact of Corona Virus Disease. The study also highlighted the major initiatives taken by the government based on the collaboration of SHGs and MSMEs. Indian government has taken robust initiatives that can help boost confidence in the SHGs and MSMEs to establish itself as the beacon light of sustainable socio-economic development and self-reliant India.

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## AN ANALYTICAL STUDY OF THE IMPACT OF COVID-19 ON GENDER PARITY

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### **Abstract:**

The economic 'recessions' caused by the COVID-19 outbreak has a major impact on gender equality, both during the downturn and the subsequent recovery. Single parents have been hit harder. They are by and large losing jobs. The Girl child are most vulnerable to loose their education, due to increased house hold work, care needs for elderly and children, stressed earnings, depleted household savings. They might have to face other social stigma of early marriage, illiteracy, child labour and dowry etc. Covid-19 has profoundly different outcomes for men and women – and not just in terms of their health but various socio-economic spheres. Women working in travel tourism health industry face survival issues today. Women in organized and unorganized sector are both affected, although in different ways and face challenges to overcome them. Women are adversely affected but the effect and aftermaths of the pandemic is yet to be analyzed, especially with lockdown enforced and if it lasts longer, the effects might be larger. Trauma of women facing domestic violence, migrant women worker's, daily wagers, domestic helps is the darkest phase of this pandemic turbulence and economic shut-down. A health danger like corona virus stresses inequalities of all kinds, and gender is only one of them. All epidemics have gendered effects but the sad reality is no one has ever talked about it, and as well as the policymakers aren't too aware. This research paper aims to analyze the 'Gender-Specific' impact of Covid-19 pandemic on 'Gender-Parity' in all spheres of life i.e. social, economic, political. This researcher further aims to suggest that although as per medical data and records women are less affected by Covid-19, in socio-economic paradigm they are much more vulnerable than the male counterpart. This is the apt time to look this crisis in a positive opportunity to achieve gender parity in the revival come back policies, schemes and measures. As this is the 25th year of Beijing Convention the society should not lose the momentum in bridging the gender gap and achieve the goals of an equal society by 2030, which is a United Nations goal and aspiration.

**Keywords:** Social-distancing, Recession, Pandemic, Inequalities, Gender Gap, Lockdown, Affirmative, Gender Specific, Gender-Parity, Revival, Domestic Violence, Organized Sector, Aftermaths, Childcare Needs, Unpaid Domestic Work, Illiteracy, Working mother, Single Parent

*"We've all come to recognize – prime ministers, presidents, heads of companies – if we want this to increase... in GDP, you have to get the other half working and participating in the economy" - Melinda gates*

### **Introduction:**

The economic 'recessions' caused by the COVID-19 outbreak has a major impact on gender equality, both during the downturn and the subsequent recovery. Compared to the usual cycle of recessions, which affect men's employment more severely than women's employment, the fall in employment related to "social distancing" measures has a large impact on areas with high female employment contribution. Adding to this, temporary indefinite shutting down of schools and daycare centers has tremendously increased childcare needs, which has a huge impact particularly on working mothers. The effects of the crisis on working mothers is likely to be persistent, due to high returns to experience in the labour market. Beyond the immediate crisis, there are opposing forces, which may ultimately promote gender parity in the labor market is an optimistic sign. Businesses are quickly

adopting flexible work arrangements, which are likely to persist. Also, there are also many fathers who now have to take primary responsibility for child care, which may gradually destroy the social norms that currently lead to a one-sided distribution of the division of labour in house work and child care. Single mothers have been hit harder as they are by and large losing jobs and finding it difficult to fulfill dual responsibility, fit in role of breadwinner and caregiver in the family. The girl child are most vulnerable to sacrifice their education, due to increased house hold work, care-needs for elderly and children, stressed earnings and depleted household savings. They might have to fall prey to other social stigma of early marriage, illiteracy, child labor, sexual exploitation, trafficking and dowry etc. The disease has profoundly different outcomes for men and women – and not just in terms of their health but various socio-economic spheres. Women working in travel, tourism, healthcare, retail, hospitality and banking etc. industry are facing economic survival issues. Women in both organized and unorganized sector are harshly affected, although in different ways, manner and quantum and confronting severe challenges to overcome these effects till long term. At present it is evident that the female gender is adversely affected; but the fear of the highly communicable sickness is not over yet, the economic future is uncertain, effect and aftermaths of the pandemic is yet to be analyzed, especially with lockdown enlarged for an too longer period and if the pandemic lasts longer, the effects might be much more larger. Trauma of women facing domestic violence, migrant women worker's, daily wagers, domestic helps is the saddest chapter and darkest phase of this pandemic turbulence and economic shut-down. A health danger like corona virus stresses inequalities of all kinds, and gender is only one of them. All epidemics have gendered effects but the sad reality is that government, private and public entities are always silent on this issue and corrective measures are absent from the revival, recovery, restart programs and plans, as the policymakers are either unaware or wary to accept the economic equality of fairer sex.

**Objectives:**

This research paper aims to analyze the '*Gender-Specific*' impact of Covid-19 pandemic on '*Gender-Parity*' in all spheres of life i.e. social, economic, political. The researcher further aims to test the hypothesis that '*across the globe, women are far more impacted by this pandemic; in socio-economic paradigm and they are much more vulnerable than the male counterpart.*' This is the apt time to look this crisis as a positive panorama to achieve gender parity in the revival, restart, reopening policies, schemes and fiscal measures. In this 25th year of the Beijing Convention the humanity cannot afford to lose the momentum gained in bridging the gender imparity and achieve the goals of an by and large equal society by the year 2030; which is an '*UN Women*' goal and aspiration. The critical issue for women in this crisis is to manage the increasing unpaid work at home, loss of economic activity at work front and still contribute in the socio-economic activities. We have attained considerable progress in the recent history on the path to gender equality, but there is a long way to ensure equal endowments, participation, and voice for women. The *2018 Global Gender Gap Index* finds that women have reached 68 percent parity overall, leaving a gap of 32 percent. With the World Economic forum's latest *2020 Global Gender Gap Report* which measures the gender gap in four main areas: economic participation and opportunity, educational attainment, health and survival, and political empowerment, finding that it will take another 118 years for women to be earning the same as men, the stakes are even higher now due to the coronavirus pandemic (COVID-19). This paper seeks to inquire, analyze and throw light on the very often-neglected reality Gender Parity: Why it Matters, especially in a time of crisis as Covid-19. It suggests measures to overcome this setback to the fairer sex and suggests ways to bring the women in mainstream in the revival comeback phase post Covid-19.

**Research methodology:**

The researcher has opted for the qualitative ethnography, phenomenology, descriptive paradigm, and referred to books, e-journals, periodicals, magazines, e-newspapers, general websites, articles, research papers, conference proceedings, government records, data and statistics of departments.

**Impact and Responses:**

The COVID-19 pandemic is much more than a health issue. It is a complete shutdown of societies and has brought our economies to a standstill. Women are at the heart of the economic affects of the pandemic and the care and response efforts underway must be woven around the female work force. Women are making their markable presence and contribution in the fight against the contagious virus as front-line responders such as, health professionals, community volunteers, transport and logistics managers, scientists and many more. Women are the caregivers, at home and in our communities and are at increased risk of health and economic losses during this period of unexpected crisis. *“Women and girls are left behind in COVID-19 response”* – warn women’s organizations in Europe and Central Asia. The Governments and development partners are under obligation to ensure effective dialogue with civil society to put women’s needs at the centre of COVID-19 pandemic response and recovery efforts.

*“Women’s organizations and civil society at large should be an integral part of COVID-19 response and recovery efforts. Since the beginning of the pandemic, they’ve been on the front lines, working day and night to respond to the needs of all groups of women and girls, men and boys. They know what needs to be done and we urge all development partners to seriously consider the solutions they offer so that we can continue to ensure the principles of equality and social justice.”*

Worldwide, millions of children and mothers are at risk of the side effects of this pandemic during its occurrence and subsequent recovery process to the COVID-19 catastrophe. *“We need the three W’s – women, water and wellbeing.”*

**Conclusion:**

Women need support from each other to face and overcome the crisis posed by Covid19. Keeping the hope alive and believe and trust in themselves will help women overcome this challenge so that they rebound once again with new vigor and strength. Women need to face this crisis not individually but together on a Global platform and raise voice that are heard by the legislators to make workable restart policies in the phase of during and post Covid 19 so that they are able to participate without any discrimination on the socio-economic front and political involvement. Despite the challenge women in various field such as health, telecommunication, medical, science, technology, engineering, hospitality, education, information technology are seeking solutions to the complex global encounter of Covid19.

**Suggestions and Recommendations:**

Protecting women from pandemic management measures is a huge task for the Governments and law makers on international and national levels. It is for administration and law enforcement agencies to recognise the severity of the situation, to trust women and empathise with them. At this time, especially, women need strong guarantee that they will be given an audience, and that all support will be given if they are scared for their or their families and children lives. Reaching women in distress needs to be classified as an “essential service.” The government, employers, academic institutions, medical and health providers, agro related industry should work together and keep women in ‘centre’ when drafting the come back revival policies so that the human rights of

women are upheld and the constitutional mandate of women equality is focussed to achieve positive affirmative actions to bring women into the mainstream of the society and do not lag behind in the socio-economic progress in the Global World. Equal opportunities for education in the rapid changing technological adaptations should be made for the girl child. Migrant workers should be rehabilitated so that they can lead a dignified life. At the same time the laws should be more pro-women so that women are able to achieve the Gender parity. Special measures and schemes should be introduced by Government for women to take up activities to rise to the crisis. Gender parity societies are more progressive than those with inequalities. It is for the Governments, United nations to make gender parity and equality a top mandate in all policy making to face the challenge of Covid19 pandemic.

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## EDUCATION AFTER COVID -19 (REAL PANDEMIC)

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The COVID-19 pandemic is set to change the world sooner than we know. The way our administrations, foundations, associations, and individuals think and capacity, will drastically change – maybe as long as possible. Among numerous monetary areas, the advanced education part is experiencing a structural move at the present time. What a few futurists and instruction technologists have been guaging for long, is presently occurring.

At any rate for two decades at this point, edutech (short for Education Technologies) fans have been foreseeing that innovation will turn into the greatest middle person of instructing learning forms. In the wake of Covid-19 pandemic, a large number of understudies over the globe have been driven out of their college spaces, and teachers are kept to their homes. Advanced education stands disaggregated, and staff and understudies are thinking about the abrupt new standard of totally tech-intervened instructing and learning.

In the course of recent years, this hybrid to web based learning was going on in fits and starts, in islands across various theaters – schools, colleges, ability improvement organizations, corporate learning habitats. Most approach level changes stayed apathetic endeavors originating from old outlooks. Best case scenario, old procedures were reproduced with some advanced innovation apparatuses for a couple of courses as an 'investigation', or part of their current study hall courses as 'mixed learning'.

### **No more:**

Around 60 million understudies over the globe, are constrained to home during the critical long periods of February to May - which by and large observe a whirlwind of curricular and evaluation exercises. Establishments and understudies the same are feeling the squeeze to not lose scholastic time and re-design their instructing learning in the main conceivable manner – go totally on the web. What does this mean for the foundations and scholarly pioneers, executives and understudies over the long haul is getting more clear.

The new, absolute innovation interceded instruction can be named as Education 4.0, after the initial three rushes of training frameworks that developed more than 2000 years of human advancement - the Gurukula framework (one ace to a couple of understudies), the conventional college framework (one to numerous students) and separation learning (one to a lot of students over the range).

The uplifting news is – the standard establishments are eager to move to on the web, and there's a chance of propensities changing to empower Education 4.0. Or on the other hand would we say we are simply being idealistic? Let us pose some calming inquiries -

Online advanced education has been around for over 10 years now. For what reason did it not assume control over the ordinary instruction framework in the Pre-Covid period?

For what reason is it not a standard as of now?

When monstrous organizations have moved from disconnected to online in the Pre-Covid period, for what reason hasn't advanced education not moved to on the web?

While latency and 'fiefdom' demeanor of existing teachers are halfway to fault, in all actuality, each industry that has become advanced has had its own dormancy and fiefdom obstacles. It is only that 'computerized' acquired a monstrous rush of proficiency and adequacy in these businesses, and the unadulterated financial aspects and accommodation of it washed away the latency and fiefdom obstacles. In advanced education, there has not been such a wave yet; it's essential to get this.

A few productivity and adequacy reasons have hindered this wave, for example, Wretched culmination rates in the advanced education framework; Non-existent meticulousness of appraisal; Non-foundation or non-straightforwardness about progress in information, application and competency in students; Non-logical conveyance (setting is a key achievement factor in advanced education; it impacts the learning results. Staff in a study hall arrangement can evaluate and convey the class); One-size-fits-all conveyance;

Experts attempting to simply 'transpose' study hall to the advanced medium, which is causing numerous issues; Doing "live" classes may not get productivity or adequacy; Taking an idea right to application or higher-request believing is absent; also, a lot more reasons.

While the land is ripe for propensities to change, the new computerized scene has its unsolved issues, and consequently it is the place it is.

**The long haul and feasible triumph of this structural move will rely upon seven significant components of internet learning**

1. Internet learning isn't a library of video talks and digital books that changes over class-notes into PDFs. Making top notch digitized learning content must be contextualized and 'byte-sized' to make getting the hang of fascinating and locks in. Doing this takes an uncommon range of abilities which barely any associations on the planet can flaunt. Colleges need to team up with such associations for their advanced turns to be fruitful.
2. Topic shrouded in homeroom is to be conveyed on the web, however with innovation as the go-between. Daze replication of the equivalent is an impractical notion; it requires a lot of comprehension and utilization of learning science and computerized teaching method. Each showing staff should be empowered with this information, or, in all likelihood joint effort with specialists is the path forward.
3. Study halls have normally differing student gatherings. In old style instructional method, the best of educators and topic specialists determine a substance setting bunch as a mean of the class' aggregate capacity and earlier information. At that point the educating learning exchange is created by that built mean. This won't and can't work in web based learning. Organizations need to invest as much energy in the setting for the differing student profiles, as on the substance, and mesh it into the program structure.
4. New innovations including the rising studies of computerized reasoning and profound learning models can assist us with making altered learning plans and techniques. Advanced education establishments must grasp these rapidly to defeat the ills of current computerized advanced education.
5. Web based learning isn't around ONE instructive model however a total of different models. Furthermore, it is without a doubt a specific learning science that consolidates learning brain research, social investigation, content conveyance, and evaluations to check and measure singular student's excursion and progress. Working with experts and 'hand-sewing' a conveyance system is the key.
6. Put learning science, and not innovation, in the cutting edge. A lot of models being made today try to utilize innovation and devices as a panacea and liken online 'conveyance' with web based 'learning'. The previous is instructor driven, and the last is student driven. 'Learning' is about progressively instigating changes in

student's activities and conduct. The learning procedure, in steady advances, initiates change in intuition and mental models of the student through profound understanding and calculated reinforcing. After each learning scene, the student will have the option to apply the obtained information in viable circumstances throughout everyday life, calling, or working environment. Each showing staff should be hugely re-prepared and arranged for internet instructing learning mode. While they could be content specialists or incredible study hall instructors, they have to put equivalent significance to 'learning sciences in computerized media'.

7. Obviously, even in the post COVID-19 period, disconnected or traditional instruction models won't become old. They will endure. Notwithstanding, mixed learning (a blend of study hall and online modes) will be the standard. Foundations and educators will mix the two prudently as indicated by the specific situation and the substance. In entirety, the recently acknowledged requirement for setting up develops online instruction models, can be effectively met by making these "Sovereign penances"! Personnel to give up off their current acts of transposing study hall to online medium without applying the 'study of computerized learning'. Colleges to give up off their scholastic know-all position and become ready to work together with computerized learning experts to prepare their educators and re-plan advanced education for the most current online instruction world.

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## कोरोना साथीचा भारतावरील सामाजिक, आर्थिक परिणाम

रितेश के. जुमळे<sup>१</sup> व ज्योत्स्ना के. जुमळे<sup>२</sup>

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### सार:

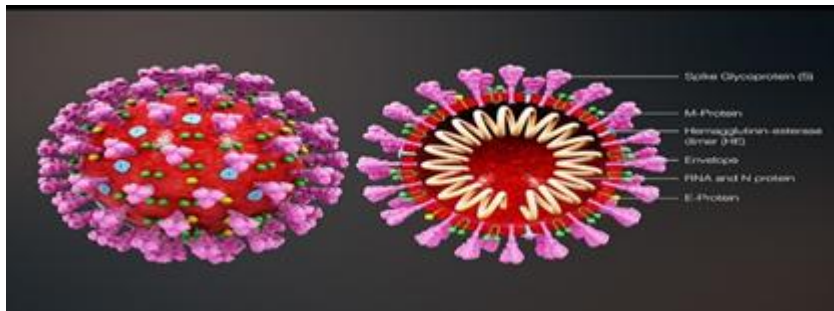
कोरोना व्हायरस हा विषाणूचा एक गट आहे. या विषाणूचा प्रसार मानवांमध्ये श्वसन संसर्गाने होतो. कोरोना व्हायरस रोग २०१९ (कोविड -१९) हा एक अति संसर्गजन्य रोग आहे जो गंभीर तीव्र श्वसन सिंड्रोम-संबंधित कोरोना व्हायरस २ अथवा (एसएआरएस-कोव्ह-२) (SARS - Cov-2) या नावाच्या नवीन विषाणूद्वारे होतो. डिसेंबर २०१९ मध्ये चीनच्या हुबेई प्रांताची राजधानी वुहानमध्ये या नवीन आजाराची पहिली ओळख करण्यात आली होती आणि त्यानंतर जागतिक स्तरावर या आजाराचा प्रसार झाला व त्याने जागतिक महामारीचे रूप घेतले. भारतातील लोकसंख्येचा एक प्रमुख भाग सार्वजनिक वाहतूक वापरतो जो कोविड -१९ च्या प्रसाराला गती देऊ शकतो. जलद निदानासाठी, रुग्णालयांना सुसज्ज करणे आणि संक्रमित लोकांच्या अलगाव आणि उपचारांसाठी वैद्यकीय कर्मचार्यांना प्रशिक्षित करण्यासाठी भारतानेही आपल्या ऑपरेशनल लॅबमध्ये वेगाने वाढ केली पाहिजे. कोरोना व्हायरसचा देशाच्या अर्थव्यवस्थेवर मोठा परिणाम होतो कारण यामुळे अर्थव्यवस्थेची गती कमी होते आणि देशाच्या वाढीस बरेच नुकसान होते. भारताने कटेनरवर लक्ष केंद्रित केले पाहिजे, परंतु ते कमी करण्यासाठी तयार असलेच पाहिजे. सरकारकडून घालून दिलेल्या सगळ्या नियम व कायद्यांचे काटेकोर पालन करा. भविष्यातील साथीच्या रोगाचा सामना करण्यासाठी केंद्र आणि राज्य सरकार यांच्यात समन्वित रणनीती आवश्यक आहे.

### प्रस्तावना

कोरोना व्हायरस हा विषाणूचा एक गट आहे. या विषाणूचा प्रसार मानवांमध्ये श्वसन संसर्गाने होतो. हे संसर्ग बऱ्याचदा सौम्य, परंतु संभाव्य प्राणघातक असतात. कोरोना व्हायरस हे कंद आकाराच्या पृष्ठभागाचा अंदाजानुसार मोठा प्लीओफॉर्मिक गोलाकार कण आहेत. व्हायरस कणांचा व्यास सुमारे १२० एनएम (NM-Nanometer) आहे. विद्युत्परमाणु सूक्ष्म आलेखमधील विषाणूचा लिफाफा विद्युत्परमाणु दाट कवच असलेली एक वेगळी जोडी म्हणून दिसून येते. कोरोना व्हायरस रोग २०१९ (कोविड -१९) हा एक अति संसर्गजन्य रोग आहे जो गंभीर तीव्र श्वसन सिंड्रोम-संबंधित कोरोना व्हायरस २ अथवा (एसएआरएस-कोव्ह-२) (SARS - Cov - 2) या नावाच्या नवीन विषाणूद्वारे होतो. डिसेंबर २०१९ मध्ये चीनच्या हुबेई प्रांताची राजधानी वुहानमध्ये या नवीन आजाराची पहिली ओळख करण्यात आली होती आणि त्यानंतर जागतिक स्तरावर या आजाराचा प्रसार झाला व त्याने जागतिक महामारीचे रूप घेतले. जागतिक आरोग्य संघटनेने हा कोरोना व्हायरस रोग २०१९ (कोविड -१९) चा उद्रेक हा सार्वजनिक आरोग्यासाठी आंतरराष्ट्रीय आणीबाणी असल्याचे सांगत या उद्रेकाला जागतिक महामारी जाहीर केले. टेड्रॉस अॅडमहॅनोम गेब्रेयेसोस यांनी Covid-१९ नाव घोषित केले इंटरनॅशनल कमिटी ऑफ टॅक्सोनॉमी ऑफ व्हायरस यांनी SARS - Cov - २ हे नाव दिले

### कोरोना चे ४ प्रकार

- १) 229 E अल्फा कोरोना व्हायरस
- २) NL63 अल्फा कोरोना व्हायरस
- ३) OC43 बीटा कोरोना व्हायरस
- ४) HKU बीटा कोरोना व्हायरस





पूर्वी, गंभीर तीव्र श्वसन सिंड्रोम-कोरोना व्हायरस (एसएआरएस-सीओव्ही) आणि मध्य पूर्व श्वसन सिंड्रोम-कोरोना व्हायरस (एमईआरएस-सीओव्ही) मानवांवर परिणाम म्हणून ओळखले जातात. या विषाणूमुळे होणाऱ्या श्वसन रोगाचा प्रादुर्भाव मनुष्यासारख्या इतर यजमानांमध्ये जाण्यापूर्वी प्राण्यांमध्ये झाला असावा. मेर्स-सीओव्ही अरबी उंटामधून मानवांमध्ये संक्रमित झाल्याचे आढळले, तर सार्स-कोव्ही सिन्डेट मांजरींकडून मनुष्यात संक्रमित झाले. सार्स-कोव्ह -२ ची उत्पत्ती बॅटमधून झाली असल्याचे आढळून आले आहे आणि चीनमधील हुबेई प्रांतातील बुहानमधील पहिल्यांदा असे आढळून आले आहे की ते असे म्हणतात की ते एका प्राण्यापासून दुसऱ्यापेक्षा व्यक्तीला थेट जनावरांच्या बाजारात पसरतात. त्यानंतर हा विषाणू हुबेईच्या बाहेर आणि त्यानंतर मानवी संक्रमणाद्वारे उर्वरित जगात पसरला. बर्मा देशांमध्ये आता समुदायाचा प्रसार झाल्याची नोंद झाली आहे. जागतिक आरोग्य संघटनेने (डब्ल्यूएचओ) ११ मार्च २०२० रोजी कोरोनाव्हायरस रोग (साथीचा रोग) सर्व देशभर (किंवा खंडभर) असलेला म्हणून जाहीर केला. या प्रसाराच्या पद्धतीमुळे, आरोग्यसेवांमध्ये संक्रमित होण्याचा सर्वाधिक धोका आहे.

## Coronaviruses

According to the World Health Organization (WHO), a new variant of coronavirus has caused **pneumonia outbreak in Wuhan, China**.

○ The new coronavirus is different from previously discovered human coronaviruses and further understanding of the virus requires more scientific research.

### About Coronaviruses


- Coronaviruses are named for the **crown-like spikes on their surface**. "Corona" in Latin means "halo" or "crown."
- Human coronaviruses were first identified in the mid-1960s. Till date, scientists have identified six coronaviruses that can infect people.

### Types

- **Four common coronavirus** that cause mild to moderate upper-respiratory tract illnesses, like the common cold are:
  - 229E (alpha coronavirus)
  - NL63 (alpha coronavirus)
  - OC43 (beta coronavirus)
  - HKU1 (beta coronavirus)
- While, the **two other human coronaviruses** that have been known to frequently cause severe symptoms are:
  - MERS-CoV (the beta coronavirus that causes Middle East Respiratory Syndrome, or MERS)
  - SARS-CoV (the beta coronavirus that causes Severe Acute Respiratory Syndrome, or SARS)
- Other coronaviruses can infect animals like cats, dogs, monkeys, and rodents.

### Vaccination

There are currently no vaccines available against human coronavirus infection.



### Antibodies

Since coronavirus antibodies do not last for a very long time, a person can catch the virus again within months. Also, the antibodies for one strain of coronavirus may be useless against other strains.

### Transmission

Human coronaviruses most commonly spread from an infected person to others through

- the air by coughing and sneezing,
- close personal contact, such as touching or shaking hands,
- touching an object or surface with the virus on it, then touching your mouth, nose, or eyes before washing your hands,
- rarely through fecal contamination.

### Middle East Respiratory Syndrome (MERS)

- MERS was first reported in Saudi Arabia in 2012 and has since spread to several other countries.
- It is caused by a virus (more specifically, a coronavirus) called Middle East Respiratory Syndrome Coronavirus (MERS-CoV).
- Most MERS patients develop severe respiratory illness with symptoms of fever, cough and shortness of breath.
- About 3 or 4 out of every 10 patients reported with MERS have died.

### Severe Acute Respiratory Syndrome

- SARS coronavirus (SARS-CoV) was identified in 2003. It first infected humans in the Guangdong province of southern China in 2002.
- An epidemic of SARS affected 26 countries and resulted in more than 8000 cases in 2003.
- Its transmission is primarily from person to person.
- Symptoms are influenza-like and include fever, malaise, myalgia, headache, diarrhoea, and shivering (rigors). No individual symptom or cluster of symptoms has proved to be specific for a diagnosis of SARS.

### कोरोना विषाणू (कोविड -१९):

हा कोरोना व्हायरस (कोविड -१९) नावाचा एक रोग आहे ज्यामुळे मनुष्यांमध्ये श्वसन प्रणालीमध्ये आजार उद्भवतो. हा एक नवीन व्हायरस आहे जो संपूर्ण जगावर वाईट परिणाम करीत आहे कारण तो प्रामुख्याने त्या व्यक्तीच्या संपर्कात पसरत आहे. जेव्हा एखादी संसर्गित व्यक्ती दुसऱ्या व्यक्तीस भेटते तेव्हा त्यांच्या नाक, डोळे आणि तोंड यांना स्पर्श करून विषाणूचा प्रसार होऊ शकतो. लोकसंख्येची घनता, दारिद्र्य आणि निरक्षरता यासारख्या घटकांसमवेत भारताची अपुरी आरोग्याची पायाभूत सुविधा भारताला कोविड -१९ highly मध्ये अत्यंत असुरक्षित बनवते. भारतात आता कोविड -19 possible संभाव्य संसर्गाची नोंद झाली आहे. आरोग्य मंत्रालयाने आपल्या एकात्मिक रोग पाळत ठेव कार्यक्रम (आयडीएसपी) नेटवर्कद्वारे अशा सहा लोकांच्या संपर्कात आलेल्या लोकांचा शोध घेण्याचा प्रयत्न केला ज्यांचे नमुने पुष्टीकरणासाठी पाठवले गेले आहेत. तथापि, कोविड -१९ हा एक श्वसन रोगकारक आहे, यामुळे तो वेळेत पसरतो आणि साथीच्या रोगाचा रूप बदलू शकतो. या संदर्भात, या जागतिक आपत्कालीन परिस्थितीला सामोरे जाण्यासाठी भारताने पुरेशी तयारी करण्याची गरज आहे. कोरोना विषाणू रोग COVID-१९) हा नवीन विषाणूमुळे होणारा संसर्गजन्य रोग आहे. हा रोग श्वसन आजार आहे (फ्लू सारखा) ज्याची लक्षणे खोकला, ताप, व अधिक गंभीर आजाराला श्वास घेण्यास त्रास अशी आहेत. हात वारंवार धुवून, चेहर्याला स्पर्श करणे टाळून आणि आजारी लोकांचा जवळचा (एक मीटर ते तीन फूट) संपर्क टाळून तुम्ही स्वतःचे संरक्षण करू शकता.

तो कसा पसरतो

कोरोना विषाणू हा प्रामुख्याने संसर्ग झालेल्या व्यक्तीशी ती खोकताना किंवा शिकताना संपर्क आल्यास पसरतो. एखादी व्यक्ती विषाणू असलेल्या एखाद्या पृष्ठभागाला (दर्शनी भाग) किंवा वस्तूला स्पर्श करून त्यानंतर तिच्या डोळे, नाक किंवा तोंडाला स्पर्श करते तेव्हादेखील तो पसरतो.

या विषाणूमुळे लक्षणे दिसण्यापूर्वी १ ते १४ दिवसांपर्यंत लोक कदाचित या विषाणूमुळे आजारी असू शकतात. कोरोना विषाणू (COVID-१९) या रोगाची सर्वसामान्य लक्षणे म्हणजे ताप, थकवा आणि कोरडा खोकला. बहुतेक लोक (सुमारे ८०%) विशेष उपचार न घेता या रोगातून बरे होतात. क्वचितच हा रोग गंभीर आणि जीवघेणा ठरू शकतो. वयस्कर लोक आणि आरोग्याच्या इतर तक्रारी (जसे की दमा, मधुमेह किंवा हृदयरोग) असलेले लोक या आजारापासून अधिक असुरक्षित असू शकतात आणि अधिक गंभीर आजाराने त्रस्त होऊ शकतात.

लोकांमध्ये पुढील प्रकारची लक्षणे दिसू शकतात :

- खोकला
- ताप
- थकवा
- श्वास घेण्यास त्रास (गंभीर प्रकरणांमध्ये)

कोरोना व्हायरस (COVID-१९) रोखण्यासाठी सध्या कोणतीही लस नाही.

तुम्ही पुढील गोष्टी केल्यास तुमचे स्वतःचे संरक्षण करू शकता आणि या विषाणूचा इतरांना प्रसार होण्यापासून रोखण्यात मदत करू शकता :

- हे करा
    - तुमचे हात साबण आणि पाण्याने किंवा अल्कोहोल बेस असलेल्या सॅनिटायझरने नियमित २० सेकंद धुवा
    - खोकताना आणि शिंकताना टिशूने किंवा दुमडलेल्या कोपराने नाक आणि तोंड झाकून घ्या
    - आजारी असलेल्या लोकांशी नजीकचा संपर्क (एक मीटर किंवा तीन फूट) टाळा
    - तुम्ही आजारी असल्यास घरी राहा आणि घरातील इतरांपासून स्वतःला वेगळे ठेवा
  - हे करू नका
    - तुमचे हात स्वच्छ नसल्यास, तुमच्या डोळ्यांना, नाकाला किंवा तोंडाला स्पर्श करू नका
- कोरोना व्हायरस (COVID-१९) रोखण्यासाठी सध्या कोणतीही लस नाही.

## 5 गोष्टी ज्या आपणास कोविड-१९ विरूद्ध लढण्यास मदत करू शकतात



एकत्रितपणे आपण कोविड-१९ विरूद्ध लढू शकतो

कोविड -१९ च्या तुलनेत भारताची असुरक्षितता:

जगभरातून मोठ्या संख्येने लोक भारतात येत आहेत, विमानतळ नेहमीच एक आकर्षण केंद्र असतात, विषाणूच्या पावलाचा ठसा ७० पेक्षा जास्त देशांमध्ये असतो. तसेच, भारतातील लोकसंख्येचा एक प्रमुख भाग सार्वजनिक वाहतूक वापरतो जो कोविड -१९ च्या प्रसाराला गती देऊ शकतो. उष्णायन कालावधी दरम्यान संक्रमित लोक लक्षणे दर्शवत नाहीत (१४ दिवस किंवा त्याहूनही मोठे) आणि म्हणूनच विमानतळ आणि बंदरांवर थर्मल स्क्रीनिंग अशी प्रकरणे शोधण्यात अक्षम असतील. भारतातील आरोग्यसेवा पायाभूत सुविधा भौतिक व मानव संसाधन स्तरावरील अपु ्या गोष्टींनी त्रस्त आहेत. अफवा भय आणि चुकीची माहिती पसरवू शकतात जी हानीकारक असू शकतात, लोकांच्या हितासाठी कलंकित करतात.

भारताने कोणती पावले उचलावीत-

आतापर्यंत कोविड-19 against विरुद्ध कोणतेही निश्चित उपचार किंवा लस उपलब्ध नाही, प्रतिसाद योजना निःसंशयपणे जोखीम संप्रेषण, आरोग्य शिक्षण, सामाजिक अंतर आणि घरगुती अलगाव यासारख्या मूलभूत उपायांवर अवलंबून आहे ज्यामुळे हा प्रादुर्भाव पसरू शकेल. त्वरित पावले उचलली पाहिजेत. नॅशनल क्राइसिस मॅनेजमेंट कमिटी, एनसीएमसीने सर्व मंत्रालये आणि विभागांमध्ये समन्वय साधला पाहिजे. एक समर्पित वेब पोर्टल स्थापित केले जावे, ज्यात मुख्य निर्देशक, सद्य केस व्याख्या, मार्गदर्शक तत्त्वे, जोखीम संप्रेषण साहित्य आणि मायक्रो प्लॅन असलेले डॅशबोर्ड समाविष्ट आहेत.

अलगाव लोकांसाठी कठोर नियमांचे पालन केले पाहिजे.

प्रतिसादासाठी पर्याप्त संसाधने व्यतीत करताना प्रतिसाद योजना चालू असलेल्या नियमित आरोग्य कार्यक्रमांची देखरेख करण्यास सक्षम असावी एखाद्या व्यक्तीला त्या विस्कळीत नसल्याचे प्रमाणपत्र देण्यापूर्वी कमीतकमी दोन नकारात्मक चाचण्या केल्या पाहिजे. जलद निदानासाठी, रुग्णालयांना सुसज्ज करणे आणि संक्रमित लोकांच्या अलगाव आणि उपचारांसाठी वैद्यकीय कर्मचार्यांना प्रशिक्षित करण्यासाठी भारतानेही आपल्या ऑपरेशनल लॅबमध्ये वेगाने वाढ केली पाहिजे. भारताने कटेनरवर लक्ष केंद्रित केले पाहिजे, परंतु ते कमी करण्यासाठी तयार असलेच पाहिजे.

दीर्घकालीन उपाय :

तयारी ही एकमेव डोमेन नाही किंवा सरकारची अंमलबजावणीही नाहीय सर्व संस्था, संस्था, खासगी आणि सार्वजनिक अशा दोन्ही संस्था आणि व्यक्ती व घरातील यांनी आपत्कालीन आणि आगाऊ सज्जता योजना तयार केल्या पाहिजेत. सज्जता आरोग्याच्या प्रणालीस उद्रेकातील प्रतिकूल परिणाम कमी करण्यासाठी किंवा कमी करण्यासाठी सक्रिय पावले उचलण्यास अनुमती देते. उद्रेक तत्परतेकडे गुंतवणूक म्हणून पाहिले पाहिजे जे मध्यम ते दीर्घ मुदतीसाठी लाभांश देईल. वेगवान प्रसार करण्यास सक्षम नवीन कादंबरीच्या संसर्गजन्य एजंट्सना प्रतिसाद देण्यासाठी पायाभूत सुविधा विकसित करणे आणि देखरेख करणे आवश्यक आहे.

मोठ्या प्रमाणात वर्तन बदल हा यशस्वी प्रतिसादाचा कोणताही असेल. यासाठी योग्य जोखीम संवाद आणि बॉश (पाणी, स्वच्छता आणि स्वच्छता), खोकला स्वच्छता (डब्ल्यूएचओ द्वारे प्रस्तावित) आणि सामुदायिक आरोग्य कार्यक्रमांकडे एकात्मिक -ष्टीकोन स्वीकारणे आवश्यक आहे.

रोगाचा प्रसार रोखण्यासाठीचे धोरण म्हणून वारंवार साबणाने २० सेकंद धुवा, इतरांशी शारीरिक अंतर राखणे, खोकताना किंवा शिंगताना रुमलाचा वापर करणे.

भारतासमोर कोणती आव्हाने आहेत

**मोठी लोकसंख्या :** मुंबई यासारख्या शहरी आक्रमणामध्ये सातत्याने प्रवास आणि काम केल्यामुळे भारत अत्यंत असुरक्षित आहे.

**सार्वजनिक स्वच्छता :** स्वच्छ भारत चळवळी असूनही भारतात सार्वजनिक स्वच्छता कमी आहे. बरेच लोक रस्त्यावर थुंकतात आणि शिंकतात. तसेच, मोबाईल फोन किंवा कीबोर्ड, हातांचा आभासी विस्तार हा व्हायरसचे काही अति निष्ट जलाशय आहेत.

**अज्ञात उष्मायन कालावधी :** उष्मायन कालावधी (संक्रमित होण्याची आणि लक्षणे दर्शविण्यामधील मध्यांतर) फार अचूक नाही. म्हणूनच, लोकांना किती काळ वेगळे केले पाहिजे हे परिभाषित केले जाऊ शकत नाही. कोविड -19 usually सहसा बायफेसिक किंवा ड्युअल-फेज इन्फेक्शन म्हणून ओळखले जाते.

याचा अर्थ असा की व्हायरस कायम राहतो आणि प्रारंभिक चढाओढापेक्षा लक्षात घेतलेल्या लक्षणांपेक्षा वेगळा सेट होतो. तसेच, कधीकधी, पुनर्प्राप्त केलेली व्यक्ती पुन्हा बंद होऊ शकते. सुपर स्प्रेडर रोगरू सध्या, भारतातील केसेस आणि वलस्टर हे सामान्य पसरविणारे आहेत म्हणजे सामान्य इन्फेक्टिव्हिटी असलेल्या संक्रमित व्यक्तीचा अर्थ. पण कोविड 9 मध्ये एक P सुपर स्प्रेडर देखील असू शकतो, याचा अर्थ असा की उच्च इन्फेक्टिव्हिटीचा संक्रमित माणूस, जो वेळेतच शेकडो संक्रमित होऊ शकतो.

१७ जानेवारी २०२० रोजी जागतिक आरोग्य संघटनेने सार्स-सीओव्ही -२ साठी अनेक आरएनए चाचणीचे मानदंड प्रकाशित केले व रिअल-टाइम रिव्हर्स ट्रान्सक्रिप्शन पॉलिमरेज चेन रिअॅक्शन (rRT - PCR) ही चाचणी कोरोना लागण झाल्याचे पुष्टीकरण करण्यासाठी प्रमाणित केली. ही चाचणी विशेषतः नाकातुन घेतलेल्या नमुन्यांची अथवा घशातून घेतलेल्या थुंकीच्या नमुन्यांवर केली जाते. ७ एप्रिल २०२० रोजी भारतात कोरोनाचा वाढता प्रादुर्भाव पहाता राष्ट्रीय विषाणूविज्ञान संस्थेने एचएलएल लाइफकेयर लिमिटेड या सरकारी कंपनीने विकसित केलेले रॅपिड अँटीबाँडी ब्लड टेस्ट किटला प्राथमिक चाचणी म्हणून मान्यता दिली.

सोशल मीडियावरील अफवा:

जागतिक कोविड 19 anxiety चिंता आणि भीतीमुळे आपण दुर्दैवाने, दुर्दैवाने, लोक सोशल मीडिया प्लॅटफॉर्मवर अवलंबून असतात जिथे अफवा व्हायरसपेक्षा वेगाने पसरतात. युनायटेड नेशन्स ऑन ट्रेड United डेव्हलपमेंट (यूएनसीटीएडी) च्या परिषदेत असे म्हटले आहे की यावर्षी या विषाणूचा प्रादुर्भाव झाल्याने जागतिक अर्थव्यवस्था २ अब्ज डॉलर्सपर्यंत मंदीचा परिणाम होऊ शकते आणि काही देशांमध्ये (साथीचा रोग) सर्व देशभर (किंवा खंडभर) असलेला मंदीचा परिणाम होऊ शकते ज्यामुळे जागतिक आर्थिक वाढ २.५% च्या खाली घसरली आहे. अर्थव्यवस्था आधीच मंदीच्या स्थितीत असताना भारत सरकारला कोविड - १९ विषाणूपासून संरक्षण करण्याचे आव्हान आहे.

भारताकडून पावले उचलली जाणे

अशा साथीच्या आजाराशी संबंधित आदर्श -ष्टिकोनात वैयक्तिक पातळीवर भीतीकडे लक्ष देताना स्पष्ट सार्वजनिक आरोग्याकडे लक्ष देणे आवश्यक आहे. अशा उद्रेकांबद्दलच्या सार्वजनिक आरोग्यास प्रतिसादांमध्ये तीन टप्पे आहेत: कॅटॅमॅट फेज, विलंब टप्पा आणि शमन चरण.

**कॅटॅमॅट टप्पा :** उद्दिष्टे प्रकरणे शोधणे आणि ती वेगळी करणे आणि संक्रमित लोकांच्या संपर्कात असलेल्या लोकांना शोधणे या संदर्भात, सर्व प्रमुख शहरे आणि शहरे, सर्व पैलूमधून, प्रवास, मोठ्या संख्येने, शाळा, महाविद्यालये आणि कार्यस्थळांपर्यंत जाण्याची गरज आहे.

**विलंब टप्पा :** विलंब मुख्यत्वे सामाजिक अंतर रणनीती आणि वैयक्तिक संरक्षण उपायांद्वारे इंजिनियर केले जाते. घरी रहावयतोवर, शक्य तितके अंतर ठेवाइतरांपासून, योग्य तितके, अधिक घरकाम करण्यास प्रोत्साहित करणे आणि हातमिळवणीसारखे संपर्क टाळणे यांचा समावेश आहे.

**शमन करण्याचे चरण :** ज्या लोकांना रुग्णालयात दाखल करावे लागेल त्यांना चांगल्या प्रकारे काळजी घेण्यावर आणि संसर्गग्रस्त ज्यांना रुग्णालयात उपचाराची आवश्यकता नाही अशा लोकांची मदत सुनिश्चित करणे यावर लक्ष केंद्रित केले जाईल.

**की पॉइंट्स:**

लॉकडाऊनमुळे उत्पादन, पुरवठा साखळी, व्यापार आणि विमानचालन, पर्यटन, हॉटेलस आणि आतिथ्य या क्षेत्रातील एकूण कामकाजामध्ये अडथळा निर्माण झाला. विघटन इतक्या वेगाने आणि प्रमाणात झाले आहे की लॉकडाऊन उचलले गेले तरी नजीकच्या काळात आर्थिक क्रियाकलाप सामान्य होण्याची शक्यता नाही. जरी, लॉकडाऊन दरम्यान, जवळजवळ २०:-३०% अर्थव्यवस्था कार्यरत होती कारण आवश्यक असलेल्या गोष्टी म्हणून परिभाषित केलेल्या आर्थिक क्रियाकलापांना ऑपरेट करण्याची परवानगी होती. याचा अर्थ असा की लॉकडाऊन असूनही काही प्रमाणात महसूल राज्यांना झाला. परंतु असे असूनही एप्रिलमध्ये राज्यांना महत्त्वपूर्ण महसूल तोटा सहन करावा लागला. कोविड -19lock लॉकडाऊनमुळे २१ major प्रमुख राज्यांना सामूहिक महसूल तोटा सहन करावा लागला आहे

लॉकडाऊनचा राज्यांमध्ये अधिक पक्षाघात होण्याचा परिणाम आहे, ज्यांचा एकूण महसुलात मोठ्या प्रमाणात हिस्सा आहे. उदाहरणार्थ, गोवा, गुजरात, हरियाणा, कर्नाटक, केरळ, महाराष्ट्र, तामिळनाडू आणि तेलंगणा यांच्या उत्पन्नापैकी ६५: -७५: त्यांच्या स्वतःच्या स्रोतांमधून प्राप्त होते. कोरडे पडलेल्या रोख प्रवाहामुळे केंद्र सरकार आणि राज्य सरकार दोन्ही संघर्ष करीत आहेत. परंतु कोविड -19 against विरुद्ध प्रत्यक्ष लढाई आणि त्याद्वारे होणारा संबंधित खर्च यामुळे राज्यांच्या समस्या अधिक अनिश्चित आहेत. सध्याच्या परिस्थितीत, केंद्राकडून राज्ये स्वीकारल्या जाणाऱ्या वस्तूंच्या वेळेचे व वेळेबाबत बरीचशी अनिश्चितता आहे. त्यांचे स्वतःचे महसूल स्रोत देखील अत्यंत खालच्या पातळीवर गेले आहेत. ज्या अर्थव्यवस्थेमध्ये आधीच मागणी-औदासिन्य, वाढती बेरोजगारी आणि औद्योगिक उत्पादन आणि नफा कमी होत आहे अशा सर्व बाबी एकत्र आणत आहेत. पुरवठा बाजूच्या अडचणीमुळे मोठा परिणाम होईल आणि वाढीची शक्यता धोक्यात येईल .

ग्राहक वस्तू क्षेत्रासाठी हे संकट विशेषतः तीव्र आहे, विशेषतः रुग्णालयातील घसरणीमुळे साखळी परिणाम निर्माण होऊ शकतो ज्यामुळे संपूर्ण क्षेत्राला मंदीचे वातावरण निर्माण होऊ शकते. ग्राहक वस्तू क्षेत्र मध्यम व निम्नमध्यमवर्गाच्या (मुख्यतः निश्चित उत्पन्न असणारे लोक) खरेदी करण्याच्या क्षमतेमुळे चालते, म्हणूनच सध्या सुरु असलेल्या संकटाचा बोजा वाहून टाकणे हे सर्वात सुरुवातीच्या क्षेत्रांपैकी एक असेल. हे लक्षात ठेवणे आवश्यक आहे की ग्राहक वस्तू क्षेत्र (ग्राहक टिकाऊ वस्तू आणि नॉन-टिकाऊ वस्तूंचा समावेश आहे) सर्वात मोठ्या रोजगारनिर्मितीपैकी एक आहे, परिणामी या क्षेत्रातील कोणतीही मंदी देशातील रोजगाराच्या परिस्थितीवर विपरीत परिणाम करेल. कोरोना व्हायरसचा देशाच्या अर्थव्यवस्थेवर मोठा परिणाम होतो कारण यामुळे अर्थव्यवस्थेची गती कमी होते आणि देशाच्या वाढीस बरेच नुकसान होते, समभागांचे विपणन कमी होत आहे आणि देशाच्या जागतिक उत्पन्नात तोटा आहे, असल्याने अर्थव्यवस्था बिकट होत चालली आहे आणि लोकांनाही इतर अनेक समस्यांचा सामना करावा लागत आहे.

**सारांश:**

अर्थव्यवस्थेवर रोगाचा कमीतकमी प्रभाव कमी करण्याच्या योजनांचा देखील समावेश आहे. चांगल्या रिपोर्टिंग मानकांची आवश्यकता आहे, माध्यमांनी पत्रकारितेच्या नैतिक चौकटीचे पालन केले पाहिजे. आयसीएमआरने (इंडियन काऊंसिल ऑफ मेडिकल रिसर्च) आणि सरकारकडून घालून दिलेल्या सगळ्या नियम व कायद्यांचे काटेकोर पालन करा. भविष्यातील साथीच्या रोगाचा सामना करण्यासाठी केंद्र आणि राज्य सरकार यांच्यात समन्वित रणनीती आवश्यक आहे. या प्रयत्नात, 'आरोग्य' हा विषय राज्य घटनेतून भारतीय राज्यघटनेच्या समवर्ती यादीकडे वर्ग केला जाऊ शकतो.

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## कोरोना संसर्गामुळे नेसरी पंचायत समिती क्षेत्र परीसरात निर्माण झालेल्या समस्या

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### प्रस्तावणा :

केरळमधील एक २० वर्षीय युवती चीनमधील वुहान येथे तीन वर्षांपासून शिक्षण घेत होती. २५ जानेवारीला वुहान येथून केरळमध्ये परतली. भारतात आल्यावर पहिल्यांदा कोलकाता व नंतर कोच्ची एअरपोर्टवर तिची थर्मल स्क्रीनिंग झाली होती. तोपर्यंत तिच्यात व्हायरसची कोणतीच लक्षण नव्हती. पुढच्याच दिवशी बिजिंगमधील भारतीय दूतावासाकडून एक एडवायजरी प्राप्त झाली ज्यात अस म्हणतल गेल होत की, चीनमधून बाहेर जाणाऱ्यांनी आपली मेडीकल टेस्ट आवश्यक करून घ्यावी. त्यानंतर ती युवती दवाखान्यात टेस्ट करण्यास गेली तोपर्यंत ती ठीक होती. त्यानंतर २७ जानेवारीला ती सकाळी जागी झाली तेंव्हा तीच्या गळ्यात त्रास जाणवू लागला. तिला षंका आली व ती परत दवाखान्यात गेली. यावेळी मात्र तीचा कोरोना व्हायरस टेस्ट पॉझिटिव्ह आली, ती तारीख ३० जानेवारी २०२० होती. हिच भारतातील पहिली कोरोना पॉझिटिव्ह टेस्ट. एक गोश्ट या ठिकाणी लक्षात घ्यायला हवी की वुहान शहरात ३१ डिसेंबर २०१९ रोजी पहिली कोरोना व्हायरस केस समोर आली होती.

आज जगभर कोरोनाच्या रोगाने थैमान घातले आहे. भारतात कोरोनाची पहिली पॉझिटिव्ह केस ३० जानेवारी २०२० रोजी समोर आली होती. तेंव्हा चीनमधील वुहान प्रांत या रोगाचे माहेरघर बनले होते. हजारो लोक मृत्यूमुखी पडले होते. खरेतर भारतात पहिली केस पॉझिटिव्ह आल्यानंतर चीनमधील सर्व घटनांवर बारीक लक्ष ठेवून आंतरराष्ट्रीय विमान सेवेवर बंदी घालायला हवी होती अथवा विदेशातून आलेल्यांची विमानतळावरच थर्मल स्क्रीनिंग करून त्यांना १४ दिवसांसाठी संस्थात्मक विलगीकरणात डॉक्टरांच्या देखरेखेखाली ठेवायला हवे होते मात्र तेंव्हा भारत सरकार 'नमस्ते ट्रम्प' करण्यात व त्यानंतर मार्च महिन्यात मध्यप्रदेशात आपले सरकार स्थापण करण्यात मग्न व या रोगाबाबत बेफिकीर राहिले असा आरोप भारतातील इतर राजकीय पक्ष आणि आता राजकीय विप्लेशक, बुद्धीजीवी वर्ग व सामान्य जनताही करू लागली आहे. प्रायोगिक तत्वावर जनता कर्पूरु मग काही दिवसांनी पहिला लॉकडाउन, मग दुसरा, तिसरा आणि चौथा लॉकडाउन लागू करण्यात आला. पहिला लॉकडाउन लागू करण्याआधी भारतीय जनतेला फक्त ४ तासाचा अवधी दिला गेला.

स्वातंत्र्योत्तर काळात महाराष्ट्रातील शहरांकडे विशेषतः मुंबई, पुणे, नाशिक, औरंगाबाद, नागपूर, सोलापूर, कोल्हापूर इ. मोठमोठ्या व छोट्या-छोट्या शहरांकडेही ग्रामीण भागातून व परराज्यातून मोठ्या प्रमाणात लोकसंख्येचे स्थलांतर आतापर्यंत झाले आहे. हिच अवस्था इतर राज्यांचीही आहे. परराज्यातून रोजंदारीवर काम करणारे मजूर, कामगार, विद्यार्थी यांचा आकडा दहा लाखांपेक्षाही जास्त आहे तर महाराष्ट्रातील ग्रामीण भागातून महाराष्ट्रातील शहरी भागात विविध कामासाठी स्थायिक झालेल्यांची संख्याही अगणित आहे. कोरोनाच्या भितीने लॉकडाउन सुरु झाल्यानंतर कसे-बसे पंधरादी-महिनाभर तग धरून बसलेले, उपाशी मरणाच्या भितीने गावाकडे, मिळेल त्या वाहनाने अथवा पायी, जिवाची पर्वा न करता, वाटेत खायला मिळो अथवा न मिळो, आपल्या बायको-पोरांसकट बेकडो मैलांचे अंतर पार करून, पोहोचले. आणि इथूनच खऱ्या अर्थाने नविन समस्यांचे पेंव फुटले.

नेसरी पंचायत समिती अंतर्गत येणाऱ्या गावांमध्ये कोरोनाची लागण, उत्पादन व विक्री समस्या, बेरोजगारी, गावातील लोकांची निर्माण झालेला वैरभाव इ. समस्या व अडचणी निर्माण झाल्या. गावातील वातावरण एकदम प्रदूशित बनले. अशा अनेक समस्यांचा आढावा या संशोधनपर लेखात घेण्याचा प्रयत्न केला आहे.

### उद्देश :

प्रस्तुत शोधनिबंधात पुढील उद्देशांचा समावेश करण्यात आला आहे.

१ कोल्हापूर जिल्ह्यात कोरोना संसर्गाची सद्दस्थिती जाणून घेणे.

- २ लॉकडाऊन काळात कोल्हापूर जिल्ह्यात परतलेल्या नागरिकांची संख्या पाहणे.
- ३ क्वारंटाईन केलेल्या नागरिकांची मानसिकता व गावकऱ्यांची मानसिकता जाणून घेणे.
- ४ कोरोना संकटाचे ग्रामीण समाजावर झालेले परिणाम पाहणे.
- ५ कोरोना संकटामुळे निर्माण झालेल्या समस्यांवर उपाययोजना सुचविणे.

**गृहितकृत्ये :**

प्रस्तुत बोधनिबंधात पुढील गृहितकृत्यांचा समावेश करण्यात आला आहे.

- १ कोल्हापूर जिल्ह्यात मोठ्या प्रमाणात परजिल्ह्यातून व परराज्यातून नागरिक स्वगृही परतत आहेत.
- २ कोरोनामुळे ग्रामीण भागात अनेक समस्या निर्माण झाल्या आहेत.
- ३ कोरोनाचे भविष्यात ग्रामीण समाजावर दूरगामी परिणाम होणार आहेत.

**ब्याप्ती :**

प्रस्तुत बोध निबंध हा फक्त कोल्हापूर जिल्ह्यापुरती मर्यादीत आहे. मात्र यातून निघणारे निश्कर्श कमी जास्त प्रमाणात महाराष्ट्रातील सर्व जिल्ह्यांना लागू होतील कारण सद्यपरिस्थितीत जवळपास सर्व जिल्ह्यात सारखीच जाणवते आहे.

**संशोधन पध्दती :**

या संशोधन निबंधात पुढील प्राथमिक व द्वितीयक स्रोतांचा उपयोग करून माहिती गोळा करण्यात आली आहे.

**प्राथमिक स्रोत :**

प्राथमिक स्रोतात गडहिंग्लज तालुक्यातील काही गावांना, फिजिकल डिस्टन्सिंगचे पालन करून व सुरक्षेची पूर्ण काळजी घेऊन, प्रत्यक्ष भेट देऊन, गावकरी व अलगीकरणात ठेवलेल्या लोकांशी चर्चा करून तसेच नेसरीतील सकाळ, लोकमत व तरुण भारतचे वार्ताहार नेसरी ग्रामपंचायततील सेवक यांच्याकडून प्रत्यक्ष व फोनद्वारे माहिती गोळा करण्यात आली आहे

**द्वितीयक स्रोत :**

द्वितीयक स्रोतात वर्तमान पत्रे, मॅगझिन्स, सोशलमीडिया इ. चा वापर करण्यात आला आहे.

**विश्लेषण :**

पहिल्या व दुसऱ्या लॉकडाऊन मध्ये गावाकडे परतणाऱ्यांची संख्या अतिशय कमी होती. त्यानंतर ती वाढत गेली. साधारणपणे लॉकडाऊनचे टप्पे केंद्र सरकारकडून पुढीलप्रमाणे घोषित करण्यात आले होते.

**तक्ता क्र. १: लॉकडाऊन कालावधी**

अ.क्र.	लॉकडाऊन	कालावधी	एकूण दिवस
१	पहिला लॉकडाऊन	२५ मार्च ते १४ एप्रिल	२१ दिवस
२	दुसरा लॉकडाऊन	१५ एप्रिल ते ३ मे	१९ दिवस
३	तिसरा लॉकडाऊन	०४ मे ते १७ मे	१४ दिवस
४	चौथा लॉकडाऊन	१८ मे ते ३१ मे	१४ दिवस

लॉकडाऊन घोषित झाल्यापासून ते आजपर्यंत दिड लाखाहून अधिक जणांनी कोल्हापूर जिल्ह्यात प्रवेश केला आहे. यातील सर्वाधिक संख्या ही पुणे व मुंबई या शहरातील व रेड झोनमधील आहेत. कोल्हापूर जिल्ह्यात १,४७० कोरोना केअर सेंटर उभारले गेले आहेत. तर दोन लॅबच्या माध्यमातून या सर्वांच्या स्वॅबची तपासणी होत आहे मात्र ही दोन लॅब पुरेशी नाहीत. या दोन्ही लॅबवर खुप ताण पडतो आहे. स्वॅब तपासणी नंतरच त्यांना पुढे प्रवेश दिला जात आहे. हे लोक आपापल्या गावात आल्यावर गावात कळत नकळत रोगाचा फैलाव होऊ नये वा इतरांना कोरोना होऊ नये याची खबरदारी म्हणून पुढील उपाय केले जात आहेत.

१ परगावाहून परतणाऱ्यांना १४ दिवस क्वारंटाईन करून ठवले जात आहे.

२ त्यासाठी गावातील शाळा, रिकामे पॉल्ट्रीफॉर्म, गावाबाहेर तालपुरते निवारे, शेतातील घरे इ. उपयोग केला जात आहे.

३ अन्नधान्य व इतर आवश्यक गोश्टींचा पुरवठा केला जात आहे तसेच त्यांच्या संपर्कात इतर कोणी येणार नाही याची पूर्ण काळजी घेतली जात आहे.

४ या काळात जर कोरोनाची कांही लक्षणे दिसली तर त्यांना तात्काळ तालुका किंवा जिल्हा रुग्णालयात हलवले जात आहे.

५ १४ दिवस क्वारंटाईन पूर्ण केल्यानंतर परत ७ किंवा १४ दिवस त्यांना होम क्वारंटाईन केले जात असताना त्यांना गावात फिरण्यावर व लोकांत मिसळण्यास मज्जाव केला जात आहे.

६ षक्यतो गावातून बाहेर कोणी विनाकारण पडणार नाही याची पूर्ण काळजी घेतली जात आहे.

गडहिंग्लज तालुक्यात दि. ३१ मे २०२० पर्यंत कोरोना बाधीतांची संख्या ६९ तर ३ कोरोनामुळे मृत्यू झालेले आहेत. त्याअनुशंगाने गडहिंग्लज तालुक्यातील नेसरी पंचायत समिती अंतर्गत येणाऱ्या गावांची, गावात परतलेल्या लोकांची माहिती घेतली असता पुढील आकडे घेण्यासारख्या आहेत. सदर माहिती ही दिनांक ०६/०६/२०२० पर्यंतची आहे.

**तक्ता क्र. २: नेसरी पंचायत समिती अंतर्गत येणाऱ्या गावांची, गावात परतलेल्या लोकांची माहिती**

अ.क्र.	गावाचे नाव	गावात परतलेल्यांची संख्या	एकुण कोरोनाबाधीत	एकुण कोरोना मृत्यु
१	नेसरी	४७५	.....	.....
२	यमेहटी	५६	१५	१
३	सरोळी	६४	.....	.....
४	सांबरे	१०३	१	.....
५	तावरेवाडी	४५	१	.....
६	हडलगे	१५०	१	.....
७	कुमरी	४०	१	.....
८	अर्जुनवाडी	६०	१	.....
९	डोणेवाडी	३३	.....	.....
१०	तळेवाडी	२४	.....	.....
११	सावतवाडी	१७	.....	.....
१२	काळामवाडी	३८	१	.....
१३	कानडेवाडी	४१	.....	.....
एकूण		१,१४६	२१	१

**माहिती स्रोत: प्राथमिक तथ्य संकलन (३१ मे २०२० पर्यंत)**

वरील सारणीवरून लक्षात येते की, ४ था लॉकडाऊन घोशित झाल्यावर बहरातून गावी फार मोठ्या प्रमाणात स्थलांतर झाले. अजूनही लोक गावाकडे येतच आहेत. हळूहळू संसर्ग गावात होण्याचा फार मोठा धोका निर्माण झाला आहे. कारण बऱ्यापैकी चाकरमानी गावाकडे परतले आहेत. बाधितांची संख्या कमी सध्या कमी वाटत आहे पण भविष्यात ती वाढण्याची षक्यता नाकारता येत नाही.

एवढ्या मोठ्या प्रमाणात बहरातून गावाकडे स्थलांतर झाले आहे की गावात अनेक समस्या निर्माण झाल्या आहेत. यातल्या कांही समस्या पुढील प्रमाणे आहेत.



### १ कौटुंबिक समस्या :

ज्या कुटुंबातील लोक परतले आहेत त्यांना १४ दिवस क्वारंटाईन ठेवले आहे मात्र त्या कुटुंबातील इतर सदस्यांचा त्यांच्याशी कांही प्रमाणात प्रत्यक्ष-अप्रत्यक्ष संपर्क येतो आहे. निदान क्वारंटाईन केलेल्या लोकांना जेवण घरातूनच द्यावे लागते तेव्हा संपर्क येतोच आहे तेंव्हा आपल्यालाही कोरोना होईल ही भितीही निर्माण झाली आहे. अशा कुटुंबाशी गावातील इतर कुटुंब संपर्क ठेवत नाहीत. कुटुंबात अन्नधान्याची समस्या व पैशांची चणचण निर्माण होऊन कुटुंब देशोधडीला लागण्यासारखी परिस्थिती निर्माण झाली आहे. लॉकडाऊनमुळे खेरीद विक्रीवर परिणाम झाल्याने हातात पैसा नाही, जो पैसा होता तो काही दिवस जपून वापरला पण आता मात्र कौटुंबिक स्थिती गंभीर होत चालली आहे. जे बाहेरून आले, त्यांचेही शहरात काम बंद होते. तिथे उपासमार होते आहे म्हणून ते गावी परतले मात्र गावातली परिस्थितीही आता गंभीर बनत चालली आहे. त्यांच्यापुढे उपजीविकेचा मोठा प्रश्न निर्माण झाला आहे. शासकीय मदतही मिळत नाही आणि मिळालीच तर ती अतिशय तुटपुंजी असल्याचे मत वर नमूद केलेल्या गावातील कांही लोकांनी व्यक्त केले आहे.

### २ आर्थिक समस्या :

उन्हाळ्याची झालेली सुरवात, बंद असलेली शेतीची कामे, साखर कारखान्याकडे थकलेले ऊस बिल, घटते दुधाचे प्रमाण, डेअरीकडे थकलेले दूध बिल, गावात काहीही नसलेला कामधंदा इ. कारणांमुळे ग्रामीण जनता अगोदरच मेटाकुटीस आलेली असताना त्यात क्रमाने चालू झालेले लॉकडाऊन, गावातील ठप्प झालेले व्यवहार, घरातच पडून असलेला शेतीमाल, रिकाम्या हाताने शहरातून पोरांबाळांसकट परतलेले कुटुंबातील सदस्य इ.मुळे गावकऱ्यांच्या अडचणीत आणि आधीच आर्थिक विवंचनेत असलेल्या कुटुंबात भर पडत गेली. पाचवा लॉकडाऊन १ जूनपासून सुरु झाल्याने, कोरोना रोगाचे समूळ कधी नश्ट होईल या सर्व कधी बाहेर पडणार, प्रपंच्याचा गाडा कसा ओढायचा, कौटुंबिक अडचणी कशा सोडवायच्या इ. एक ना अनेक समस्यांनी ग्रामीण जनता ग्रासली आहे. याचे दूरगामी परिणाम ग्रामीण अर्थव्यवस्थेवर होणार आहेत.

### ३ सामाजिक तेढ निर्माती :

जसाही ४था लॉकडाऊन सुरु झाला, शहराकडून गावांकडे मोठ्या प्रमाणात होऊ लागले. दि. ३१मे २०२० पर्यंत कोल्हापूर जिल्ह्यात ..... लोक परतले आहेत. पैकी ८० टक्के लोक जिल्ह्यातील खेड्यात परतली आहे. गावात चाकरमानी व इतर लोक परतल्यानंतर गावांतर्गत वाद व कलह निर्माण होत आहेत. यापुर्वी परतलेल्यांना का संस्थात्मक क्वारंटाईन केलं नाही, आमचे सदस्य तपासणी करून आले असताना त्यांना का क्वारंटाईन करायच, त्यांना जिथे क्वारंटाईन केलयं तिथे का आम्हाला जाता येत नाही, क्वारंटाईन व्यक्ती इतरांच्या नजरा चूकवून घराच्या किंवा घराचे क्वारंटाईन व्यक्तींना भेटत असल्याच्या घटनाही काही प्रमाणात घडून येवून त्यातून गावात कलह होत आहेत. तर होम क्वारंटाईन केलेले लोकही लपून छपून बाहेर फिरताना दिसल्यामुळे गावकऱ्यांत कलह होऊन त्याचे पर्यावसान हळूहळू सामाजिक तेढ निर्माण होण्यात होत आहे. क्वारंटाईन केलेल्या लोकांतही गावकऱ्यांविषयी मनात अढी निर्माण झाल्याचे कांही क्वारंटाईन व्यक्तींशी केलेल्या संभाषणतून जाणवले.

### ४ सार्वजनिक कार्यक्रमांवर बंदी :

केंद्र व राज्या शासनाने सर्व प्रकारच्या कार्यक्रमांवर बंदी घातलेली आहे. यामुळे धार्मिक सण-उत्सव, लग्न, यात्रा-जत्रा, इतर कौटुंबिक कार्यक्रमांवर बंदी घातली गेली. तिसऱ्या लॉकडाऊनमध्ये विविध अटीच्या अधिन राहून लग्नास परवानगी दिली गेली मात्र बहुतेक गावांनी त्यावर बंदी घातली वा त्यापासून दूर राहणे पसंत केले. यामुळे अनेकांची लग्ने रखडली. काहींनी तर चार-पाच माणसांवरच लग्नकार्य उरकून घेतले. सर्व धार्मिक कार्यक्रम बंद झाले, मंदिरे ओस पडली. मंदिराकडे येणारा पैसा थांबला, भट-ब्राह्मणांची वाताहात सुरु झाली. घरातल्या धार्मिक कार्यक्रमांवरही बंदी आली. जनता हवालदिल झाली. सगळे गाव सुने-सुने झाले. गावकऱ्यांचे जगणे निरस व कंटाळवाणे झाले. मनोरंजनाचे इतर माध्यमे बंद झाली. विरंगुळा म्हणून गावात कांही शिल्लक उरले नाही.

### ५ सर्व व्यवहार ठप्प झाले :

लॉकडाऊनमुळे गावातील सर्व व्यवहार ठप्प झाले. किंवा काही ठिकाणी अटी टाकून थोड्या वेळापुरते व्यवहार सुरु केले गेले. शेतात असणारा शेतीमाल विक्रीसाठी बाजारेठ नसल्याने खराब झाला अथवा कवडीमोल भावाने विकावा लागला. अत्यावश्यक सेवा सुरु असल्या तरी त्याचा फायदा शेतकऱ्यांना झाला नाही. दुधाची नासाडीही मोठ्या प्रमाणात झाली. नेसरीसारख्या बाजारपेठेवरही याचा खुप परिणाम झाला.

फळे, भाज्या इतर जीवनावश्यक वस्तुंचे दर कडाडले. सर्व व्यवहार ठप्प झाल्याने उत्पन्न थंडावले, याचा परिणाम ग्रामीण भागातील सर्व उद्योगधंदे, व्यापार, रोजगार बंद झाल्याने बेकारी, उपासमार, अशा नव्याने ग्रामीण भागातील समस्यात भर पडत आहे.

#### ६ नव्याने वाद व मतभेद निर्मिती :

कोरोना व लॉकडाऊनमुळे ग्रामीण भागात लोकांलोकांत व जनता व प्रशासनात नव नवे वाद व मतभेद निर्माण होत आहेत. ग्रामपंचायतीशी हूजत घालणे, अंगणवाडी सेविका कुटूंबाची माहिती घेण्यास आल्या असता त्यांना टाळणे, चुकीची माहिती देणे, ग्राहकांशी विक्रेत्यांशी वाद, फिजीकल डिस्टंसिंगचे पालनावरून वाद, बाहेर आल्यास मास्क न वापरणे त्यावरून वाद, विणाकारण फिरू न दिल्याने पोलीस व प्रशासकीय सेवकांशी हूजत, आरोग्या कर्मचाऱ्यांशी वाद व मतभेद, भाजीपाला व इतर वस्तू विकण्यावरून वाद, खरेदी-विक्री वरून वाद दुकाने केव्हा उघडयचे व ते बंद करण्यापर्यंतचे प्रशासन व व्यापाऱ्यातील मतभेद इ. अशा कितीतरी वाद व मतभेदांची नव्याने निर्मिती होऊन ते विकोपाला गेल्याची उदाहरणे घडत आहेत.

#### ७ बेकारी व उपासमार :

हा कोरोना संसर्गाचा व लॉकडाऊनचा ग्रामीण भागाला बसलेला सर्वात मोठा फटका होय. अगोदरच सर्व व्यवहार ठप्प असल्याने ग्रामीण अर्थव्यवस्थेचे चक्र अतीमंदगतीने चालत आहे, त्यात विविध कारणांसाठी पहरात गेलेले लोक सगळी पहरच ठप्प व अनिष्चीत काळासाठी, २५ मार्च पासून बंद असल्याने, आपापल्या गावी पोरंबाळासकट परतले. जे स्वतःच पोट भरण्यासाठी गाव सोडून पहरात गेले होते, त्यांना गावात कुठले काम मिळणार ? आणी यांना कोण काम देणार ? शेतीतील कामे करण्याची सवय मोडली. तर ग्रामीण भागात उद्योग व्यवसायाची वाणवा. अगोदरच बेकारीचे लोण ग्रामीण भागात पोचले आहे, त्यात परत आलेल्या लोकसंख्येची भर पडली आहे. घरात, जवळ जे षिल्लक आहे होते ते ही संपत आले असल्याने काही कुटूंबावर उपासमारीची वेळ येऊन ठेपली आहे. कसला का असेना नविन कामधंदा बोधणे, पडेल ते काम करणे किंवा लवकरात लवकर पहराची वाट धरणे हेच सध्यातरी मार्ग उरलेले दिसतात. अन्यथा ग्रामीण जनतेकडे उपासमारीने जीव जायची वेळ येईल.

#### ८ अफवांना ऊत :

ग्रामीण भागात, विशेषतः चौथ्या लॉकडाऊनमध्ये अफवांना ऊत आला आहे. मोठ्या प्रमाणात पहरातून लोक गावी परतले आणी नको नको त्या गोश्टी चर्चेला येवू लागल्या. एखाद्या गावात अलगीकरण केलेल्या व्यक्तीपैकी काहीजण रेड झोन मधून आले आहेत, धारावीमधून आले आहेत, आजारी आहेत, कोरोना पॉझिटिव्ह आहेत, अलगीकरणात न राहता घरी आहेत, बाहेर फिरत आहेत, अमक्या गावात तमक्याला लागण झाली, अमक्या गावात इतके पॉझिटिव्ह रुग्ण सापडले, अमक्या गावातील सर्व रस्ते बंद केले आहेत, अमक्या गावाला छावणीचे रूप आले आहे, तमक्या लोकांकडून काही विकत घेऊ नका इ. अशा एक ना अनेक अफवा तोंडी, मोबाईल, सोशल मिडीया इ. माध्यमातून वाऱ्यासानख्या पसरल्या. त्यांची खातरजमा केली गेली नाही. त्यामुळे गैरसमज मोठ्या प्रमाणात पसरले यामुळे पोलीस व प्रशासनास नाहक त्रास झाला.

#### ९ अलगीकरणाच्या समस्या :

गावात चौथी अथवा सातवी आणी फारतर दहावी पर्यंत षाळा असतात. अध्ययनासाठी निवडलेल्या वरिल १५ गावापैकी नेसरी, सांबरे, मुंगुरवाडी, कुमरी व बटकणंगले, केवळ या ४ गावात १० वी पर्यंत षाळा आहेत. म्हणजे तिथे वर्गखोल्यांची संख्याही जास्त आहे. पैकी वरिल ८ गावात दि. ३१ मे २०२० पर्यंत कोरोनाबाधीत रुग्ण सापडले आहेत. गावाकडे परतलेल्या लोकांना अलगीकरणात ठेवण्यासाठी उपलब्ध षाळेंचा आधार घेतला जात आहे. पण येणाऱ्यांचे प्रमाण व षाळेतील उपलब्ध खोल्या यात फार मोठी तफावत असल्याने काहींना गावाबाहेर, स्वतःच्या किंवा इतरांच्या शेतातील घरात, माळरानावर किंवा स्वतःच्या घरात कडी कुलुपांत, पोल्ट्री फार्म, गुरांचे गोठे अशा ठिकाणी, तर बऱ्याच ठिकाणी तात्पुरते षेड वा निवारे उभारून बंदिस्त करण्यात आले आहे. त्याठिकाणी त्यांना जीवनावश्यक वस्तू पुरविल्या जातात. येणाऱ्यांची संख्या वाढत असल्याने स्थानिक प्रशासनाची चांगलीच दमछाक होते आहे तसेच येणाऱ्यांना कोठे ठेवायचे हा प्रश्नही गंभीर होतो आहे.

### १० राजकीय पक्षांचे दुर्लक्ष :

वर उल्लेख केलेल्या गावातील काही लोकांशी व तथाकथित राजकीय पुढारी व नेते आणी पक्षाचे काही कार्यकर्ते यांच्याशी चर्चा केल्यास असे समजले की पहिल्या व दुसऱ्या लॉकडाऊनमध्ये गरजूंना काही प्रमाणात स्वतःतर्फे व काही प्रमाणात पक्षातर्फे धान्य, पैसे व क्वारंटाईन काळात लागणाऱ्या साहित्याची मदत केली असून पुढील दोन लॉकडाऊन मध्येही अशीच मदत करण्यात आली आहे. मात्र काही गावकऱ्यांशी चर्चा केल्यास असे समजले की काही राजकीय पक्षाने आर्थिक व धान्य स्वरूपात मदत केली पण ती अतिशय तुटपुंजी होती, ती पण सुरवातीच्या काळात दिली होती जेव्हा फारशी गरज नव्हती. अन्नधान्य व रोखीच्या पैशाची गरज तर आता आहे. तर बहूतेक गावकऱ्यांनी राजकीय पक्षांनी कसलीच मदत केली नसल्याने नाराजी व्यक्त केली आहे. अडचणीच्या काळात खरेतर सर्वच राजकीय पक्षांनी मतभेद विसरून मदतीसाठी पुढे यायला पाहिजे होते पण तसे झाले नसल्याने त्यांच्या विशयी नाराजी व्यक्त केल्याचे दिसते. अशा कठीण प्रसंगी गावातल्या लोकांनीच एकमेकांची मदत केल्याचे चित्र समोर आले आहे.

वरील समस्या व्यतिरीक्त खालील समस्याही दिसून आल्या आहेत.

- १ शेती व्यवसायासमोर निर्माण झालेली संकट
- २ बेकारी व्यवसाय, फळे व भाज्या छोटे मोठे व्यवसायिकांच्या समस्या.
- ३ राजकीय पक्षांच्या फंड मनुष्यबळ, भौतिक साधने इ. समस्या
- ४ कोविड तपासणी व स्वॅब तपासणी केंद्रे प्रामुख्याने तालुका व जिल्ह्याच्या ठिकाणी उपलब्ध,
- ५ गाव पातळीवर स्वयंसेवी संस्थांचा अभाव
- ६ बऱ्याच ग्रामपंचायतीकडे निर्धीची व कर्मचाऱ्यांची कमतरता.
- ७ कोणत्याच ग्रामपंचायतीकडे आपात्कालीन व्यवस्थेचे नियोजन नाही.

अशा अनेक समस्यांची निर्मिती ग्रामीण भागात झाली आहे. यामुळे ग्रामीण भागातील प्रशासनाच्या मर्यादीही उघड झाल्या आहेत.

### निश्कर्श :

वरील समस्यांचा विचार करता व आपापल्या पातळीवर गावे कोरोनाशी लढा देत असताना पुढील निश्कर्श समोर येतात.

- १ कोरोनाचा धरकाव कोल्हापूर जिल्ह्यात साधारणपणे मे महिन्यात झाला आहे.
- २ ग्रामीण भागात कोरोना तपासणी यंत्रणा नाही , यासाठी तालुका अथवा जिल्ह्यावर अवलंबून, विशेषतः स्वॅब तपासणीसाठी, अवलंबून रहावे लागते.
- ३ ग्रामीण प्रशासन, ग्रामपंचायत, ग्रामीण पोलीस व आरोग्य यंत्रणा यांच्यावरचा ताण कमालीचा वाढला आहे.
- ४ ग्रामीण भागातील रोजगार, व्यापार, उद्योग व्यवसाय इ. बंद असल्याने बेकारी व बेरोजगारी सदृश्य स्थिती निर्माण झाली आहे.
- ५ कोरोना होईल या धास्तीने षहरातून ग्रामीण भागात लोकसंख्येचे मोठ्याप्रमाणात स्थलांतर झाल्याने ग्रामीण भागात लोकसंख्या वाढलेली दिसते.
- ६ हातावर पोट असणाऱ्यांा शासकीय मदत अतिशय तुटपुंजी मिळाली आहे.
- ७ गावागावात समस्या, संघय, सामाजिक तेढ यांची निर्मिती होऊ लागली आहे.
- ८ राष्ट्रीय व राजकीय पक्षांनी ग्रामीण जनतेच्या निर्माण झालेल्या समस्येकडे गांभीर्याने पाहिले नाही.
- ९ ग्रामीण भागात प्रशासनाच्या मर्यादा उघड्या पडल्याचे दिसून आले.

वरील सर्व अडचणी व निर्माण झालेल्या समस्यांचा विचार केला असता त्यावर काही उपाययोजना सुचवता येतील.

### उपाययोजना :

- १ षहरातून ग्रामीण भागात येणारे लॉॅंटे थांबवणे गरजेचे आहेत. शिवाय त्यांच्यात कोरोनाबाधित कोणी असेल तर त्याचा संसर्ग ग्रामीण भागात फैलावू शकतो.
- २ ज्या-ज्या गावात कोरोनाबाधितांची व कोरोनामृत्यु जास्त झालेत तेथे शासनाने विशेष मदत जाहीर करावी.
- ३ तालुक्याच्या ठिकाणी स्वॅब तपासणी कक्ष स्थापण करणे आवश्यक आहे.

४ ग्रामीण भागात अलगीकरण कक्षांचे दररोज निर्जंतुकीकरण करणे आवश्यक आहे.

५ ग्रामीण भागात अजूनही लोक कोरोना रोगाला गांभीर्याने घेत नाहीत ज्यामुळे साबणाने वारंवार हात धुणे, सॅनिटायझर व मास्कचा नियमित वापर करणे ते टाळत असल्याचे निदर्शनास आले आहे त्यासाठी त्यांच्यात आणखीण जागृती होण्यासाठी स्थानीक पातळीवर प्रयत्न व्हायला पाहिजेत.

६ मंदीसदृश्य परिस्थितीमुळे ग्रामीण समाज होरपळण्यास सुरवात झाली आहे तेंव्हा शासनाने त्यांना मदतीचा हात म्हणून विशेष पॅकेज जाहीर करणे गरजेचे आहे.

७ लॉकडाऊनमुळे घेतकरी सगळ्यात जास्त आर्थिकदृष्ट्या अडचणीत आला आहे, निदान त्यांचे पीक कर्ज माफ केले जावे.

८ छोटे-छोटे व्यवसायीक, व्यापारी, फळ-भाज्या विक्रेते, बेकरी व्यासायीक यांना फिजीकल डिस्टन्सींगचे पालन करून पुर्णवेळ व्यवसाय करण्यास परवानगी द्यावी.

९ लोकांनी भावनिक न होता सयमाने शासनाने सांगितलेल्या सूचनांचे पालन करून सहकार्य करणे गरजेचे आहे.

१० ग्रामीण भागात जीव धोक्यात घालून काम करणारे पोलीस, डॉक्टर, आरोग्य कर्मचारी, सफाई कर्मचारी यांचे विशेष अभिनंदन व त्यांना ज्यादाची आर्थिक मदत देऊन त्यांना मानसिक बळ द्यावे.

११ ज्या गावांनी कोरोना लढ्यात आदर्श निर्माण केला आहे, तो आदर्श इतर गावांनी अंमलात आणला तर कोरोनावर सहज मात करता येईल.

अशा प्रकारे कोरोनामुळे ग्रामीण जनजीवन व ग्रामीण अर्थव्यवस्थेवर जे परिणाम झाले आहेत ते वरील उपाययोजनांमुळे कांही प्रमाणात का असेना त्यांचे निरसन करता येऊ शकेल.

#### समारोप :

भारतीय अर्थव्यवस्थेचा कणाच शेतीव्यवसाय आहे. आणी भारतातील निम्यापेक्षा अधिक लोकसंख्या ग्रामीण भागातूनच वास्तव्य करतेय. शहरातील प्रदूषित वातावरण, आजार, रोगराई सहसा ग्रामीण भागापर्यंत लवकर पोहचत नाही. कोरोनाच्या बाबतीतही दुसऱ्या लॉकडाऊन बाबत तसेच चिंत्न होते. दुसऱ्या लॉकडाऊन पर्यंत ग्रामीण भाग कोरोनापासून सुरक्षित होतात्र मात्र तिसऱ्या लॉकडाऊन नंतर ग्रामीण भागातही या रोगाचा शिरकाव झाला आणी ग्रामीण भाग हादरून गेला. जवळपास भारतातल्या सर्वच ग्रामीण भागाची हीच परिस्थिती आहे. शहराबरोबर ग्रामीण भागाचाही कोरोना संसर्ग व मृतांचा आकडा वाढत आहे. सगळे चाकरमानी गावाकडे परतल्यामुळे ग्रामीण भागावर सगळ्याच प्रकारचा ताण वाढला आहे. त्यातून अनेक अडचणी वाढत चालल्या आहेत. यासंदर्भात प्रशासनाने ग्रामीण भागासाठी जी पाऊले उचलली आहेत ती पुरेशी वाटत नाहीत. किती दिवस घरात बसणार, पुढे कस जगायच, काय करायच हा प्रश्न भेडसावतो आहे. मंद गतीने का असेना ग्रामीण अर्थव्यवस्था हालचाल करीत आहे. कोरोना संसर्गापासून बचाव आणी प्रपंच चालवणे सध्या याच गोष्टी ग्रामीण भागासाठी महत्वाच्या आहेत. आणखी किती दिवस हीच परिस्थिती राहिल सांगती येत नाही. मात्र तोपर्यंत निर्माण झालेल्या परिस्थितीवर मात करत ग्रामीण समाज पूर्ववत व अधिक मजबूत बणवण्याचा निर्धार सर्वांनीच करायला हवा.

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## REPERCUSSION IN VARIOUS ASPECTS OF SOCIETY, POLITICAL, ECONOMICAL ACTIVITY IN THE WORLD

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### **Abstract:**

Before March 2020 the whole world was flowing in its original way. The progress of world was tremendous. Every country was in progress. Each and every country was enjoying its economic progress. There was an positive working atmosphere in the whole world. Society was enjoying the social activity as well as social development . But after Covid-19 People were suffering from the major problem of unemployment. Every country is now suffering from the fear of the corona Virus. Now corona is became worlds dangerous virus. Every country started fearing from the danger of Corona. Every country is in the Lock-down situation. Every movement of the world is stopped. Now no body is travelling from one place to another place. Every economic condition has stopped. Political activity is no longer activity. Every person is in fear of virus. Corona- Virus has attacked whole economy of the world.

**Keywords:**-Economic, Social, Political, Development, Virus

### **Introduction:**

The working of whole world is the combination of different activity. There is a combination of different activity just like Social, Economical, Political activity etc. World is continuously working with the aim of progress of society. Society is always working for the welfare of the world. Each and every country is aiming of progress but not on the cost of worlds benefit. Society is in an upward situation but there are some obstacles also. Society needs support for the development. Each and every person of the society wants its progress. Every person wants to increase its income and other sources. Whole society wants to work for the development of the people. No body in the world avoids progress.

To manage the social activity of the society every organisation as well as every country is targeting to work for the prosperity. To work socially it is necessary that it is supported by good Political atmosphere. Every country wants to progress and it depends on its political atmosphere also. But Social and Political activity always depends on the Economic activity of the nation. Economic activity includes imports, export or production of semi finished goods. Production of finished goods which support to each and every country . Every country in the world wants economic progress. Without economic activity its like impossible for each and every country to be progressed. Now every country has to work hard for the progress as well as to compete to the competitor's country.

### **Object of the Study:**

1. To know the social activity of the country
2. To improve the political atmosphere of the country
3. To understand and boost the economic condition of the country.

### **Importance of Study:**

1. Helps to understand the social activity of the country.
2. Support to maintain political atmosphere of the Nation.

3. Improves the economical condition of the country.

### **Research Methodology:**

The term 'Research' refers to seeking of information for adding to the present knowledge. While, Research Methodology is a way to systematically solve the research problem. Researcher not only needs to know how to develop and apply particular research techniques, but they also need to know which of these methods or techniques are relevant for the research. Researcher also needs to understand the assumptions underlying various techniques and procedures will be applicable to certain problems. All this means that it is necessary for the researcher to design his methodology for his problem as the same may differ from problem to problem. It is very necessary for a researcher to design his own methodology to complete the research with relevant objectives.

**According to Redman and Mory**, "Research is a systematized effort to gain new knowledge."

**According to Clifford Woody**, "Research comprises defining and redefining problem, formulating hypothesis or suggested solutions; collecting, organizing and evaluating data; making deductions and reaching conclusions; and at last carefully testing the conclusions to determine whether they fit the formulated hypothesis or not."

### **Problems of the Study:**

"What happens is not as important as how you react to what happens" – **Thaddeus Golas**

### **Rationality for selecting the Problem:**

**"Today each and every country is facing with the problem of Covid-19. We have to understand its effect on Social, Political as well as Economical."**

### **Research Process:**

In order to have proper research work, this research project has an identified research problem, certain objectives and hypothesis. In addition to this, this research project has research design which indicates as to how required data is collected, analyzed and interpreted. The research process consists of series of various actions, which are necessary to effective research work. It includes all such stages required to carry out research work. It specifies desired steps involved in conducting research work.

The following are the stages in research process –

1. Formulation of research problem, review of literature and hypothesis
2. Research Design
3. Sample design and collection of data
4. Analyzing data and testing hypothesis
5. Interpretation and report writing

The systematic solved problem gives contribution to the research work.

### **Research Design:**

Research design gives the outline of the research work. It is the result of good planning and implementation of a good strategy. Different authors give different definitions of research design.

According to a researcher, Kerlinger, "Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research question and to control variance."

According to Bernard Phillips, "Research design can be defined as the blue print for the collection, measurement and analysis of data."

### **Types of Research Design:**

The quality of a research projects depends, among the other things, upon the suitability of the methods selected for it. The basic types of research are as follows:

- a) Descriptive Research
- b) Applied vs. Fundamental Research
- c) Quantitative vs. Qualitative Research
- d) Conceptual vs. Empirical Research

In this study, the researcher uses the descriptive type of research.

### **Descriptive Research Design:**

Descriptive study is a fact-finding investigation with adequate interpretation. It is the simple type of research. It usually forms preliminary study of a research project. It provides background information about an event in question. It aims at describing working condition, relations and classification of the range of elements comprising the subject matter of study. It is designed to gather descriptive information and provides information for formulating more sophisticated studies.

### **Sources of Data Collection:**

The nature of the study is analytical and descriptive in nature. There are mainly two sources of collecting data – Primary data and Secondary data.

#### **Primary Data:**

The primary data is collected at first hand. The primary data is documented as record. There are various sources to collect primary data like Questionnaire, schedule and personal interview. In this research, the researcher collected primary data by using questionnaire.

#### **Secondary Data:**

Secondary data are those which are already collected by someone for some purpose and are available for the present study. Primary data once collected and published becomes secondary data for other investigators. In this research, the secondary data is collected through websites, web, pages, books, Journals, Publications, Magazines, Articles, periodicals, Newspapers, E-Journals.

### **Limitations of Study:**

1. The study is limited to availability of data
2. The study is based on many assumption.
3. The study is based on short duration survey.

### **Scope:**

1. The scope of study is related to some specific shopkeepers.
2. The Scope of study is related to *some of the consumers*.
3. The study helps us to understand the effect of Covid-19 on Social, Political, Economical activity of the country.

**Sample Size: 50** (25 from Retailers, 25 from Consumers)

### **Data Interpretation:**

Graphs and charts are used as technique of interpretations. Vertical bar chart is mainly used for the purpose of easy understand ability. Vertical bar is useful for communicating data in bar form. It is also known as histogram. It is a very common type of graph and easily understandable.

Data collected by survey method is tabulated as under. After that each & every table is interpreted with the help of graph and charts.

Q. 1. Are you aware that Covid-19 has affected our society at large?

Respondent	YES	NO
Retailers	23	02
Consumers	19	06

**Interpretation:** From the above explanation it is clear that many retailers and consumers believes that Covid-19 has affected the society at large.

Q.2 Are you think that our economy has affected adversely with Covid-19 ?

Respondent	YES	NO
Retailers	21	04
Consumers	20	05

**Interpretation:** From the above data it is clear that everybody has affected by the Covid-19.

Q. 3. Covid-19 has collapsed world economy.

Respondent	YES	NO
Retailers	18	07
Consumers	20	05

**Interpretation:** From the above data it seems to be clear that World economy has a lerge affect of Covid-19.

Q. 4. Can we easily overcome with the effect of Covid-19?

Respondent	YES	NO
Retailers	17	08
Consumers	18	07

**Interpretation:** From the above data it seems to be clear that every one believes that we can easily overcome with the problem of Covid-19.

Q. 5. Are you know that many political parties has suffer a huge lose due to Covid-19.

Respondent	YES	NO
Retailers	16	09
Consumers	18	07

**Interpretation:** From the above data it is clear that people believes that Covid-19 has affected political condition of the parties also.

**Findings:**

1. Every country is suffering from the dangerous affect of Covid-19.
2. Social Condition of the every country is also affected.
3. Economic Condition also affected badly due to Covid-19
4. Covid-19 has collapsed the world economy.

**Conclusion:**

From the above data analysis it is clear that Covid has affected whole economy . Each and every has suffered from it. And every country must be unite with each other to cope with the affect of the virus.



**Suggestions:**

1. To overcome with the problem of this Covid-19 , every country must work hard.
2. To avoid unnecessary expenses of each and every person is must.
3. To purchase the goods of his own country is the best support to the country.
4. To avoid to travel to other places is the safest option.

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## ROLE OF HERD IMMUNITY IN THE MANAGEMENT OF COVID-19

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### Abstract:

The WHO declared COVID-19 as global pandemic on March 11, 2020. The nCoV2019 (also referred SARS-CoV-2, the new coronavirus) has been spreading at a supersonic speed as a severe deadly disease, causing considerable anxieties all over the world. Herd immunity is a method through which an infectious disease is contained by immunising some portion of the population. Measles, mumps, polio, and chickenpox are examples of infectious diseases that were once very common but are now rare as vaccines helped to establish the herd immunity. The concept behind herd immunity is that it breaks the chain of the disease as people who have become immune to it can no longer be infected by it. This way the disease is unable to spread through the community or the "herd" and hence, the most vulnerable sections of the society could remain safe. Allowing a large number of people to be infected with COVID-19 at such a stage is very risky. Moreover, building a herd immunity could take months, and the priority of the countries should be to protect its vulnerable population from the disease immediately. Herd immunity can help to stop the spread of illness but it doesn't always guarantee protection against the disease. Herd immunity is achieved when the majority of population becomes immune to an infectious disease, either because they have become infected and recovered, or through vaccination. Hence the safest way to get immunity is through vaccination.

**Keywords:** Herd immunity, Pandemic, COVID-19, SARS-CoV-2, Coronavirus.

### Introduction:

The coronavirus is a family of viruses that can cause a range of illnesses in humans including common cold and more severe forms like SARS (Severe Acute Respiratory Syndrome) and MERS (Middle East Respiratory Syndrome) which are life threatening. First, coronaviruses originated in animals before transferring to humans (Chan *et al.*, 2013). For 2019-nCoV, bats are the likely origin, based on sequencing evidence of samples in early patients who developed pneumonia, where researchers found an 85% identity with a previously published genome of bat SARS like Coronavirus (Wu *et al.*, 2020). The World Health Organization (WHO) officially named the disease 'COVID-19'. The International Committee on Taxonomy of Viruses named the virus 'severe acute respiratory syndrome coronavirus 2' (SARS-CoV-2). The clade of 2019-nCoV is within the subgenus *Sarbecovirus*, *Orthocoronavirinae* subfamily (Zhu N. *et al.*, 2020). This virus is highly infectious and can be transmitted through droplets and close contact. Some cases are life-threatening; as such, COVID-19 poses a great threat to global health and safety (Huang C. *et al.*, 2020).

SARS-CoV-2 causes an acute viral infection in humans and has an incubation period of around 3 days; this is similar to SARS-CoV with an incubation period of 2–10 days. The most common symptoms of COVID-19 are fever, cough and fatigue; diarrhoea and vomiting (Yang Y *et al.*, 2020). Moreover, severe cases are prone to a variety of complications, including acute respiratory distress syndrome, acute heart injury and secondary infection (Chen N *et al.*, 2020).

There are no drugs or other proven therapeutic options to prevent or treat COVID-19. Current clinical management includes infection prevention, supportive medical care including supplemental oxygen and mechanical

ventilatory support when indicated. Since the number of people infected with COVID-19 continues to rise in alarming rate globally, the full extent and severity of this outbreak still remains unclear. This article reviews the role and impact of herd immunity in management and prevention of SARS-CoV-2 in order to help follow-up research, prevention and treatment.

Acquired immunity is established at the level of the individual, either through natural infection with a pathogen or through immunization with a vaccine. The ability to establish herd immunity against SARS-CoV-2 hinges on the assumption that infection with the virus generates sufficient, protective immunity. At present, the extent to which humans are able to generate sterilizing immunity to SARS-CoV-2 is unclear. In a sufficiently immune population, herd immunity provides indirect protection to susceptible individuals by minimizing the probability of an effective contact between a susceptible individual and an infected host (Haley *et al.*, 2020)

Herd immunity is achieved when the majority of population becomes immune to an infectious disease, either because they have become infected and recovered, or through vaccination. (Anderson and May, 1992). When that happens, the disease is less likely to spread to people who aren't immune, because there just aren't enough carriers (Haley *et al.*, 2020). Herd immunity, typically works when 60-70% population of a country has been affected and it's too large a risk to take for any nation. What one would do is to take intervention before so that the infection does not spread. Banking on developing herd immunity to fight coronavirus is too large a risk for any nation and only timely interventions can mitigate the spread of COVID-19.

Several theoretical modelling have been conducted across the world and also in India suggested that there could be few waves of COVID-19 and people need to be prepared for it. The number of cases will go down and people need to be prepared as there can be a second wave of COVID-19. The approach in the fight against COVID-19 focusing on, surveillance, diagnostic, intervention through development of new therapies, hospital assistive devices and supply chain model. In India, different approaches are being adopted for vaccine development front like immune boosting vaccine that improves the host's immunity, monoclonal antibody and plasma therapy. India is one of the worst-hit nation by the COVID-19 pandemic.

#### **Challenges associated with management of COVID-19 by Herd immunity:**

Achieving herd immunity through natural infections has many challenges. It is quite clear that allowing a large number of people to be infected with COVID-19 at such a stage is very risky as the strategy based on many unknown factors. One of the reasons for this is that the pathogen is still widely unknown to the researchers and it is also not clear how many people a single case can infect. Moreover building a herd immunity could take months, and the priority of the countries should be to protect its vulnerable population from the disease immediately. Moreover, since not much is known about the pathogen, it is not clear whether immunity can be developed to the virus or not. It is also not known if a person can remain permanently infected by the virus.

Reinfection is mightily possible with at least three of the four coronaviruses which cause common cold. WHO cautions that "there is currently no evidence that people who have recovered from COVID-19 and have antibodies are protected from a second infection". Infected people may have some level of protection against the virus, but the level and duration of protection is still not known. For infections without a vaccine, even if many adults have developed immunity because of prior infection, the disease can still circulate among children and can still infect those with weakened immune systems (Hu *et al.*, 2020).

In the best case, physical distancing would help to maintain current levels of infection or even reduce levels until a vaccine becomes available. Social distancing, maintaining healthy lifestyle and frequent handwashing

are currently the only ways to help prevent you and those around you from contracting and potentially spreading SARS-CoV-2, the virus that causes COVID-19.

**CONCLUSION** COVID-19 poses a major threat to global public health. To date, there are no specific antiviral treatments or vaccines for SARS-CoV-2, and the clinical treatment of COVID-19 has been limited to support and palliative care until now. Therefore, there is an urgent need to develop a safe and stable COVID-19 vaccine. The safest way to get immunity is through vaccination. You can also get natural immunity by contracting the illness and building an immune response to it. But herd immunity isn't the answer to stopping the spread of the new coronavirus. The concerted effort on the part of the entire population is required with some level of continued physical distancing for an extended period, likely a year or longer, before a highly effective vaccine can be developed, tested, and mass produced.

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## लॉकडाउन के परिदृश्य में मानसिक स्वास्थ्य के विषय में जनता में जागरूकता सृजन

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### सारांश:

ऊँ असतो मा सद्गमय। तमसो मा ज्योतिर्गमय। मृत्योर्मा मृतं गमय। अर्थात् है ईश्वर हमें असत्य से सत्य की ओर ले चलो। अंधकार से प्रकाश की ओर, मृत्यु से अमरता की ओर ले चलो। उक्त प्रार्थना नकारात्मक विचारों से मुक्ति पाकर सकारात्मक विचारों का सृजन करने के लिए हमारी संस्कृति का आधार है परोपकार, वसुधैव कुटुम्बकम्, अतिथि देवो भव आदि भारतीय संस्कृति के आधार भूत सिद्धान्त है। किन्तु भारतीय मनीषियों ने सदैव यही संदेश दिया है कि पहला सुख निरोगी काया यह पंक्ति भारतीय जन जीवन का आधार है अर्थात् स्वास्थ्य ही सर्वोपरि है यदि मानव स्वस्थ है तो निश्चय ही वह जिन्दगी की बडी से बडी समस्या से लड सकता है। हमारी संस्कृति में अनेक ऐसी लोकोक्तियां व मुहावरे है जो हमारे जीवन में धन से ज्यादा तन व मन के स्वास्थ्य का महत्व है। शारीरिक स्वास्थ्य से भी कहीं ज्यादा जीवन में मन के आरोग्य का महत्व है। प्रशासन के निर्देशों के अनुसार वह हाथ धोकर, मास्क लगाकर अपने तन को तो सुरक्षित रखने का प्रयास कर रहा है, किन्तु फिर एक बार वह अपने मन को उपेक्षित कर रहा है। इस बीमारी से बचाव का साधन है रोग प्रतिरोधक क्षमता को बढाना और मन को मजबूत करना। आप क्या खा रहे है, स्वास्थ्य का संबंध केवल इससे नहीं है बल्कि मनुष्य क्या सोचता है? किस वातावरण में रहता है? कैसा व्यवहार करता है? इन सब पर भी निर्भर है।

प्राचीन कहावत है कि 'चिंता से चिंता बेहतर' इस कहावत में जीवन का सार निहित है। मनुष्य के द्वारा की गई चिन्ता चिन्ता से भी निकृष्ट है। इसमें बताया गया है कि तनावग्रस्त होकर तिल-तिल कर मरने से अच्छा है एक बार में जीवन समाप्त करना। किन्तु मृत्यु समस्या का समाधान नहीं है। जीवन में आने वाली इस प्रकार की समस्याओं से सामना करने के लिए मनुष्य को भावनात्मक और मानसिक रूप से मजबूत रहने की आवश्यकता है। वर्तमान समय तनावों का समय है और तनाव मुक्ति का प्रमुख उपाय है मस्तिष्क पर नियन्त्रण।

दैनिक जीवन में अव्यवस्था, कार्यक्षेत्र में काम का तनाव, रोजगार छिन्ने का भय, पारिवारिक अशांति, धन की कमी आदि विविध कारणों से व्यक्ति की मानसिक शांति छिन्न-भिन्न हो जाती है; परिणामतः वह भ्रमित, चिन्तित, अकारण क्रोधग्रस्त, निराश रहने लगता है। अतिमहत्वाकांक्षा, अतिश्रम, बौद्धिक प्रतिस्पर्धा मानसिक तनाव का कारण है। मनुष्य की शारीरिक भाषा उसकी मानसिक व शारीरिक स्थिति को संकेतित करती है। मानसिक व भावनात्मक स्वास्थ्य की कमी की वजह से व्यक्ति में अवसाद होता है। कोविड-19 के इस संकटकालीन समय में सबसे बडी समृद्धि यही है कि व्यक्ति अपने और अपने परिवार को शारीरिक, मानसिक और भावनात्मक आरोग्य प्रदान कर सके। कोविड-19 के इस आपातकालीन समय में तनाव को विनाश का नहीं विकास का साधन बनाइयें

**कुंजीशब्द:** स्वास्थ्य, तनाव, संस्कृति, मुक्ति, जीवन, क्रोध, मानसिक।

### शोध प्रपत्र:

ऊँ असतो मा सद्गमय। तमसो मा ज्योतिर्गमय। मृत्योर्मा मृतं गमय। अर्थात् है ईश्वर हमें असत्य से सत्य की ओर ले चलो। अंधकार से प्रकाश की ओर, मृत्यु से अमरता की ओर ले चलो। उक्त प्रार्थना नकारात्मक विचारों से मुक्ति पाकर सकारात्मक विचारों का सृजन करने के लिए हमारी संस्कृति का आधार है परोपकार, वसुधैव कुटुम्बकम्, अतिथि देवो भव आदि भारतीय संस्कृति के आधार भूत सिद्धान्त है। किन्तु भारतीय मनीषियों ने सदैव यही संदेश दिया है कि पहला सुख निरोगी काया यह पंक्ति भारतीय जन जीवन का आधार है अर्थात् स्वास्थ्य ही सर्वोपरि है यदि मानव स्वस्थ है तो निश्चय ही वह जिन्दगी की बडी से बडी समस्या से लड सकता है हमारी संस्कृति में अनेक ऐसी लोकोक्तियां व मुहावरे है जो हमारे जीवन में धन से ज्यादा तन व मन के स्वास्थ्य का महत्व है। शारीरिक स्वास्थ्य से भी कहीं ज्यादा जीवन में 'मन के आरोग्य' का महत्व है। किन्तु धन की चकाचौंध में भौतिकता की दौड में डालता व्यक्ति न तो मन का न तन का ख्याल रख सका। उसे अगर चिन्ता है तो केवल धन संग्रहण की। ऐसा नहीं है कि वह अपने स्वास्थ्य के विषय में जागरूक नहीं है। किन्तु उसे आरोग्य से अधिक धन, सुविधा और पाषाण्य संस्कृति से अधिक लगाव होता चला गया है। वर्तमान आधुनिक युग में हम वैज्ञानिक प्रगति तो कर रहे है, किन्तु अपने धर्म, मूल्यों और संस्कृति से दूर होते चले जा रहे है। अपनी जडों से कटकर कोई विकास कैसे कर सकता है? परिणामस्वरूप व्यक्ति के जीवन में मानसिक समस्याएं बढती जा रही है, जिसका कोई समाधान लौकिक विज्ञान नहीं दे पा रहा है।

कोविड-19 की इस महामारी ने विश्व के परिदृश्य को बदल कर रख दिया है। जिन्दगी की दौड में दौडते मानव की जिन्दगी में ठहराव आ गया। न चाहते हुए भी उसके कदम रुक गए। कोविड-19 की महामारी से निजात पाने के लिए लगाये गये लॉकडाउन ने व्यक्ति को घर, परिवार, और स्वास्थ्य का महत्व समझा दिया। खुद को स्वामी समझने वाला मानव डरा सहमा आतंकित सा दिखाई देने लगा है। पर कहीं उसे विश्वास भी है कि हमेशा की तरह

जल्दी ही मानव इस महामारी पर भी विजय प्राप्त कर लेगा, किन्तु अंदर ही अंदर वह डरा सहमा भयग्रस्त रहने लगा है। उस अदृश्य दानव के आतंक से वह चाह कर भी खुद को मुक्त नहीं कर पा रहा है। प्रशासन के निर्देशों के अनुसार वह हाथ धोकर, मास्क लगाकर अपने तन को तो सुरक्षित रखने का प्रयास कर रहा है, किन्तु फिर एक बार वह अपने मन को उपेक्षित कर रहा है। इस बीमारी से बचाव का साधन है रोग प्रतिरोधक क्षमता को बढ़ाना और मन को मजबूत करना। आप क्या खा रहे हैं, स्वास्थ्य का संबंध केवल इससे नहीं है बल्कि मनुष्य क्या सोचता है? किस वातावरण में रहता है? कैसा व्यवहार करता है? इन सब पर भी निर्भर है।

प्राचीन कहावत है कि 'चिंता से चिंता बेहतर' इस कहावत में जीवन का सार निहित है। मनुष्य के द्वारा की गई चिन्ता चिंता से भी निकृष्ट है। इसमें बताया गया है कि तनावग्रस्त होकर तिल-तिल कर मरने से अच्छा है एक बार में जीवन समाप्त करना। किन्तु मृत्यु समस्या का समाधान नहीं है। जीवन में आने वाली इस प्रकार की समस्याओं से सामना करने के लिए मनुष्य को भावनात्मक और मानसिक रूप से मजबूत रहने की आवश्यकता है। वर्तमान समय तनावों का समय है और तनाव मुक्ति का प्रमुख उपाय है मस्तिष्क पर नियन्त्रण। महामारी के इस विकट काल में हमें निम्न नियमों का पालन करना चाहिये।

१. **जल्दी सोना जल्दी उठना:-** बचपन से हम सुनते आ रहे हैं कि Early to bed early to rise, makes a man healthy, wealthy and wise अर्थात् जल्दी सोना और जल्दी उठना मनुष्य को स्वस्थ, समृद्ध और बुद्धिमान बनाते हैं, किन्तु क्या आज का मनुष्य ऐसा कर रहा है? इंटरनेट और टीवी की सुविधा ने देर रात तक जागना उसके दैनिक जीवन का आवश्यक अंग बना दिया और लॉकडाउन के कारण सुबह जल्दी उठने की कोई चिन्ता नहीं। ऐसे में हम कहां जा रहे हैं? हमारे मानसिक स्वास्थ्य की क्या स्थिति है, यह विचारणीय है।
२. **व्यायाम:-** गांधी जी ने अपनी पुस्तक सत्य की आत्मकथा में लिखा है कि उन्हें कसरत करना पसंद नहीं था किन्तु वे नित्य सुबह की सैर पर जाते थे और धीरे-धीरे स्कूल में आवश्यक होने से कसरत उनके जीवन का आवश्यक अंग बन गया। व्यायाम न केवल हमारे तन को स्वस्थ रखता है बल्कि मन को भी प्रफुल्लित और ऊर्जावान बनाता है। नित्य प्रति व्यायाम करने से मन प्रसन्न और सकारात्मक विचारों से सक्रिय होता है। अतः न केवल इस संकटकाल में अपितु नित्य प्रति मनुष्य को व्यायाम करना चाहिये।  
व्यायाम में यदि मनुष्य योग को अपनाता है तो निश्चय ही उसके जीवन को रोगमुक्त बनाया जा सकता है क्योंकि योग का अर्थ है-चित्तवृत्ति-निरोधः योग। अर्थात् मन की वृत्तियों को नियन्त्रित करना ही योग है। क्योंकि कहा गया है कि एक बार बीमारियों की चपेट में आने से हम दुनिया का सारा धन खर्च करके भी उनसे मुक्ति नहीं पा सकते।
३. **सात्विक भोजन:-** लगभग पिछले कुछ वर्षों से बाहर खाने पीने का चलन हो गया है। फास्टफूड, चाइनीज फुड के तो हर उम्र के लोग दीवाने हैं। घर से बाहर खाना-पीना न केवल स्ट्रेस का अपितु जीवन का भी आवश्यक अंग बन गया है। किन्तु हमारी संस्कृति में कहा गया है कि जैसा अन्न वैसा मन तो आज जब हमारा अन्न ही सात्विक नहीं रह गया है तो मन कैसे ऊर्जावान हो सकता है। आज का मानव भोजन में आरोग्य का नहीं स्वाद का दीवाना है। हमारे संस्कृति में यह भी कहा गया है कि रसोईघर से ही सारी बीमारियां शुरू होती हैं और रसोईघर में ही सारी बीमारियों का इलाज भी है। यदि हम इस संकटकाल में स्वयं को मजबूत बनाना चाहते हैं तो निश्चय ही हमें सात्विक भोजन को अपनाना होगा। पोषण से भरपूर आहार व्यक्ति के विकास में योगदान देते हैं।
४. **पारिवारिक जीवन:-** व्यक्ति के परिवार के वातावरण का भी उसके व्यवहार पर प्रभाव होता है। अनेक बार आपसी झगड़े, तनाव, ईर्ष्या, द्वेष आदि भाव भी व्यक्ति के जीवन को प्रभावित करते हैं।
५. **उचित विश्राम:-** स्वास्थ्य विदों के अनुसार व्यक्ति को कम से कम ८ घंटे की नींद लेनी चाहिये। कोविड-१९ की इस संकटकालीन स्थिति में व्यक्ति का शरीर स्वस्थ रहने के लिए ये आवश्यक है कि वह उचित विश्राम करें।
६. **बच्चों के साथ समय बितायें:-** दिमाग और मन को तरोताजा रखने के लिए आवश्यक है कि मनुष्य बच्चों के साथ समय बितायें। कुछ दिमागी खेल खेलें जिससे मनुष्य का मन प्रफुल्लित रहे। वर्तमान समय में माता-पिता अपने बच्चों के शारीरिक स्वास्थ्य और स्वच्छता के लिए तो निरन्तर निर्देश देते रहते हैं, किन्तु उनके मन में क्या चल रहा है इस बात का विश्लेषण करने का वे प्रयास ही नहीं करते, या उनके पास समय ही नहीं होता। बच्चों के साथ समय बिताना और उनकी भावनात्मक जरूरतों को पूरा करना अतिआवश्यक है।
७. **अभिरुचि के कार्य:-** अनेक व्यक्तियों की रुचि भिन्न होती है अतः तनाव मुक्ति के लिए व्यक्ति को अपनी रुचि के कार्य करने चाहिये। तनाव युक्त होने पर सकारात्मक रुख होना चाहिये, जैसे तैराकी सीखते हुए पहले हम भयातुर होते हैं, किन्तु बाद में आनन्दित होते हैं। इसी प्रकार व्यक्ति की रुचि के कार्य उसे तनावमुक्त करते हैं। मशीनी जिन्दगी जीते मानव को इस प्राकृतिक आपदा ने जब जीवन में ठहराव दिया है तो उसे अपनी उन रुचियों को समय देना चाहिये जो समयाभाव के कारण धूल की परतों से युक्त हो गई हैं।

८. **स्वास्थ्य के दो स्तर:-** स्वस्थ मनुष्य के दो स्तर होते हैं- सतर्कता और जागरूकता। मन की दो स्थितियां हैं एक मन और शरीर का साथ होना , जब ये दोनों साथ होते हैं तो किसी भी कार्य का परिणाम प्रभावकारी होता है किन्तु दूसरी स्थिति में मन कहीं और तन कहीं। यह स्थिति भी मानसिक बीमारी की ओर संकेत करती है। हमारा तन ऊर्जावान और मन सचेत व जागरूक होना चाहिये।
९. **सकारात्मक विचार:-** कहते हैं कि खाली दिमाग शैतान का घर होता है। लॉकडाउन के इस समय में जब कईयों के रोजगार नष्ट हो गए हैं , इस अदृश्य बीमारी का आतंक फैला हुआ है। घर की व्यवस्था को संभालना है ऐसे विपरीत समय में सकारात्मक विचार, आशा और विश्वास ही हमें आन्तरिक रूप से मजबूत कर सकते हैं। खुद को तनाव मुक्त रखना अतिआवश्यक है और तनावमुक्ति के लिए मनुष्य को निम्न कार्य करने चाहिये-
  - **अच्छी पुस्तकें पढ़ना:-** इस संकटकालीन समय में पुस्तकालय या दुकानों से हम पुस्तक नहीं ले सकते किन्तु मोबाइल में हम किताबें पढ़ सकते हैं।
  - **आध्यात्मिक शक्ति का सृजन:-** कोविड-१९ के संकटकालीन समय में जब सब कुछ बन्द था, तब ईश्वर हर पल हमारे साथ है। इस सृष्टि का नियन्ता ईश्वर है, वह इस सृष्टि के कण-कण में मौजूद है और मनुष्य का तो ये चिरकालीन स्वभाव है कि उसे सुख में ईश्वर की जरूरत महसूस नहीं होती किन्तु वह दुःख में ईश्वर की ही शरण लेता है। किन्तु ध्यान, साधना और ईश्वरीय भक्ति से हमारी आध्यात्मिक शक्ति में ही वृद्धि होती है। आत्म निरीक्षण व आत्म मूल्यांकन करने के लिए समय निकालें।
  - **सामाजिक स्वास्थ्य:-** समाज में अपने दोस्तों, पड़ोसियों, रिश्तेदारों और सम्बन्धियों के साथ पारस्परिक संबंधों को संभालने और बनाये रखने की क्षमता रखता है। अतः इस संकटकालीन परिस्थितियों में भी हमें परिवार व दोस्तों के साथ फोन या वीडियो कॉलिंग द्वारा सम्पर्क में रहना चाहिये क्योंकि अच्छे सामाजिक संबंध मुश्किलों से लड़ने के लिए संजीवनी होती है। इसके लिए प्रभावी रूप से संवाद करते हुए मैत्रीपूर्ण और सकारात्मक बनें।
  - **इच्छाओं का उन्नयन करें:-** इच्छाओं के दमन के स्थान पर हमें उन्हें उच्चतर लक्ष्य की ओर मोड़ना चाहिये। दूसरे शब्दों में व्यक्ति को उसका पुर्नगठन करना चाहिये। उनके निग्रह के स्थान पर उनका उन्नयन करें।

#### उपसंहार:

दैनिक जीवन में अव्यवस्था, कार्यक्षेत्र में काम का तनाव, रोजगार छिने का भय, पारिवारिक अशांति, धन की कमी आदि विविध कारणों से व्यक्ति की मानसिक शांति छिन्न-भिन्न हो जाती है ; परिणामतः वह भ्रमित, चिन्तित, अकारण क्रोधग्रस्त , निराश रहने लगता है। अतिमहत्वाकांक्षा, अतिश्रम, बौद्धिक प्रतिस्पर्धा मानसिक तनाव का कारण है। मनुष्य की शारीरिक भाषा उसकी मानसिक व शारीरिक स्थिति को संकेतित करती है। मानसिक व भावनात्मक स्वास्थ्य की कमी की वजह से व्यक्ति में अवसाद होता है। कोविड-१९ के इस संकटकालीन समय में सबसे बड़ी समृद्धि यही है कि व्यक्ति अपने और अपने परिवार को शारीरिक , मानसिक और भावनात्मक आरोग्य प्रदान कर सके। कोविड-१९ के इस आपातकालीन समय में तनाव को विनाश का नहीं विकास का साधन बनाइये। अतः जीवन के इस ठहराव का सदुपयोग कीजिये और अपनी रुचियों, परिवार को समय देकर संकट के इस समय को भी जीवन के लिए यादगार बनाइये, क्योंकि ये तो तय है कि इस अज्ञात बीमारी से निजात पाने के लिए एक लम्बा वक्त लग सकता है तो फिर घुट कर , डर कर जीने से क्या लाभ? हमें खुद को मजबूत और सतर्क बनाना ही होगा ताकि इस समस्या से सामना कर हम जीवन के संघर्ष पथ पर निश्चिन्त होकर आगे बढ़ सकें।

#### सन्दर्भ ग्रन्थ:

१. मानसिक तनाव से मुक्ति का उपाय- स्वामी गोकुलानन्द, रामकृष्ण मठ
२. आप भी तनाव मुक्त हो सकते हैं- गिरिराज धरण अग्रवाल, डायमण्ड पॉकेट बुक्स
३. तनाव मुक्ति के सरल उपाय- षष्ठीकांत सदैव, प्रभाकर प्रकाशन
४. तनाव से मुक्ति - सर श्री
५. इमोशन पर जीत - सर श्री
६. मानसिक तनाव और अनिद्रा-हरि ओम गुप्ता
७. तनाव छोड़ो सफलता पाओ- जयन्ती जैन

## IMPACT OF LOCKDOWN ON INDIAN AND WORLD ECONOMY

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### **Abstract:**

That the COVID-19 pandemic would hit the global economy and push it towards a recession is now loud and clear, with many global multilateral agencies marking down global growth expectations. Financial markets too are facing problems. The Indian economy sustained major damages from all sorts of large global crises in the past, seems to be sustain the latest burst of pandemic too. But surely, the Indian economy is not completely insulated from the global economic shock. The lockdown effects are also beginning to come out. While the pandemic has tested the nation's healthcare economy the most, the lockdown's broader impact could bring fresh challenges in the coming quarters. In India, coronavirus pandemic's the economic impact of the 2020 has been largely disruptive. India's growth had been revised by World Bank and rating agencies for fiscal year 2021. However, even after the announcement of the economic support, estimates of India's GDP were reduced or downgraded. It is showing even more to negative figures. And that will be a signal a deep recession which country may ready to face. On 26 May, this will perhaps be India's worst recession since independence announced by CRISIL. State Bank of India research guess a shrinkage of over 40% in the GDP in Q1 FY21.

**Keyword:** Pandemic, lockdown, covid19, recession

### **Introduction:**

A majority of the factories and businesses have been shut or stop due to the world's biggest lockdown. Also it push towards suspended flights, stopped trains and restricted movement of vehicles and people. Analysts and industry bodies said during the 21-day period of lockdown may impact on cost of the Indian economy Rs 7-8 lakh crore. With the intent to limit the spread of COVID-19, with effect from March 25 P.M. Of India declared complete lockdown. That forced into as much as 70 per cent of economic activities, investment, exports and consumption to a standstill. Agriculture, mining, utility services, some financial and IT services and public services means only essential goods and services were permitted to do their work. The covid19 rose at the most improper/inopportune time for India. Because after monetization and other bold fiscal/monetary decision taken by Indian government, Indian economy was showing signal of recovery. Earlier this month, Acute Ratings & Research Ltd predicted that the lockdown will impose cost on the Indian economy almost USD 4.64 billion (over Rs 35,000 crore) every day.

### **Research Methodology:**

The paper is based on the secondary data and the information is retrieved from the internet via journal, research paper, expert opinion on the same subject.

### **Objectives of the research:**

- 1) To study the impacts of lockdown on various sectors.
- 2) To find out solutions to tackle the problem.

### **Impact of lockdown on India and World economy:**

Unemployment rose within a month from 6.7% on 15 March to 26% on 19 April. During the lockdown, An approximate 14 crore (140 million) citizen or people lost employment during the lockdown. The households have



reported an income drop. During the first 21-days of complete lockdown, the Indian economy was anticipated to lose over ₹ 32,000 crore (US\$4.5 billion) every day. India's \$2.8 trillion economic movement (Less than a quarter) was operational under complete lockdown. In the country, up to 53% of businesses were predicted to be significantly affected. There was also a huge stress on Supply chains. Initially, there was doubt or unclear in what an "essential" is and what is not. Those who are working in the informal sectors and daily wage groups facing problems. Around the country, a large number of farmers who grow agriculture goods also faced uncertainty. In India, major companies have temporarily stopped/suspended or significantly decreased operations. As funding has fallen, young startups have been affected. In India, consumer goods companies are focusing on essentials and they have significantly decreased operations.

#### **A) Supply or a demand shock-**

Covid-19 pandemic is a rare medical emergency. That has hit both supply and demand across the globe, through various channels.

#### **Impact on supply chains:**

##### **a) Factory shutdowns:**

- The lockdown has mandated factory shutdowns of all non-essential commodities
- Transport, hospitality and education such type of non-essential activities have also been come to rest

##### **b) Logistical bottlenecks:**

- It was difficult to transport of goods from one part of the economy to another due to restrictions on movement

##### **c) Disruption in availability of inputs:**

- Across the globe, Lockdowns have thrown into disorder global supply chains, affecting availability of inputs for several industries, especially auto, electronics and pharmaceuticals

##### **d) Labour shortage:**

- Especially in the informal sector in India, reverse migration could temporarily lead to a shortage of available workforce,

##### **e) Drying of cash flows:**

- Shortage of working capital for micro, small and medium enterprises (MSMEs) would be challenge due to loss of sale, which could even lead to shutdowns
- The ability to raise capital might get more restricted amid tightening financial conditions

#### **Impact on demand:**

##### **a) Cuts in consumer spending:**

- The lockdown has severely restricted spending on non-essential goods and services
- Most affected services are transport, recreation, restaurants and hotels.
- India's urban economy facing same problem

##### **b) Lower global demand:**

- India's exports fell 34% on-year in March due to lower external demand. Exports comprise ~17% of India's GDP

##### **c) Loss of income/employment:**

- Falling company profits may result in pay cuts and layoffs
- In the informal sector most vulnerable are workers – a dominant part of India's workforce, working in the transport sector, and low-skilled workers who cannot 'work from home'

**d) Weaker sentiment:**

- The pandemic came when India's consumer sentiment and business condition was already weak and caused to slowdown and uncertainty
- precautionary spending could be increased by consumers and postpone purchases such as automobiles and real estate
- Firms could postpone investment decisions further

**B) The financial sector:**

The covid19 pandemic has affected financial markets across the globe. Almost all asset classes have seen large volatility and witnessed significant decline in values. The sharpest fall was in crude oil prices, which slipped below the \$30 per barrel mark. In March, FPIs withdrew \$15.9 billion, the largest monthly outflow till date, from the Indian markets. This resulted in over 4% depreciation in the rupee against the US dollar.

**C) The Indian labour market:**

A nationwide lockdown and social distancing across India has brought economic activity, barring essential services, to a grinding halt. A large proportion of India's workforce made up of the informal sector, and large effect of lockdown appeared on this sector. Daily-wage earners are the most affected and those with no job security. In India, 25% of work force are casual labourers. The layoffs hit all type of workforce.

**D) Energy:**

Due to the COVID-19 pandemic Oil prices dropped sharply in 2020 . Across world, Oil demand came down . By mid-May India had increased or filled storage of oil on ships across the world. In other nations, India is now looking at storing oil. For oil local strategic storage capacity has been increasing by government.

**E) Manufacturing:**

In India, temporarily most of the companies stopped or significantly minimised their functions in a number of manufacturing factories. Also most of the functions has been stopped by iPhone producing companies in India. Till further notice, nearly all two-wheeler and four-wheeler companies put a stop to manufacture.

**F) Agriculture sector:**

Despite the pandemic, agriculture sector is one sector that could achieve growth. As agriculture contributes 15% to the gross value added (GVA) and is the biggest employer this could cushion overall GDP growth. This year, the IMD has forecast normal southwest monsoon ranging 96-104% of the long-period average. However, due to the pandemic there are disruption in sowing activity. Due to COVID-19, farmer incomes could be hit despite a good crop. For the agriculture sector, policy response is in the form of income support through PM-Kisan. A provision to agricultural inputs including seeds and farming equipment on rent have been announced by few states, but the coverage is low.

**G) E-commerce:**

It has been announced by Amazon that it would stop sale of non-essential items in India so that it can focus on essential needs. In Italy and France, Amazon has followed the same strategy. Walmart-owned Flipkart concentrating to provide essential and temporarily stopped some of its services on its e-commerce platform . BigBasket and Grofers is also facing disruptions in services due to the lockdown and run restricted services.

#### **H) Defence:**

Coronavirus pandemic recedes, the Department of Military Affairs led by the Chief of Defence Staff has postponed all capital acquisitions. In the beginning of the financial year 2020–21, no new major defence deals will be made.

#### **I) State income and expenditure:**

State governments incurred losses and shortage of money. So government needs to find alternative ways to pay dues. Also there would be cut of capital expenses as well as government plans in the near future and are going . As compared to 2019, the Delhi government has fallen 90% short in tax collection. Till March next year, Maharashtra government put a hold on all new capital works. A More focused measures are required. which will ensure ease of transportation and logistics, facilitation of storage.

#### **Suggestions:**

- 1) More focused measures are warranted for agriculture sector which includes ensure ease of transportation and logistics, facilitation of storage, and better prices
- 2) Proper implementation of the government package is required
- 3) Government should intervene in market to boost demand and normalise supply chain
- 4) Government should pump finance in market.
- 5) Focus on healthcare sector is essential for future.
- 6) Monetary support is required like Policy rate and cash reserve ratio cut, Targeted long-term refinance options , Loan, working capital interest moratorium, Relaxation of prudential norms, Increasing ways and means advances limits for government, Quantitative easing

#### **Conclusion:**

The time has come to re-open economy. It is required or necessary to live with COVID-19. How will we pay salaries? How will the government function? So it is needed to restart or unlock economy. The PM of India said that the coronavirus crisis should be taken as an opportunity, laying emphasis on domestic products and "economic self-reliance", a Atmanirbhar Bharat (transl. Self-reliant India) through a Atmanirbhar Bharat Abhiyan. Covid-19 has affected everybody .operational priorities have to be relook by Indian Government and should decidewhat we actually need. By hand-holding our domestic industry, government needs to boost 'Make in India' . we should not largely rely on import. It ultimately will impact on economy.

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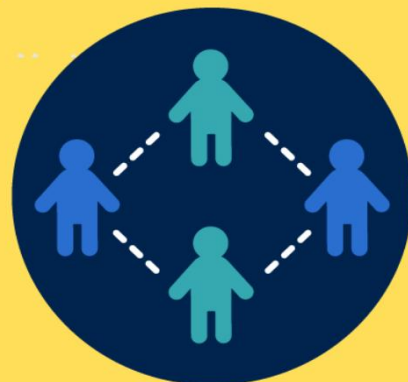


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