

IMPACT OF COVID-19 ON INDIAN ECONOMY

DR. LALITA K. SHARMA

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Publisher
ASIAN PRESS BOOKS
85/S-1 Mahajati Road
Kolkata-700028
www.asianpress.in

1st Edition October 2020
ISBN: 978-93-90238-47-7
MRP: ₹400/-

Foreword

The COVID-19 pandemic has impacted every aspect of human life. It is responsible for drastic change in life-style of people all over the world. As compared to other countries, the socioeconomic structure of India is very different. Hence the impact of this pandemic on India also differs from other nations.

This book deals with impact of COVID-19 pandemic on various sectors in India. The book starts with critical evaluation of epidemic disease act 1987. Some chapters of this book are dedicated to the field of education where teaching-learning behaviour of teachers and students has been described. Opinion on online teaching and digital transformation of education has been presented very nicely. The impact of the pandemic on Indian economy, especially in banking and micro, small and medium enterprises (MSME) sector has been explained wonderfully. As India is an agrarian country, this book would have been incomplete without the discussion on the impact of this pandemic on farmers. Moreover, food security is a major concern that pandemic has brought to us. This topic was discussed in two of the chapters in this book. Few chapters deal with impact of the pandemic on personnel working in municipal corporations, sanitary workers, migrant workers, health care providers and persons belonging to media and journalism. Few chapters of this book have taken into consideration the psychological impact of the COVID-19 pandemic on human behaviour and mental health. Moreover, in one of the chapters, a survey based study on stress due to financial crisis has been performed. In this way a diverse aspect has been covered in this book. I believe that this book will enhance the knowledge of academicians, researchers as well as other readers from general population.

I thank the editors of this book, Dr. Lalita K. Sharma for providing a platform to several authors who can speak their mind to increase the awareness on impact of COVID-19 pandemic on various socioeconomic issues of India.

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Preface

The outbreak of COVID-19 brought social and economic life to a standstill and is an unparalleled 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.

In this book authors describe the state of the economy in the amid Covid-19 period, assess the potential impact of the shock on various sectors, such as aviation, tourism, retail, capital markets, MSMEs, and oil. International and internal mobility is banned, and the revenues generated by travel and tourism will take a major levy on the GDP growth rate. Revenues from Aviation will come down and Oil has plummeted in March, 2020 and Foreign Portfolio Investors (FPIs) have withdrawn huge amounts from India. While lower oil prices will shrivel the current account deficit, reverse capital flows will spread out it. Rupee is continuously depreciating. MSMEs will undergo a severe cash crunch. The crisis witnessed a shocking mass migration of such floating population of migrants on foot, amidst nationwide lockdown. Analyse of the policies that have been announced so far by the government to restructure the economic shock has also been discussed.

India must rethink on her development paradigm and make it more inclusive. COVID 19 has also provided some unique opportunities to India. As every coin has two sides, this pandemic also has two sides. Although the whole world is battling the pandemic but better sides of it are not to be overlooked. Even though this novel virus has been claiming all the sad news for months but reality in its totality is not that abysmal. Wildlife is experiencing a greener version, the environment is rejuvenating, there is an opportunity to participate in global supply chains, multinationals are losing trust in China and even the human lives are getting to see their latent skills. Humans have been witnessing the challenges since ever, but time and again humans have shown their supremacy and virtue to combat the worst of anything. It is believed that humans will sail through this difficult time too.

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ACKNOWLEDGEMENT

Every mature person in professional life is keenly aware of his/her sense of indebtedness to many people, who have motivated and influenced his/her intellectual development ordinarily. This feeling is formally expressed in gestures of acknowledgement. My endeavor shall be incomplete without the acknowledgement of these who have helped me in carrying out this study. I would like to convey my feelings of gratitude to all those who have in any manner helped me in completing this edited book. Their valuable guidance and wise direction has enabled me to complete this work in a systematic and smooth manner, obeying the norms of scholastic research.

First of all, I bow my head in reverence to the God almighty, for providing me with this opportunity to work with the intelligentsia and enabling me to reach far beyond my own, restricted ambit of thought and action and has been made this endeavour successful.

I extend my heartiest gratitude and indebtedness towards all authors for their immense interest, judicious guidance and continuous encouragement throughout this work which help me in completing the work of book in a systematic manner.

I am also grateful to Dr. Sudipta Chakraborty (Assistant Professor, Department of Education, The Sibsagar College, Joysagar Sivasagar, Assam) and Dr. Vikas Chandra (Assistant Professor, Department of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur) for their continuous support at various stages of this book.

Last and most importantly, I again thank The Almighty God for answering my prayers by providing the finance, the strength, wisdom and knowledge that enabled me to start and conclude this book.

Once again our sincere thanks to all.

Dr. Lalita K. Sharma

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CHAPTER 1

THE EPIDEMIC DISEASE ACT, 1897: A CRITICAL EVALUATION

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ABSTRACT

India has been very successful in the containment of the Coronavirus by taking measures like 21 days nationwide lockdown which not only very effective by one of the toughest decisions that the government of India had to take at the time. The outbreak of the virus has also made us question the viability of the non-efficient framework known as The Epidemic Disease Act, 1897. The Act which has been spread across 4 pages has been not of any help during the outbreak of pandemic in India as it has major gaps making it inefficient to achieve the purpose that it was initially made for. country is in a dire need of a proper framework and guidelines so that in the future if we encounter diseases like the COVID 19, we have a proper act which shows us what needs to be done. This aspect has been discussed in this paper.

Keywords: *Pandemic, Covid-19, Indian Law, Government, Legal Framework, Health*

1.0 WHAT IS PANDEMIC?

The year 2020 has started with the outbreak of a pandemic known as the COVID 19. But let's start by understanding what pandemics are?

1.1 Definition:

“A pandemic is the worldwide spread of a new disease” – WHO

1.2 COVID 19

The World Health Organization (WHO) officially declared an outbreak of COVID 19 on 11 February 2020, when the virus reached more than 100 countries worldwide. The virus got its name from the spiky crown (or corona in Latin) like formation that you can see underneath the microscope.

As the Prime Minister of India said through his slogan to tackle the COVID 19 “If we have our health we have the world”

India has been very successful to tackle the pandemic through various efforts that were taken as compared to the various developed nations around the world, but India is still lacking in preparation if another encounter with diseases like the COVID-19 happens. In India the primary law the government resorts to is the 123-year-old the ancient, Epidemic Diseases Act 1897. The law that was established under the British rule in India to fight the Bubonic Plague in Bombay is distributed in 4 different sections that spread in just 3 pages.

“The epidemic Disease Act enacted in 1897 needs to be repealed. The act does not provide any power to the Center to intervene in Biological emergencies. It has to be substituted by an Act which takes care of the prevailing and foreseeable public health needs, including emergencies such as BT (bioterrorism) attack and use of biological weapons by an adversary, cross border issues and international spread of diseases” –

Management of Biological Disaster Guideline, Government of India, 2008
Bollywood singer Kanika Kapoor recently was in headlines after she tested positive for the novel coronavirus and attended several high-profile parties putting herself and every single person, she meets in danger of getting infected. The singer who returned from London after the number of cases there were at its peak reportedly skipped the mandatory 14-day quarantine which was recommended by the center.

Experts pointed out that India being a densely populated country makes it easier for the virus to spread as people per square foot is much higher. They also pointed out that individuals with recent travel history were left to voluntarily self-quarantine. The recent increase in the number of cases is seen as people infected with the virus failed to quarantine themselves given then fact it was a choice given to them rather than strict rules making the to do so.

The Epidemic Disease Act does not bestow any powers to the Center Government beyond is suing advisories and coordinating. On the state level the center can only advise the states to invoke the laws and regulations not mandatorily impose it. It cannot even regulate the transfer of biological samples— in cases like if a live coronavirus sample was

getting stolen while being taken to a laboratory. The legal inadequacy to tackle disease outbreak was known for taking time-consuming baby steps but at the end of the day, the country was not ready to encounter another pandemic arguably the severest since the 1918 influenza pandemic that killed around 7 million people in India.

The power granted to the center under this Act is very limited and it is on the ultimate discretion of the State Government to take a step by framing appropriate regulations. As in India the responsibilities of public health and sanitation lies on the shoulders of the state while the interstate migration and quarantine are managed by the Union Government. To make matters even worse not every state in India has framed regulations to contain the pandemic. Only about eight states and union territories in India have legislation for public health. Most of them including Delhi, Haryana, Karnataka, Maharashtra, and Uttar Pradesh also evoked these powers under the law. This not only enabled these states to undertake Non- Pharmaceutical Interventions but make efforts to decrease the spread of the epidemic in the absence of medicines to treat the disease. Those that have made these regulations have spent valuable time analyzing the pros and cons before notifying them further weakening the administration.

Historically it has been seen that using excessive power without transparency has decreased the level of involvement of the public. In India we saw the Government tried to make the process as transparent as they could have but we still saw lack of public involvement. In instances like People not cooperating with the medical staff trying to take samples for COVID testing or going out in groups during the mandate lockdown period. The reasons behind the noncooperation can be due to the state using coercive actions, arresting persons, and publicly sharing the list of patients making them feel targeted. Even when the Government declared the disease as a "notified disaster" under the Disaster Management Act the fact remains that India does not have dedicated legislation for a pandemic situation.

1.3 The epidemic act doesn't meet the threshold under articles 19 and 21 of the Indian constitution?

There, are major gaps plaguing the Act which are related to the rights of healthcare personnel, travel restrictions, the investment needed to meet the healthcare challenge. In India every day we are seeing instances of large labor migrations, people from poor labor classes of the Indian Society are moving hundreds of kilometers from places like Delhi back to their homes in U.P. and Bihar due to lack of necessities like food as the earning opportunities ceased due to the nationwide lockdown shutting the manufacturing units. Not

only this due to lack of provisions and a properly working framework of guidelines their people were asked by Policemen to go back to the places where they came from. As per Article 19 every Individual has the right to move freely throughout the territory of India, but under such circumstances like any other right this freedom is not absolute and reasonable restrictions can be placed. It all boils down to the fact if our laws include provisions for such cases instances like these would not happen, doing what its absolute function is to think about the public interest.

Article 21 provides fundamental rights to life and personal liberty which includes the Right to Privacy. The right to Privacy includes personal autonomy, liberty, and dignity, which is a fundamental right. However, this right is subject to certain reasonable restrictions which furthers the public interest. In Puttaswamy judgment, the court laid the following tests for limiting the discretion of the State while affecting the right to privacy:

- i. The action must be sanctioned by law
- ii. The proposed action must be necessary for a legitimate aim
- iii. The extent of such interference must be proportionate to the need for such interference
- iv. There must be procedural guarantees against abuse of such interference

These tests of legitimacy satisfy the Epidemic Disease Act 1897 by focusing on its aim of preventing the spread of deadly diseases, but it becomes impossible to define specific regulations for a disease in a parent law. Hence, the law provides legislative powers to the states. But this law does not provide a guarantee to individuals against abuse of the State power by interference with the individual's privacy.

Even though India is a signatory to the WHO health regulations i.e. International Health Regulations (IHR), several gaps need to be plugged into the domestic laws.

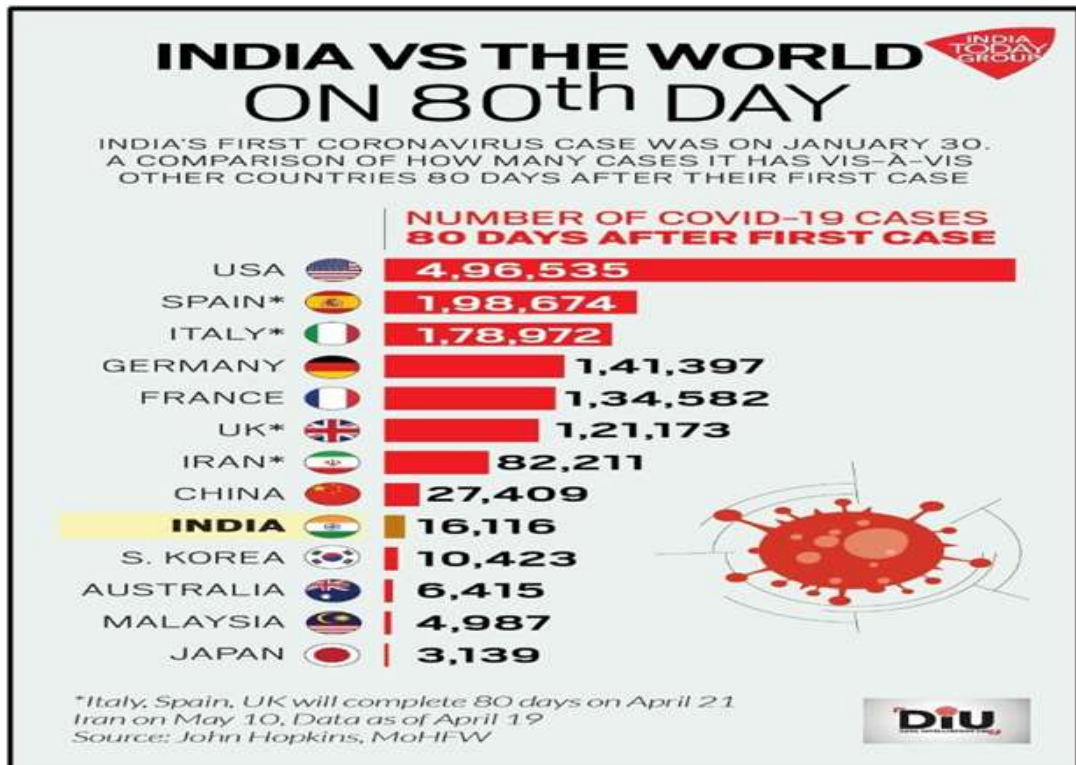
For instance, a complete ban on commercial flights may not align with article 43 of the IHR, which calls for proportionality of such base to be a potential risk for the country. Similarly, the privacy of patients and disclosure of medical information needs to balance with public needs. No such provisions to maintain this balance is available under the current laws.

2.0 AROUND THE WORLD

The present framework also does not provide any attention to surveillance, vaccination, and public health response. Around the world, countries have laid great emphasis on public healthcare laws and to prepare themselves for such pandemics.

In **Australia**, Section 51 of the constitution provides the Federal Government with

the legislative powers to quarantine under an umbrella act known as the National Health Security Act and Agreement has been put in place to abide by Australia's obligation towards IHR. The Australian Government's 2011 National Health Emergency Response Arrangement also highlights how the Government will respond to public health emergencies.



Source: February 5, 2020; India Today

Figure 1: India Vs the World On 80th Day

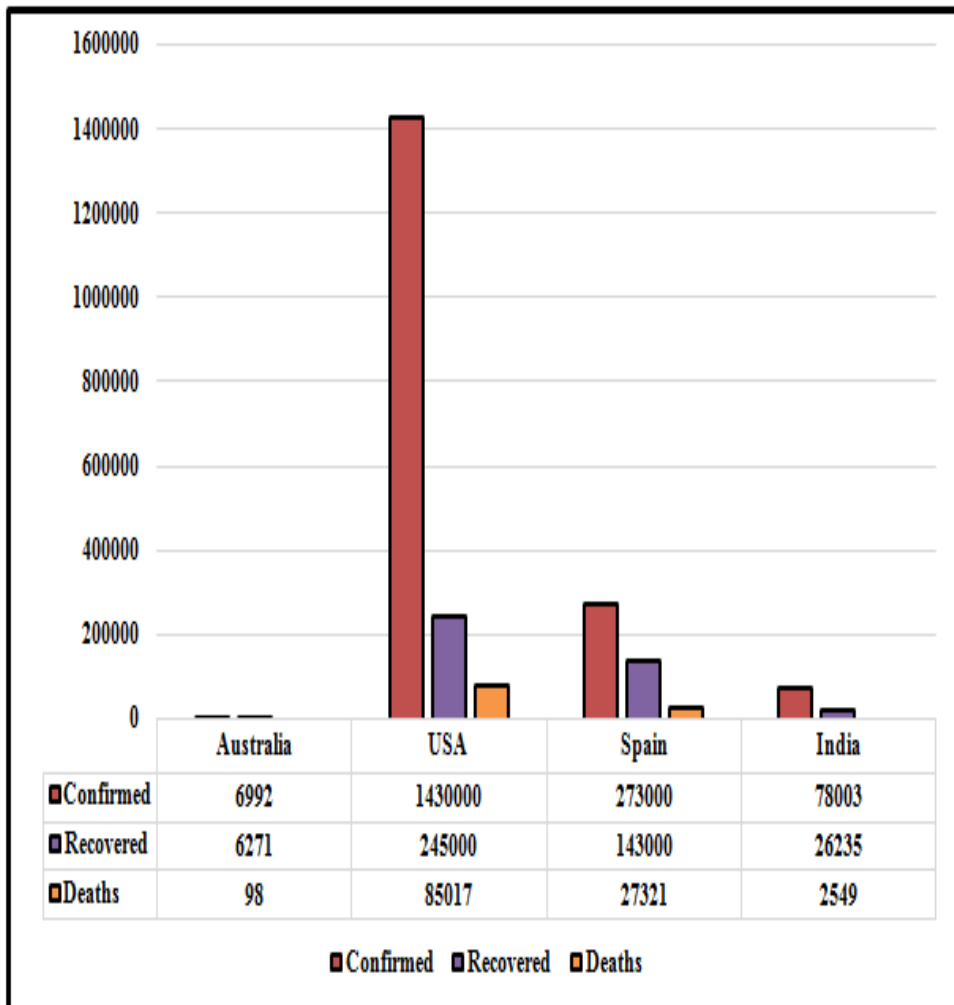
In the USA, the Department of Health and Human Services (HHS) has laid down specific guidelines to assist the state during health emergencies and prevent the spread of communicable diseases.

The bert T Stanford Act allowed President Trump to invoke an emergency. Under the Federal Food and Drug and Cosmetic Act, the HHS secretary can justify an emergency authorization of medical counter measures whereby unapproved drugs, vaccines, or countermeasures can be used in times of emergency. Such provisions do not exist in India.

In **Spain**, all private hospitals have been nationalized in the wake of the pandemic. While such drastic measures may not be possible to be taken in India due to a lack of powers to the government.

Based on Figure 2 we can see the effect of the properly defined framework and

regulations. In places like Australia and Spain where a proper framework is followed and the main Act provides appropriate powers to the Central Government the recovery rate has been very high. In places like the USA and India where the response against the pandemic has been very late and fragmented are seeing lower recovery rates and a higher increase in the number of confirmed cases.



Source:www.worldometers.info

Figure 2: Graphical Representation of COVID-19 Cases

3.0 AMENDMENT TO THE EPIDEMIC DISEASES ACT 1897

This paper has discussed the major gaps in the Epidemic Act that India has been following from 1897. On April 22 2020 through passing an Ordinance the outdated Act was amended. The following table discusses the features in its entirety:

Table 1: Features in Its Entirety

Basis of Discussion	Epidemic Act 1897	Amendment 2020
Powers to the Central Govt	Earlier no such powers were given to the Central Government, as they can only assist and coordinate with the State Government to take various steps to fight such conditions.	<p>The Act specifies that the Central Government may regulate:</p> <p>(a) the detention of any person intending to travel from the port, during an outbreak.</p> <p>(b) The Ordinance expands the powers of the Central Government to regulate the inspection of any bus, train, goods vehicle, ship, vessel, or aircraft leaving or arriving at any land port, port or aerodrome.</p>
Protection for healthcare personnel and damage to property:	No attention to health care providers has been given to any health care providers in the Epidemic Act 1897.	<p>The Ordinance specifies that no person can:</p> <p>(a) Commit the commission of an Act of violence against a healthcare service personnel</p> <p>(b) cause damage or loss to any property during an epidemic.</p> <p>Punishment</p> <p>Contravention of this provision is punishable with imprisonment between three months and five years, and a fine between Rs 50,000 and two lakh rupees.</p> <p>If an Act of violence against a healthcare service personnel causes grievous harm, the person committing the offense will be punishable with imprisonment between six months and seven years, and a fine between one lakh rupees and five lakh</p>

		rupees. These offenses are cognizable and non-bailable.
Compensation:	No such clause has been mentioned in the earlier Act of 1897.	Persons convicted of offenses under the Ordinance will also be liable to pay compensation to the healthcare service personnel whom they have hurt which will be determined by the Court In the case of damage or loss of property, the compensation payable to the victim will be twice the amount of the fair market value of the damaged or lost property.
Investigation:	Nothing of such sort has been explored in the 1897 Act.	Cases registered under the Ordinance will be investigated by a police officer, not below the rank of Inspector.
Trial:	The person committing the crime cannot be taken to trial as it is not a legal offense in this Act.	The inquiry or trial should be concluded within one year. If it is not concluded within this period, the Judge must record the reasons for the delay and extend the period.

Source: Websites

The changes to the Epidemic Disease Act 1897 have been made keeping in mind the recent cases of violence and damage to the property that has been seen across the nation. This amendment has given the power to the central govt which makes the efforts much more impactful as now the people will be punished by law.

But only these changes are not sufficient for such an important Act. The Epidemic Act still lacks a proper framework as the Epidemic Disease Act still does not balance the rights of individuals with the legislative powers given to the State. The government can very well take lessons from past practices as well as the current practices to make effective regulations. The current COVID 19 regulations are in a dire need of the modification to remove immunity against state representatives' illegal actions. A proper framework enlisting all the steps that the states can take considering the Central Government's efforts to work in perfect harmony across the nation.

The Act also must cover the scenarios where a biological war breaks out. We live in a

world where breaking out of a biological war can be possible. The Epidemic Act of 1897 also must mention what should be done in such cases.

4.0 BUILDING RESILIENCE

The strategies and resilience planning measures are to be taken at the global, regional, local, and individual levels and need. Here are some suggestions that can be considered.

4.1 Is landing capability

Is land mode is typically used for power grids is a state of operating independently of the grid and making use of back up resources so that it can sustain and operate for a substantial period if the grids fail for a long period. Like the applied concept in power grids, communities should be geared to the island themselves and remain livable and function independently.

For example: In the time of VO, Italy that is home to 3300 residents where the first fatality from the COVID 19 took place, islanded itself at an early stage and tested all residents irrespective of symptoms. Isolation was done and the town could bounce back quickly with limited external support.

4.2 Building redundancy and robust infrastructure

In 2015, a South Korean businessman got infected with MERS after he visited Middle Eastern countries. After setting off a chain a total of 36 people was killed and infected many more before it could be identified. Tracing, testing, and quarantining 17000 people quashed the outbreak after 2 months in South Korea. They developed resilient health infrastructure.

The legislation was enacted to authorize the Government to get all personal details and movement data of patients who tested positive with any infection. The government is authorized to share this on social media to enable contact tracing. With proper infrastructure in place, South Korea could quickly develop and deploy diagnostics for COVID-19 detection and contain the spread. After the “COVID-19 Could” clears, we should deploy adequate infrastructure and policies to help us to be prepared for future pandemics.

4.3 Dealing with hazards

Short term and long-term preparedness disasters over strike without giving any sufficient notice to prepare. The more unprepared wear emore the chances of losing life and dealing with irreversible economic, social, and environmental challenges. Businesses, small or big should be able to be prepared to face disasters through short terms as well as long term.

Emergency and short-term response shall require provisioning for first aid, evacuation, emergency supply for food water shelter, access to power and sanitation, uninterrupted communications apply for first aid, and evacuation.

This can be seen in India as the necessities were not available to the vegetable vendors further making the situations even worse as the prices hiked making it very difficult for the poor population of India unable to buy goods at the hiked prices.

5.0 CONCLUSIONS

The Indian response to fight the COVID-19 pandemic has been fragmented and not as effective as it could have been. Multiple laws, rules, and guidelines have only created more confusion in the already vague framework. The Epidemic Disease Act has been in debate for quite some time. In the light of the recent events the validity of this Act has been questioned as to the Act that is spread across a mere 4 sheets which most definitely cannot help India to fight pandemics like the COVID-19. Rather than building a proper framework, the limited purpose of the Act negates the effectiveness of our efforts to fight the pandemics. It allows the state to take special measures for dangerous epidemic disease by giving them the power to undertake coercive actions against individuals.

The Indian states under this Act have unmitigated powers of surveillance and use of force. While these powers are provided to protect the health of the population but without a proper framework neither the law nor the current regulations guarantee the safety of individuals against abuse or use of coercion. There has to be a balance between the rights of the individuals as well as the powers used by the state as if these powers are used excessively the public participation will diminish.

To increase the effectiveness of the efforts a dire need of a comprehensive legal framework is felt so that we are prepared for epidemics and response is required instead of the current fragmented response framework. There is a need for increasing the accountability of the government to its people. Such a law must be passed by the government while providing states the power to utilize their public health framework.

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CHAPTER 2

IMPACT OF CORONA CRISIS ON TEACHERS AND STUDENTS LEARNING BEHAVIOR

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ABSTRACT

The Coronavirus pandemic rapidly sweeps across the world and it has developed a considerable degree of mental stress among all the sections of society. The usage of technological devices has tremendously increased during this period. The present study focussed on the impact of Coronavirus on the students' and teachers' learning behavior that has been changed due to technological and psychological changes. For the present study, the sample consisted of 135 school and college teachers and students who participated voluntarily. To collect data, the investigator used the survey method. A self-developed questionnaire (Google form entitled COVID-19 Pandemic: Change in learning behavior) was used to collect information about the perceptions of teachers and students. Percentage analysis was used to interpret the results. The results of the study showed that only 40% of participants were about technical devices and their usage. More than 70% of the participants experienced physical and psychological stress due to Coronavirus. The findings of the present study were discussed in light of previous studies related to COVID-19 and other pandemics.

Keywords: *Corona Crisis, Digital technology, Learning, Teaching*

1.0 INTRODUCTION

Coronavirus is an infectious disease and virus spreads through close contact between persons via droplets through sneezing and coughing (World Health organization, 2020). In March 2020 WHO assessed the situation of various countries who have COVID -19 cases and stated that there is a high risk of spreading COVID-19 from one country to another country. The impact of Coronavirus on all spheres of the economic, social, and educational life is increasing at a faster rate not only in India but all around the globe. Several measures and policies are adopted by the Government of different countries to deal with economic,

social, political, and psychological issues caused by COVID-19. At present, the mental and psychological health of the youth is one of the major concerns for the Government of any country in the world. The teaching-learning process also changes dramatically due to the outbreak of Coronavirus around the world. There is a shift from the offline mode of learning to the online mode of learning. There is a drastic change in the methods of teaching. Before the Coronavirus situation, teaching was teacher-dominated. Smartboards, Interactive whiteboards and power-point presentations were used by the teacher in the classroom setting. Every activity of teaching-learning was pre-planned and time-bound. But after the outbreak of coronavirus, every activity of teaching got changed. It has positive as well as the negative impact on the teaching-learning process.

Many schools and colleges discontinued the regular classes as the WHO announced COVID-19 a pandemic disease in the month of March 2020. Students and teachers had to leave the campus immediately. It has caused a tremendous level of stress and anxiety among students and teachers. Teachers and students were worried about the study, examinations, and the completion of syllabi. This drastic situation caused severe changes in the behavior of students and teachers. Taylor Christie (2020) argued that “From primary schools to Ph.D. programs, students across the globe are experiencing the altering effects of coronavirus as classrooms move online and course curriculums stretch into the summer. Both students and teachers have been burdened with the task of adapting to an online learning environment seemingly overnight. As well, many parents have been forced to take on the role of IT technician, teacher, and babysitter as kids remain stuck at home”. Sarah L. Hargerty & Leanne M. Williams (2020) argued that amid COVID-19 crisis significantly affected the mental health and a profound threat to basic human needs, connections, and motivations. Sofia Pappa, Vasiliki Ntella et.al (2020) found that health workers experienced symptoms of insomnia, depression, and anxiety during the times of COVID-19, and female health workers experienced high rates of anxiety and depression.

Sarah K. Lipson (2020) argued that during COVID-19 college students had experienced loneliness, depression, anxiety, and they were worried about their examinations, career, and future. The COVID-19 pandemic has triggered the unprecedented demand for multimedia and digital technology. Almost all the schools, colleges, and universities suspended regular classes on the campus and at present, they are providing learning material through different modes of digital technology. The education of 1.2 billion students in 200 countries is affected by school closures due to the COVID-19 pandemic. But students are dissatisfied with the idea of online classes. Because many students are from remote areas and

without reliable internet, they struggle to participate in online learning. They cannot access online resources and attend online classes via Zoom app, Google Meet app, Google classroom, and other modes of e-learning.

On the other side, school and college teachers are also facing challenges to meet the educational and psychological needs of their students via digital technology. There has been a drastic change in education with a distinctive rise in digital technology and e-learning. Some of the online resources are listed below (Edeh Onyema, Chika Nwafor et.al, 2020):10.

- edx.org
- easyclass.com
- vedamo.com
- Khanacademy.org
- TED-Ed (ed.ted.com)
- Codecademy.com
- Stanford Online (Online.stanford.edu)
- futurelearn.com
- rcampus.com
- learnopia.com
- Peer 2 Peer University
- Teachers pay Teachers
- Thingify (thinkific.com)
- MOOC.org
- openculture.com
- academicearth.org
- memrise.com
- funbrain.com (for kids)
- Edmodo (edmodo.com)
- Schoology (schoology.com)
- Google classroom
- Watsapp.com
- Zoom app
- Google meet app
- Presentation tube (Audio and video recording)

- Google Forms (For objective questions-based test)
- You tube (For educational videos)

All the students could not understand through the online mode of teaching. So, to give extra time and prepare assignments by following the needs of students is one of the biggest challenges for the teachers. Students and educators are met with several unprecedented obstacles that have made the shift more complex than originally thought. They are trying to become techno-savvy and those who were not efficient in handling digital devices before COVID-19, they attended various webinars and seminars to learn about the functioning of digital applications.

There has been a tremendous increase in the usage of multimedia devices, laptops, mobile phones, computers, and i-pad during amid COVID-19 situation. Different health apps and learning platforms are also launched by the Governments of different states of India viz COVID CARE app, Ayush Kavch app, COVA Punjab, Arogya Setu, Zoho classes for Government schools, etc. In response to the increasing demand for online resources, various apps are offering free access to educational and learning resources. Zoom app, Webinars, and Google classroom are now buzz words in the field of education.

Here a question arises whether online teaching is an effective method of providing learning experiences to students. Karla Gurtierrez (2016) advocated that e-learning increases the retention rate to 25%-60%, while in traditional teaching and face to face teaching, it is only 8%-10% and e-learning requires less time to learn the concepts because students can learn at their own pace and re-watch the videos. In light of the above-discussed literature, the present study focuses on the perceptions of college students and teachers about technological and psychological issues that have been arisen due to the COVID-19 pandemic, and the following research questions were framed.

2.0 RESEARCH QUESTIONS

- To examine whether Teachers and Students know e-learning apps and their usage?
- To examine whether Teachers and Students are satisfied with the system of online teaching?
- To study whether intense usage of technology has affected the physical and mental health of Teachers and Students?

3.0 METHODOLOGY

3.1 Measures

A self-developed questionnaire was used by the investigator to collect data from

college students and teachers. It was divided into three parts-preliminary information, perceptions of students about the coronavirus situation, and perceptions of teachers about the coronavirus situation. There were 35 questions in the first draft of the questionnaire. Then views of experts were taken by the investigator and a pilot study was conducted on 15 students and teachers. The final draft of the questionnaire consisted of 27 questions.

3.2 Sample

The sample consisted of 135 (43 teachers and 92 students) participants. They participated in the study voluntarily. An online survey was conducted from 5th June to 9th June 2020 by using a purposive random sampling technique. Wats app and email as a medium (for sending google form) were used to disseminate information about the questionnaire and to collect responses from participants.

Table 1: Distribution of Sample (N=135)

Respondents		Gender		Locale	
Teachers	students	Males	Females	Rural	Urban
40	95	35	100	60	75

Source: Primary Source

4.0 ANALYSIS AND INTERPRETATION

Percentage analysis is used to analyze and interpret the results. Table 2 shows the perceptions of teachers and students towards technological issues.

**Table 2: Showing perceptions of Teachers and Students
(Changes in the teaching-learning process)**

Q. No.	Statement of Questions	Responses				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	How will you rate your experience with the online system of teaching and learning?	7.4%	37%	18.5%	19.3%	17.8%
2	Online mode of teaching can replace face to face teaching.	4.4%	20%	17.8%	38.5%	19.3%
3	Excessive use of technology causes physical as well as psychological stress.	24.6%	45.5%	14.2%	6.7%	9%
4	Poor connectivity of the internet and slow downloading of educational apps causes stress among students and teachers.	36.6%	47.8%	11.2%	14.2%	3%

Source: Primary Source

The analysis and interpretation of data can be discussed as follows:

4.1 Knowledge of e-learning apps and their usage

- It has been observed that only 45% of teachers and students were acquainted with various digital apps launched by Governments of different states of India.
- About 63% of participants preferred to use Google classroom and Zoom app for teaching and learning.
- It has also been observed that the usage of mobile or smartphones increased dramatically, around 93% of teachers and students favored the use of smartphones to attend online seminars, webinars, and classes.

4.2 Satisfaction with the online teaching-learning process

- Many of them faced difficulties in the online teaching-learning process, only 24.4% of teachers and students advocated that online teaching can replace face to face teaching.
- About 40% of participants were dissatisfied with the online teaching-learning process.

4.3 Impact of intense usage of technology on physical and mental health

- Excessive usage of technology during COVID-19 leads to physical and psychological stress and more than 70% of participants are agreed to this statement.
- Further, it can be interpreted from the data that 67.2% of participants have experienced stress and anxiety during the COVID-19 situation due to poor internet systems and insufficient knowledge of digital technology.

5.0 DISCUSSION

The present study was designed to study the impact of Coronavirus on the students' and teachers' learning behavior that has been changed due to technological and psychological changes. The findings of the study revealed that very few participants were techno-savvy and knew about the various educational programs and apps launched by Governments of different states of India. So, it can be concluded that lack of technical knowledge resulted in stress and anxiety.

The results of the present study align with the findings of previous studies. The results revealed that there has been a stupendous increase in the usage of technological devices, digital technology, and different educational apps during the lockdown. Teachers and students have used digital media at an unprecedented rate to meet their educational and social needs. Orsolay Kiraly & Mark, A. et.al. (2020) argued that the importance of ICT has increased in the present crisis than usual. ICT has been crucial in allowing people to work

and study from home. Wei Bao (2020) also concluded that during Covid-19 teaching content was presented through online mode of learning and to increase the concentration of students in online learning, teachers must ensure the speed of delivering teaching content and full participation of students in online learning.

Further, the findings of the present study showed that the learning behaviour of students and teachers got changed during Coronavirus situation. The participants experienced depression tendencies, social stigma, loneliness, insomnia, and other psychiatric problems due to lack of technical knowledge of devices. They tried their best to learn the use and application of online devices. After Coronavirus situation, the screen time of both has increased Cao et.al (2020) reported that 25% of their sample experienced symptoms anxiety and it was positively correlated with academic stress and economic effects of the pandemic on daily life.

Ritesh Bhatt et. al (2020) suggested that free online faculty development programs and academic article databases must be provided to teachers at home so that they can easily access online resources, it will reduce their level of stress and anxiety. Wei Bao (2020) concluded that teachers must adopt different strategies to relieve the anxiety level of students so that they can actively be engaged in online teaching. Mohit Varshaney & Jithin Thomas Parel (2020) found that approximately one-third of respondents had a significant psychological impact. Nicholas Gurbic, Shaylea Badovinac & Amir M. Johri (2020) reported that multiple factors contributed to distress among students during a pandemic.

6.0 CONCLUSION

The present study found that usage of digital media has tremendously increased during the period of COVID-19. Excessive use of technology has caused an unfavorable impact on the mental and physical health of students and teachers. They have faced various types of stresses and they adopted different strategies to reduce the level of academic and physical stress. The participants showed their dissatisfaction with the idea of online learning because they favored the concept of face to face teaching instead of online learning.

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CHAPTER 3

SHADOW PANDEMIC: ONLINE TEACHING IS ONLY A STOPGAP ARRANGEMENT

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ABSTRACT

Now unprecedented COVID-19 pandemic spread rapidly across the world. Human have faced the greatest challenge since World War Two. It has potential to create devastating social, economic and political crises as well as disrupt our education system. Due to COVID-19 Condition Educational institutions had been closed, and government quickly recommended shifting to “Online-Learning.”. The pandemic has led us into introspection about the online and offline living. Now online learning has been a common delivery medium for education Due to the rapid infection of COVID 19 educational institutions are delivering their all classes and curricular activity through online. Educational institutions and teachers have taken great efforts to incorporate online teaching and are trying to use teaching tools such as learning management tools (LMS) and web conferencing platforms. This study has focused on Online teaching is only a stopgap arrangement in pandemic condition. Due to this crisis technology is territory of our life. All teachers have to make a clear and conscious shift of online teaching despite their age and attitude.

Keywords: *Unprecedented, Pandemic, Online Teaching, LMS, Stopgap arrangement*

1.0 INTRODUCTION

Traditional concept of teaching is based on the subject matter of knowledge, the curriculum and pedagogical methods. In this Pandemic situation, government think of balancing between keeping the teachers engaged in the academic area without risking their life. Instead of forcing to give workload to teachers, the government, educational institutes take specific alternative positive steps. Also traditional teaching resources (library books, chalkboard) are not available to a teacher, but teaching learning programme has exhibited a trend toward a new kind of technological support for instructional services. This is made practicable through the use of ICT. The appropriate use of technology in this

programme is conditioned not only by the technological knowledge about the tools, but also by their attitudes.

2.0 ONLINE TEACHING IS ONLY A STOPGAP ARRANGEMENT

- ✚ Online teaching- learning is a window of hope. There is no denying the fact that people are living through difficult times because of the coronavirus pandemic. Against this backdrop quite a few argue that online teaching is only a stopgap arrangement for some period. Technology is the supplement hands but not supplementary of teachers. Post COVID situation, it will be back to chalk and talk. Due to this pandemic condition online teaching has already become an integral part of our education system. COVID 19 drastically altered teaching methodologies.
- ✚ Online teaching is not egalitarian. Online teaching will be comfortable when a teacher easily use technological skills.
- ✚ Online teaching learning is not as powerful as face to face mode. The traditional classroom teachers can think on their feet, strategies consistent with the content, manner of delivery are already programmed for every module.
- ✚ Students prefer face to face interaction that will not be exhausted online teaching. If the teacher is weak in technology and their attitudes are negative to the use of ICT, so that their content material is worried to the students.
- ✚ Online teaching could be a supplement to classroom teaching and not a substitute to in-person teaching.
- ✚ Online teaching have plenty of challenges like authenticity, concerns of accessibility, assurance of quality, problems of equity, and psychology of anxiety.
- **Accessibility** - To ensure that learners are active participants in the learning and teaching process, inclusive learning must ensure that teaching and learning materials are evaluated to ensure fulfillment of diverse learners need. During lockdown all are not access electronic devices. The massive issue of our country is financial problem, so economically weaker section cannot accommodate the electronic devices.
- **Assurance of quality**- Online teaching could be a disparity within the quality of human resources and standard content of the courses.
- **Problems of equity**- Equity are an important terminology of democratic nation and education has a major role to play as social leveler. Students from underprivileged background who are already on margins despite steps like reservation in admission and employment may get pushed further, if online resources are not accessed equitably.

Despite mandated reservation for students and faculties from marginalized sections, they are still underrepresented.

- **Psychology of anxiety-** Emotions and intelligence are well connected, in virtual space, because of absence of personal contact; students are showing more anxiety during online classes. Because of online teaching teachers are having minimal personal interaction. Weaker students are more ignored during this teaching despite having quest of inquiry and competitive spirit, as unique grooming is missing. Absence of direct contact is not boosting confidence in students' to handle different concepts. Classroom teaching gives a chance to level the difference by active participation which is shrinking in present context.

3.0 CONCLUSION

Give a standard operational guideline. For this work RMSA will help them. The modified curriculum has been implemented both rural and urban areas. Online teaching has both merits and demerits. Good teachers are always good whatever the mode. A good teacher will always adopt the content and delivery according to the mode and will ensure that there is not a difference between input and intake. Actually online learning is a blend of online and offline mode. Face to Face interaction is supplemented with online teaching and this is due to the fact regular classes cannot be conducted because of the lockdown. Teachers have to constantly reinvent themselves to address exigencies born of this crisis and offer students whatever is relevant and helps them adapt to a crisis thereby making them resourceful.

Online teaching e -content, questionnaire and feedbacks can be recorded as a result student can see it later. Pre-Corona scenario of education was more protective type with conservative perception but the post-Corona education will find new concept of education. Online education is going to be the new normal after the lockdown. "Several students are facing network issues now during online classes, but this problem will be solved after government takes policy decision to bring good network or 5G.

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CHAPTER 4

COVID-19 AND ITS IMPACT ON INDIAN EDUCATION

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ABSTRACT

We are habituated at living routine lives. Everything works smoothly with the help of the mechanisms we have designed over the years. However a single glitch in our perfectly timed lifestyle can cause things to go haywire. Exactly such a thing occurs in case of a natural disaster which is beyond human control. The world has been facing just such a glitch in the form of COVID-19. The deadly virus has been running rampant in over 200 countries. We hold on to the belief that we will definitely overcome this pandemic nightmare and all will be normal again. The question arises how long it will take everything to return back to the “normal” we had before the tragedy struck? What will be consequences or losses of such a pandemic? In this paper we are going to examine this question from an educational point of view focusing on higher education level in India. The various problems faced by the students at such a situation and the clueless teachers searching for ways to help them. There was widespread confusion among the educational fraternity as to how best to address this problem. The absence of a contingency plan or back up in case of such an emergency was glaring. This paper will also try to examine student reactions ,and their underlying reasons, towards the educational system. A few points of recommendation in conclusion to be better prepared in the face of such a problem in future.

Keywords: *epidemic, impact, education, universities, covid-19*

1.0 INTRODUCTION

The world has seen various kinds of uproars ranging from plants and famines to massive earthquake that shook the very core of humanity. The planet has also been rocked by various man-made causes like wars, nuclear weapons, widespread unrest and so on.

Presently, we are in the midst of another such worldwide pandemic which has put into question the entire human existence. The world is under the attack of a fast fading, and dangerously incurable, disease called the COVID-19. Over 200 countries affected, cases surging past 4 million. The death toll has already crossed 2,82,700. The deadly virus has affected all parts of the world including Europe, North America and Asian countries. The strongest and most powerful country in the world, the United States of America, has also been the most badly hit. The economic superpower is now down on its knees, with people fearing unemployment more than the contagious virus. Millions of people worldwide are losing jobs with factories unable to function and production at a standstill. Bear essentials of life are being met for the present but no one knows for how long. “The Centre for monitoring Indian economic’s estimates unemployment shot up from 8.4% in mid March to 23% in early April and open unemployment rate at 30.9%“

Another sector badly hit by the pandemic outbreak is the educational sector. With a mass lock down, effective in almost all the major countries of the world, including our own India, has led to a standstill in the educational set up. All the major educational hubs shut down indefinitely, no one is able to predict when things will be back to normal. As mass gatherings are to be strictly avoided, educational institutions are unable to function and hence remain closed till the unforeseeable future when we have found a way to battle this deadly disease. Focusing on a developing country like India, it is commendable that the rate of spread of virus is comparatively lower having less patience and lesser number of deaths. However India possesses a huge number of school and college goers who are the who seem to be at a loss currently.

2.0 HOW BADLY HAS THE EDUCATIONAL FRONT BEEN HIT BY THE PANDEMIC

According to figures released by UNESCO, around 1.3 billion learners from various parts of the world have been unable to attend the school college or university as of 23rd of March 2020. Talking about India ICSE, CBSE, joint exams of JEE, Neet and so on have all been postponed or cancelled till a later date. From the second week of March 2020, most state government had given orders for government and private schools to be closed. This was done to avoid the spread of the coronavirus. Around 285 million school goers across India had to remain home since. Higher education, a key determinant of the economic future of our country, has also been disrupted by the pandemic. There are large number of Indian students enrolled in foreign universities-second only to China-mainly in the European and American countries which have been badly hit by the pandemic. In such situations, students have found

themselves stranded in these countries, far away from home. As a result of this, remind me a fall in the demand for obtaining higher education abroad in the coming years.

3.0 THE DILEMMA OF STUDENTS

One of the major interest group in the educational structure, around whom it revolves, is also the largest software in this moment of crisis.

Students who had appeared for board examinations at various levels have the papers in definitely postponed. The authority in charge is yet to come up with a concrete decision as to how best to solve this problem. The students were at a major threshold and mapped out the career accordingly. They are now in a sense of dilemma as to what will be the final decision and how it will affect their future.

Learners who were one year behind boards have also had their lessons majorly disrupted. They were me to sit at home in the middle of preparation for boards which now maybe pushed back for as long as it takes. A mind of confusion and uncertainty is not good for learning or planning future prospects.

College and university level students are also going through the same uncertainty. Semester examinations have all come due without any way out. Assignments are mostly being cancelled and re-assigned with different objectives. There is no concrete design of an effective evaluation tool which would be suitable for the current situation.

School or educational institutions are treated as miniature societies for a valid reason. They provide the essential social setting required for the learners all-round development. There are things which are not learnt out of a text book. Rather real-life interactions and experiences teach more effectively as per the need of the society. Children being home schooled are missing out on this important aspect of schooling.

Learning is being carried out online in majority of the government and private institutions. It might be a little difficult for the learners to grasp this new method of teaching overnight, specially the younger ones. Everyone may not be immensely competent to grant online teaching, leading to a lot of trial and error in the process.

4.0 THE TROUBLED TEACHERS

The givers are as much in dilemma as the takers. The unforeseen condition brought about in the educational system is troubling the educators as well. Teachers of majority of the Indian schools do not have the lesson plans designed keeping in mind online teaching, which is the need of the hour. They need enough time to restructure their teaching materials.

Online teaching then again is supposed to be an alternate mode of teaching. However it can never replace the actual face to face teaching which is carried on in the classrooms.

There could be a possible transition in the coming years but the sudden change due to the onset of COVID-19 is bound to reduce the efficiency of teachers. The pedagogy has to be seamlessly integrated with e-learning.

Teachers are unaware of exactly which semester they should be at – the old which hasn't ended or the new which hasn't started. Innumerable doubts assail their work. Should the honours subjects be given all the weightage and the general subjects be ignored? Who is to tell.

India is composed of its urban as well as rural parts. Teachers residing in rural areas may not be adept at handling lessons online. They may have no prior training in this regard. Just like the teachers, all students in rural and semi-urban parts of India may not have access to internet facilities. Moreover, possessing laptops and smart phones are definitely beyond the reach of families who send the children merely at the prospect of a decent midday meal to schools. Even all students living in the cities may not be able to possess smart technology. So what happens? Should they be exempted and kept out of the new educational structure? Prior allotted assessments are being cancelled. Random evaluation measures are being adopted and then cancelled again. Tutorials are being given, not by judging the efficacy and testing value, rather at the ease of being assessed at a minimal time using online measures. Evaluation of the students on the whole is suffering at large.

Finally, the physical contact between a teacher and student is of immense importance for the child's development. It is this interaction and the inter-relationship between the teacher and the taught which prepares the child for his future social living. Online teaching is robbing the child of this very important personal element. No media or online resource can replace a natural teacher present in the classroom.

5.0 THE UNFAMILIAR ROLE OF FAMILY

“Parents are supposed to be complimentary to teachers, not the sole driver of learning.” Children have not been asked to stay home on holiday. They have been directed to be homeschooled. As such, is the parent who are now working at the front, guiding their wards along all their lessons. They have been required to take over all the duties of the educators with none of the training or expertise without any prior notice.

With regard to Indian parents, having an adult literacy rate of about 74% in the country, not all parents will be qualified to take up this new role. City parents, who are not busy working from home, maybe slightly better than the totally un-educated ones who have no idea of the dire circumstances. Moreover, this situation does not seem to be a temporary one and may not be gone in the near future.

“Families are central to education and are widely agreed to provide major inputs into a child’s learning” Bjorklund and Salvanes (2011)

6.0 RECOMMENDATIONS FOR EMERGENCIES IN FUTURE

Indian is one of the world’s fastest growing economy. However it is painful to see such a state wide disparity in the educational development in the country. Some states have well equipped smart classrooms, multiple campuses, highly trained teachers and all the other required modern infrastructure.

On the other hand, there are few states who still cannot boast of a permanent structure that can be used as a school building. There is shortage of school supplies, trained teachers and other basic facilities.

Firstly, the country should make an effort to upgrade all its educational infrastructure at the same level. If some semblance of this is possible, then there will not be a portion of the student population who will be totally dropped out of the larger picture in case of an emergency as the current one.

Secondly, a positive prospect from this critical situation is the raising of educational standards to another level in India. Online classes are not something novel in the western countries. However, India had not a doctor it in mainstream education. We were still dependent on chalk and duster method to teach the school going well lecture method was used for college level students. Now, new avenues of imparting education are being explored. Certainly, study material suitable for upgraded educational set up should be made available countrywide. Students should have access to Wi-Fi facilities and laptops. In a populous country like India, it may not be possible to provide smart classes in every part. Hence AlterNet avenues and supply of study material should be made available.

Thirdly, private sector should be in courage to invest in the educational sector. We are looking at a future of public-private partnership. Investment should be in courage by providing alluring schemes with good returns by the government. This will help in strengthening the Indian educational infrastructure which can bear the expansion required to meet the country’s growing educational needs.

Fourthly, there is a demand of more number of educational institutions in the country. Cramming of students in classrooms affecting the student teacher ratio compromising the output of both the parties involved. Similarly more teachers need to be appointed who should be adequately trained in the modern methods of education.

Fifthly, the government should keep a consolidated education fund which can be used in times of emergencies to support this sector. Investment in education will reap long-term

benefits and will give returns to the country in the form of skilled and efficient manpower resources.

7.0 CONCLUSION

It can be said in conclusion that go with 19 is not the first crisis faced by the planet and it will definitely not be the last one. Even go with 19 its self is here to stay for awhile. Life cannot be carried out in complete lockdown in definitely. Hence, we must learn to survive along side the viral outbreak, doing the best we can. And generation will forever remain witness to one of the greatest global pandemic. We must find ways and make efforts which remain helpful to guide our future generations. Education must go on. Knowledge is what will keep us seen and it will also show us the way out of this sorry situation. Efforts have to be continued. There will be some errors initially but finally humanities and find a way to exist.

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CHAPTER 5

COVID-19 AND DIGITAL TRANSFORMATION OF HIGHER EDUCATION IN INDIA

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ABSTRACT

The effect of pandemic COVID-19 has being felt on almost every sector of the economy. The pandemic has taken the world in the stand still situation. The COVID-19 is having a 'deep impact' on Indian businesses. It caused an unprecedented collapse in economic activities over the last few months. At this time one of the most noticeably awful hit sectors is the higher education sector, as most of the examinations have been dropped due to the pandemic. In India we follow face-to-face or physical teaching, even though the digital transformation process of education was introduced by the government a decade ago. Some institutes in India are not having such facilities. To encourage students to continue with their studies utilizing the digital learning platforms i.e. online has become the default mode of education during this long lockdown period in the wake of Covid-19. The digital learning portals help the students not just get abundant access to the study material only, but also permit them to take part in online classes and associate with the educators like the physical classroom setting. Some excellent well established digital portals like E-gyankosh, E-pgpathshala, Swayam, National Digital Library of India, Swayam Prabha etc. run by the Ministry of Education (MHRD) for the digitalization of higher education in India. The present paper put light on the recent COVID 19 pandemic and its effect on higher education system in India and also discussed emerging trends in this sector.

Keywords: *COVID-19, Higher Education, Swayam, Digital Learning, Virtual Classes etc.*

1.0 INTRODUCTION

The COVID-19 pandemic has affected the Indian Higher Education and the whole world as well to stand still situation. Lockdowns and social distancing across the globe has forced people to find innovative ways to do their routine jobs. For the safety of students,

teachers, and their families the first measures taken by the Indian government was to close the educational institutions. Economies across the globe have declared a lockdown and battling to the pandemic. Work from home (WFH) has become the norm for most of the service organizations and to the educational institutions too. The objective of the study was to assess the various benefits, challenges, and reasons for adoption of digitalization in higher education in India. The steps were taken by the government were necessary and brought in the right direction to stop the further spread of the virus in the country. Students were asked to go away for his homes and lectures are expected to hold on through online channels. The digital learning portals help the students not just get abundant access to the study material only, but also permit them to take part in online classes and associate with the educators like the physical classroom setting. Some excellent well established digital portals like E-gyankosh, E-pgpathshala, Swayam, National Digital Library of India, Swayam Prabha *etc.* run by the Ministry of Education for the digitalization of higher education in India.

2.0 OBJECTIVES

The present paper focused on the following objectives:

- To analyse the impact of COVID-19 on higher education in India.
- To discuss the emerging trends in higher education during COVID-19.
- To put forth some suggestion for the digital transformation of higher education in post COVID-19 situation.

3.0 METHODOLOGY

The present paper is descriptive in nature. Various reports of national and international agencies on Covid-19 pandemic are searched for current study. Different authentic websites, journals and e-contents relating to impact of Covid-19 on higher educational system of India has also been referred.

4.0 IMPACT OF COVID-19 ON HIGHER EDUCATION

As per All India Survey on Higher Education 2018-19 there were 993 Universities, 39931 Colleges and 10725 Stand Alone Institutions and out of them 962 Universities, 38179 Colleges and 9190 Stand Alone Institutions have responded during the survey. 298 Universities are affiliating i.e. having Colleges. 385 Universities are privately managed. 394 Universities are located in rural area. All were closed during the lockdown from the month of March-April till date. The pandemic forced many sector to shift their base towards online mode and education is one of the sector which shifted towards virtual mode of teaching. Most of the schools, colleges and universities have started teaching their students through

online platform all across the world as well as in India. So, the assorted activities like admission, examinations, entrance tests, competitive examinations conducted by numerous boards/schools/colleges/ universities are delayed. The main challenge is to continue the teaching-learning method once students, schools and employees may now not be physically gift on the campuses. The pandemic accelerated adoption of digital technologies to deliver education as necessities. Most of the educational institutions have already started online classes, courses, FDPs, Induction programmes and orientation programmes. For this they are using various online platforms like Zoom, Google Meet, Youtube, Skype, Facebook etc. This is the major impact of COVID-19 on educational sector. Every change has positive and negative side.

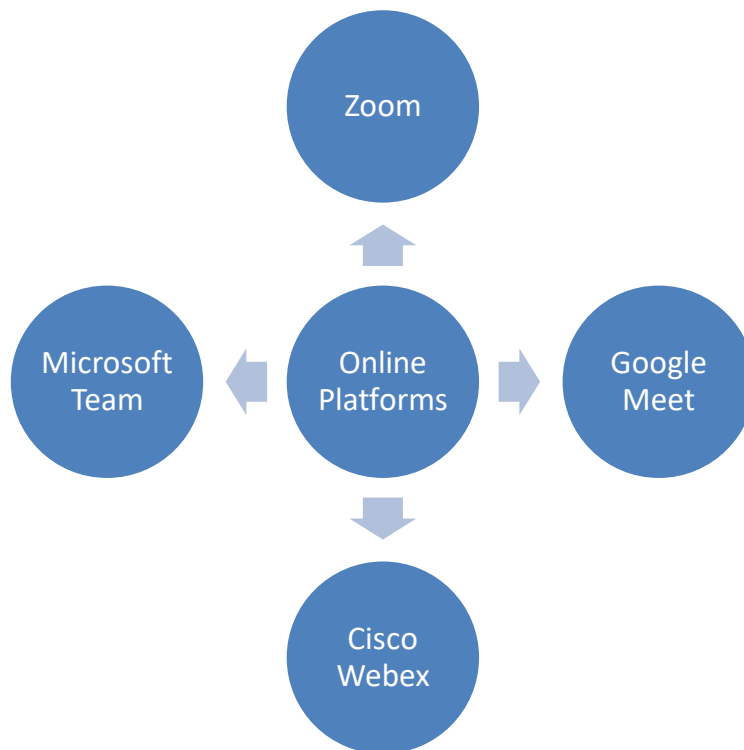
Use of ICT based technologies in an innovative ways in higher educational institutions creates a superior environment and a better experience for students, researchers, and teachers. With the globalisation of the higher education it is the need of an hour. The digital transformation of higher education makes it possible for some people to pursue higher education with less disruption to their lives. It makes the higher education easily and always accessible to the students. It also expands the learning boundaries, collaborative learning, quality learning and competency based learning. It creates common standards and sharing platforms for millions of educators to share their knowledge, tools and resources across the globe. This initiative has taken to create an effective virtual environment of teaching learning and to create motivation among students for online activities. In the present time of pandemic the teacher and students has improved the use of electronic medium such as WhatsApp, Telegram, Google forms etc. If we look at some more positive aspect of the COVID-19 are academicians got much time to improve their theoretical research work. Due to digital transformation of education they are engaged in webinars and e-conferences. They might get a lot of time to think about skilled development by doing analysis and to enhance data by sharing ideas through webinars and e-conferences. It will undoubtedly enhance their teaching ability.

Some of the negative aspects of the digital transformation are reduced employment opportunities; teachers are not equally trained with this digital transformation. Server and connectivity issues are major problems face by the learners as well educators in the digital transformation of higher education. Sometimes it leads to frustration also because it takes lots of time in troubleshoot. The data clearly states that in India there are 29 crore smart phone users, rural households with computers are 4.4%, urban households with computers are 23.4% and fact that only 17.6% of the youth could use PCs and 18.4% could access web,

there is lot to be done in IT Infrastructure within country.

The most significant challenge today for any online instructor is that of the low student engagement. Most of the online sessions suffer from ineffective discussions and lack of discipline. Many educators have realized that the online session could only be practical if they start focusing more on content delivery rather than information delivery. Some other issues faced by the teachers are lack of continuous assessment of students, understanding individual needs will also be difficult and teachers have to work very hard for taking online classes. The students also have to maintain self discipline for these virtual classes.

Figure 1: Widely Used Online Platforms



5.0 EMERGING TRENDS IN HIGHER EDUCATION

Due to the lockdown, the universities, colleges and other higher educational institutions are shut. It didn't mean that the education process has stopped. This is the situation not only in India but all over the world. Virtual platforms like Google Classroom, Google meet, Zoom, Microsoft Teams etc are being used to interact with the students. Massive Open Online Course (MOOC) is another method which has been adopted.

It means shifting towards online learning-teaching is the need of the hour. Many of the academicians and students are facing problems with this mode of education but this trend

is likely to continue post-Covid-19 too. In the post COVID-19 there may be a mix of face-to-face and online learning, once the colleges and universities will resume. For this there is a need to enhanced the skill based learning and arrange training programmes for educators as well as students.

A decade ago the UGC & MHRD have taken several initiatives to promote online education. For this various online courses have been developed and uploaded on portals. Some of the initiatives taken by the government are as follows:

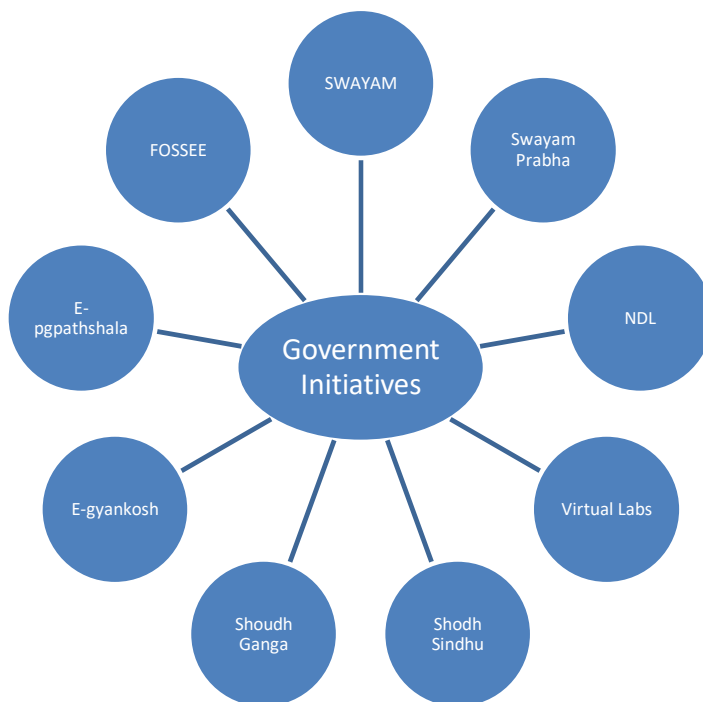
- **SWAYAM** (Study Webs of Active-Learning for Young Aspiring Minds): It is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The main aim behind it is to take the best teaching learning resources to all, including the most disadvantaged.
- **Swayam Prabha**: It provides high quality educational programs through 32 DTH channels transmitting educational contents 24*7. Every day, there will be some new content will also telecast. The contents are provided by IITs, UGC, IGNOU, NCERT etc and the Gandhinagar INFLIBNET centre maintains the web portal.
- **E-GyanKosh**: The digital learning resources developed by the Open and Distance Learning Institutions in the country are store, preserve, distribute and share through this platform. It is a National Digital Repository of IGNOU study materials.
- **National Digital Library**: The National Digital library of India is a project under Ministry of Human Resource Development, The Government of India. The objective of this is to collect and provide full text index from several national and international digital libraries, as well as other relevant sources. It was launched by the MHRD on 10th November, 2006 in 10 different languages.
- **Gyandarshan**: DD Gyan Darshan is a state owned television channel telecasting from Doordarshan, Kendra, IGNOU. The university is working as the nodal agency and this initiative taken by MHRD in collaboration with the Ministry of Information and Broadcasting, Prasar Bharati and ISRO.
- **E-PG Pathshala**: It is for postgraduate students. Postgraduate students can access this platform for e-books, online courses and study materials. The details of these three digital plat forms are described by the author in the previous paper
- **Shodh Ganga**: It is a platform for research students to deposit their Ph.D. theses and make it available in open access to the entire scholarly community. The repository has

the ability to capture, index, store, disseminate and preserve Electronic Theses and Dissertations submitted by the researchers.

- **Shodh Sindhu:** It is a MHRD-funded Consortium for Higher Education E-Resources. It is a collection of e-journals, e-journal archives and e-books on long-term access basis. It has more than 10,000 e-journals, 31,35,000 e-books. It provides access to qualitative electronic resources including full-text, bibliographic and factual databases to academic institutions at a lower rate of subscription.
- **FOSSEE:** Free and Open Source Software for Education, which is developed to promote open source software for education as well as professional use.
- **Virtual Labs:** It is an initiative by MHRD, Government of India under the aegis of National Mission on Education through Information and Communication Technology (NMEICT). There are over one hundred Virtual Labs consisting of roughly 700 web-enabled experiments that are designed for remote-operation. The Labs in various disciplines of Science and Engineering can be easily accessible through this. These Virtual Labs caters to students at the graduate level, post graduate level and to research scholars also.

Figure: 2

Some GOI Initiatives for Digitalization of Higher Education



6.0 SUGGESTIONS

All the college and universities of the country are moving towards the virtual mode of education in this pandemic time. Though there are some advantages and challenges in this digital transformation of higher education. Few suggestions to enhance virtual teaching-learning process are:

- Proper training facilities to educators and students so that they will become technology friendly.
- To encourage online teaching learning government should provide free internet and free digital gadgets to all the students so that they can engage themselves in this digital learning process.
- To engage the students in the online classes teachers' should adopt various supportive learning tools.
- The quality of interaction a teacher can facilitate in physical space is not feasible in virtual classrooms for good interactions there is a need to developed proper tool.
- The virtual classroom all free platforms are having some limitations so there is a need to improve the infrastructure of the institutions so that they can use advanced virtual platforms.
- In the post COVID-19 era all the institutions should adopt new approach for academic assessment these can be done through online mode quizzes and projects.
- Government should provide financial support to higher education institutions to strengthen their digitalized educational activities.
- Students also need to be supported with better access to internet and technology as most students are unable to afford the facilities.
- During this pandemic, the HEIs should focus more on virtual educational activities including television, radio and web-based education.

7.0 CONCLUSION

The current pandemic situation shifted the mode higher education from face to face education to online education. There are many hurdles as well as challenges in the process of digitalization of education. It is necessary that government should invest more in education especially digitalization of higher education. Special funds need to be allocated to the higher educational institutions to proceed with the process of digitalization. The private sector also needs to invest in this area. To conclude, physical classroom teaching has its own advantages and should not be substituted with online teaching. Actually both should go together for the

betterment of teachers and students. All higher education institutions should move towards digitalization of education but carefully.

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CHAPTER 6

FINANCIAL STRESS AMONG INDIANS DURING NATIONWIDE LOCKDOWN DUE TO COVID-19 PANDEMIC

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ABSTRACT

COVID-19 pandemic has imposed economic burden leading to financial stress among individuals. In the present study an online survey has been done to get responses and opinion of participants on stress developed due to financial crisis.

Keywords: Financial stress, COVID-19, pandemic, lockdown, questionnaire

1.0 INTRODUCTION

The COVID-19 disease, caused by novel coronavirus known as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) has affected every aspect of human life. Especially in the developed countries like India the COVID-19 pandemic has created unmanageable situation. Due to contagious nature, this disease itself is responsible for developing stress, anxiety and depression among individuals across the globe. Many countries have practiced a very long lockdown in order to prevent the spread of this disease. The nationwide lockdown has posed a lot of burden on Indian economy and education. Some of the reasons people are getting financial stress during the pandemic are given below.

- People are losing their jobs

- The opportunity for getting new job for an unemployed person is very less
- People are getting relatively less salary during and after lockdown
- The expense of maintaining good health and hygiene has been increased

In this chapter we have conducted an online survey in order to understand financial stress among individuals.

2.0 METHODOLOGY

We have prepared a questionnaire using Google Form and posted it on WhatsApp and Telegram. The questionnaire comprised of eight questions on a linear scale with five labels (i.e. 1 to 5). If a respondent strongly disagrees with the statement asked in a question he/she will choose label 1. If a respondent disagrees with the statement asked in a question he/she will choose label 2. If a respondent agrees with the statement asked in a question he/she will choose label 4. If a respondent strongly agrees with the statement asked in a question he/she will choose label 5. If the response/opinion of a respondent for the statement asked in a question is neutral he/she will choose label 3.

3.0 RESULTS

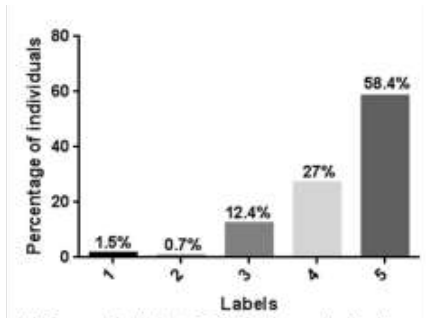
Total 143 individuals submitted the questionnaire. Most of the respondents answered all the questions. A very few respondents didn't answer one or more questions in the questionnaire. The response of each question is summarized in following sections.

3.1 Responses of question number 1 (“Do you feel that COVID-19 pandemic disease has put economy of the world in jeopardy?”).

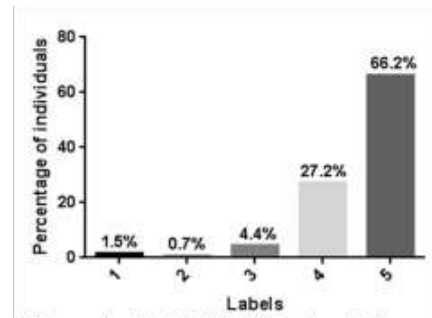
Total 137 individuals responded to this question. 80 individuals (58.4 %) strongly agreed that COVID-19 pandemic disease has put economy of the world in jeopardy. 37 individuals (27 %) agreed that COVID-19 pandemic disease has put economy of the world in jeopardy. 17 individuals (12.4%) remained neutral on this question. Only 1 (0.7%) and 2 (1.5%) individuals choose “disagree” and “strongly disagree” labels respectively for this question. The number of responses in each label is summarised in figure 1(a).

3.2 Responses of question number 2 (“Do you feel that COVID-19 pandemic disease has put economy of India in jeopardy?”).

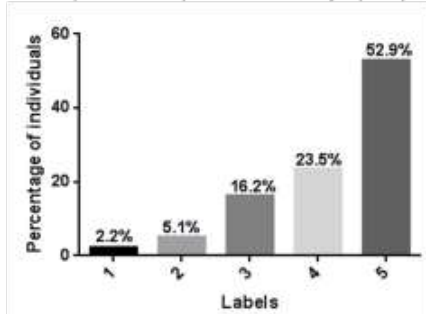
Total 136 individuals responded to this question. 90 individuals (66.2 %) strongly agreed that COVID-19 pandemic disease has put economy of India in jeopardy. 37 individuals (27.2 %) agreed that COVID-19 pandemic disease has put economy of India in jeopardy. 6 individuals (4.4%) remained neutral on this question. Only 1 (0.7%) and 2 (1.5%) individuals choose “disagree” and “strongly disagree” labels respectively for this question. The number of responses in each label is summarised in figure 1(b).



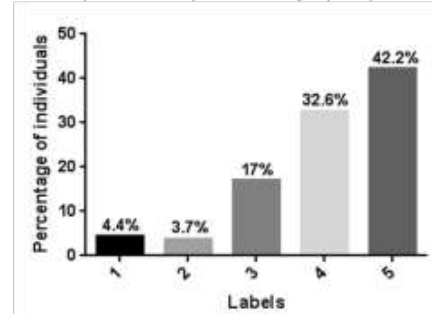
(a) Do you feel that COVID-19 pandemic disease has put economy of the world in jeopardy?



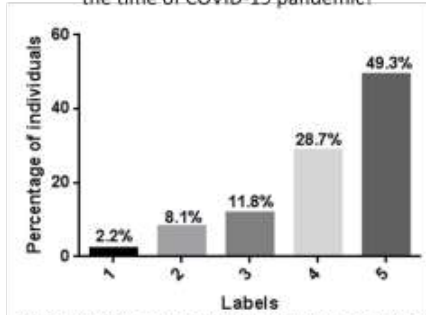
(b) Do you feel that COVID-19 pandemic disease has put economy of India in jeopardy?



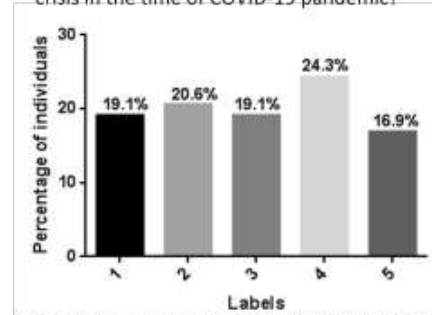
(c) Do you feel stressed due to financial crisis in the time of COVID-19 pandemic?



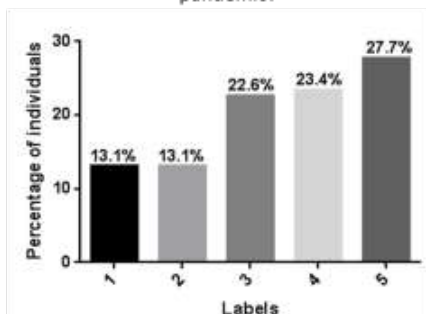
(d) Do your friends feel stressed due to financial crisis in the time of COVID-19 pandemic?



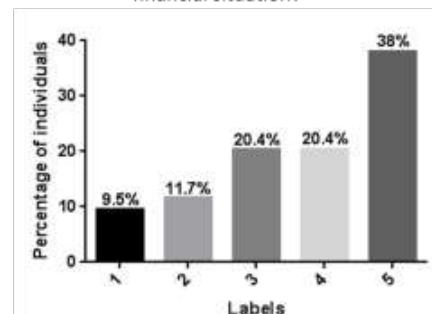
(e) Do your family members feel stressed due to financial crisis in the time of COVID-19 pandemic?



(f) Do you feel that persons working in the health sectors are relatively less stressed about their financial situation?



(g) Will Indian economy grow at a faster rate once vaccine and treatment arrive for COVID-19 disease?



(h) Do you feel that financial stress among individuals will be reduced once vaccine and treatment arrive for COVID-19 disease?

Figure 1: Number of respondents in labels 1 to 5 in each question. Labels 1, 2, 3, 4, 5 indicate “strongly disagree”, “disagree”, “neutral”, “agree” and “strongly agree” responses respectively. Labels are on x-axis while percentage of individuals is on y-axis.

3.3 Responses of question number 3 (“Do you feel stressed due to financial crisis in the time of COVID-19 pandemic?”).

Total 136 individuals responded to this question. 72 individuals (52.9 %) strongly agreed that they felt stressed due to financial crisis in the time of COVID-19 pandemic. 32 individuals (23.5 %) agreed that they felt stressed due to financial crisis in the time of COVID-19 pandemic. 22 individuals (16.2%) remained neutral on this question. Only 7 (5.1%) and 3 (2.2%) individuals choose “disagree” and “strongly disagree” labels respectively for this question. The number of responses in each label is summarised in figure 1(c).

3.4 Responses of question number 4 (“Do your friends feel stressed due to financial crisis in the time of COVID-19 pandemic?”).

Total 135 individuals responded to this question. 57 individuals (42.2 %) strongly agreed that their friends felt stressed due to financial crisis in the time of COVID-19 pandemic. 44 individuals (32.6 %) agreed that their friends felt stressed due to financial crisis in the time of COVID-19 pandemic. 23 individuals (17%) remained neutral on this question. Only 5 (3.7%) and 6 (4.4%) individuals choose “disagree” and “strongly disagree” labels respectively for this question. The number of responses in each label is summarised in figure 1(d).

3.5 Responses of question number 5 (“Do your family members feel stressed due to financial crisis in the time of COVID-19 pandemic?”).

Total 136 individuals responded to this question. 67 individuals (49.3 %) strongly agreed that their family members felt stressed due to financial crisis in the time of COVID-19 pandemic. 39 individuals (28.7 %) agreed that their family members felt stressed due to financial crisis in the time of COVID-19 pandemic. 16 individuals (11.8%) remained neutral on this question. Only 11 (8.1%) and 3 (2.2%) individuals choose “disagree” and “strongly disagree” labels respectively for this question. The number of responses in each label is summarised in figure 1(e).

3.6 Responses of question number 6 (“Do you feel that persons working in the health sectors are relatively less stressed about their financial situation?”).

Total 136 individuals responded to this question. For this particular question sufficient number of responses (in the range of 23 to 33) was obtained for each label. 23 individuals (16.9 %) strongly agreed that persons working in the health sectors are relatively less stressed about their financial situation. 33 individuals (24.3 %) agreed that persons working in the health sectors are relatively less stressed about their financial situation. 26 individuals

(19.1%) remained neutral on this question. 28 (20.6%) and 26 (19.1%) individuals choose “disagree” and “strongly disagree” labels respectively for this question. The number of responses in each label is summarised in figure 1(f).

3.7 Responses of question number 7 (“Will Indian economy grow at a faster rate once vaccine and treatment arrive for COVID-19 disease?”).

Total 137 individuals responded to this question. 38 individuals (27.7 %) strongly agreed that Indian economy will grow at a faster rate once vaccine and treatment arrive for COVID-19 disease. 32 individuals (23.4 %) agreed that Indian economy will grow at a faster rate once vaccine and treatment arrive for COVID-19 disease. 31 individuals (22.6%) remained neutral on this question. 18 individuals (13.1%) choose “disagree” label for this question. Similarly, 18 individuals (13.1%) choose “strongly disagree” labels for this question. The number of responses in each label is summarised in figure 1(g).

3.8 Responses of question number 8 (“Do you feel that financial stress among individuals will be reduced once vaccine and treatment arrive for COVID-19?”).

Total 137 individuals responded to this question. 52 individuals (38%) strongly agreed that financial stress among individuals will be reduced once vaccine and treatment arrive for COVID-19 disease. 28 individuals (20.4 %) agreed that financial stress among individuals will be reduced once vaccine and treatment arrive for COVID-19 disease. 28 individuals (20.4 %) remained neutral on this question. 16 (11.7 %) and 13 (9.5 %) individuals choose “disagree” and “strongly disagree” labels for this question. The number of responses in each label is summarised in figure 1(h).

4.0 CONCLUSION

Majority of respondents strongly felt that COVID-19 pandemic disease has put economy of India and entire world in jeopardy. Majority of respondents strongly agreed that they felt stressed due to financial crisis in the time of COVID-19 pandemic. Majority of respondents strongly agreed that their friends and family members felt stressed due to financial crisis in the time of COVID-19 pandemic. Majority of respondents felt that Indian economy will grow at a faster rate once vaccine and treatment arrive for COVID-19 disease. Majority of respondents felt that financial stress among individuals will be reduced once vaccine and treatment arrive for COVID-19 disease. There is no clear cut majority for various labels in question 6 (i.e. “Do you feel that persons working in the health sectors are relatively less stressed about their financial situation?”). Infact, we got almost equal number of responses in each label for this question. The reason behind this may be due to the fact that health care professionals did not face job loss as compared to other sectors. Infact, health care sectors has created more jobs to manage the COVID-19 pandemic situation.

CHAPTER 7

IMPACT OF COVID 19: FINANCIAL AND BANKING SECTOR

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ABSTRACT

The outbreak of the Covid-19 pandemic is a severe blow to the Indian economy. Almost 162 countries are present closure and businesses around the world are operating out of fear of an imminent collapse of global finance markets. This situation, accompanied by slow economic growth in the previous year and in the present, especially in a developing country like India is experiencing extremely volatile economic conditions. The impacts of the pandemic will increase unemployment, interest rates and fiscal deficit. The current state of the Indian economy is like adding gasoline the fire of the new coronavirus that is causing shocks in the Indian economy. The worst impact of the pandemic is increasing day by day, it is determined that the future Indian economy will have a big impact in the future days, and the Indian people prepare to face the future consequences of the post-pandemic shock.

KEYWORDS: Covid-19, Blockade, Financial markets, Pandemic, Fiscal deficit

1.0 INTRODUCTION

The World Health Organization (WHO) has declared coronavirus disease 2019 (COVID-19) as pandemic. A coordinated global effort is needed to stop the spread of the virus. A pandemic is defined as "It occurs over a large geographical area and affects an exceptionally high percentage of the population." The last reported pandemic in the world was the H1N1 flu pandemic in 2009.

On December 31, 2019, a group of pneumonia cases of unknown cause in Wuhan City, Hubeiprovince of China, reported to the World Health Organization. In January 2020, a new virus, hereinafter referred to as new coronavirus 2019, was identified and samples were obtained from cases and analysis of the virus's genetics indicated that this was the cause of the outbreak. This new coronavirus was named Coronavirus Disease 2019 (COVID-19) by

WHO in February 2020. The virus is known as SARS-CoV-2 and the associated disease is COVID-19.

Governments around the world are working to establish countermeasures to stop the potentially devastating effects. Healthcare business coordinate data flows and issue directives and guidelines as far as better mitigate impact belonging to the threat. At the same time, scientists around the world work tirelessly and information on the transmission mechanisms, clinical spectrum of the disease, new diagnoses and prevention and treatment strategies are developing rapidly. Many uncertainties remain regarding the virus-host interaction evolution of the pandemic, with specific reference to when it will reach its peak.

Presently, therapeutic planning intended to treating the infection are only supportive and preventative aiming to reduce transmission in the community is our great weapon. Aggressive insulation measures in China have led to a progressive reduction of cases. In Italy, in the regions of north geographical initially and Therefore, throughout the peninsula, political and health authorities are making incredible efforts as far as contain a shock wave that is putting a strain on the health system.

2.0 REVISION OF THE LITERATURE

Dr. Jitendra Singh and Dr. BS Bodla, looked at the impact of the pandemic on the Indian banking sector. Through their study, they found that the Covid-19 crisis left some struggling banks to stay deposits, while funds migrate to the perceived safety of state lenders. And they recommended that RBI all possible steps must be taken to maintain sufficient liquidity in the financial system.

3.0 DATABASE AND RESEARCH METHODOLOGY

3.1 OBJECTIVES OF THE INVESTIGATION

- i. Learn about the impact of Covid-19 in India's banking and financial sector.
- ii. Suggest the corrective measure to overcome the crisis.
- iii. Identify the perfect effect of the pandemic.

3.2 RESEARCH METHODOLOGY

The study is basically descriptive in nature. In this paper we have tried to analyse the impact of Covid-19 in the banking and financial sector. The study is purely from secondary sources according to the need for this study.

Secondary data

Articles

Journals

4.0 MAIN RESULTS OF THE STUDY

Based on a systematic review of the online literature on the impact of COVID-19 on Indian banks and the following findings emerged from the financial sector:

- Due to the deferral of the repayment of principal and interest from 1 March 2020 to 31 August 2020, bank recoveries could be affected in the second quarter onwards.
- Expect a significant increase in NPAs in the future.
- Current challenges are likely to translate into high capital injection requirements for IFs to maintain both regulatory capital and growth capital.

5.0 CONCLUSIONS AND SUGGESTIONS

The pandemic is affecting the financial services industry in a number of ways, from going concern operational issues and considerations on the overall financial perspective. Financial services companies are mobilizing and by taking steps to minimize these impacts, they are likely to face short and long term implications in both returns and balance sheet items. And the central bank has announced a series of measures to help banks and borrowers overcome this crisis. In the first set of measures, the RBI announced a rate of 75 basis points cut off, liquidity measures in the amount of Rs 3.74 lakh crore, including the long-term repurchase operation (TLTRO) worth Rs1 crore lakh. And the pre-impact of covid-19 is different from the post-impact, and the post-impact can affect the much of the Indian economy.

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CHAPTER 8

INVISIBLE THREATS OF COVID-19 ON FINANCIAL SECTOR

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ABSTRACT

The COVID-19 pandemic has had far-reaching consequences beyond the spread of the disease itself and efforts to quarantine it. As the SARS-CoV-2 virus has spread around the globe, concerns have shifted from supply-side manufacturing issues to decreased business in the services sector. The pandemic caused the largest global recession in history, with more than a third of the global population at the time being placed on lockdown.

Keywords: COVID, Financial sectors, Indian economy

1.0 INTRODUCTION

There is a big shift in the world economic market and the share market has witnessed crashes day by day. Factories, Restaurants, Pubs, Markets, Flights, Super Markets, Malls, Universities and Colleges etc. were shut down. Fear of corona virus has limited the movement of the individuals. People were not even going to buy the daily essentials and these all were somewhere impacting the economy of the world as a whole. The Organization for Economic Co-operation and Development (OECD) reveals that they have cut their expectation for global growth to 2.4% from 2.9%, and warns that it could fall as low as 1.5%. Supply shortages are expected to affect a number of sectors due to panic buying, increased usage of goods to fight the pandemic, and disruption to factories and logistics in mainland China. There have been instances of price gouging. There have been widespread reports of shortages of pharmaceuticals, with many areas seeing panic buying and consequent shortages of food and other essential grocery items. The technology industry, in particular, has been warning about delays to shipments of electronic goods.

India recorded the first case of the disease on January 30, 2020. Since then the cases have increased steadily and significantly. At the time of writing of this chapter (July 2nd week, 2020), and as shown in figure 1, India has recorded the third highest Covid-19 caseload

in the world after the United States and Russia with more than a million confirmed cases and more than 25,000 deaths (<https://www.covid19india.org/>) The doubling rate has steadily gone up to around 18-22 days (figure 1 & 2) and the daily new confirmed cases are around 28,000-30,000.

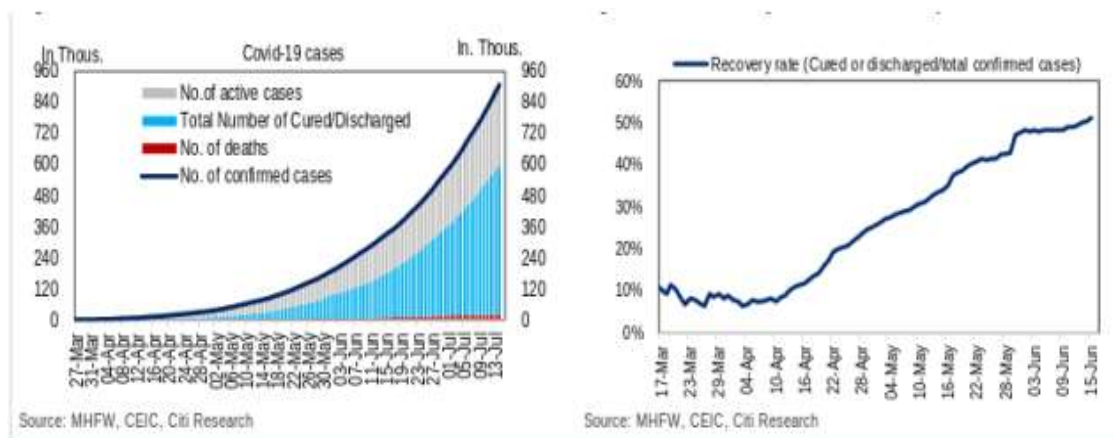


Figure 1: Confirmed case

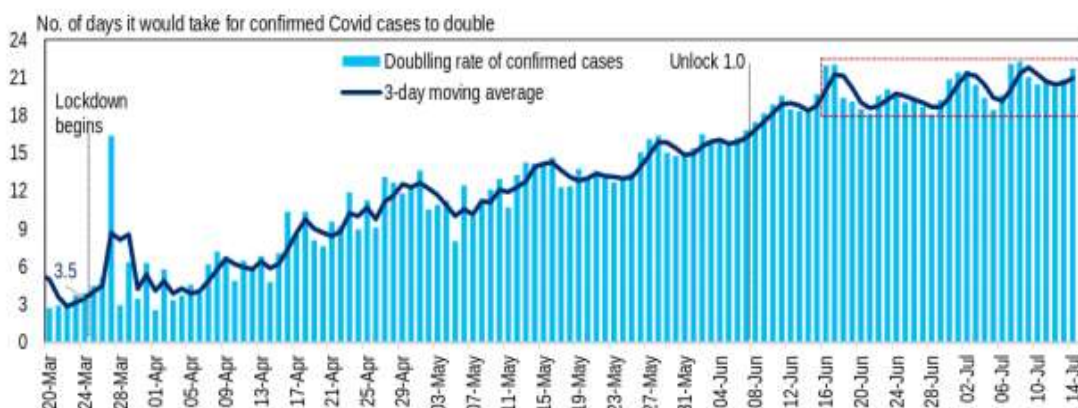


Figure 2: Doubling rate of confirmed Covid-19 cases in India

Source: Ministry of Health and Family Welfare; Citibank Research. Doubling rate represents the number of days it would take for the cases to double if the daily percentage increase in confirmed cases remains unchanged.

The unprecedented lock-down has had a significant adverse effect on the economy. Millions of jobs and livelihoods are now at stake. As activity around the country came to a halt, with no job or income, more than 50 million migrant workers either returned to their native villages or shifted to camps inside the cities because state borders were sealed (<http://www.igidr.ac.in/pdf/publication/WP-2020-013.pdf>).

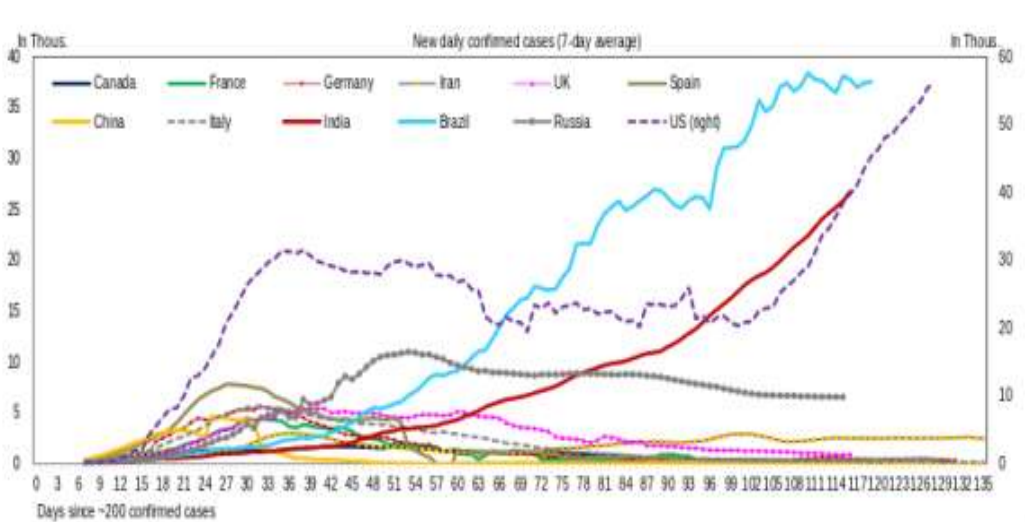


Figure 3: New daily confirmed cases across the world

Source: Ministry of Health and Family Welfare, Citibank Research.

2.0 THE BANKING AND CORPORATE SECTORS

During crisis times, one sector of the economy that is required to play a crucial role in terms of alleviating the pressures on the real economy is the financial sector. The need of the hour is to keep credit flowing to all. Credit off-take during 2019-20 (up to March 13, 2020) was muted with non-food credit growth at 6.1% being less than half the growth of 14.4% in the corresponding period of the previous year (figure 4). This was also the lowest growth rate of non-food bank credit in nearly six decades.

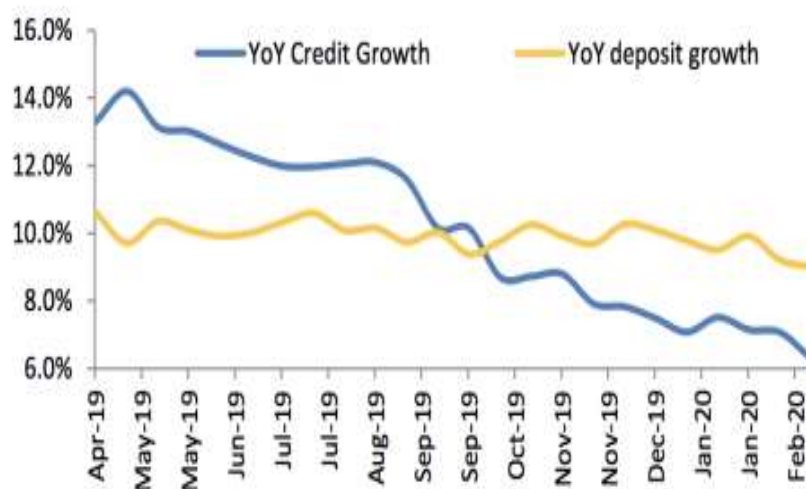


Figure 4a: YoY Credit and deposit growth of the banking sector

Source: ICRA report. This shows total non-food credit growth

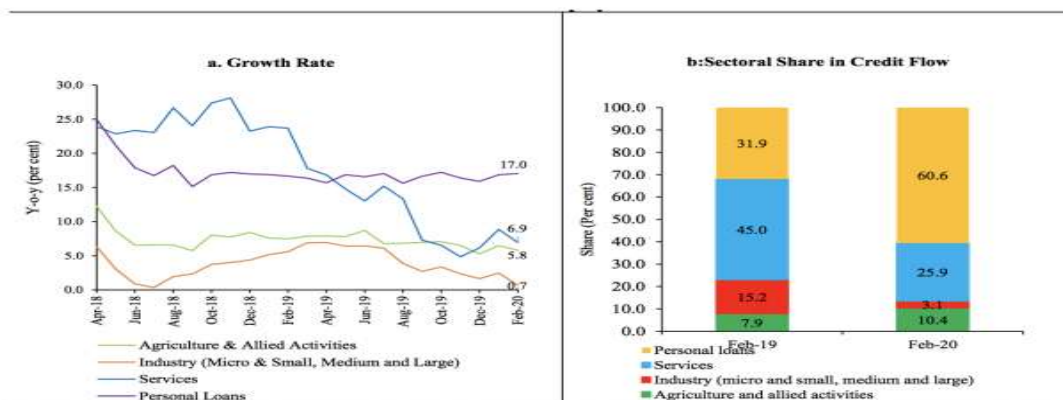


Figure 4b: Growth rate

3.0 NON-SLR BONDS

As shown in figures 5a and 5b, banks' holding of non-SLR bonds has declined sharply which means they are averse to credit risk. Banks are instead holding more GSecs than the SLR requirements and the excess SLR of all banks – PSBs, private, and foreign has gone up sharply which means the credit risk aversion is across the board.

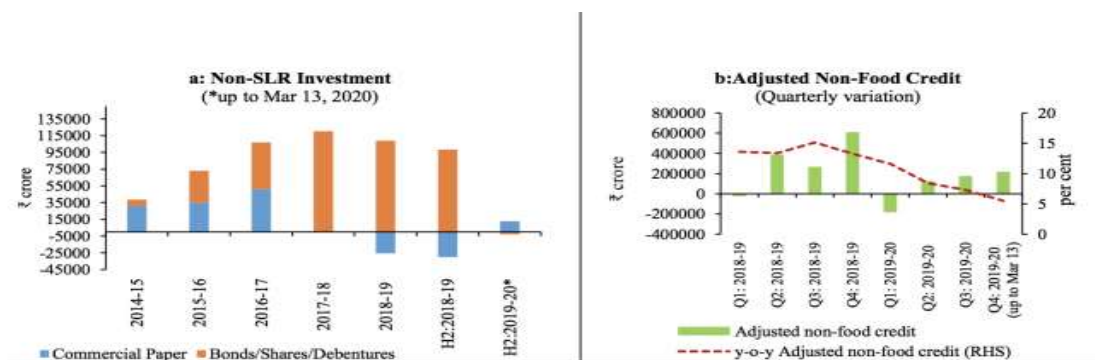


Figure 5a: Non-SLR investment and adjusted non-food credit

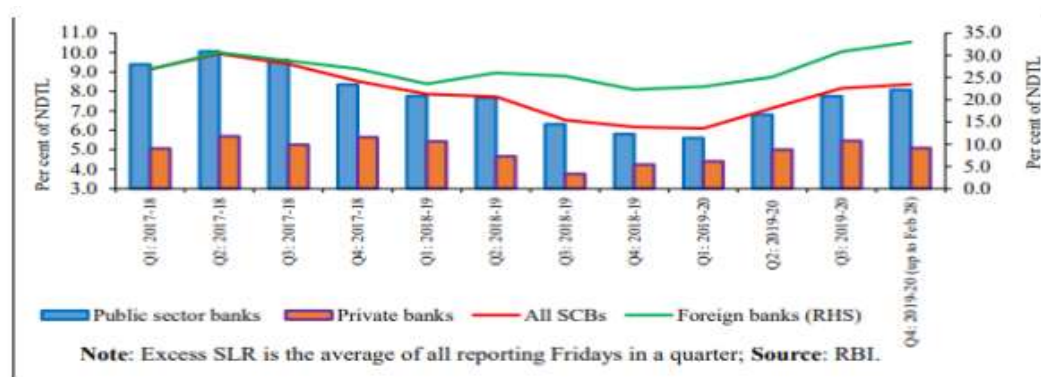


Figure 5b: Excess SLR of banks

4.0 FINANCIAL MARKETS AND INSTITUTIONS

As the ramifications of the health shock and the repercussions of the country-wide lockdown become clear with each passing day, the risk aversion of the banking system will get significantly aggravated. As more and more firms struggle to stay afloat and are unable to repay their dues amidst the massive demand and supply disruptions, corporate delinquencies will go up and the level of NPAs in the already fragile banking system will increase precipitously. Moody's Investors Service has already changed the outlook for the Indian banking system to negative from stable, as it expects deterioration in banks' asset quality due to disruption in economic activity (<http://www.igidr.ac.in/pdf/publication/WP-2020-013.pdf>).

5.0 CONCLUSION

Covid-19 has posed an unprecedented challenge for India. Given the large size of the population, the precarious situation of the economy, especially of the financial sector in the pre-Covid-19 period, and the economy's dependence on informal labour, lockdowns and other social distancing measures are turning out to be hugely disruptive. The central and state governments have recognized the challenge and have responded but this response should be just the beginning.

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CHAPTER 9

COVID-19 - IT'S APPROACHES AND IMPLICATIONS

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ABSTRACT

With COVID-19 coming into the picture, the Indian economy is going through a major slowdown, which was evident over the recent quarters even before the crisis struck. In the third quarter of the current financial year, the economy grew at a six-year low rate of 4.7%. With all these problems hitting the world of work from multiple directions, companies are finding it difficult to sustain in this environment. They are forced to take tough decisions such as cutting down the salaries, giving pink slips to employees and opting for other cost-cutting measures.

The financial market has experienced uncertainty about the future course and repercussions of COVID-19. An estimated Rs 10 lakh crore of market cap was reportedly wiped off due to the fall of Sensex in the second week of March 2020. The supply-side impact of shutting down of factories resulted in a delay in supply of goods from China which has affected a huge number of manufacturing sectors which source their intermediate and final product requirements from China. Some sectors like automobiles, pharmaceuticals, electronics, chemical products etc were impacted big time.

The immediate impact of COVID-19 reveals that besides the direct impact on demand and supply of goods and services, businesses are also facing reduced cash flows due to slowing economic activity which in turn is having an impact on all payments including to those for employees, interest, loan repayments and taxes. Corona virus had its impact in the industry in general, which has seen, not only cutting the salaries but also laying off its employees. The hotels are vacant and airlines have closed their wings. The live events industry has also estimated a loss of more than Rs. 3000 Crs.

The manufacturing sector is an important sector of our economy. Lockdown has put great stress on the supply chains of essential commodities, and therefore, many of the Indian companies have focused on the production and supply of essential items only, thereby

stopping all other production activities, thereby 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, will be hardest hit in view of economic activities coming to a total standstill.

Keywords: *COVID-19, Pandemic, Economic Sector, Impact, Slowdown, Lockdown, Agriculture.*

1.0 INTRODUCTION

Almost every country has been affected by the devastating Corona virus disease (COVID-19). The world is passing through a great uncertainty. Undoubtedly, the Corona virus has put the world economy at a major risk.

The financial market has experienced uncertainty about the future course and repercussions of COVID-19. The supply-side impact of shutting down of factories resulted in a delay in supply of goods from China which has affected a huge number of manufacturing sectors which source their intermediate and final product requirements from China. Some sectors like automobiles, pharmaceuticals, electronics, chemical products etc were impacted big time.

Corona virus had its impact in the industry in general, which has seen, not only cutting the salaries but also laying off its employees. The hotels are vacant and airlines have closed their wings. The live events industry has also estimated a loss of more than Rs. 3000 Crs.

As we have already acknowledged that India is a developing economy, passing through demand depression and high unemployment with 21-day lockdown announced by Prime Minister on March 23, 2020, which would slowdown the supply-side, accelerating the slowdown further. With an increasing number of corona virus cases, the government has locked down transport services, closed all public and private offices, factories and restricted mobilization. Based on recent studies, some economists have said that there is a job loss of 40 million people in the country, mostly in the unorganized sectors. Daily wage earners and most of the labour sectors associated with the construction companies got suffered during Lockdown,

2.0 IMPACT OF COVID ON DIFFERENT SECTOR

2.1 Agriculture and Food

It is well-known fact that India stands number one in dairy and spices products at a global scenario as far as export is concerned. Food and agriculture sector contributes the highest in GDP i.e. 16.5% and 43% to the employment sector. COVID-19 vastly affected the livestock, poultry, fishery as well as dairy production.

Restrictions on movement have prevented the farmers from accessing markets and resulted in food waste. In many countries, farmers are now unable to sell their produce in local markets or local restaurants, bars, hotels and other establishments, which have been temporarily closed.

COVID-19's impact on the agricultural sector will have far-reaching effects beyond food-security, across industries, and on our economy as a whole. Governments, businesses, and non-profits need to respond to the challenges with a foresight to protect farmer livelihoods in the medium to long term and prevent cataclysm in our agricultural systems in the future.

The pandemic protocols and provisions interfere the supply chain of the market with impaired production and distribution accompanied with lack of labor and supply of inputs. This vastly affects the livestock, poultry, fishery as well as dairy production.

2.2 Manufacturing Sector

Major companies in India such as temporarily suspended or significantly reduced operations in a number of manufacturing facilities and factories across the country. I-Phone producing companies in India also suspended a majority of operations. Nearly all two-wheeler and four-wheeler companies put a stop to production till further notice. Many companies have decided to remain closed till at least 31 March such as Cummins which has temporarily shut its offices across Maharashtra. Hindustan Unilever, ITC and Dabur India shut manufacturing facilities except for factories producing essentials.

2.3 Online Business sector:

The online business in today's economy plays a major role in the economy with a market share of USD 950 billion. It contributes 10% to the Indian GDP and showed a drastic in the employment sector in the FY19 viz 8%. Its major segments are the household and personal care products (50 %), healthcare segment (31%) and the food and beverage sector (19%).

At first the social distancing due to threat of covid-19 the tendency of the consumers to overstock on essential product and commodities viz rice, flour and lentils. This gave rise in

the sales of the Fast Moving Consumer Goods companies (FMCG) which it saw fall in the stock in trade due to distorted supply chain.

The e-commerce sector saw a dip in growth with pressure on the supply chain deliveries and the expectations of the consumers on the companies to come up with newer distribution channels focusing on direct to customer routes.

2.4 Raw materials and spare parts

Nearly 55% of electronics items are being imported by India from the China. Due to lockdown, these imports have been declined to 40% in light of the corona virus. China is India's third largest export partner for export of raw materials like organic chemicals, mineral fuels, cotton, which have been substantially declined.

2.5 Pharmaceuticals

The toll on the pharmaceutical industry is of significant concern for India, mainly as 70% of active pharmaceutical ingredients (API) are imported from China. These active pharmaceutical ingredients are essential to a large number of pharmaceutical manufacturing companies in the country. As **COVID-19** is rapidly making its way through India, medication is going to be the number one consumer demand, and because there aren't nearly enough APIs to manufacture drugs, the subsequent traders and the market are witnessing skyrocketing prices.

2.6 Aviation

The Government of India indefinitely suspended tourist visas, airlines are said to be working under pressure. Nearly 600 international flights to and from India were canceled for varying periods. Around 90 domestic flights have been canceled, leading to a sharp drop in airline fares, even on popular local routes.

2.7 Tourism

India is big on cultural and historical tourism, attracting domestic and foreign visitors throughout the year. It does not come as a surprise that a large number of confirmed COVID-19 cases in India include foreign tourists. But with visas being suspended and tourist attractions being shut indefinitely, the whole tourism value chain, which includes hotels, restaurants, attractions, agents, and operators, is expected to face losses worth thousands of Crores. Experts believe the tourism industry is likely to take a massive hit.

2.8 Trade

There has been a significant loss of human lives and the global Trade. India's trade has been severely impacted from COVID-19. People have a sudden loss of their income, causing a major drop in the demand. India's exports in April 2020 fell by -36.65% while

imports in April 2020 fell by 47.36% as compared to April 2019. Indian SENSEX and NIFTY are down by about 35-40% in a matter of less than 30 trading sessions.

2.9 State income and expenditure

State governments incurred huge losses to the extent of having to cut capital expenses as well as government plans in the near future and finding alternate ways to pay salaries. Spending under government development schemes has been reduced by 67% for the current. The income of the State governments has fallen and borrowing has increased.

Some State governments have imposed a 70% to 75% "corona" extra taxes on liquor. Excise duty on liquor is the third largest source of income for a number of states, nearly 10-15% of total tax collection for some states. The ban during the lockdown affected alcohol sales, in turn having a major effect on the state revenue.

2.10 Impact on the Society

During the course of the pandemic, people will be using digital medium for content and entertainment. Events that require massive gathering of people – sports, music festivals, theatre, etc. will take a hit for the next 12 months.

As the world overcomes this pandemic, discretionary demand will pick up as people become imprudent. Retail leverage in the world will hit new highs. The use of addictive material – tobacco, narcotics and alcoholic beverages will jump manifold.

3.0 CONCLUSIONS

Almost every country has been affected by the COVID-19. The world is passing through a great uncertainty. Undoubtedly, the Corona virus has put the world economy at a major risk. Similarly The Indian economy got affected in the same manner. The level of GDP may further fall. However, the concrete plans would have to be kept in place to support the economy and its recovery. More importantly, we must ensure something like this never happens again. History says that humankind has never learnt from history. Let's hope thatit is a thing of the past.

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CHAPTER 10

IMPACT OF COVID-19 ON INDIAN ECONOMY

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ABSTRACT

At present time the world is battling covid-19 and economies across the globe have declared a lockdown. The first case of the coronavirus was reported in late January 2020 in the southern state of Kerala. After reporting its first case, India introduced rigorous airport screening for the coronavirus. It is an unprecedented shock to the Indian economy. India is the developing country due to the Covid-19 spread the cases reported in the India government has declared the lockdown in the country to minimize the spread of Covid-19. 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. In this paper I have discussed the impact of the covid-19 on the various segments of the economy, 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. It is expected that this study will helpful to overcome from this issue.

Keywords: Covid-19, epidemic, economic crisis, aggregate demand, informal sector, financial institutions.

1.0 INTRODUCTION

The Covid-19 which started in China in December 2019 and over the next few months quickly spread to practically all nations of the world can possibly turn out to be the greatest wellbeing emergency in our history. India recorded the main instance of the infection on January 30, 2020 in the southern territory of Kerala. From that point forward the cases have expanded consistently and essentially. The impact of Corona infection is gravely felt and taken note on the planet's most evolved nations like USA, Britain and Germany and so on. Taking the lesson from the created nations like Spain and Italy, India put all its apparatus and material into movement to control or potentially forestall the malady. So as to check the

spread of the infection, the administration of India declared a multi week long across the nation lockdown. What began as one day Janta Curfew on 22.03.2020 by the Prime Minister of India and lockdowns by a portion of the state governments, the whole nation was announced to be under lockdown from the 12 PM of 24.03.2020. Head administrator Modi declared the initial 21 days of India's lockdown on 24 March. During this address to the nation he said, "Jaan hai toh jahaan hai". All non-essential services and businesses, including retail establishments, educational institutions, places of religious worship, public utilities and government offices across the country will stay closed during this period and all means of travel have been stopped. This lockdown is expected to have a critical unfriendly impact on the economy. Many occupations and jobs are in danger zone. On 11 April, in a gathering with the Chief Ministers' of India, the Prime Minister said "Our mantra prior was jaan hai toh jahaan hai yet now it is jaan bhi jahaan bhi. On 14 April, another location to the country was made by Modi in which he expanded the lockdown, with modifications, to 3 May. In the Prime Minister's fifth gathering with the Chief Ministers on 11 May, the Prime Minister said that Indians must get ready for the post coronavirus pandemic world, similarly as the world changed after the universal wars. At the hour of tending to the country Modi said "Jan se lekar jag tak". From a person to the entire network would be the new guideline and method of living. On 12 May, the PM tended to the country saying that the covid-19 scourge was an open door for India to build independence. He presented the Atmanirbhar Bharat Abhiyan (Self-dependent India Mission) monetary bundle for the country. Independent India... means being a greater and progressively significant piece of the worldwide economy. Shashi Tharoor called the 'Self-reliant India Mission' a repackaged version of Make in India.

2.0 LITERATURE REVIEW

India among the Asian economies is likewise profoundly affected. The effect of the infection on worldwide estimation, monetary and something else, has been massive. While new cases have been declining in China – the focal point of the episode – since the end of February, it is spreading quick outside. New cases outside China currently outperform those in China, with Italy, Iran and South Korea being the most exceedingly terrible influenced. With more than 160 nations revealing affirmed instances of Covid-19, its suggestions on the worldwide economy is all the more compromising.

3.0 OBJECTIVES

The major objectives of this study are:

- i. To understand impact of Covid-19 on overall Indian Economy.
- ii. To know impact of Covid-19 on different sectors.

- iii. To seek out the challenges for various sectors in Indian economy.
- iv. To analyse the policies that are announced by the central government and also the reserve bank of India to ameliorate the economic crisis.

4.0 RESEARCH METHODOLOGY

In this study I even have chosen the reports mostly published in March, April, May and June months to know the impact of COVID-19 on Indian economy and various sectors. Also, I even have studied few research papers and News articles which publish in these four months.

5.0 IMPACT ON INDIAN ECONOMY

The global economy is now facing the global pandemic of corona virus that has laid the adverse effect on all the economic activates across the world. The trade impact of the coronavirus epidemic for India is estimated to be about 348 million dollars consistent with a UN report. A study by FICCI (2020) found that the larger part industry respondents didn't predict positive interest account during the entire monetary year. Request side effect on the travel industry, neighbourliness and avionics is among the most noticeably terrible influenced parts that face the most extreme consumed of this emergency. Low degree of pay and loss of employments additionally affected the utilization example of individual especially the everyday breadwinner easing back action in a few segments including retail, development, diversion, and so on. The nation is currently confronting different difficulties as far as financial emergencies, wellbeing emergencies, breakdown in ware costs and undeniably more. The exchange sway is assessed to be the preeminent for the synthetic compounds division at 129 million dollars, materials and attire at 64 million dollars, car division at 34 million dollars, electrical hardware at 12 million dollars, cowhide items at 13 million dollars, metals and metal items at 27 million dollars and wood items and furniture at 15 million dollars.

5.1 Sector-wise impact on Indian industry

i. Aviation & Tourism

India is known for cultural and historical tourism, attracting domestic and foreign nationals throughout the year. Due to the Covid-19 outbreak, India's aviation, tourism and hospitality industries had sustained maximum damage. Nearly 600 international flights to and from India were cancelled for varying periods. Around 90 domestic flights are cancelled, resulting in a pointy drop by airline fares, even on popular local routes. Abrogation of tickets, discounts and low use pace of carriers have made issues more awful for the effectively upset avionics industry inside the middle of a money crunch. Wiping out of tickets, discounts and

low usage pace of aircrafts have made issues more terrible for the effectively bothered flying industry inside the middle of a money crunch. The industry affiliation is looking for alleviation inside such a tax breaks, postponement of GST instalment, the expansion of stream fuel under GST, decrease in air terminal charges, a brief cut in extract obligation on stream fuel, and other guide to pad the effect. International air transportation Association (IATA) estimates passenger revenue losses of up to USD252 billion in FY21. India because the fourth largest aviation market within the world is predicted to ascertain big fallout in its international business but its strong domestic market is predicted to assist faster recovery if the pandemic is controlled. On account of COVID-19, the Indian tourism and hospitality industry is watching a possible job loss of around 38 million, which is around 70 per cent of the entire workforce. Many believe, this crisis looks set to be a greater threat than earlier ones like 9/11 and therefore the financial meltdown of 2008-09 and India's tourism sector faces questions around its very survival. Experts believe the tourism industry is probably going to require a huge hit, and it could find yourself crippling the industry for the foreseeable future.

ii. Automotive sector

Auto sector (which includes automobiles and auto parts) will still face challenges on account of lack of demand, global recession and falling income levels. Continued income tightening will impact the market of passenger vehicles and two/four wheeler segment as this segment is significantly impacted by economic/market sentiments, and consumer purchasing power. In passenger cars alone, the lockdown is estimated to possess reduced production by ~240,000 units (~10% of total annual production). every day of loss of production is causing the industry a loss of over INR 2,300 crores in revenue on the average . Hence, annual sales of sunshine automobiles and motorcycles are estimated to fall by ~4.2 million units in 2020. Auto components sourcing might get dearer thanks to disturbance in supply chain across the world because automotive manufacturers in India depend highly on auto components imported from COVID-19-affected countries like China, Germany and South Korea . However, at present the inventory level seem to be sufficient for the Indian industry. This industry can emerge in medium to future as an alternate source of supply if duly supported by policy framework.

iii. Food and Agriculture

The food and agriculture sector contributes the highest in GDP i.e. 16.5% and 43% to the employment sector. With the outbreak of Covid-19 the situation in agriculture sector is likely to worsen significantly. Lockdown and associated disruptions will affect agricultural activities and the necessary supply chains through several channels: input distribution,

harvesting, procurement, transport hurdles, marketing and processing. Restrictions of movement and labour scarcity may impede farming and food processing. Closures of restaurants, transport bottlenecks can diminish demand for fresh produce, poultry and fisheries products, affecting producers and suppliers. Shortages of fertilizers, veterinary medicines and other inputs could also affect agricultural production. The companies which deal with Agro-chemical depend upon export for finished goods and import of raw materials. There is evidence that despite being considered an essential service, agriculture and food supply chains were impacted in the initial days of the lockdown. However, over the last few days, activities seem to have been recovering to some extent as agriculture markets adapted to the lockdown. Government is trying to ease out the situation until that the factories have to adjust to working with low labour count. A significant goal in the catch of covid-19 for the following not many months the Indian fare is affected due to low purchaser request the fare situated items like fish, mangoes, grapes are smashing this will affect the future harvest accessibility.

iv. MSME

The smaller scale, little and medium endeavours assume a significant job in giving huge scope work and furthermore in the nation's fares. This part contributes 30% to 35% of the GDP, indicating a bifurcation of miniaturized scale (99%), little (0.52%) and medium (0.01%) endeavor. If we see the sectorial distribution of MSMEs, it shows 49% from rural and 51% from the semi-urban and concrete areas. MSME sector would be badly hit by reduced cash flows caused by the nationwide lockdown. Their supply chain would be disrupted, and they would be affected by the exodus of migrant workers, restrictions in the availability of raw materials, by the disruption to exports and imports and also by the widespread travel bans, closure of malls, hotels, theatres and educational institutions etc. This, in turn, would massively hamper the MSME businesses. As a consequence, hundreds of thousands of people who work for these small businesses may end up with job and salary losses.

However, the impact seems to be different across sectors. Export firms endured more than local firms as they utilize progressively transient specialists and their provisions are exceptionally thought. In general the overview shows that Covid-19 has managed an overwhelming blow on the SMEs.

v. Restaurants Services

The National Restaurant Association of India (NRAI), which speaks to 500,000 or more eateries the nation over, has prompted its individuals to close down eat in tasks

beginning Wednesday till March 31, 2020. This will affect tasks of thousands of eat in cafés, bars, bars and bistros. By augmentation, food conveyance stages, for example, Swiggy and Zomato that are without anyone else working - have likewise endured a big hit. Sale of Swiggy and Zomato have dropped 60 percent in the midst of the pandemic.

6.0 STEPS TAKEN BY INDIAN GOVERNMENT

The central government and RBI have announced fiscal and monetary policies respectively in order to ameliorate the economic impact of Covid-19 on economic agents in both the formal and the informal sectors and to help them tide over the crisis.

i. Relief for poor

- The Indian Government, on 27.03.2020, announced a Rs 1.7 lakh crore relief package aimed at providing a safety net for those who have been worse affected by the Covid-19 lockdown i.e. the unorganised sector workers, especially daily wage workers, and urban and rural poor. “Pradhan Mantri Garib Kalyan Yojana” contains the following components:
 - (a) 5 kg wheat or rice per person for 3 months;
 - (b) 1 kg free pulses per household for 3 months;
 - (c) Free LPG for Ujjwala beneficiaries for 3 months;
 - (d) Rs.2000 to 87 million farmers under PM Kisan Yojana in 10 days;
 - (e) Increase in MGNREGA wages to Rs.202 from Rs.182;
 - (f) Rs.500 per month to 200 million female Jan Free additional Dhan account holders for next 3 months;
 - (g) Rs.20 lakh collateral-free loans to women self-help groups;
 - (h) Govt. to contribute EPF to companies with less than 100 workers;
 - (i) Non-refundable advances of 75% or 3 months wages from PF account;
 - (j) States to use Rs.31 crore from construction workers welfare fund;
 - (k) States to utilize region mineral subsidize for clinical activities.
- On 09.04.2020, the Indian Government affirmed a COVID-19 bundle worth Rs 15,000 crore to expand on wellbeing framework till March 2024, to be given to state governments and Union Territories to create COVID-19 medical clinics, acquisition of individual defensive gear, setting up of research facilities, acquirement of basic clinical supplies, prescriptions and consumables, and for fortifying wellbeing frameworks.

ii. Income Tax

Government has likewise declared the augmentation of last date for tax return forms for monetary year 2018-2019 from 31.03.2020 to 30.06.2020.

- Aadhaar-PAN connecting date has likewise been stretched out from 31.03.2020 to 30.06.2020.

iii. GST/Indirect Tax

- Those having total yearly turnover however Rs. 5 Crore can document GSTR-3B due in March, April and should 2020 by the last week of June, 2020, with no intrigue, late fee, and punishment.
- Others can record their profits due in March, April and should 2020 by a week ago of June 2020 yet the equivalent would draw in decreased pace of intrigue @9 % per annum from 15 days after development . Be that as it may, no late fees and penalty will be charged, if the consistence is framed previously 30.06.2020.
- under the GST laws, cut-off time for any consistence development like issue of notice, warning, endorsement request, authorize request, recording of advance, outfitting of return, articulations, applications, reports, different records, where the cutoff time is terminating between 20.03.2020 to 29.06.2020 will be stretched out to 30.06.2020.
- Under Sabka Vishwas Scheme, installment date will be stretched out to 30.06.2020. Further no intrigue will be charged if the installment is framed by 30.06.2020.





iv. Corporate Affairs

- No additional expenses will be charged for late recording during a prohibition period from 01.04.2020 to 30.09.2020, in regard of any archive, return, proclamation and so on., required to be filed within the MCA-21 Registry, regardless of its maturity .
- The compulsory prerequisite of holding gatherings of the Board of the organizations inside endorsed span gave inside the Companies Act, 2013, (120 days) will be reached out till 30.09.2020
- Pertinence of Companies (Auditor's Report) Order, 2020 will has been conceded by a year to monetary year 2020-2021.
- Requirement to make a Deposit save of 20% of stores developing during the monetary year 2020-21 preceding 30.04.2020 will be permitted to be conformed to work 30.06.2020.
- An additional season of 6 additional months has been permitted to recently joined organizations required to record an assertion for Commencement of business inside a half year of joining.
- Non-consistence of least residency in India for a time of at least 182 days by in any event one executive of each organization, under Section 149 of the organizations Act, will not

be treated as an infringement.

v. RBI's policy

On 27 March, 2020 RBI announced variety of major initiatives to combat this crisis. Especially , four bold measures were taken, following an “out of cycle” i.e., unscheduled Monetary Policy Committee (MPC) meeting:

-  The repo/reverse rates were cut by sizeable amounts, to 4.40/4.00% from 5.15/4.90%. The 91-day Treasury bill rate, which measures the de facto stance of monetary policy, dropped to 4.31% from 5.09% on 26 March.
-  Ordinarily, banks can borrow on a short-term basis from the RBI using the repo window. To supplement this facility, a replacement 'targeted long-term repo operations' (T-LTRO) mechanism, with a limit of Rs.1 trillion, was announced. Banks may find this attractive because they are doing not need to mark to plug the investments made with these borrowed funds for subsequent three years. However, there's a condition: the cash that's borrowed here must be deployed in investment-grade corporate bonds, cash equivalent, and non-convertible debentures, over and above the outstanding level of their investments in these bonds as on March 27, 2020.
-  The cash reserve ratio (CRR) was reduced by 1 decimal point , bringing it right down to 3% of deposits(“net demand and time liabilities”). this is often the primary time the CRR has been changed within the last 8 years.
-  Banking regulation requires banks to recognise and supply for a loan when there's a delay in payment. Consistent with the Prudential Framework for Resolution of Stressed Assets, banks are required to classify loan accounts in special mention categories within the event of a default. The account is to be classified as SMA-0, SMA-1 and SMA-2, counting on whether the payment is overdue for 1-30 days, 31-60 days or 61-90 days, respectively. RBI has now altered this guideline, so banks offers a ban of 90 days for term advances and managing capital offices for installments falling due between 1 March, 2020 what's more, 31 May, 2020. On the off chance that a firm applies for and gets a ban, the credit account in thought will in any case be perceived as a normal resource and hence the SMA arrangements won't make a difference. Enthusiasm on the term advances will in any case accumulate during this period .

7.0 SUGGESTIONS

Here are a couple of proposals that the policymakers can consider as they gear up to manage the financial emergency.

- i. The first measure must be to protect the workers in the informal sector, who will be badly affected, and yet have little savings to tide them over the shock. This will not be easy to do, but there are two mechanisms that could be utilised: MNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) and Jan Dhan accounts.
- ii. For organised sector as discussed above, the objective should be to make the banks somewhat less risk averse in their overall lending, while preserving their authority to distinguish between viable and non-viable firms.
- iii. To increase liquidity and increase consumer confidence, the Government of India should provide a pay roll tax holiday for a quarter to help support demand in these stressful times.
- iv. MSMEs should be provided concessional working capital loan, equivalent to one to three month's (based upon the extent of disruption) average turnover of last year. To support them, when the supply chains have been impacted globally, MSMEs should also be provided concessional finance at a rate of 5% for three months through SIDBI. The interest payment for such financing can be adjusted over the next three years as part of GST.
- v. CSR spending by corporate organisations should be directed towards a response fund dedicated for the management of the pandemic.
- vi. A disaster management framework focused on managing disease outbreak will become essential in the large and densely populated country.

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CHAPTER 11

IMPACT OF COVID -19 ON THE MSME SECTOR

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ABSTRACT

The corona virus crisis has spelt crisis across the world as several countries now focussing on curbing the rapid spread of the virus while dealing with the economic ramifications. The MSME sector that forms the backbone of the Indian economy was hit due to the covid-19 pandemic. On the home grounds, the COVID-19 pandemic has battered all sectors of the economy, with the micro, small and medium enterprises (MSMEs) among the worst-hit. According to survey MSME would shut shop if panic extends beyond eight considering the stoppage of economic activity over the past few weeks, it is unfathomable that a vast number of MSMEs will be choked, perhaps to the point of permanent closure. A framework for the revival of the MSMEs has also be part of the study. The research paper analysis the situation of MSME sector .The author has explore the impact of corona crisis on MSME sector also discussed the Govt strategies for MSME sector.

Keywords: Covid -19. Micro Small and medium enterprises and Coping strategies

1.0 INTRODUCTION

Micro Small and medium enterprises (MSME) have made much invaluable contribution for the economy of the country. It has very vital role in economic development

and the industrial growth of the nation. Our economy is transformed from aggerian(agriculture) economy to industrial economy only because of MSME sector. MSME enterprices play very wider role to create employment, investing in infrasttucture ,innovating skills development ,developing backword areas and making the economy self suffiecient.

In india MSME sector basically divided in two categories(1) manufacturing and (2) rendering /providing of services.This is further classify into MSME Micro,Small and medium enterprising.This is based on the investment and their turnover .

Table 1: Classification of MSME

Classification	Investment	Turnover
Micro	Up to Rs . 1 crore	Up to Rs .5 crore
Small	Up to Rs . 10 crore	Up to Rs .50 crore
Medium	Up to Rs . 20 crore	Up to Rs .100 crore

Source: Ministry of Micro small Medium Enterprise

Source-Economic Relief package, Atmanirbhar Bharath Abhiyan In the earliest classification of MSMEs, there is a distinction between manufacturing and service sector units and different threshold limit has been applied for the enterprises in the manufacturing and service sector.

Table 2: Classification of MSME (Privious criteria)

Classification	Manufacturing	Services
Micro	Up to Rs.25 lakh	Up to Rs.10lakh
Small	Above Rs.25 lakh& up to Rs.5 crore	Above Rs.10 lakh & up to Rs.2 crore
Medium	Above Rs.5 crore & up to Rs.10 crore	Above Rs.2 crore & up to Rs.5 crore

Source: Ministry of Micro small Medium Enterprise

In the recent years, the MSME sector has consistently reported higher growth rate in comparison to the overall industrial sector in India. MSME Sector registered a growth rate of 13% on an average, an impressive performance compared to most of the other sectors during the first 4 years of XI Plan.Virus is very threat serious threat to the global economy as well,

which is already in a bad stage. The Indian economy most effected economy by the covid-19 pandemic.

COVID-19 has affected communities, businesses and organisations globally, inadvertently affecting the financial markets and the global economy. Uncoordinated governmental responses and lockdowns have led to a disruption in the supply chain. In China, lockdown restrictions significantly reduced the production of goods from factories, while quarantine and self-isolation policies decreased consumption, demand and utilisation of products and services (C.-W. Yap). The present study makes an attempt to identify the problems existing in the way of infusing relief measures to the MSME sector and also evaluates the relief measures for MSMEs announced by the finance minister as part of the Atma Nirbhar Bharath Abhiyan. The study evaluates the mechanisms available for making available the relief measures. The study also proposes a framework for the revival of various stakeholders in the MSME sector.

2.0 LITERATURE REVIEW

MSME is generally recognised as the backbone of the Indian economy and it is also one of the most crucial sectors that let the economy to grow and develop. The report published by “The Hindu” stated that as per the study commissioned by All India Manufacturers Organisation, at present India is home to over 75 million MSMEs and around 25 per cent of these firms will face closure, if the lockdown imposed due to the COVID-19 goes beyond four weeks while a whopping 43 per cent will shut shop if panic extends beyond eight weeks. Unfortunately the lockdown period is continuing which will lead the situation to become more worsen than ever before. The Hindu” reported that as per the recent survey of 5000 MSMEs conducted by the All India Manufacturers” Organisation, it was found that 71% of them could not pay salaries to their employees in the month of March. In this pandemic is estimated to be around Rs 380 lakh and the chemical sector is likely to have a big hit of Rs 12 crore 90 lakh.

3.0 OBJECTIVES

- i. To explore the concept of MSME
- ii. To descriptive study about the impact of covid-19 on MSME sector
- iii. To give Measures for MSME Sector

4.0 IMPACT ON MSME SECTOR (ACCORDING TO THE INDIA REPORT JUNE 2020)

- i. Income for businesses has reduced substantially due to a fall in demand. The reduction in customer footfall was uniform across enterprises owned by men and

women. 39% of enterprises was not able to restock as per the demand largely due to a reduction in supply. Restocking is a bigger issue in rural areas where 85% of enterprises have not been able to restock. Enterprises that reported a decrease in volume of supply

- ii. Disturbed supply chain has further affected income-37% of enterprises reported an increase in transportation costs by a median of 20%. While urban enterprises reported a median 20% increase in transportation costs, semi-urban and rural enterprises reported a 10% and 18% increase respectively. In rural areas, 63% of enterprises had to go and pick supplies themselves. This is one of the contributors to increased transportation cost. Moreover, about 75% of the women-owned enterprises mentioned that they now have to go and pick up all the supplies themselves
- iii. MSMEs have reduced, panic buying or bulk buying from customers has mitigated the impact for some enterprises-The drop in income was relatively more common for female owned enterprises. 82% of enterprises owned by women reported a decline in income compared to 72% of enterprises owned by men. However, bulk buying has resulted in higher sales per customer: a median 40% increase for urban enterprises, 20% for semi-urban enterprises, and 15% for rural enterprises. However, customer footfall has decreased for all enterprises in rural, semi-urban and urban areas.
- iv. A decline in the availability of supplier credit alongside pending receivables and an increase in the cost of supplies has hurt cash-flows
- v. Adverse cash-flows along with increased household expenses have forced enterprises to dig into their savings

5.0 HOW MSMEs CAN SURVIVE DURING POST –PANDEMIC

The business environment during post pandemic will be totally different from today's business environment specially MSMEs. The following changes we can expect in field of MSMEs sector.

- i. Digital practice: India has 63 million MSMEs but only 32% of them are digitally engaged and 68% are too far to adopt digital practices. The untapped portion of MSMEs must change their strategy and digitize their business processes to survive in long run. To adopt digital practice is really difficult for some MSMEs but without adopting digital practice it will be very difficult to survive during post epidemic as people will continue to avoid meeting and social gathering.
- ii. High credit support and available of working capital.
- iii. Adopting more sustainability practice which leads to environment conscious.

- iv. MSMEs should given more emphasis on innovation. Of course innovation in MSMEs business is amazed but innovation will be indispensable for MSMEs after this epidemic, other they cannot exist.
- v. Cross train staff practice will be helpful to some extent in the business premises, so that they will be able to perform variety of roles in business.
- vi. Giving more emphasis on working capital management. Quick collection from receivable will be helpful to meet wage and salary expenses.

6.0 RELIEF MEASURE TAKEN BY GOVERNMENT OF INDIA (GOI) FOR MSMEs

Government of India announces 20 lakh crore economic packages on 12.05.2020. It is around 10% of country GDP which will help India to become Self Reliant and boost Make in India initiative. It's time to "Be Vocal for the Local". There will be five pillars of Self Reliant India.

- i. **Economy:** An economy that will bring quantum jump rather than incremental changes.
- ii. **Infrastructure:** that will become modern India's identity.
- iii. **System:** A system that will be based on technology driven which can help us to realize 21st century.
- iv. **Demography:** our vibrant demography will be our strength.
- v. **Demand:** the cycle of demand and supply which require each stakeholders of the supply chain to be active.

Indian MSMEs will play a significant to become Self Reliant India. To become "from local to global" of MSMEs are major emphasis of India. Indian MSMEs will be badly affected by Covid-19 pandemic. It plays vital role in employment generation in India. To strong the foundation of Indian MSMEs and to achieve the dream of Self Reliant India, Government of India has taken different type of measures-

i. Equity infusion through Fund of Fund

Accessing of finance is always being a big hurdle for MSME. To overcome this problem Rs 50000 crore equity infusion for MSME has been arranged through fund of fund. Fund of Fund with corpus of Rs 10000 crores will be set up. It will help to expand MSME size as well as capacity and will encourage MSMEs to get listed on main board of stock exchange.

ii. Reduction in EPF contribution

To enhance production over the next quarter, statutory PF contribution of both employer and employee has been reduced to 10% each from existing 12% for next three months. This scheme will be applicable for workers who are not eligible for 24% EPF support under PM Garib Kalyan Package. This will provide liquidity of 6750 crore to employers and employee over 3 months.

iii. Collateral-free automatic Loans

The government has announced 3 lakh crores collateral-free loans to meet operational liability and buy raw material and restart business till 31st October 2020. 45 lakh units will resume business activity and safeguard jobs. MSMEs whose outstanding up to Rs 25 crore and turnover 100 crore are eligible to avail such benefit.

iv. Global tenders to be disallowed upto 200 crore

To overcome unfair competition from foreign companies. This will be great move towards Self-Reliant India and support Make in India

v. Liquidity through TDS/TCS rate reduction

In order to provide more funds at the disposal of the taxpayers, the rates of Tax Deduction at Source (TDS) for non-salaried specified payments made to residents and rates of Tax Collection at Source (TCS) for the specified receipts shall be reduced by 25% of the existing rates. This will release liquidity of Rs 50000 crore.

vi. 2500 crore EPF support for business & workers for 3 more month

Under Pradhan Mantri Garib Kalyan Package (PMGKP), payment of 12% of employer and 12% employee contributions was made into EPF accounts earlier for salary months of March, April and May 2020. This support will be extended by another 3 months to salary months of June, July and August 2020

vii. Direct tax measure

All pending refunds to charitable trusts and noncorporate businesses & professions including proprietorship, partnership, LLP and Co-operatives shall be issued immediately. • Due date of all income-tax return for FY 2019-20 will be extended from 31st July, 2020 & 31st October, 2020 to 30th November, 2020 and Tax audit from 30th September, 2020 to 31st October, 2020.

The Covid-19 lockdown may cost the Indian economy INR 8.76 lakh crore. Former RBI governor Raghuram Ragan says that recovery will vary from industry to industry, it can be a U shaped (slowcomeback) or V shaped (Sharpe rapid growth). Recovery curve will depend on how organization reforms their work practice and the change in consumption

pattern of consumer after lockdown period. India management of Covid-19 outbreak is being observe closely and appreciated by WHO, UN, IMF, ADB and also the advanced economies like the US, UK, Italy, Germany, Spain and Japan.

7.0 CONCLUSION

If India did not take quick decision, then impact of the pandemic is being more and more dangerous and visualization of its impact will be really shocking in coming future. Every sector is being affected due to the pandemic. But whether India will tolerate the consequence of the Covid-19 pandemic in near future. How much it will take time to come back in the track of growth is unanswered. India has already suffered from unemployment and this will be further extended. From every incident of life we learn something new it may be positive or negative or both. This positive thing is that, from this pandemic India can analyze its potential. India is too much dependent on other countries for importing goods, how India has tackled this situation by home sourcing arrangement instead of import from other country.

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CHAPTER 12

THE COVID-19 SHOCKS ON INDIAN MSME SECTOR: A POST PANDEMIC ANALYSIS

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ABSTRACT

The COVID-19 Pandemic has caught over the world as a few nations now focussing on controlling the fast spread of the infection while managing the financial repercussions. With governments around the globe forcing lockdown and social distancing turning into the new standard, the post-pandemic world will wake up to another exchanging society. Considered as the development vehicle of the country, the MSME area represents 33.4% of India's manufacturing output, utilizing around 120 million and creating 45% of India's export. The Covid-19 pandemic has left its effect on all divisions of the economy yet no place is the harmed as much as the Medium, Small and Micro Enterprises (MSMEs) of India. All narrative proof accessible, for example, a huge number of abandoned traveller labourers the nation over, proposes that MSMEs have been the most exceedingly awful setback of Covid-19 actuated lockdown. This chapter specifically thrusts upon the situation of MSME sectors in the post pandemic period. Its survival strategy and growth story after the biggest structural hit to this sector.

Keywords: COVID-19, MSMEs, Manufacturing, structural hit, COVID-19 shocks

1.0 INTRODUCTION

The new definition of MSMEs are, a unit with up to ₹1 crore investment and ₹5 crore turnover will qualify as a micro unit, investment up to ₹10 crore and turnover up to ₹50 crore will qualify as a small unit, and investment up to ₹20 crore and turnover up to ₹100 crore will qualify as a medium enterprise. Micro, Small and Medium Enterprises (MSME) area have made numerous important commitments to the monetary improvement of the nation and laid a solid structure for the mechanical development of the country. An economy to get changed from a simply agrarian economy to a significant industrialized economy can't be conceivable

without giving appropriate accentuation and importance to undertakings in the MSME part. Undertakings in the small scale little medium part are integral to enormous scope businesses as auxiliary units and this segment contributes gigantically to the financial improvement of the nation. As transformers of economy the commitments from MSMEs are tremendous; they had and still have a significant job in the zones of interest in framework, creating more work, creating inventive abilities and competency, guaranteeing adjusted provincial improvement, growing in reverse regions, making economy independent through import replacement and making conceivable the improvement of the country.

2.0 MSMEs DURING THE COVID PERIOD

The COVID-19 pandemic has unleashed destruction on the economy. Finding a way to ensure our businesses and trade is a prompt and basic need of great importance. To this end, the administration as of late declared its expectation to spend right around 10 percent of India's (GDP) in the monetary year 2020 on financial alleviation measures towards resuscitating monetary development. The Finance Ministry's notice in May, correcting the General Finance Rules (GFR) 2017, forbids worldwide tenders to urge MSMEs to partake in tenders beneath INR 200 crores, yet has offered capacity to separate divisions in 'excellent case' situations to think about worldwide delicate enquiry (GTE). Following are some of the impacts of COVID-19 on MSME sector; **Declining Revenues:** MSMEs are as of now battling — regarding declining incomes and limit usage — in the number one spot up to the Covid-19 emergency. **Inaccessibility of Cash:** The absolute lockdown has raised an issue of the presence of MSMEs essentially because of inaccessibility of money which in this way will bring about the activity misfortunes. **Absence of Labour Availability:** The arrival of transient workers will make an issue of absence of work accessibility. **Credit Against Collateral:** Loans to MSMEs are generally given against property (as security) however in the midst of emergency, property estimations fall and that restrains the expansion of new advances.

3.0 STEPS UNDERTAKEN TO REVIVE MSMEs

i. Credit and finance for MSMEs

Out of the 15 alleviation estimates reported by the Finance Minister Nirmal Sitharaman under the super Rs 20 lakh crore upgrade bundle for the Covid-battered economy, six planned for resurrecting lockdown-hit India's tremendous MSME area. MSMEs across segments and ventures have been clamoring for a budgetary bundle from the administration since the time the lockdown came into power on March 25. Sitharaman sharing the subtleties of the humongous Covid-19 money related bundle – around 10 percent of the Indian GDP –

reported measures to support liquidity in MSMEs, assist them with taking advantage of the administration plans, empower them to rival unfamiliar organizations, and fortify their system.

ii. Rs 3 lakh crores collateral-free loans

Banks and NBFCs will present to 20 percent of whole remarkable credit as on February 29, 2020, to MSMEs. Units with upto Rs 25 crore remarkable credit and Rs 100 crore turnover are qualified for taking these advances that will have four-year tenor with a ban of a year on head installment. The plan can be benefited till October 31, 2020. The administration will give total credit ensure spread to banks on head and premium sum.

iii. Rs 20,000 crores subordinate debt

MSMEs announced NPAs or those pushed will be qualified for value uphold as the administration will encourage the arrangement of Rs 20,000 crore as subordinate obligation. The legislature will likewise give Rs 4,000 crore to CGTMSE that will offer incomplete credit ensure backing to banks for loaning to MSMEs.

iv. Rs 50,000 crores equity infusion

The legislature will implant Rs 50,000 in value in MSMEs through a Fund of Funds that will be worked through a Mother support and a couple of little girl subsidize. The Fund of Funds will be set-up with a corpus of Rs 10,000 crore to give value based financing to MSMEs having development potential and feasibility. It will likewise encourage MSMEs to list on stock trades.

v. Global tenders disallowed

Tending to MSMEs' issue of unreasonable rivalry from unfamiliar organizations in government acquirement tenders because of the size and quality contrast, the administration said it won't permit worldwide tenders in such plans upto Rs 200 crore. "Important revisions of General Financial Rules will be affected," as per the administration record enumerating the 15 alleviation plans. "Through the as of late changed measures, the administration has imparted a great deal of confidence in India's spine – the MSME biological system. Especially the security free advances, and the push towards the administration obtainment offering will assist organizations with enjoying us, further enhance and address the up and coming needs of our nation," said Gautam Chopra, CEO, BeatO.

4.0 ROAD AHEAD

The RBI has been attempting to siphon cash into the MSME part however given the auxiliary requirements, it has had restricted effect. Hetal Gandhi, Director, CRISIL, accepts that there are no simple answers. The administration can give charge help (GST and

corporate duty), give swifter discounts, and give liquidity to rustic India (state, through PM-Kisan) to support interest for MSME items, she said.

i. Financial boost

As monetary help is considered as the most significant activity, the government had just declared the security free credits to the endeavor in the MSME area. However, the main problem is in appropriate requirement of the Government orders and guaranteeing that the advantages reach to even small scale enterprises and furthermore to each member in the MSME area.

ii. Reconsider marketable strategy

Based on the monetary appraisal, dangers, and recovery technique, it is critical to rethink the field-tested strategy structure the pre-COVID times. Surveying the current circumstance, one needs to reclassify business objectives and plan a more practical, and balanced development plan that can be quickly executed.

iii. Make a solid digital ecosystem

If one thing that the COVID-19 has shown organizations, it is the intensity of advanced commitment! Indeed, even as a SME or and MSMSE, it assists with being available and dynamic on the computerized media, through the site, online journals, and web-based media

iv. Receive the fourth revolution for business

Apart from being available and open on the advanced stage, this is likewise an opportunity to use the new age innovation developments and embrace the fourth Revolution for your business. While most SME's and MSME's glance at this as an 'out of group' venture, it is in reality extremely basic and can be joined for a higher ROI over the long haul.

v. Put an emergency the executives system in place

Taking exercises from the ongoing emergency, it is essential to chalk up a successful emergency the board plan that will think about both prompt and long haul sway.

5.0 CONCLUSION

The probable tax breaks which might be essential will support just bigger organizations, however such estimates will prohibit the members in the casual area where work and turnover won't meet least limits needed to cover personal duty or to be enlisted under the GST. The alleviation proportions of the legislature should be focus on the casual specialists and little microenterprises with 5-10 labourers; with the end goal that it contacts them, so as to spare their lives and employments. It is very apparent that the MSMEs had a long and extreme street ahead yet opportune and meaningful arrangement intercessions and

activities that address the main driver of the emergency and vulnerability is the need of great importance. It is very much imperative to cite that Covid-19 is an emergency with an unforeseeable consummation; the administration furthermore, organizations undertakings in each part need to cooperate and furthermore need to help one another for the expedient recuperation of the undertakings just as the economies.

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CHAPTER 13

BATTERED OF COVID-19 BRUISED ON JOURNALIST AND MEDIA SPECTRUM

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ABSTRACT

An attempt has been made in the present study, to assess the social impact of COVID-19 on journalists and their profession during the post lockdown. The study reveals that the global pandemic has been claiming thousands of lives daily across the world and reported a heavy death and destruction across the world. The effect of COVID-19 is being framed as an extinction event for the media industry. It is severely causing various news outlets to collapse around the world. Tens of thousand journalists under a dark shade and lost their jobs and poses the challenges for their livelihood throughout the world and particularly in India, it is difficult for journalists to reshape and rebuilt their profession right now. The government of India and state government were announced various welfare schemes for the benefit of economically weaker sections. The journalists are worked as front line warriors to helping citizens to found government promises and packages to reach timely. Many dedicated journalists lost their jobs due to this battered hit of COVID-19. Many employees lost their jobs, many have sent furlough and half of the journo's facing a steep salary cut. This study highlights the present condition of media, journalists, and various packages announcements from govt. of India for community intervention to deal with COVID-19 pandemic.

Keywords: COVID-19, Pandemic, Coronavirus, Journalism, Media,

1.0 INTRODUCTION

The whole world is witnessing the COVID-19 outbreak which has created widespread concern and economic hardship all over the world. Every part of the business and

communities across the globe are facing the crisis. Operations, supply chain, trade, brands, industry, Education sector, entertainment industries and business have intended to reduce the workforce at the considerable rate. Schools, colleges, universities, education institutions extended their closure. Travel restriction slowly lifting of a global health emergency. While OTT and online gaming are soaring during the COVID-19 pandemic, out-of-home entertainment suffers due to social distancing. Typically, operational effectiveness has come down for coronavirus aggravating. Travel, Tourism, and entertainment sector record a decline this year almost -25% (WINP data). In a recent keynote UN secretary Antonio Guterres (UN press coverage-2020) mentioned that 'No one can take the place of the media during this pandemic in providing the public information and analysis and in countering rumors and distortion'. This coronavirus has delivered some of the most valuable journalism with many journalists around the world risking they lived to bring daily frontline of corona attack. Stories can make a difference and help govt. to act.

1.1 Impact on media

The Media industry has been facing unprecedented challenges from the widespread of COVID-19. Rapid changes in consumer behavior and consumer lifestyle, consumption, stoppage in content production, cancellation of events and sports, cinema shooting, and cuts in advertisement spend, are impacting media organizations and related companies across the ecosystem. Media agencies, many of which were grappling with operational volatility. They are struggling to maintain media spend as marketers manage risks and reduce spend rapidly. Publishers and media companies are partially benefitting from some marketers seeing the opportunity but face advertising revenue losses. Electronic media and Film producers are under pressure to mitigate the impact of shutting down in serial shootings, delayed-release schedules, theatre closures, and production stoppages.

1.2 Impact at global level.

Australia's News Corp shut down several titles, Victoria, New South Wales, Queensland, South Australia, etc. It has been officially announced by News Corp executive chairmen Michael Miller (2020). In America, more than 2,100 cities and towns have lost a paper in the past 15 years, mostly weeklies, and newsroom employment has shrunk by half since 2004. Webster-Kirkwood Times, South County Times and West End World were stop publishing. Austria, Latin America, Italy, United Kingdom, Germany, Europe, Nordics, China, Poland, Turkey, Argentina, Chile, Canada, Brazil Mexico, Africa, Sweden also shut down or suspended newspaper printing by citing poor business viability.

2.0 OBJECTIVES OF THE STUDY

The pandemic has rapidly accelerated trends already evident worldwide: the migration and disappearance of advertising; the shrinkage and disappearance of print; the erosion of investigative reporting capability; and the collapse of local news etc. Two objectives have been set for the present paper.

- I. To study how is coronavirus affecting the viability of the media industry and media employee's job security.
- II. To study the new journalism/reporting safety challenges associated with coronavirus

3.0 METHODOLOGY FOLLOWED

Secondary sources have been used to understand the outbreak of coronavirus in various countries around the world. Information disseminated from various news websites, blogs, and official websites, textbook references have been used as references for the present study.

4.0 ORIGIN OF COVID-19 IN INDIA

The COVID-19 was entered in India from Kerala through the 3 students who returned from Wuhan, China. Up to 09 April 2020, more than a hundred confirmed cases of COVID-19 were identified from various parts of India; the majority of them have travel history to affected regions. Meanwhile, the first death was reported on 12 March 2020. The first victim was a 76-year-old man from Karnataka, who had returned from Saudi Arabia. COVID-19 accelerates its speed of infections like anything, 1000 on 28 March, and 1834 with death toll crossed 41 on 1 April 2020. With a huge spike in daily cases, on the 8th of August, the total number of active cases is more than 20lakh and the death toll increased by nearly 41,600. Maharashtra is a worst-hit state from infectious disease COVID-19.

5.0 ADVERSE EFFECT ON ADVERTISEMENT

Advertising revenues are highly correlated with the performance of the economy of every media organization. As the world has become more globalized, countries' macroeconomic performances have gradually grown more connected with this. This has made the world better and more prosperous but has also increased its volatility and inherent risks. Advertising always accounts for a large share of the media industry's revenue.

All economic rotation programs like political events, bullion market, real estate sector came to standstill. Many newspapers and TV channels, Magazines have faced financial problems. Coronavirus has forced all of us to rethink the pandemic has led to an immediate drop in advertising spending throughout the world. (First quarter data from Publicis) indicates that

year-on-year revenue in India was down 11% China 15%. Countries in Europe saw an average reduction of 9%; Germany and France fell 7% and 12% respectively.

5.1 Decline in newspaper circulation

The country's fourth estate is staring at imminent danger. Several newspapers across the country are gasping for breath. Shrinking readership and ad revenues, rising costs, waning credibility, and an onslaught of digital and social media has taken a huge toll on their financial health.

The country's most widely circulated newspaper, Dainik Jagran, had an average issue readership of 1.75 crores in the third quarter of 2019, a drop of 3.6 percent from the second quarter and 13.6 percent from the first.

According to the IRS data, Hindustan newspaper's average issue readership fell 21% over the first two quarters of last year to 1.46 crore, Amar Ujala's dropped by 4.8% in the same period, Malayala Manorama's by 8%, Rajasthan Patrika's by 10 10%, and Eenadu's 21 percent. In Delhi, the Times of India and the Hindustan Times each reported a three percent drop in their readership numbers to 10.76 lakh and 9.28 lakh, respectively. It will be critical for the existing print players to reinvent and take steps to have a 360-degree presence in the news space. It means a strong digital-first entity, doing events and engagements, and being active on the television, Over The Top and radio spaces not necessarily as a standalone entity but with content tie-ups and news-based shows must come to the main frame to regain readers.

6.0 IMPACT ON EMPLOYMENT

Mainstream media and edit pages are silent on the crisis confronting journalists. Journalist bodies, press clubs and press council of India, editors guild did not rising voices. Journalist silently signed on papers and moving with a pink slip. Yes, it all happening with the fourth estate industry. Journalists started falling like ninepins. They are no longer invincible. The pandemic situation prevailing media market almost 55-60% of all newspapers, TV channels, magazines, and also portals. The majority of job cuts happened in print media. Banerji Ranjona (2020)

Times of India laid off 18 people from Bangalore bureau. Hindustan Times sacked 130 employees, Times of India terminated 3 from Sunday magazine team, Andhra Pradesh, Visakhapatnam, Vijayawada and Hyderabad bureaus asked employees to resign. Marathi paper Sakala Times sacked 15 employees including designers. Economic Times, ET Wealth asked 4 journos, Vikatan publishers laid off 118 employees, Darshana TV Malayalam news channel sacked 40 employees, The Printers Mysore Pvt Ltd regional newspaper Prajavani

terminated 24 senior employees, Vijaya Karnataka and Vijayavani Kannada newspapers sent 38 and 26 journoes respectively. The Quint team has asked 45 employees to go on leave without salary. Fortune India editorial staff have been sent 3 months' leave without pay.

6.1 Economic impact on journalists

Bloomberg quint emailed their staff pay cut from April, it has the plan to resume normal salary cycle from August. Indian Express, Times of India NDTV, Hindustan Times said that 5 percent of the salary earned by those whose CTC is Rs 6-10 lakh would be variable. For those earning between Rs 10 lakh and Rs 20 lakh, 10per cent will be variable, and for people earning above Rs 20 lakh, 15per cent will be variable. This will not affect those earning below Rs 6 lakh. The Hindu announced pay cuts for those earning above Rs 6 lakh per annum. Those earning between Rs 6 lakh and Rs 10 lakh per annum would see a pay cut of 8 percent; those earning between Rs 10 lakh and Rs 15 lakh would see a cut of 12 percent; Rs 15 lakh to Rs 25 lakh is 16 percent; Rs 25 lakh to Rs 35 lakh is 20 percent; and those earning above Rs 35 lakh would see a cut of 25 percent. From April 1st, 2020. Rajasthan Patrika cut salaries drastically. Lokmat Marathi has cut salaries. TV 18 has announced a salary of 10 percent those who earning 8 lakhs. The Tribune slab-wise salary cuts from April 2020 to March 2021. Dainik Bhaskar group introduced various components restructured pay which would affect around 12 percent of their employees. As like print media, the electronic media has also suffered financially. NDTV has slashed the salaries of all employees with a monthly salary of Rs 50,000 by 10 to 40 percent. Malayalam channel JaiHind TV also announced steep pay cuts. Those earning options 10,000 gross salary would see pay cuts of 30per cent; 35per cent for those earning between Rs 10,000 and Rs 15,000; and 40per cent for those earning between Rs 15,000 and Rs 30,000. Those earning above Rs 30,000 would see a 50per cent pay cut.

6.2 Salary deferred

Indian Express delayed payment of the April salaries, IANS gave 70 percent of their wages on 5th April. Stated delay in payment by subscribers. Likewise, many media organizations kept journalists under retrenchment.

7.0 CLOSURE OF MEDIA HOUSES

Pune based English daily Sakal Times announced the last day of circulation and the Gomantak Times of Goa announced the closure of its operation from June. Times of India announces closure of Two out of Four edition of its Kerala bureau. Bloomberg Quint has announced the shutdown of its TV division, Star of Mysore and Forbes Indiasuspended print operations. The Telegraph has announced the closing of Northeast edition from June 1. The

India Today group has announced the discontinuance of the operation of the Delhi Aaj Tak Hindi channel. Outlook magazine suspended its print publication until COVID-19 pandemic ends. Hamara Mahanagar Hindi newspaper shut down its operations.

Sakala Times in 2017-18 announced a gross profit of 36.3 crores, The India Express disclosed 2019 profit was 19.2 crores, Quintillion media reported 11.1 crore revenue, Bennett Coleman and company (TOI) net profit in 2017-18 was 681 crores. Though there was a manageable source available in media organizations, they are ensuring panic to journalists by closure and shutdowns of operations.

8.0 SAFETY GUIDELINES FOR JOURNALISTS REPORTING ON COVID-19

According to UNICEF journalists and media, persons are needed to travel to different places to gather news. In this regard, they have set safety guidelines. Regular hand washing, distant recording, avoid lapel mics, handheld shots, clean microphones, should remove clothes after on return from reporting, avoid public transportation to the maximum, wearing a mask, eat well-boiled food, use almost new media to gather news, sanitizer usage, maintaining hygiene conditions. After such guidelines, many journalists severely get affected by a coronavirus. Along with this bad hit immediate and medium-term social and economic consequences like job losses, pay cut, closure of media houses impacted media men.

9.0 GOVERNMENT OF INDIA PACKAGES

Despite journalists facing a major problem, during nationwide lockdown govt. of India insisted civilians stay safe at home. In this situation govt. curtailed public transportation. In this period of unorganised sector workers, migrant workers have been hit worst due to no wages. They face difficult to survive, at most govt. of India extensively announced and helped with urgent measures. The mega Rs 20 lakh crore stimulus package, Food security, Health care for women, Reduction of social inequality, Water and sanitation, Reduction of economic inequality, Human rights-oriented protocols, Educating people and community, Ensuring personal protective equipment (PPE). India is the only large country to have instituted a nationwide lockdown to slow the local spread of the coronavirus earlier. Govt. has fought against coronavirus, safety, security, and welfare of citizens as well as frontline workers with a huge package to save mankind.

10.0 CONCLUSION

International organizations, and indeed Governments, have an important role in promoting facts and scientific approaches. But no one can take the place of the media during this pandemic in providing the public with information and analysis, and in countering rumors and distortions. Four key elements for reporting on COVID-19, every journalist must

look afteron:1. Focus in-depth on a specific response to a social problem related to coronavirus, 2. Explore how the response is implemented and how it works as news, 3. Examine the evidence, both qualitative and quantitative, of what is known so far about the effectiveness of the responses given by respondents, 4. Explain the caveats and limitations of the response.

Digital media has positioned itself as the new bulwark of journalism in a dying media landscape. Everything else in present-day journalism in India, there is no answer. The absence of a proven revenue model in the digital space has prevented the Indian media from bouncing back. Global experts are sure that Indian media can be successful only if Google and Facebook, Microsoft pay a fair share of their revenue with news publishers the way it happened in Australia and a few western countries. There is no guarantee of this conclusion may happen in India. Governments and leaders of all kinds to do everything in their power to protect journalists and media workers and to strengthen press freedom, throughout the COVID-19 pandemic and beyond.

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CHAPTER 14

COVID – 19 SURVEY OF WARD, TOWN MUNICIPAL CORPORATION BAGEPALLI TALUK – KARNATAKA

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ABSTRACT

With increasing Covid 19 virus cases especially in cities, Government of Karnataka, Ministry of Urban department, under Covid Disaster Management Act, has taken initiative to set up WLTF i.e Ward Level Task Force Committee to create awareness and control the spread of virus in the ward and booth level of a particular ward. In this committee around 6 to 8 members were assigned the task and which is headed by Nodal Officer, as a nodal officer myself and team surveyed the allotted 23rd ward regarding covid - 19 symptoms and covid related matters were reported to concerned officer for necessary action. In this chapter effort has been made to share the responses from the ward people about covid - 19 crises.

Key words: 1) WLTF – Ward Level Task Force 2) TMC – Town Municipal Corporation 3) RT-PCR – Real Time Reverse Transcription Polymerase Chain Reaction Test 4) ILI – Influenza Like Illness 5) SARI – Severe Acute Respiratory Infections 6) SHG – Self Help Group 7) PHCs- Primary Health Centres 8) CCC – Covid Care Centre

1.0 INTRODUCTION

By establishing WLTF in TMC at ward and booth level efforts has been taken to counter the virus. As virus spreading mass to cut the chain link of virus, various measures has been initiated and awareness programme conducted such as use sanitizers, face mask, social distancing, ensuring seal down of containment zone, putting posters in front of home quarantine people, updating home quarantine watch app of government, ensuring that patient, primary and secondary contact people are not out of the home for period of 14 days, assisting RT-PCR test at ward, ensuring that posters and banners should be posted in front of shops,

ensuring disinfection has done through sanitization of containment zone as well as street, ensuring that round circle should be drawn in paint at every 3feet to maintain social distance, encouraging to have thermal scanning machine at shops for checking the temperature of people who comes for shopping and mainly creating whats app group in the ward so that people can response quickly in group regarding covid 19 cases at ward level and same can be reported to concerned authorities and immediate action can be initiated since the health officers and other concerned officers are in the group.

2.0 OBJECTIVES OF THE STUDY

- i. To make ward survey to know the number of houses, number of families, number of vulnerable groups, number of shops etc in the ward
- ii. To create whats app group of each houses and shops in the ward
- iii. To create awareness programme in the ward about covid – 19 virus
- iv. To undertake special programme in association with local bodies, self help group, counselors and volunteers to eradicate community spreading of virus
- v. To identify positive cases, primary and secondary contacts
- vi. To ensure that home isolated cases are sealed and declared as containment zone and disinfection has been done through sanitization
- vii. To identify Asymptomatic patients, ILI and SARI patients and reported the same
- viii. To collect information about PHCs, and CCC
- ix. To give information regarding stress management and measures to take for increasing immunity power
- x. To give moral strength to the members of family of the positive case holder

3.0 SCOPE OF THE STUDY

The scope of the study is confined to only 23rd ward of Bagepalli town, Bagepalli taluk, Chickkaballapura district, Karnataka.

3.1 RESEARCH METHODOLOGY

Field survey method has been adopted for the survey and collected the data from the respondents. A total 348 houses and 42 shops were surveyed and a total population of 1366 has been responded for different question posed to them relating to Covid – 19. The details of questions and responses of the respondents are analyzed in following discussions.

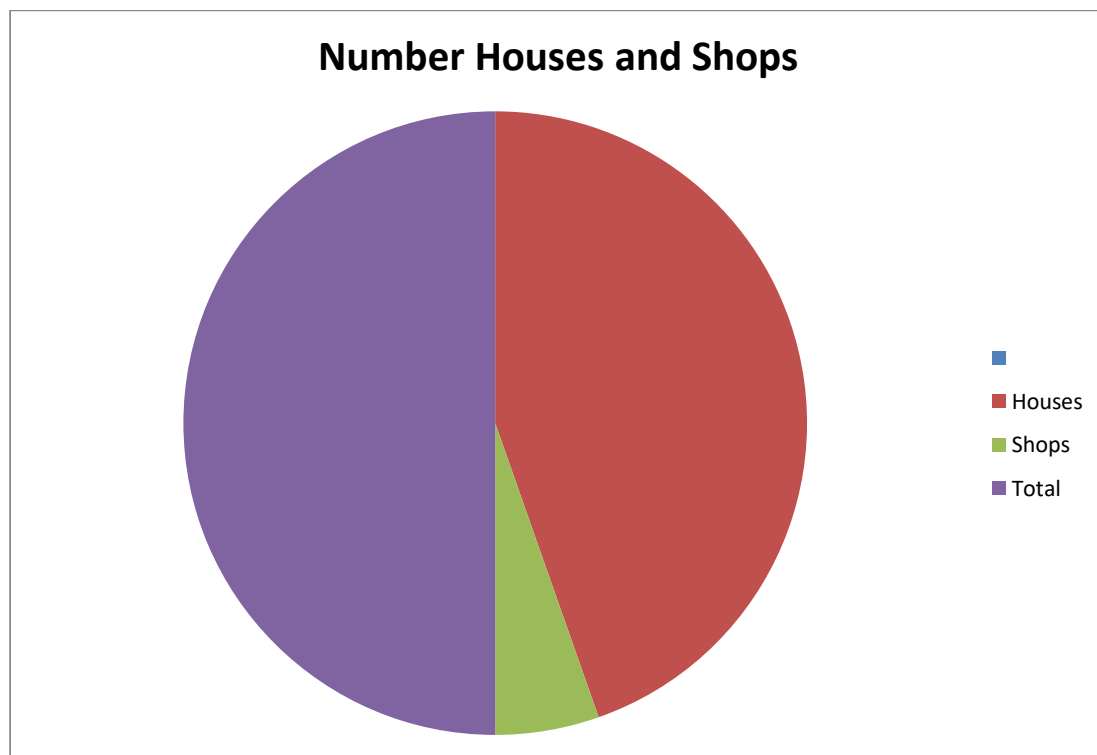
4.0 ANALYSIS AND INTERPRETATION OF DATA

The data collected from the respondents were presented in a graphs, charts & pictures and necessary interpretation is given for the collected data.

1. Total number (Houses and Shops) surveyed:

Nature	Numbers
Houses	348
Shops	42
Total	390

Source: Primary

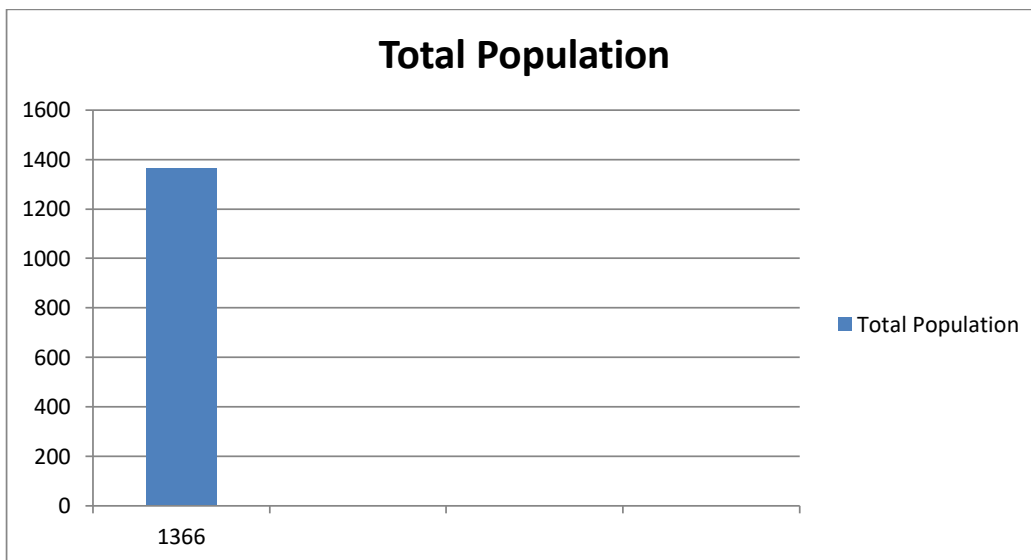


Interpretation: The above table and chart shows that out of total 390, 348 are from houses and 42 are shops were surveyed and for each home and shop the awareness about Covid – 19 has explained and required data collected.

2. Total population in the ward

Total Population
1366

Source: Primary

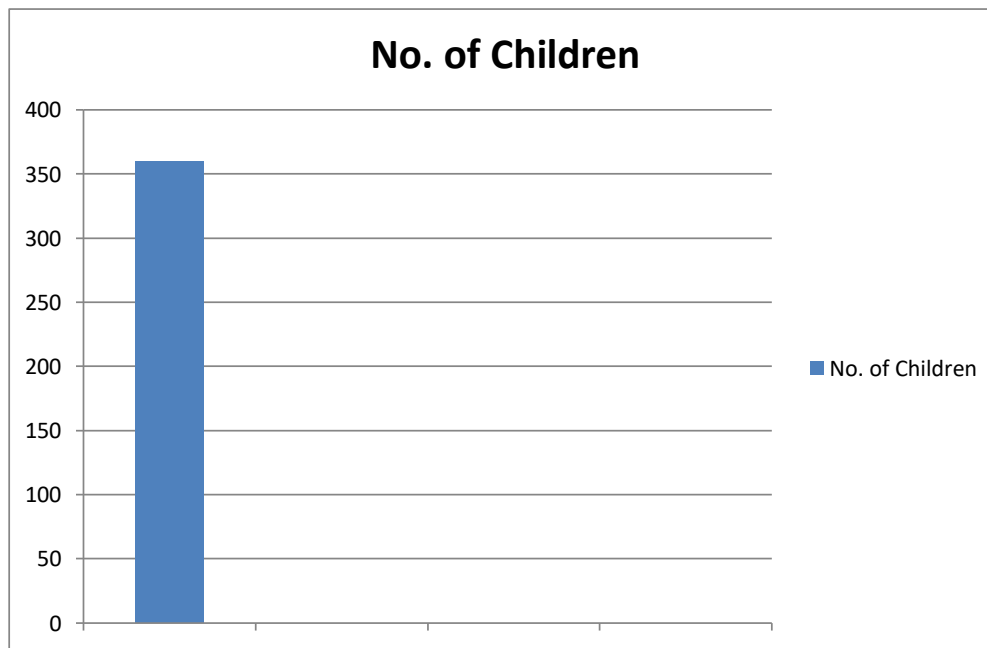


Interpretation: From the above table and chart it shows that the total population surveyed from the houses and shops in the ward were 1366.

3. Number of Children's

Number of children's
360

Source: Primary

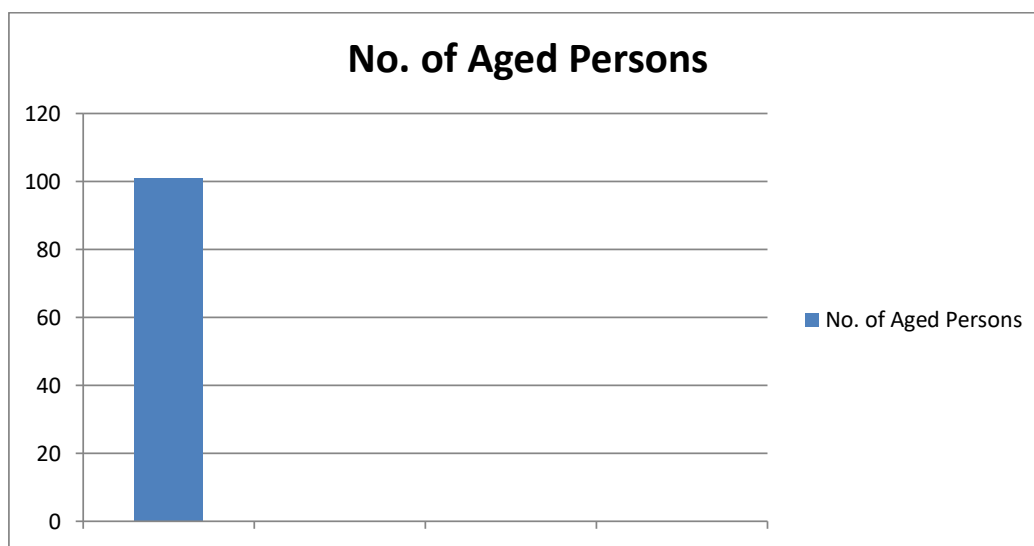


Interpretation: From the above table and chart shows that there are a total number of children in the ward is 360. Since the covid-19 virus infects all age group people especially utmost care taken for children hence while making survey in the ward, we briefed the parents to not allow children outside unnecessarily.

4. Number of Aged persons

Number of Aged persons
101

Source: Primary

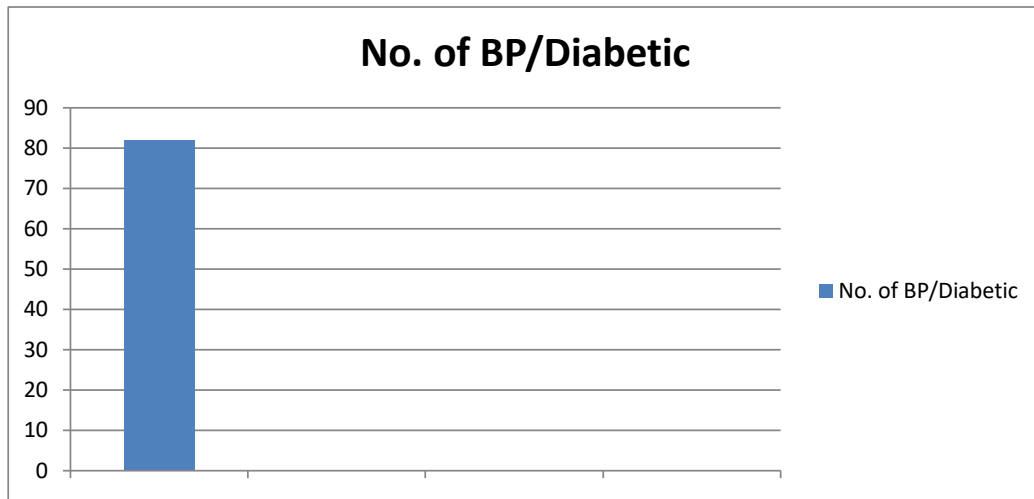


Interpretation: Out of total population 1366 surveyed, 101 persons belongs to more than 60 years. Since aged persons belong to vulnerable groups maximum care should be taken for them. Hence in survey it's clearly instructed to them not go outside unnecessarily and any symptoms of covid – 19 and other health issues should be reported immediately through created whats app group.

5. Number of BP/Diabetic patients

Number of BP/Diabetic patients
82

Source: Primary

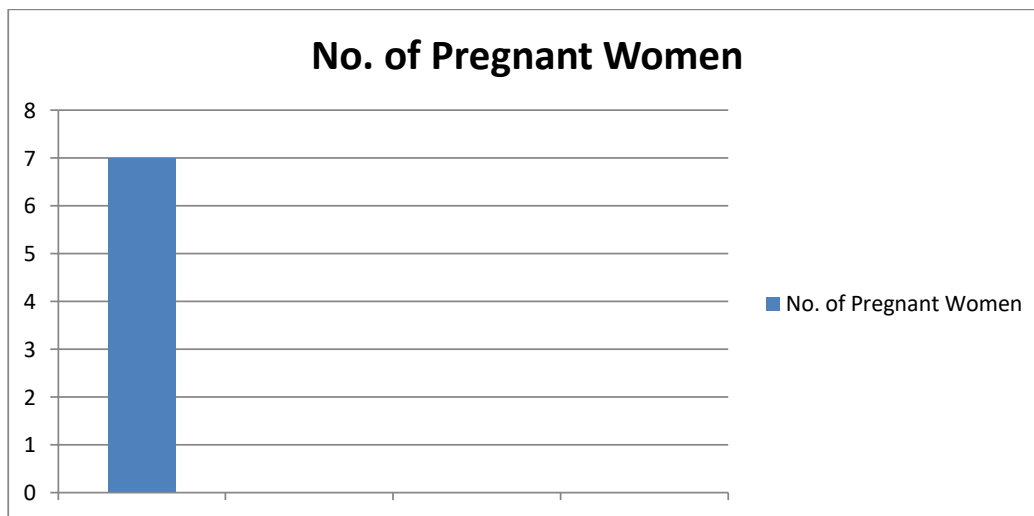


Interpretation: From the above table and chart shows that there is 82 people who suffering from BP/Diabetics, since the virus infects to those who underlying medical conditions such as BP/Diabetics and other issues, we ensured that they are in normal condition and also suggested to post in the whats group if any medical care is required.

Number of Pregnant Women

Number of Pregnant Women
07

Source: Primary



Interpretation: From the above table and chart it's clear that out of total population in the

ward, 07 women are pregnant. This Covid-19 disease is very dangerous for pregnant lady hence we ensured and extra care is taken on pregnant women by making constant checking and regular follow up and instructed their family to contact via call, message or whats app group for emergencies.

4.1 Activities under taken at ward



Source: Primary Data

5.0 FINDINGS OF THE STUDY

- i. Majority of the respondents have given their family details and as well as their health status during the survey.

- ii. Most of the respondents have given their active number for whats app group creation.
- iii. All most all the respondents are very serious about covid – 19 virus during the awareness progrmme.
- iv. All the parties such as volunteer, local leaders, counselors, SHG, Anganawadi helpers etc are very co-operative during campaign of covid – 19 disease awareness programme.
- v. Till date two positive cases identified in the ward, and health department suggested for one for home isolation and one for covid care centre hospital since patient belongs to vulnerable group.
- vi. One Covid-19 symptom identified during survey and same is reported concerned officer and ensured that necessary action has been taken.
- vii. Its ensured that no family members are out of home quarantine till they finishes 14 days at home and necessary arrangements has been made for them.
- viii. Its ensured the health conditions of ILI and SARI
- ix. It is ensured that when people are out of their houses they were using face mask and sanitization themselves otherwise cautioned about fines and penalties imposed by local authority.
- x. It educated the neighboring houses of containment house to treat them as positively by helping them with proper measures.

6.0 CONCLUSION

To conclude the government has taken a good initiate to tackle the covid-19 virus in the cities by establish committee called WLTF where their main aim is to create awareness in the ward, control the virus in the ward, to cut chain of mass spreading of viruses and in order to give quick solution to the people task force have created whats app group each ward. So far there is not much spreading of viruses in the ward.

7.0 LIMITATIONS OF THE STUDY

The main limitation of the study is that while collecting the data from the respondents some of them have not given accurate data regarding their health issues especially relating to Covid – 19 symptoms.

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CHAPTER 15

DIMENSIONS OF FOOD SECURITY IN INDIA AND COVID-19 PANDEMIC

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ABSTRACT

Agriculture is not only an employment-generating sector in the economy of a developing country like India, but is also the basis of food supply. Despite continuous efforts to increase food production, we have not been able to achieve a state of permanent and sustainable food availability to every citizen of our country. Whereas in this critical time of the Corona pandemic crisis of food supply has become a major necessity. In light of the ongoing Corona pandemic and slowdown rate of economic growth, every country focusing on food-security to the citizens. Because the food insecurity is not only concern of declared-poor but also to the undeclared-poor due to this COVID-19 situation. Today we are facing instability in food production and food stocks thus this chapter focuses on understanding food security in holistic manner, different dimensions of food security and related issues in totality. Further the present study also suggested various measures to be taken up during the Corona situation to increase the food availability, maintain food production, its management and the policy stand for the country.

Keyword: *Agriculture, PDS, Nutrition, Rural Society, Population and Development.*

1.0 INTRODUCTION

The current lockdown situation to tackle the COVID pandemic has highlighted the problem of food, nutrition and livelihood security confronting larger number of migrant labourers, street vendors, urban poor and all sections of rural society. While some measures have been announced by the government such as availability of food grains and financial support for purchases food and essential commodities through public distribution system (PDS). In this pandemic situation government must ensure the proper and physical availability of food (in form of rice, wheat etc) in term of quantity for the survival of poor peoples. A broader perspective of food assurance to the common man is defined in many

ways. Definitionally food Security defined by the committee on world food security (United Nations, 1996) is that “all people, at all-time have physical, social and economic access to sufficient, safe and nutritious food that meets their food preferences and dietary needs for an active and healthy life”. Whereas commonly we can define that food security is an economic and social excess of food to the everyone on proper or affordable rate and nutritious, healthy food for individual and family members of various groups of the society.

2.0 FOOD SECURITY: A NEED OF HOUR

Every country tries to increase their food production to maintain food availability to achieve food security for the citizens. As we know our economy is agriculture-based economy that provides employment to the farmers, boost to allied activities and provide livelihood opportunity for the common man. For this India launch different programs (PMFBY, PDS, KBY, KCC, CF etc) try to increase food production and a self-reliance food secure country, that may help to other countries also. Recently India help African state Lesotho to provide rice on nominal price. We also support to many African and Asian countries during their food crisis situation as now we provide food support to Bhutan in August month where states are facing acute shortage due to Corona situation.

During the COVID we were confident that the Central government would open its treasury and prove to be more lenient for relief measures. Even migrant labourer facing many difficulties and in the last five months, only 25% of the 80,000 crore tons of free food grains have been distributed among migrant laborers means government could not make proper or concrete arrangements to provide food-grains to them. Whereas when a state is a food secure, state can control their food prices otherwise economy may face the economic crisis or inflation situation in the country. A food secure state moving toward economic growth and job creation that leading to poverty reduction and economic opportunity to the country. After the green revolution we are self-reliance in food production and particularly in wheat and rice production. That provides an opportunity of rice trade of Basmati a conventional yield of rice to various countries and that were possible due to the excess production of rice. So, we can export our excess food production in global market.

On other hand this is the win-win situation that if most of countries are self-dependent in food production to ensure global food-security, that situation moving toward global stability too. Otherwise unrest and conflicting situations will directly or indirectly affect the global order of stability and peace including minimising the severity of Corona. Therefore, a food secure state and global food security both are equally important and required for the stable and peaceful global order.

3.0 ELEMENTS OF FOOD SECURITY

Our agriculture related studies elaborate that we are heading toward self-sufficient food producer country, but still India has not been reached up to the expectations. Food security is the outcome of food availability and efficient food system that contributes positively to all dimensions of food security. Low rate of food production or low access in requirement of food due to short term fluctuations/variation in food availability, food prices and purchasing power, utilisation, stability etc. can be defined as different dimensions of the food security. In the following section, giving details about the elements of food security, we will also try to discuss their various dimensions in the context of the current corona pandemic situation.

(i) Availability

It is completely dependent on food production by the farmers. Before the green revolution we are mostly depended on import of food and that situation were change after the lesson learnt during famine of 1960s. After that we focused on scientific advancement of food production through the import of HYV (High Yielding Varieties) seeds from Mexico and turn into the green revolution in the country. After the green revolution we are step ahead of food production in the country to ensure the availability as per domestic demand of food. Proper food stocks should must have the policy of a state. Without proper food stocks we cannot face critical situation like as famine, flood, low production and COVID-19 type pandemic situations and food supply may blocked between the states. Where every state must try to make proper food stock for their own citizens.

Every state cannot produce everything within a state such as we are dependent for palm oil on East-Asian countries. Therefore, all states are interdependent on each other and we can fulfil our demand with complementarity or import and export of food products. To assure the food availability for everyone government provides food aids for the various groups of society. With the help of aid or aid schemes every citizen can get food on affordable price and such programs like as NFSA (National Food Security Act) may be more effective to ensure the availability of food to the society in India.

In current situation harvesting of Rabi crops has been affected across states, despite the agricultural works being exempted from the lockdown, due to unavailability of farm or agricultural labourers. But many of the inputs including seeds, are expensive or unavailable, marketing arrangements including supply chains are not fully functional, pricing is not remunerative and public procurement is also not adequate.

(ii) Accessibility

Access of food to everyone must assured in term of economical (to purchase on affordable price), social (every group of society) and political access (policy framework to assure the access) of food. That access must be equitable and that should assure by the government through the rational distribution among every society or availability of food to every regions of the country. That accessibility can be improving with improvement of infrastructure facilities like as road, market (mandis) centres, cold storage facilities, different food processing units to mateine the availability in every season or situation on economic rate. Farmers have facility to sell their agricultural product in food market, market linked with all season approach roads or transportation system. So, farmer can get a reasonable price of the product and others can purchase on affordable price with their purchasing power.

Access to food is a function of purchasing power. Fortunately, the government through the national Food Security Act (NFSA) and the PDS has assured some additional food to every individual during the crisis. This should be further strengthened and the food basket widened by including millets, pulses and oil. Step should also be taken to avoid hidden hunger caused by the deficiency of micronutrients in the diet because we are not sure about this pan adamic duration may be longer than any expected time.

(iii) Utilisation or Absorption

Absorption or utilisation of food in the human body is another major element of food security. Which is dependent importantly on sanitation drinking water and other non-food factors including public health services. Ensuring that these services are functionally dependent on the capacity of the local body authorities and their coordination with other local authorities. The lack of adequate clean water has supply to the rural areas in context of COVID where one of the key measures for stopping transmission relates to frequent handwashing. Government must have a plan to provide the quality food to the citizens. That will completely depend upon the nutritional knowledge of citizens. Otherwise peoples are facing malnutrition and unhealthy diets that can hamper the development of the healthy citizens. Therefore, states were trying to provide vitamin dominant food to the women's, children's and old age persons too. Governments try to assure or supply nutritional food to the society.

(iv) Stability

Food stability is completely dependent on above three (availability, access and utilisation) pillars. With the proper availability government can mateine the stability among

the group of societies for food, otherwise state may face the unrest situation if government fail to provide the food to the citizens. Some developing states are also facing such problem and that situation turned into struggle or sometimes in civil war too. Therefore, food stability having a problem-solving situation for the governments.

4.0 CHALLENGES FOR FOOD SECURITY DURING COVID

Food security and nutrient access, good quality food is also contingent on job security. If job security is threatened then it was directly affecting the nutritional security. It means some attentions and investment in new technologies that can contribute to biomass utilisation. Another way to livelihood opportunities strengthen through the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). Due to lack of job and low income during the COVID crisis it is imperative to expand the definition of work in MGNREGA to cover unskilled workers, farmers and related to agricultural activities.

Prior to the lockdown, the government try to extend the PDS scheme to large section of the society, but the government could not make it to everyone and it could not make any concrete system to provide food grains to those who do not have ration cards. Every household must have resource to secure food or purchase food resources and these are directly depending on their available recourses, money etc. that how can and how much individuals having disposable income for the food. Socio-economic statues of the society (at regional-cultural level) and household level (purchasing power and priorities) are also major challenges for the food security in the country.

According to the *availability of food* in market (according to the demand and supply) and purchasing power decide the food assurance or food security to the society. Because trend of cropping patterns, farmer priorities, market price of yields etc. are controlling or deciding factors for food availability and its price.

In environmental perspective we are facing global *environmental challenges* like as greenhouse gasses (GHG). The emission of these gasses resulting global warming situation such as extreme (minimum and maximum rainfall) events of precipitations (Al- Nino or La-Nino), melting of glaciers, rising of sea level, submergence, shrinking of agricultural land area etc. all these events resulting the declining rate of food production in the region.

Another important challenge of inter-relationship in form of nexus among *Water, food and energy*. We can understand these challenges in term composite or independent variable mode. Such as food production is directly affected by the water (surface or underground water) availability of a region/area. Whereas energy/power is source extracting underground water, for irrigation purposes, harvesting and post-harvesting activities etc. all these depends

on power/ energy availability. So, these factors are also major challenges for assuring food security in India.

5.0 WAY FORWARD

After independence famine and food crisis situations of the country were controlled through the technological advancement and public policy combination in India during green revolution. We support our farmers to increase yield and agricultural production of different crops and agricultural shifted a jobless to job-led opportunity. Here we have factors of combinations they can improve the food security in our county. These are technological upgradation, policy framework in favour of farmers, focuses on pricing and method of distribution, effective PDS system etc. So, we can handle or overcome the critical situation like COVID through the above efforts. At the same time, instead of working on the government's ambitious scheme 'One Nation-One Ration card', government should show readiness towards making public distribution system immediately to everyone. It should be done at least till we get out of the current pandemic and economic crisis phase.

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CHAPTER 16

IMPACT OF COVID-19 LOCKDOWN, FARMERS OPINIONS ON AGRICULTURE IN MAHARASHTRA (INDIA)

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ABSTRACT

Novel coronavirus, which started in Wuhan (China) in December 2019, has gripped the world, with the highest number of coronavirus infections occurring in developed countries compared to underdeveloped countries. It has become a public health issue all over the world. The World Health Organization (WHO) has officially named the disease caused by this virus as 'COVID-19'. Scientists researching the coronavirus have described the disease as "Severe Acute Respiratory Syndrome Coronavirus 2" or "SARS-COV-2". In a developing country like India, the fourth phase of Lockdown has been started to curb the spread of Coronavirus. Lockdown is one of the best-suggested options for reducing the spread of the virus. The lockdown has had a huge impact on the economy, including the agricultural system. The purpose of this study is to emphasize lockdown's approach to the agricultural system in Maharashtra (India) and its solutions. In the first few weeks of the lockdown, an online survey of farmers was conducted, mainly on the impact on an agricultural commodity, which collected all kinds of information. Finally, our study indicated the need for farmer information for further action and can be used as a basis for the COVID-19 crisis issue.

Keywords: *Agricultural sector, COVID-19, Lockdown, WHO*

1.0 INTRODUCTION

Novel corona is a virus that was first detected in December 2019 in Wuhan (China). The coronavirus is called a novel because it is the first to be identified or detected. The World Health Organization (WHO) has named the virus 'COVID-19'. So far, no definite information has been obtained about the virus and its source. The coronavirus is a large family of viruses, some viruses cause people to get sick, and some spread to animals. It is reported that the people in Wuhan (China), first met seafood and animals. Till now the symptoms of this disease in patients are fever, cough, and difficulty in breathing. Since the coronavirus is a new virus, it is not entirely clear what exactly caused it to spread, and the research has been ongoing. The virus, which may have initially spread from animals, is now seen spreading from person to person. It is argued that the virus, like any other contagious disease, spreads when an infected person sneezes or coughs⁷. There is currently no vaccine or drug available to treat this virus, the best treatment is to prevent it from entering the body. Also, follow some rules like personal hygiene, wash hands regularly with soap, cover your mouth when sneezing and coughing, avoid traveling, and avoid crowding. 'Silent carriers' people who have had a corona infection but have no symptoms of appearing too late. A report in China's South China Morning Post described the corona carrier as a "silent carrier". People with a silent carrier tend to spread the coronavirus around them, usually seeing symptoms of the corona within five days. But these people show symptoms after fourteen days. Lockdown has been declared in India to prevent the spread of coronavirus⁹. Currently, the fifth phase of lockdown is undergoing in Maharashtra¹. In a lockdown, citizens are not allowed to leave their premises and go elsewhere. Lockdown can be decided considering the severity of the potential threat. Also, the duration of the decision depends on the circumstances. The lockdown has affected all industries in India, with the fourth phase shutting down all industries, so unemployment is on the rise, migration of workers is also on rising, and the government has allowed some industries but no labour is available³. There is no denying the possibility of a downturn in the economy due to the lockdown. Its impact is also being felt in the field of education and student issues have been created away⁶. The global outbreak of the coronavirus, as well as the lockdown, had a major impact on domestic agriculture^{2,8,10} as well as all types of business⁴. Exports of pomegranates and grapes to Europe and elsewhere, except in the Gulf countries, have come to a complete halt. At

present, exports from India to the Gulf by sea are also showing signs of stopping. In the case of grapes in Nashik (Maharashtra), the grapes plant cutting in October was hit hard by unseasonal rain. Grapes that survived in an unseasonal rain began to be exported. The onset of corona in March and the introduction of lockdown has a major impact on an agricultural export. Seeing that no goods would be exported to China, the farmers turned their attention to other countries⁸. However, in a short period, the entire world has been hit by the coronavirus, and now exports to Malaysia, Hongkong, Singapore, Bangladesh, and European countries have also come to a complete standstill. At present, grapes are being sent from the Nashik district to Gulf countries and domestically. There were a lot of restrictions on that too. The price of grapes in the local market is Rs 35 to 45 per kg, the same grapes were getting export price at above Rs. 100 per kg, but due to lockdown, the price of grapes was Rs. 10 to 20 per kg. Due to this, some traders took advantage of lockdown and bought grapes at the rate of Rs. 5 to 8 per kg, we often see many such incidents related in the agricultural field everywhere. The purpose of this research is to briefly analyze what farmers think about the impact of lockdown on agriculture and an agricultural commodity⁵, and what kind of plans are expected for it, and how the coronavirus-related events are affecting these relationships.

2.0 METHODOLOGY

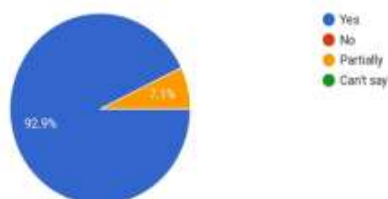
In this paper, we have studied the impact of lockdown on agriculture and what farmers think about it, the measures are taken by the government, and how successful they have been, whether they have reached the common farmers or not. Due to the arrival of lockdown, not all the farmers could be met, so an online survey of farmers from different villages has been conducted¹¹. All this is possible because all the farmers are using android mobiles and some of the farmers were also contacted by telephone. As farmers are from different areas, all grow different crops but mainly grapes are the main crop. Some questionnaires were created by using google document link, which included various types of questions and interacted with the one fifty farmers and asked them to fill the answers in the link, these issues one hundred fourteen farmers cooperated well, collected all the information and presented its detailed information in results and discussion points.

3.0 RESULTS AND DISCUSSIONS

Some of the farmers were consulted on the impact of lockdown on the

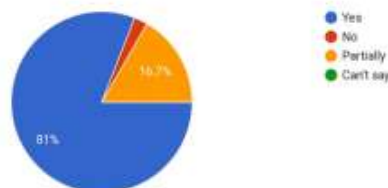
agribusiness and the measures taken on it. The farmers cooperated well. Has lockdown affected agriculture? If so, how it is analyzed through some questions, the questions, and its detailed analysis is as follows.

Do you think Covid-19 impact on Agriculture sector?



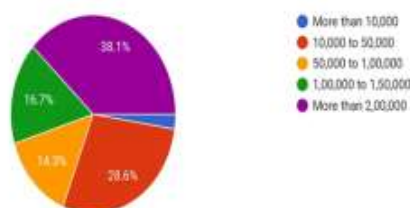
92.9 % of farmers think that COVID-19 had an effect on the agriculture sector, 7.1 % of farmers say they are feeling that the effects to partially. Farmers in the area usually grow grapes, onions, maize, tomatoes, and other vegetables. However, due to COVID-19, markets and exports were closed, so agricultural produce was not sold, causing huge losses, say farmers.

Do you bear any loss due to lockdown period?



81% of the farmers are of the view that the lockdown has caused more damage to agricultural produce. The lockdown should have been done with prior notice, if the decision had been taken, there would not have been a miserable situation on agriculture. 16.7 % of farmers feel that the lockdown is causing some loss of agricultural produce.

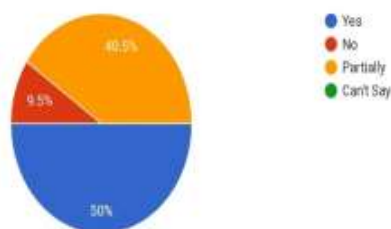
What amount of loss do you bear due to Covid-19/ lockdown?



COVID 19 and lockdown issues, 38.1% of the farmers have lost more than Rs 2 lakh

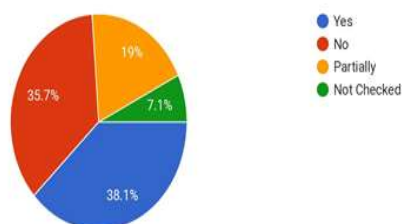
in it the farmers are mainly exporters of agricultural commodities, for example, the price of grapes to be Rs 100 per kg before the lockdown. Due to the closure of exports, the price of the same grapes went up to Rs. 20 to 30 per kg. As the situation worsened, the same price went up to Rs 5 to 10 per kg. 28.6 % of the farmers have suffered a loss of Rs 10,000 to Rs 50,000 in it mainly small farmers. 16.1% of the farmers to be up to Rs 5 lakh have been lost in it mainly fruit growers. 14.3 % of the farmers have suffered a loss of Rs 50,000 to Rs 1 lakh, among them are farmers who grow vegetables as well as fruits. Farmers say that if the government had planned well before the lockdown, such a situation would not have arisen, and the market should have been kept open being taken proper plan.

Do you able to fulfill necessities of your family in such situation?



50 % of the farmers think that they can complete the needs of their families during lockdown issues, in this case, they have benefited from government schemes from time to time and their crops have been less damaged and they had sold their agricultural produce before the lockdown period. 40.5 % of the farmers say that they can complete the needs of their families to some extent, and other farmers cannot complete the needs of their families as they have lost a large amount of agricultural produce during the lockdown period.

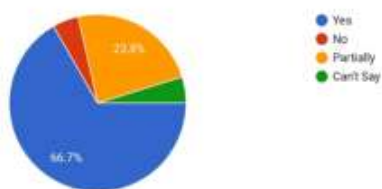
Do you get financial help from government?



38.1 % of the farmers have availed government schemes from time to time, for example, crop insurance and other agricultural schemes. 35.7 % of the farmers have not

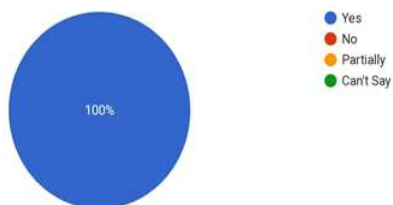
received financial assistance from the government. 19% of the farmers said that they have benefited to some extent from the financial assistance and other farmers have not benefited in any way.

Do you think Indian government gives less importance to agriculture sector?



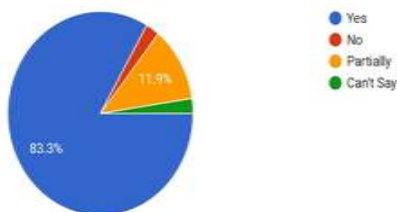
66.7 % of the farmers say that the government gives very little importance to agriculture, the government should plan well and provide facilities like new technology information, financial assistance, etc. 23.8 % of the farmers say that the government gives partial importance to agriculture. Other farmers can't say anything about it.

Do you think Agriculture is a backbone of Indian economy?



All the farmers say that the agriculture sector is the economic backbone of India. Agriculture issues need to be changed from time to time through new schemes and technologies. If India's economic situation is to improve in the future, agriculture should not be left out, but financial assistance should be given to farmers through proper guidance.

Do you think closing of export impact on Agriculture?



83.3 % of the farmers say that the issue of lockdown has a huge impact on exports,

which has resulted in huge financial losses. 11.9 % of the farmers think that to some extent exports have been affected by the lockdown. Other farmers cannot say anything about this situation.

What steps should be taken by government to recover Agriculture sector?



Below given the order in which how farmers feels to recover the agricultural sector, most of the farmers say that government should give the minimum support price for crops, some says that subsidies should be provided for all crops and provide loans at a minimum rate of interest, other farmers say that they want insurance facilities and free exports facilities must be provided. The rest of the farmers focus on the exceptions of loans that which has been taken from the banks.

4.0 CONCLUSION

The effect of lockdown on agriculture as per the opinion of the farmers in this regard is as follows: COVID-19 has a huge impact on the agricultural sector. Lockdown has also caused financial loss to the farmers but in such a situation farmer can bear the needs of their families. Lockdown issues it is observed that some farmers have benefited from the government's schemes from time to time. Although the agricultural sector is the economic backbone of India, it is also pointed out that the government gives less importance to the agriculture sector and does not plan for the right thing from time to time. If the economic condition of the agricultural sector is to be improved, then mainly minimum support price, subsidies should be providing for crops.

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CHAPTER 17

A STUDY OF HUMAN BEHAVIOUR IN LOCKDOWN DUE TO COVID-19

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ABSTRACT

Emergence of Covid-19 pandemic has led to drastic changes in the life of human being. Lockdown has been imposed by the government to prevent the spread of the disease. In the present study, an effort has been made to study the human behaviour during lockdown. Online survey was conducted and sample comprised of 195 respondents belonging to Haryana. A 13 items scale was developed to study the relationship between the perceptions of the respondents residing in different containment zones. Data was analysed with the computer software: Statistical Package for Social Sciences (SPSS) and Statistical Techniques used for analysis were: Reliability Analysis, Exploratory Factor Analysis (EFA) and ANOVA.

Keywords: *Human Behaviour, Lockdown, Covid-19*

MAIN FINDINGS

A scale comprising 13 items was developed. It is reliable and valid to study the human behaviour during lockdown due to Covid-19. It is also found that in spite of the fact that the whole world is facing challenge to cope with Covid-19 yet people of Haryana has managed to be stable regarding Managing Informational aspects & Social well being, Managing Physical well being and Engaging in Amusement Activities. Because people residing in different containment zone in Haryana have not much vary in their perception.

1.0 INTRODUCTION

The world's largest challenge is to manage the most infectious disease Novel corona virus 2019 (Covid-19). Because it is highly infectious and has a high mortality rate human beings are naturally getting afraid and stressed. To prevent the spread of the disease every country has announced lockdowns. India has also declared lockdown from 25th March

2020. To identify the containment areas, the Ministry of Home Affairs divide the containment zone in to three categories: Red Zone, Orange zone and Green zone.

- Red Zone: Areas or the hotspots classified as those with the highest caseload.
- Orange Zone: Areas which have reported a limited number of cases in the past and no surge in positive cases recently.
- Green Zone: Areas with zero confirmed cases till date or no confirmed case in the last 21 days.

The present study is focused on analyzing human behaviour during lockdown due to Covid-19.

2.0 LITERATURE REVIEW

The corona virus disease (COVID-19) pandemic is having an extreme effect on all aspects of society, including mental health and physical health. Emily A Holmes et al (2020) have studied the psychological, social, and neuro-scientific effects of COVID-19. (Daniel Kwasi Ahorsu et al 2020) developed a psychometric scale to study the fear of people aroused due to Covid-19.

3.0 RESEARCH METHODOLOGY

3.1 Data collection

For the present study data has been collected through online survey. Total 216 responses were received out of which 11 responses have been dropped because of repeated and incomplete responses. Therefore 195 complete and correct responses were received, for the time period from May to July 2020.

3.2 Objectives of the study

- To identify the factors affecting human behaviour during lockdown due to Covid-19.
- To study the relationship between the containment Zone area and perception of the respondent residing in that area during lockdown due to Covid-19.

3.3 Statistical tool

Reliability analysis, Exploratory Factor Analysis (EFA) and one way ANOVA has been used for the analysis.

4.0 ANALYSIS & FINDINGS

To fulfill the first objective that is identification of factors affecting human behaviour, initially 30 statements were collected to develop a scale. Two statements were deleted because of same wordings and 13 were dropped after consulting experts from Psychology and academicians from the human behaviour area.

Table-1: Reliability Statistics

Cronbach's Alpha	N of Items
0.888	15

Source: Primary Data; SPSS Output

Before conducting Exploratory Factor Analysis, Internal consistency of the items has been checked with reliability analysis. Cronbach's Alpha more than 0.6 is recommended. For the present study, Cronbach's Alpha for 15 items is 0.888 as shown in Table-1, from which it is inferred that survey instrument is able to yield consistent results each time (Hair et al 2010).

Exploratory factor analysis (EFA) was started by conducting Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity (an indicator of strength of relationship among variables) on a set of 15 statements. It was found that the results are significant (Chi-square =1142.27) and KMO =0.888 is meritorious and indicateing that sample size was large enough to assess the factors structure. The communalities of the items were between the range 0.507 to 0.748 as shown in Table -2.

Table-2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.888
Bartlett's Test of Sphericity	Approx. Chi-Square	1142.27
	df	78
	Sig.	0.000
Communalities (Range)	0.507 to 0.748	

Source: Primary Data; SPSS Output

After these overall indicators, EFA was performed on 15 items using using principal component analysis (PCA) extraction and Varimax Rotation. The minimum factor loading cutoff point was 0.4. The three factors explaining 63.439% of various as shown in the Table-3. The Eigenvalues show that the first factor explained 44.371% of variance, Second factor 10.188% of variance and third factor 8.880% of variance. Varimax rotation has resulted the percentage of variance for factor 1 has been changed from 44.371 to 30.135, percentage of variance for factor 2 has been changed from 10.188 to 18.645 and percentage of variance for factor 3 has been changed from 8.880 to 14.660.

Table-3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.768	44.371	44.371	5.768	44.371	44.371	3.918	30.135	30.135
2	1.324	10.188	54.559	1.324	10.188	54.559	2.424	18.645	48.780
3	1.154	8.880	63.439	1.154	8.880	63.439	1.906	14.660	63.439
Extraction Method: Principal Component Analysis.									

Source: Primary Data; SPSS Output

Based on the Rotated Component Matrix, One item was removed because of factor loading less than 0.4 and one item was eliminated as it produced cross factor loading. Finally 13 items scale, divided into three factors was developed to collect the data as shown in Table-4.

Table-4 Factors Determined

Construct after EFA	Variables	Factor 1	Factor 2	Factor 3
Managing Informational aspects & Social well being	I trust only on reliable sources to get information	0.793		
	I prefer to spread only authentic information regarding Covid-19	0.784		
	I appreciate those who are contributing to Corona Relief Fund for the society's well being	0.722		
	I always prefer to get acquainted with updated information	0.714		
	I express my gratitude to those who are helping the others (Corona-Warriors)	0.699		
	I am in regular touch with friends & family members	0.635		
	I motivate the people to offer help to the corona victims	0.522		
Managing Physical well being	I am using social media platforms to keep me fit & healthy		0.749	
	I am able to maintain work- life balance while doing work from home		0.672	
	I am following regular daily routine		0.676	
	I try to use Social media platform in a limit.		0.512	

Engaging in Amusement Activities	I try to develop new hobby to keep me out of boredom			0.774
	I keep myself busy in household activities to keep me physically active			0.754

Source: Primary Data; Compiled from SPSS Output

After conducting EFA, three factors were determined, first factor labeled as Managing Informational aspects & Social well being, second factor labeled as Managing Physical well being and third factor labeled as Engaging in Amusement Activities.

For the purpose of the second objective descriptive details of the residents residing in different containment zones are given below in table-5

Table-5: Containment Zone Wise Descriptive Details of Respondents

Constructs	Zones	N	% of Respondents	Mean	Std. Deviation
Managing Informational aspects & Social well being	Green Zone	10	5.13%	28.2000	6.82805
	Orange Zone	123	63.07%	29.8049	5.49017
	Red Zone	62	31.80%	29.0323	6.55611
	Total	195	100%	29.4769	5.90328
Managing Physical well being	Green Zone	10	5.13%	13.7000	3.46570
	Orange Zone	123	63.07%	14.7154	3.15064
	Red Zone	62	31.80%	14.4677	3.58374
	Total	195	100%	14.5846	3.30054
Engaging in Amusement Activities	Green Zone	10	5.13%	7.7000	2.00278
	Orange Zone	123	63.07%	7.7805	2.01444
	Red Zone	62	31.80%	7.7258	2.24097
	Total	195	100%	7.7590	2.07795

Source: Primary Data; SPSS Output

From the above Table it is interpreted that a mostly respondents belong to Orange Zone with 63.07%, 31.80% respondents belong to Red Zone and only few respondents with 5.13% belong to Green Zone.

To study the relationship between the containment Zone area and perception of the respondent residing in that area during lockdown due to Covid-19, following hypothesis has been established and it is tested with the help of One Way ANOVA as shown in Table-6.

Null Hypothesis (H_0): *There is no significant difference between behavior of respondents residing in different containment zone in lock-down due to Covid-19.*

In the above table, for Managing Informational aspects & Social well being, F-value = 0.597 and $p = 0.551$, for Managing Physical well being, F-value = 0.492 and $p = .612$ and for Engaging in Amusement Activities, F-value = 0.018 and $p = .982$. Sig value for all the factors are more than 0.05; therefore, null hypothesis is accepted at 95% confidence level. Thus there is no statistically significant difference in perception of respondents residing in different containment zones. It means perception of respondents do not vary according to different containment zones.

Table-6 Results of ANOVA

		Sum of Squares	df	Mean Square	F	Sig.	H_0 Accept/Reject
Managing Informational aspects & Social well being	Between Groups	41.794	2	20.897	.597	.551	Accepted
	Within Groups	6718.853	192	34.994			
	Total	6760.646	194				
Managing Physical well being	Between Groups	10.778	2	5.389	.492	.612	Accepted
	Within Groups	2102.576	192	10.951			
	Total	2113.354	194				
Engaging in Amusement Activities	Between Groups	.160	2	.080	.018	.982	Accepted
	Within Groups	837.512	192	4.362			
	Total	837.672	194				

Source: *Primary Data; SPSS Output*

5.0 CONCLUSION

With the scale developed, it is found that people residing in different containment zone in Haryana have not much vary in their perception regarding Managing Informational aspects & Social well being, Managing Physical well being and Engaging in Amusement Activities.

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CHAPTER 18

CHALLENGES FACED BY GURU NANAK DEV UNIVERSITY AMRITSAR DURING COVID-19

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ABSTRACT

The covid-19 was first discovered in Wuhan city of China that has spread swiftly around the world, resulting into lockdown for billions of people. The World Health Organization (WHO) acknowledged the covid-19 epidemic a pandemic. In light of growing concern about the present COVID-19 pandemic, a rising number of universities over the world have either postponed or canceled all campus activities such as workshops, seminars, sports, conferences and other activities. Universities are captivating intensive measures to protect all students and staff members from this highly contagious disease. Faculty members have already transitioned to online teaching platforms. In this review, this research paper will highlight the challenges faced by Universities in this scenario of covid-19.

Keywords: covid-19, outbreak, challenges, pandemic, universities.

1.0 INTRODUCTION

The covid-19 originated at the end of December 2019 in Wuhan city of China. The first outbreak of COVID-19 in Wuhan spread swiftly, affecting other parts of China. The authorities in Wuhan took extraordinary steps and locked down the city on January 23, 2020, to lesser the risk of further spread of disease. Within few weeks, there was global detection of covid-19 cases, which was rising on an alarming rate. WHO declared covid-19 as a pandemic

and on March 29, this pandemic adversely affected the countries such as: China, Iran, Europe, South Korea, etc.

To prevent the spread of covid-19 almost all the countries in the world posed travel restrictions and all the world economies came to a standstill. Public health workers and the medical teams focused entirely on preventing the spread of this deadliest disease and treating the ever-rising cases. Government and medical staff took certain measures such as: isolation or home quarantine, social distancing, wearing mask, sanitizing & washing hands again and again (20 seconds), strengthening health facilities, etc to control the spread of disease. Several countries announced complete lockdown & closure of all gyms, pools, public gatherings so that the spread can be prevented & they could get a control over it. By March 25, almost 150 countries announced the closure of all schools & colleges till the situation gets normal. This long-term closure of schools & colleges affected 80% of the world's student population affecting their studies, careers & curricular activities. Due to this pandemic, almost all the universities have either cancelled or postponed their campus examinations resulting in massive loss of education & leading to challenges to sustain and find alternatives for direct education.

2.0 CHALLENGES

Some of the challenges faced by the universities due to covid-19 pandemic outbreak are:

- i. **Paradigm shift from face to face mode to online mode of classes:** Covid-19 led to the paradigm shift from face to face to online delivery of classes. Although, students and teachers both were very excited about it but this mode has more negative effects than positive effects. The faculty and students were never used to this mode which is difficult for both to use. Some students residing in rural areas have little access to internet. Students have become more negligent towards their studies. Some of the courses require practicals that could only be possible in face to face teaching. So, this shift has been a major challenge for the universities to cope up with.
- ii. **International Students:** Due to the closure of universities, international students have been adversely affected. Some do 'not have even proper accommodations & are facing monetary crisis. Ones who resided in university campuses are much more in problem because the campuses have been closed down. The greatest challenge for the accomodatories is to ensure safety, food, accommodation, basic needs, prevention of spread of disease, etc. International students who managed to return back to their

homes are also suffering due to the lack of books, high speed internet, computers & the stress for further admission into new session.

- iii. **Mental Health:** The rapid spread of covid-19 has paused the lives of people all over the world. 'Due to the postponement of exams, the students are suffering from great mental stress & anxiety about the careers & jobs. Students residing outside their home countries are much more in stress because they are worried about the well being of their families, their careers, food, monetary crisis, safety, education, etc. In order to cope up this challenge, many universities have set up the stress management portal to make students free from mental health & anxiety so that they are able to make a new start with confidence. **EXAMPLE: Guru Nanak Dev University, Amritsar** has set up a stress management portal by starting "Psychological Tele-counselling facility" for students to cope up with stress.
- iv. **Assessment and Evaluation:** Due to covid-19 pandemic, another challenge faced by universities is the assessment & evaluation of semester courses of students. Although technology has been used to assess the courses multiple times but assessment & evaluation of courses that require face to face interaction is a challenging task. Students as well as faculty members are also uncertain about the outcome of evaluation through online mode. As most of the universities have already suspended the end-semester examinations, online evaluation is a challenge. Faculty members have to change the assessment types to adjust them to online mode. Some students lack the proper connectivity & laptops to give their online exams and even practical lab test could not be considered for assessment & evaluation.
- v. **Travel Restrictions:** Due to covid-19 pandemic outbreak, there has been a pause to travelling overseas as all the airlines have been closed for operations. University authorities & administrators have already asked their staff members to postpone any conference or event that require any travelling overseas. It is obvious that postponement of all these events will result in financial loss to the universities because most of the staff members have already paid for registration fee or airline tickets from study & travel university funds. International students have also been advised to avoid overseas travel & the one's travelling are posing themselves to the threat of being infected.

3.0 CONCLUSION

In this growing era of covid-19, universities must take some screenable measures to lower the spread of virus. The students & staff members should be duly updated through

emails or websites. Health and safety of students & faculty should be given utmost priority. Authorities must consider their responsibility to provide for safe accommodation & food for international students. Faculty members should train themselves to deal with technology & pay attention to the hindrances in online teaching to make this more & more effective & useful. Initiatives for proper counseling of faculty members & students should be given more emphasis. Unnecessary travelling overseas should be avoided in order to prevent the spread of Covid-19.

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CHAPTER 19

MENTAL HEALTH OF YOUTH IN COVID-19

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ABSTRACT

The COVID-19 pandemic has shaken us. During this Pandemic, we are all experiencing stress, anxiety, fear, sadness, and loneliness. Mental health disorders including anxiety and depression appear to be worsening. During this time of physical disturbance and uncertainty, many older adults and caregivers are feeling isolated, agitated and retreating. Health conditions on Human behavior, such as depression, bi-polar disorder, schizophrenia, and previous substance use disorders, are particularly at high risk for negative outcomes, including severe anxiety, relief from substance use, and thoughts of suicide. It is necessary to collect everyone to face all these risks. Everyone needs to try together. Removing the anxiety is to maintain good mental health along with your physical health. We all have to understand that circumstances are not always the same. Today, staying alive is the most important thing. The rest will be talked about later. If you have a life, you have world this proverb applies to everyone. To maintain mental health, we have to use some tips and tricks. One has to understand the seriousness of mental health.

Keywords: - Mental Health, COVID-19, Stress

1.0 INTRODUCTION

COVID-19 has brought devastation to the whole world. Due to this, it has been the position to face many problems whether it is financial, mental, physical, social, cognitive, emotional and family. Concerns and concerns about the pandemic and its impact are overshadowing. Social distances are making it even more challenging. The COVID-19 pandemic has probably brought many changes to the lives of all of us, and has brought with its uncertainty, daily routines, financial pressures and social isolation. You can worry about how long the epidemic will last and what the future will bring. Information overload, rumors and misinformation are making our lives feel out of control and cannot explain what to do. Complications in our lives are increasing. Life has become a bit uncertain. Fear of the future

is ruling everyone. Be it big or small everyone's life has changed. Every person has been forced to think. No one knows what is going to happen next. Many people are not able to face this condition.

During the COVID-19 pandemic, we are all experiencing stress, anxiety, fear, sadness, and loneliness. Mental health disorders including anxiety and depression appear to be worsening.

Stress is a general psychological and physical response to life's demands. Everyone reacts differently to difficult situations, and it is normal to feel stressed and anxious during a crisis. But many daily challenges, such as the impact of the COVID-19 pandemic, are pushing us beyond your ability to cope.

Many people may have mental health concerns, such as symptoms of anxiety and depression during this period and emotions can change over time.

Despite our best efforts, we can feel ourselves helpless, hurt, angry, irritable, frustrated, anxious or afraid. You may have problems focusing on specific tasks, changes in appetite, body aches and pains, or sleeplessness, or you may regularly struggle for facial pores.

When these signs and symptoms persist for several consecutive days, you become unhappy and cause problems in your daily life, so that it becomes difficult for you to carry out normal responsibilities.

Coronavirus disease 2019 (COVID-19) pandemic can be stressful for people. Fear and anxiety about a new disease and whatever it may be can be very high and can lead to strong emotions in adults and children. Public health actions, such as social disturbances, can make people feel isolated and lonely and increase stress and anxiety. However, these actions are necessary to reduce the spread of COVID-19. Coping with stress in a healthy way will make you care about the people who make you and your community stronger. All these things have a greater impact on children and youth. Today, evidence of suicide in India is increasing day by day. This young generation is the capital of our country, it is necessary to take care of them. Today, the majority of our population belongs to these youth. If we want to make our country self-reliant, then we have to save the youth.

The mental health of these youth will have to be elevated. They have to be made capable so that they can face all kinds of difficult situations.

Knowing the facts about COVID-19 and preventing the spread of rumors can help reduce stress and stigma. Understanding the risks to people who care about themselves and you can help you connect with others and make the outbreak less stressful.

The role of orders, teachers, society can prove to be important in elevating mental health.

Mental health is an important part of overall health and well-being. It affects how we think, feel and act. It can also affect how we handle stress, relate to others, and make choices during an emergency.

People with pre-existing mental health conditions or substance use disorders may be particularly vulnerable in emergencies. Mental health conditions like depression, anxiety, bipolar disorder, or schizophrenia etc. can affect a person's thinking, feeling, mood, or behavior in a way that affects their ability to relate to others and function each day. These conditions can be situational or chronic.

2.0 MANAGEMENT OF MENTAL HEALTH DURING COVID-19

Getting rid of stress and anxiety has also become crucial today. There are several tips that all the younger generation should use because we can navigate these uncertain times:

- i. Protect yourself:** - Be informed and take practical steps to protect yourself and your loved ones. Do not stick to the news. Take a break from watching, reading or listening to those news stories on social media. One should not bother hearing about the pandemic again and again. Find out the truth and act accordingly and then decide.
- ii. Take care of your emotional health:** - Taking care of your emotional health is as important as taking care of your physical body. If someone's emotional health is out of balance then he may experience high Blood Pressure, Chest Pain, Ulcers etc. Taking care of emotional health will help you to think clearly and react to the immediate needs for the safety of yourself and your family.
- iii. Engage in healthy activities:** Get 7-9 hours of sleep each night; Eat a healthy and well-balanced diet; Exercise your body and mind. Doing meditation, walking, gardening and exercise routines in your home is beneficial for your mental health. One should remember that any exercise is better than none. By giving time for activity each and every day you will be setting yourself up for better long-term health. Avoid using excessive alcohol and drugs.
- iv. Health care:** - Health management, Health protection, Health maintenance or Health Wellness are the common terms used nowadays via Prevention, diagnosis, treatment, recovery, cure of disease, illness, injury and other physical and mental impairments of people. Make sure that you have at least one-month supply of prescription and over-the-counter medicines that you need to manage your mental health and other ongoing conditions. Take all your medicines as directed by your health care providers from time to time, if you need help with your prescribed medicines.

- v. **Regular Routines:** - A routine is also called as a practice of regularly doing the things in a fixed order or on particular time. Stick to regular routines as much as possible. You may need to create a new routine for working at home, exercising indoors, caring for the family logo, cleaning and other daily activities. The only way to do this is to be very disciplined and very practiced
- vi. **Establish a successful network:** - Stay connected with your family, friends and other support networks. Talking to someone about your needs and feelings is important for mental health. If you have Internet access, make a commitment to contact at least one person per day for continued social contact via telephone, or e-mail, video conference, and social media. Consider making a person your friend and check in daily. If you are a member of a peer support group, stay connected through video platforms such as telephone, zoom or Google Meet.
- vii. **Positive thinking:** - Positive thinking doesn't means that you keep your head in the sand and ignore life's less pleasant situation. Positive thinking just means that you approach unpleasantness in a more positive way. You think the best is going to happen and not the worst. Positive thinking often starts with self-talk. Self-talk is endless stream of unspoken thoughts that run through your head. These automatic thoughts can be positive or negative. Try to be as positive as possible and read the simple things of life again. Many people across the country are helping their neighbors and communities during this crisis. After this pandemic is over, it is expected that we will be stronger, kinder and more connected with each other.
- viii. **Help others:** - Help others through peer assistance, neighborly checkups and childcare for restricted medical personnel in hospitals fighting COVID-19. Helping others gives us a sense of purpose and control during these uncertain times.
- ix. **Stay busy:** - A distraction due to negative thoughts cycle which feeds anxiety and depression can overcome. Think about your hobbies that you can do at home, identify a new project among them or clean the cupboards at home as you promised. Something positive to manage anxiety is a healthy coping strategy.
- x. **Focus only on the positive thoughts:** - Choose to focus on the positive things in your life, rather than how bad you feel. Consider starting each day by listing the things you are grateful for. Maintain a sense of hope, work to accept the changes that occur and try to put the problems in perspective.
- xi. **Spiritual life:** - Use your moral compass or spiritual life for support. If you draw strength from a belief system, it can comfort you during difficult times.

- xii. **Set priorities:** - Do not get overwhelmed by making a life-changing list to get things done while staying in your home. Set appropriate goals every day and there are steps you can take to reach those goals. Credit yourself for every step in the right direction, no matter how small and recognize that some days will be better than others.
- xiii. **Minimum time on Screen:** - One should turn off electronic devices for some time each day, 30 minutes before bedtime should be included in that. Everyone should make a conscious effort to spend less time in front of a screen - television, tablet, computer and phone.
- xiv. **Relax and recharge your body:** – Everybody should set aside time for oneself, even a few minutes of quiet time can be refreshing and can help calm your mind and reduce anxiety. Most of the people benefit from practicing such as deep breathing, reiki, zumba, yoga or meditation. Soak in a bubble bath, listen to music, or read or listen to a book - whatever helps you relax. Choose a technique which is beneficial for you and which works for you to practice it regularly.

3.0 CONCLUSION

This pandemic has caused a stir in the lives of all of us. We have forced all of us that not all situations are in our hands. This is not what we want every time. We have to be mentally strong to face these circumstances. Everyone has to learn a few things for that. If the current mental health condition of the crowd is bothering you, it is important for you to get in touch with your counselor, therapist or psychiatrist. Most important thing is that we have to develop ourselves to live with these types of Pandemics in future.

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CHAPTER 20

THE PSYCHOLOGICAL IMPACT OF COVID-19 ON THE MENTAL HEALTH IN THE GENERAL POPULATION

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ABSTRACT

Introduction: People around the globe has faced unprecedented traumatic experiences during novel coronavirus disease (COVID 19) pandemic as the mankind has not gone through the experience of such health emergencies before.

Aim: To analyse the effect of COVID-19 pandemic on mental health.

Method: Comprehensively reviewed the studies published by WHO, Web of Science and Google Scholar between December 2019 and July 2020.

Results: Most of the studies showed depressive and anxiety symptoms among people that are related to COVID-19

Conclusion: Due to COVID 19, various sections of the society are psychologically impacted because of various factors like quarantine, isolation, news, social media etc. Different age group of people like students, children, elderly people, Health care workers, domestic workers, Frontline workers, adult, daily wage earners etc. are impacted psychologically. They faces problems like trauma, anxiety, fear, frustration, boredom etc.

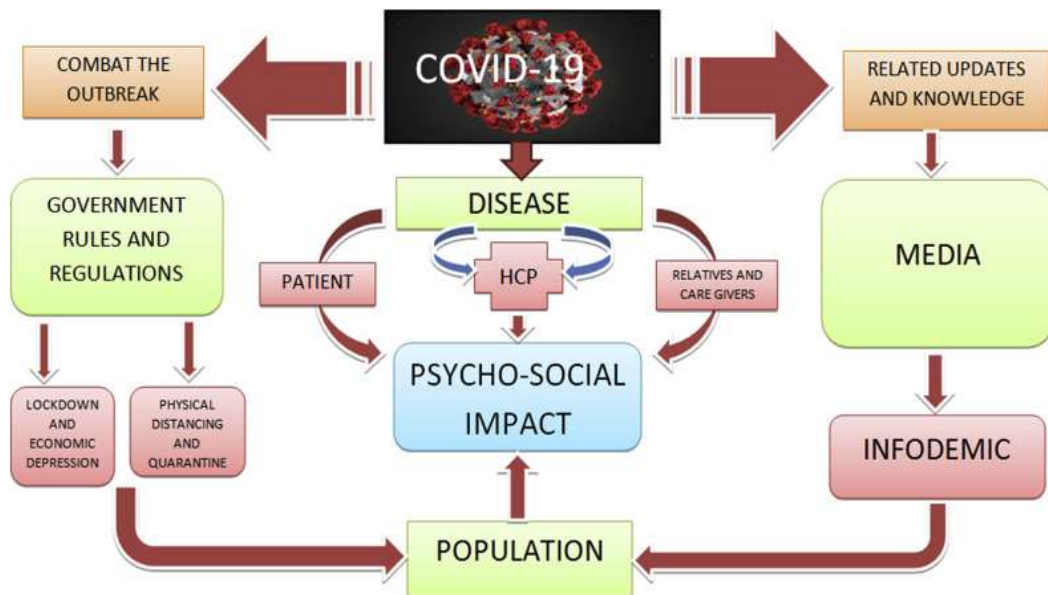
Keywords: Pandemic, Psychological, COVID-19, Coronavirus, Pandemic, Quarantine

1.0 INTRODUCTION

In January 2020 the World Health Organization (WHO) declared the outbreak of a new coronavirus disease, COVID-19, to be a Public Health Emergency of International Concern. WHO stated that there is a high risk of COVID-19 spreading to other countries around the world. In March 2020, WHO made the assessment that COVID-19 can be characterized as a pandemic. WHO and public health authorities around the world are acting to contain the COVID-19 outbreak. However, this time of crisis is generating stress throughout the population. The considerations presented in this document have been developed by the WHO Department of Mental Health and Substance Use as a series of

messages that can be used in communications to support mental and psychosocial well-being in different target groups during the outbreak.

In relation to this, Figure 1 gives the idea of relevant possible psychological consequences that have impact on mental health.



2.0 OBJECTIVES

- i. To study the impact of Novel Coronavirus disease (COVID -19) on different sections of society.
- ii. To study the factors impacting the psychology of people in this situation of pandemic.

3.0 RESEARCH METHODOLOGY

The study is a descriptive study in which information regarding the topic was collected from the data published by WHO, UNICEF, OXFORD Academy and Google Scholars during the period of December 2019 to August 2020.

4.0 FACTORS INFLUENCING PSYCHOLOGY OF THE PEOPLE IN COVID-19

4.1 Corona virus – a social stigma

Social stigma in the context of health is the negative association between a person or group of people who share certain characteristics and a specific disease. In an outbreak, this may mean people are labelled, stereotyped, discriminated against, treated separately, and/or experience loss of status because of a perceived link with a disease. Such treatment can

negatively affect those with the disease, as well as their caregivers, family, friends and communities. People who don't have the disease but share other characteristics with this group may also suffer from stigma. The current COVID-19 outbreak has provoked social stigma and discriminatory behaviours against people of certain ethnic backgrounds as well as anyone perceived to have been in contact with the virus.

4.2 Stressors of quarantine and their psychological effects

- i. Frustration and boredom related to the isolation of quarantine, which involves loss of one's usual routine (e.g., regular home and work activities, shopping for necessities) and limited social and physical contact with others.
- ii. Inadequate supplies and access to regular medical care, including food, water, or change of clothes as well as masks, prescriptions, and thermometers.
- iii. Insufficient information, such as lack of, or delayed, information from public health authorities, often due to poor coordination among health and government officials; unclear guidance; confusion about reasons for quarantine; and perceived lack of transparency.
- iv. Longer durations of quarantine (i.e., 10 days or longer), as well as extension of quarantine length.

Fears about becoming infected and/or infecting others, which can manifest as increased attention to and worry about one's health and physical symptoms, and may be particularly concerning for pregnant women and parents of young children.

The 2019 novel coronavirus (2019-nCoV) or extreme severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), as it is now known, is rapidly spreading in India and to the rest of the world from its origin in Wuhan City, China. This deadly and life-threatening virus infected 2,549,632 people and resulted in 175,825 deaths around the world. In India there are currently 17,610 positive corona infected cases (till 24 April 2020) as reported by the Ministry of Health and Family Welfare Department of India. During sudden outbreaks, the public needs access to timely and reliable information about the disease symptoms and its prevention. Nowadays, social media are often seen as fast and effective platforms for searching, sharing, and distributing health information among the general population. Also, social media serves to provide an important informal source of data to identify health information that has not been reported to medical officers or health departments and to uncover or share perspectives on any life-threatening health-related issues. But this channel of disseminating knowledge sometimes mixed with scare tactics, discrimination, misleading reports and conspiracy theories related to the origin of the virus,

its spread and mass buying of face masks, all closely connected to the modern 21st century “info media” social media networks. Despite the importance of rapid access to information in these critical situations, poor comprehension or inaccurate or false information in the format of rumors or unreliable news can lead to misunderstanding in the community, which makes the situation worse.

Dr. Tedros Adhanom, Director-General of the World Health Organization (WHO), calls this the battle against “trolls and conspiracy theories.” Misinformation creates confusion, and spreads fear, hampering the outbreak response. “Misinformation on the coronavirus might be the most contagious thing about it.” These circumstances can lead to an increase in the people's unnecessary expectations requiring diagnostic, medication, or referral services as for instance taken as shortage and black marketing of face masks and hand sanitizer in India. As for low- and middle-income countries with limited health services, this can make the situation worse because these nations don't have enough workforce and financial resources to cope up with this epidemic. Yet India is managing with its own level at its best, but it seems like the virus' potential path is uncertain. Hence, this review provides a bird's eye view of the impact of social media on the general population during this CoV epidemic. Government and health professionals must embrace and make plans for the use of social media, work together, establish limits and build guidelines for its usage, and above all, make them work for the general population.

4.3 Effect of COVID-19 on various section of society

i. Effect of COVID-19 on Health Care Workers

Findings suggest HCWs are susceptible to various health consequences due to the COVID-19 pandemic. For those with COVID-19 infections, the most common symptoms were fever and cough, which were similar to those seen in the community. Several risk factors were identified; long duty hours, working in the high-risk department, lack of PPE, diagnosed family member, unqualified hand-washing, and improper infection control. Furthermore, prolonged PPE usage led to skin damage, with the nasal bridge being the most common site. Battling COVID-19 on the frontline makes HCWs vulnerable to psychological distress. Finding shows high levels of depression, stress, anxiety, distress, anger, fear, insomnia, and post-traumatic stress disorder in the HCWs. Females and nurses were disproportionately affected more from mental health consequences. Frontline female nurses work in close contact with patients for longer working hours, which may result in fatigue, stress, and anxiety. However, this finding warrants for further research to better prepare for the future.

4.3.1 Effect on Different Section of the Society

i. Children

Study shows that students were severely anxious about their studies and it will lead to further increase in stress level. Increased anxiety can affect negatively to psychological, emotional and behavioral state of the students. If psychological state is not in equilibrium, then students could not be able to concentrate on their studies. Investigators recommends that government authorities and educational institutes can take collaborative steps to solve these various problems in upcoming near future. Internet facilities can be provided for students at subsidized rate, which will a better solution for poor internet availability. A training program for online classes can be made compulsory for the educators to improve the quality of online education programs. Health education for reducing the mental stress and promoting preventive behavior may require various strategy. If someone feels that psychological pressure at its peak level, then psychological assistance can be taken to prevent from further complications. At the end, investigators conclude that mental health is also as important as physical health.

ii. Elderly people

The notion that older adults and people with serious comorbidities are particularly vulnerable to worse outcomes from COVID-19 can create considerable fear amongst the elderly. Other psychological impacts may include anxiety, irritability and excessive feeling of stress or anger. Those older adults with cognitive decline may become much more anxious, agitated, and socially withdrawn, thus their specific needs demand specific attention. Indoor physical exercise might be a potential therapy not only to maintain a robust physical health, but also to counteract the psychological impact in this trying time.

iii. Care workers

Care worker which is predominantly provided by women and girls, is a central yet typically undervalued contributor to economies. It includes supporting daily activities of individuals (such as cooking, cleaning, and providing daily essentials), as well as the health and well-being of others, including children and the elderly.

Emerging data indicates that among confirmed cases of COVID-19 men are consistently dying in higher numbers than women. But when it comes to the economic and social fallout of the pandemic, women and girls face much greater risks. The UN recently published a policy brief recognising these risks, including impacts to sexual and reproductive health, and increases in gender-based violence.

iv. Daily wage earners problems

For those who migrate from towns and a village, living in a city is just as tough. While one can find food, but given the sky-high real estate prices, a roof on the head is a task. That's how a cluster of slums springs up. The lack of private sanitation facilities, dingy, congested and dense population make these slum pockets a breeding ground for the virus.

5.0 SOLUTION

This is the story of lakhs of daily wage workers across the country. The root cause lies in the fact that in villages, the only known source of livelihood is farming. The youth isn't exposed to other sources. These dwellings we see around us, all over the country are a result of a rise in migration primarily for earning a livelihood, which is possible only in big cities and towns.

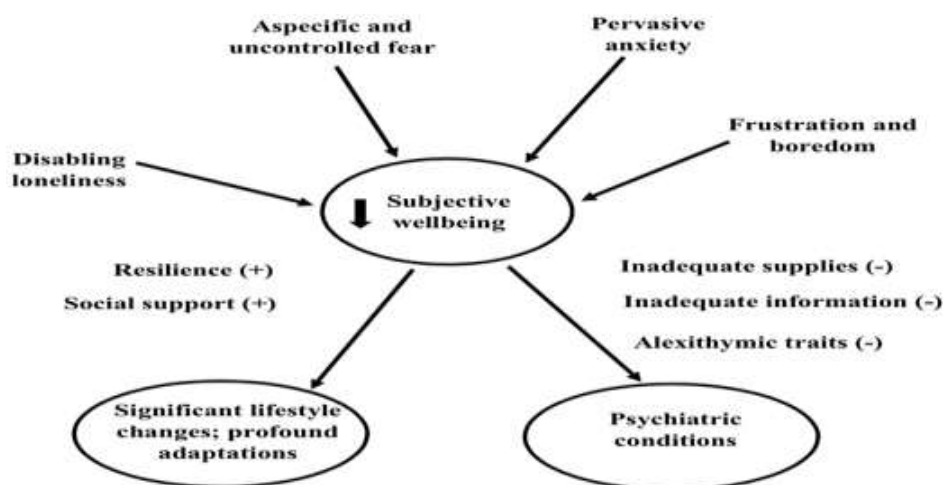
In the wake of the current situation, the daily wage migrants happen to face a dilemma. A daily wage labourer, Francis, who returned to his village, has suddenly taken up a liking to farming. Lives in villages seem lesser complicated with basic necessities, such as food and shelter taken care of. However they do need money. Urban habits which have been integral parts of their lifestyles are difficult to do away with. The need to earn money would lure them to return to cities at some point. Would, however, be feasible? Instead, can these workers be absorbed in the rural set up? And would that impact the economy further? Committees that evaluate an aspiring worker's skill set and counsel them to stay back or migrate would help in the process. Unfortunately identifying and nurturing skill sets are a problem, due to lack of education, or let's say, ignorance and lack of willingness, the youth may not be able to identify opportunities to hone their skills. There have been instances where the aspiring students have felt the need to explore bigger town and cities for pursuing menial courses. This very movement, from which they feel the need to leave their villages, does not incentivize them to return.

Although, the road ahead is not a rosy one. It is only getting tougher with every sphere of life getting affected. The partial opening of the lockdown has helped the economy with some hope as small entrepreneurs are gradually starting to see a wave of revival.

The consumer, who is holding back for obvious reasons, may start to make bullish purchases. This in turn may set the ball rolling. The effective demand is definitely going to prove to be a tonic for the economy. This would act as a muchrequired booster. This is what the general picture tells. However one of the four most important factors of production – labour, one of a crucial factors (especially in a labour intensive economy as ours.) Populous as our country is, labour needs to be allocated effectively and kept productively occupied.

The motive should be to break the perennial cycle so that we build a stronger economy that beneficial to all economic stratus of the society.

Figure 2



5.1 A specific and uncontrolled fears related to infection

This is commonly one of the most frequent psychological reaction to pandemics. Several existing studies demonstrated that those who have been exposed to the risk of infection may develop pervasive fears about their health, worries to infect others and fear infecting family members. Jeong *et al.* reported that these individuals are more vulnerable than others to manifest worries if they experienced physical symptoms potentially linked to the infection and fear that symptoms are directly associated to actively having the infection even several months after the exposure. Other studies reported that pregnant women and individuals with young children are the most at risk to develop the fear of becoming infected or transmitting the virus.

5.2 Pervasive anxiety

Social isolation related to restrictions and lockdown measures are linked to feelings of uncertainty for the future, fear of new and unknown infective agents resulting in abnormally increased anxiety. Anxiety may be directly related to sensorial deprivation and pervasive loneliness, in this case first insomnia but later depression and post-traumatic stress occurred. In addition, anxiety is closely associated with fatigue and reduced performance in healthcare workers while boredom and loneliness are directly related to anger, frustration and sufferings linked to quarantine restrictions.

5.3 Frustration and boredom

Distress, boredom, social isolation and frustration are directly related to confinement, abnormally reduced social/physical contact with others, and loss of usual habits. As reported by Jeong *et al.*, frustration and pervasive loneliness seem to derive by the inhibition from daily activities, interruption of social necessities, not taking part in social networking activities. Unfortunately, in this context hopelessness together with other individual characteristics such as the experience of childhood maltreatment as well as extreme sensory processing patterns may significantly and independently predict suicidal behavior but even the unbearable anger related to the imposition of quarantine may lead to negative outcomes.

5.4 Disabling loneliness

The final effect of social isolation is pervasive loneliness and boredom, which have potential dramatic effects on both physical and mental individual well-being. Pervasive loneliness may be significantly associated with increased depression and suicidal behavior.²³ Unfortunately, the isolation is progressively enhanced by anxiety, panic or collective hysteria.

5.5 Alexithymia

The risk of related quarantine distress may be also due to the presence of alexithymic traits which may reduce psychological resilience in some subgroups of individuals. Alexithymia may be literally defined as ‘no words for mood’ and was initially identified to describe cognitive and affective features in patients with psychosomatic disorders. Alexithymic individuals may show significantly higher levels of anxiety, depression and psychological distress than non-alexithymics.

5.6 Inadequate supplies

Importantly, feelings of frustration and uncertainty tend to occur even in relation with inadequate basic supplies (e.g. food, water, clothes etc.) during the quarantine period which is a major source of worries, and anxiety/anger even after 4–6 months from quarantine. There are studies demonstrating that supplies provided by public health authorities in order to address the outbreak may be inappropriate or their release may be carried out too late to successfully address the needs.

5.7 Inadequate information

Existing evidence suggest that the poor or inadequate information from public health authorities may be a significant stressor because it provides inappropriate guidelines concerning call for actions or leads to confusion about the purpose of quarantine or the importance of measures needed to interrupt the pandemic spread.

5.8 Resilience

Psychological resilience may be generally defined as the ability to support or retrieve psychological well-being during or after addressing stressful disabling conditions. Although the interconnectedness increased dramatically over the past decades, similarly the vulnerability of billions of individuals across the world to existing or novel pathogens tragically increased without a corresponding enhancement in coping abilities.

5.9 Social support

A higher and significant perception of social support is associated with a reduced likelihood to develop psychological distress and psychiatric conditions. Conversely, according to a recent online survey conducted in South Korea, most (72.0%) of the respondents reported they could get someone else's support if they were isolated due to COVID-19, and 28.0% clearly reported they would not have social support. Adequate social support for the general population with regard to specific at risk populations (e.g. infected patients, quarantined individuals and medical professionals) should be provided by offering targeted, tailored messages according to the most reliable scientific evidence. Relevantly, a variety of mental health supporting strategies are required in pandemic areas in order to facilitate lifestyle changes and re-adaptation activities required after the occurrence of invalidating outbreaks.

6.0 CONCLUSION

Due to COVID 19, various sections of the society are psychologically impacted because of various factors like quarantine, isolation, news, social media etc. Different age group of people like students, children, elderly people, Health care workers, domestic workers, Frontline workers, adult, daily wage earners etc. are impacted psychologically. They face problems like trauma, anxiety, fear, frustration, boredom etc.

Solution: Setting up mental health organizations specific for future pandemics with branches in many nations and in individual healthcare institutions for research, mental healthcare delivery and arranging awareness program at both personal and community levels is desperately needed. Structured websites and toll free helpline numbers may be launched for alleviating psychological distress among the general public regarding this ongoing pandemic. Social media is to be used in good sense, to educate people on transmission dynamics, symptoms of disease, and time when exact medical consultations are needed. To protect social media from devaluations, strict government laws and legislation regarding fake news, social media rumors, disinformation and misinformation are to be implemented. The COVID-19 pandemic has clearly shown us how a “virus” can negatively impact our lives even in the

21st century and simultaneously made us realize that the greatest assets of mankind are health, peace, love, solidarity, ingenuity, and knowledge.

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CHAPTER 21

NATIONAL LOCKDOWN WITH REGIONAL RESTRICTIONS: A CASE STUDY OF IMPACT ON NON-COVID-19 PATIENTS

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1.0 INTRODUCTION

COVID 19 pandemic was started with the recognition of initial cases of corona virus infection later named as SARS-CoV-2, the virus that causes COVID-19, in the Wuhan city of China in December, 2019. Later, the possible first case of the corona virus infection was traced back to November, 2019 in Hubei province of China (Bryner, 2020). The person to person spread of the virus caused many countries to impose lockdown in almost every country across the globe. In India, the 21 days nationwide lockdown was imposed from 25th March, 2020 till 14th April, 2020 restricting the movement of almost every person in the country to contain the spread of the disease. The lockdown then extended for another three weeks from 15th April, 2020 to 3rd May, 2020. The lockdown again extended for 14 days twice and started to relax in a phased manner from 1st June, 2020.

The lockdown was essentially meant to control the spread of infectious disease but it caused many difficulties for the people suffering from other diseases as well. One such category was of people suffering from non-communicable diseases (NCDs). As per a WHO report NCDs including heart disorders, cancer and diabetes were the cause of 70 per cent deaths globally and 61 per cent of all deaths in India (Dey, 2017). COVID-19 and NCDs seemed to be a fatal combination, reinforcing one another (Kataria et al., 2020). However, COVID-19 Lockdown and NCDs also seemed to have a fatal combination which is of rather greater impact than the earlier combination. Analysis of data released by National Health

Mission in the month of April, 2020 showed that there had been significant decrease of 64.2 per cent and 51.8 per cent in the number of OPDs in the month of March, 2020 as compared to February, 2020 for cancer and acute heart diseases respectively. Similarly, number of acute cardiac emergencies that reached health institutions was reduced by 28.4 per cent in March, 2020 (S, 2020). Although the government claimed that essential health

services were open during the lockdown but without any means of public transport and restricted movement of personal vehicles, merely keeping hospitals open was not enough as the people were not able to access these services. The following case is related to one such patient who could not survive because the emergency medical services were not available when they could decide life or death for a patient.

2.0 CASE STUDY

This case is about Smt. Lata Devi, a resident of a small town in Chamba District of Himachal Pradesh. Lata Devi is a widow in her early fifties. She has lost her husband eight years ago due to some medical negligence in his treatment who was a diabetic patient. Lata Devi is also a diabetic. She has two sons and a daughter. Her elder son is staying with his family in Amritsar as he works there. Amritsar is also native place of her in-laws. Younger son takes care of her husband's clothing business and the daughter is pursuing her graduation in local government college. The town is not having good health care infrastructure neither government nor private. The residents have to rush to Pathankot or Govt. Medical College, Tanda (Kangra) approx. 50 km&100 km respectively, in case of any medical emergency. Lata Devi has faced such situations earlier; whenever her husband had any medical emergency they used to rush to Amritsar because of two reasons, first was better medical facilities and secondly it was home. But this time Lata Devi was the patient and, moreover, there is restricted movement of public and vehicles due to lockdown.

May 24, 2020, Lata Devi slipped on wet floor and her head hit the wall. She felt some superficial pain and everything was fine later. It was a routine day for her on May 28, 2020 when at 04:40 in the evening she became unconscious and fell down from the bed. Her daughter informed the brother who was at shop at that time. He came in no time and they shifted her to the only government hospital in the town. While she was in emergency, elder son was also informed about her condition. The doctor read the lab reports; blood sugar was normal, ECG report was fine. So, provided the fact that she slipped few days back he referred her to Govt. Medical College, Tanda for CT scan to detect any head injury as it was not available in any nearby location within the state boundary. In the meanwhile, the elder son had a word with his friend from previous workplace whose wife was working as staff nurse in Govt. Medical College, Tanda and came to know that Cardiac and Neuro wards were not in operation due to Corona virus related restrictions. He informed his brother and wanted him to bring the mother to Amritsar. But private ambulance in Amritsar denied from going to Himachal due to restricted interstate movement of vehicles. At around 8:30 in the night they reached Tanda where the doctors started emergency treatment. By 9:30 PM doctor in the

medical college confirmed that Lata Devi was having repeated heart attacks. Instead of treating her in the hospital which is a medical college as well, doctors advised her family to take her to some other hospital where she can be treated because the cardiac ward was closed in the hospital as precautionary measure. Doctor in the medical college said that he could only refer her to IGMCH Shimla or PGI Chandigarh, both approximately seven hours away, due to certain restrictions on government hospitals. However, he suggested that she must be taken to Fortis Hospital, Kangra which was only located at a distance of less than seven KMs. The medical college denied the ambulance service to the Lata Devi on the ground that there was only one ambulance in the hospital and there might be another call for emergency. Her family called up Fortis Hospital and requested for the ambulance, however, the doctor of Fortis hospital agreed for sending ambulance only after receiving all the reports on his whatsapp and having consultation with doctor of medical college to confirm that it was not a case of COVID-19. After all the efforts they reached Fortis hospital at 11:40 PM where she underwent pacemaker implant heart surgery. But due to the avoidable delay in getting the treatment she could not survive and passed away after few minutes at 12:40 AM on May 29th, 2020. To ferry the corpse home her family called up private ambulance service provider but he denied stating the night curfew in the area till 7 AM. However, after interference of some influential person the ambulance provider was ready to move during the night. On the other hand, her elder son who was on his way back to home after hearing the sudden demise of her mother had to face difficulties as he was not carrying any curfew pass for interstate movement. The last rites of Lata Devi were performed keeping in view the lockdown guidelines.

This is just one case and it left many unanswered questions.

- Who is responsible for the death of Lata Devi?
- How can the restrictions imposed by states on interstate movement of people be justified when people of every state are working in different parts of the country and they need to visit other states for basic requirements such as medical facilities?
- What if the cardiac ward at Government Medical College, Tanda was working?
- Can the loss of lives due to lockdown be justified by benefits of lockdown?

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CHAPTER 22

FIRST DENIAL, THEN PANIC & FEAR OF SURVIVAL: A BATTLE OF THOUGHTS AFTER TESTED POSITIVE FOR COVID-19

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1.0 INTRODUCTION

Since the start of the year 2020, world has been facing tough time due to the pandemic known as COVID-19 or Coronavirus Disease-2019, which has shaken almost every country's economy, activities, routines and livelihood of people. The World Health Organization (WHO) has also expressed its concern over the impact of the global pandemic on the mental health of the people. When this crisis unfolds, we straight way went for National lockdown in the country and fear for the virus was at the height but our thinking about it changed when government started opening up the country in the form of unlocking. As the cases in India increased, fear for the virus decreased. There is often a debate of unplanned lockdown which created so much panic in the minds of migrant labourers and they were initially the most stressed group.

Though, psychiatrists say there is a universal presence of mental stress due to coronavirus, but certain categories of people are highly vulnerable. The first category involves those dealing with poverty and unemployment and the second category include those with psycho-social issues such as domestic violence, sexual abuse, etc. There is also a small minority of people who have COVID-19 infection, or have a family member who has tested positive, who have reported heightened anxiety. Many frontline workers, such as ASHA workers, nurses, doctors, police etc. are also extremely vulnerable to stress. If any of these sets of people had a prior illness, then their condition is likely to worsen because of stress. Experts also warn that the relationship between the COVID-19 and mental health problems are "bi-directional", i.e. such illnesses are not merely consequences of the pandemic but an inability to deal with them can lead to the more spread of COVID-19 infection. Experts were also worried whether pandemics increase suicides, but for the economic crisis that will follow you may get increase in suicide rates.

The lockdowns around the world have also led to an increase in domestic violence cases as

victims of violence are restricted to stay in the same place with no escape. Stigma and discrimination against person(s) who have tested positive for COVID-19 and their family is another major source of distress for them, in addition to the already existing physical and mental health issues. A recent survey by the Indian Psychiatric Society indicated a twenty percent increase in mental illnesses in the country since the coronavirus outbreak. This case study is about that mental stress which peaked in my mind when tested positive for COVID-19.

2.0 CASE STUDY

On Thursday, 17th September, 2020, I decided to undergo the Rapid Antigen Test to check whether I was infected with virus named as SARS-COV-2. Symptoms for the same started 3 days before on 14th September, 2020 with temperature over 100-degree Fahrenheit. Two days later, my throat started to pain and on the third day, cough also began. Because my father was also admitted in the hospital at Jalandhar due to Dengue fever, so chances of the same was more as we lived in same environment. So, I underwent lab examinations for CBC check-up, Dengue, Typhoid, Malaria on 16th September prior to COVID-19 test. But everything was good in the lab report. Malaria, typhoid and dengue fever were non-reactive in the report. When next day, same problems were at the height, I decided to go to Civil Hospital near me for the Rapid Antigen Test.

There were around 40 people who came for the test and 3 tested positive on that day. Two persons who tested positive were from the same family and third was me. At the initial point, it was not easy to digest when everyone was getting negative around you and I was tested positive. I insisted the doctor to re-test or re-confirm but he told me to stand away at a place. There was one officer who told me to get quarantined at the home. My thought process moved towards the small baby at the home who was just 2 years old and my ailing father who was admitted at private hospital in Jalandhar. I got worried for the safety of my family and at the same time there were also worries of finding a place for getting myself quarantine as at home there was one floor and small baby was also there.

One of our relatives offered me first floor of their house and I considered this as their bold decision to give the covid-19 positive person a place in their house. At around 1 p.m., an hour after getting my coronavirus test, my mother called me and told that the private hospital staff were getting very rude to them and were asking to leave the place. They immediately asked for CT scan of Rupees 4500. At that point of time, platelet count was 48000 which in idle condition was needed to be between 1.5 lakh to 3.5 lakh. It was getting very difficult for my mother to continue at hospital with this kind of behaviour and she decided that they will

opt the option to get discharge from the hospital after paying the bill of around Rs. 35000.

That was the day when we all were very upset and many fear factors were coming to the mind-

- COVID status of the family.
- Small baby at the home who is our lifeline.
- My own battle to survive.
- Health of father in case it gets worse overnight.

That night was not only sleepless because of viral fever but also due to added mental stress. Next day, my father in law came and took along my wife and baby at their place. We thought it would be safe if they both will go somewhere far from home. At around 11 am on 18th September, 2020, everybody went to the hospital for covid-19 test. First good news came from my wife side of getting “negative” in the Rapid Antigen Test. That news gave a huge sigh of relief as she could now safely handle the baby and herself. After an hour at around 12:00 noon, my mother and father were tested negative. Again, this news was like a double happy moment and felt like our prayers to the god were now getting addressed.

Now, my father and mother straightway went to the clinical lab for getting their platelet count checked and it were 1.04 lakh. I thanked the god for pouring the good news in our way and now only worry was to battle for the recovery. Family’s good health and positive talks gave me more courage to fight with the novel coronavirus. My wife and the baby are still at their Naani’s place. I went for the Covid test again on 22nd September, 2020 and unfortunately tested positive again. This time there were no worries in my mind as a very weak covid lines were observed in the test which meant that I was marching towards the recovery. The questions which still remained in my mind during the course were-

- On the part of doctors who were doing my father's treatment, where is the justification of my father’s immediate discharge from the hospital.
- Why rude behaviour with my family after my covid positive report?
- What if my father's conditions worsen over the night, then who should be held responsible?
- Does the fear of getting Corona Positive overpower humanitarian grounds?

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CHAPTER 23

OPPORTUNITIES & CHALLENGES FOR HEALTH INDUSTRY POST CORONA CRISIS

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ABSTRACT

The whole world is severely impacted by COVID 19 pandemic and all the economic activities are on standstill by persistent lockdown. Lot of lives and livelihoods have been lost and more worst is yet to be seen in terms of economic impact or losses. Gross domestic product (GDP) numbers of all the major economies are showing negative figures after decades of Bull Run. It has been observed that, the health industry or health economy which is at forefront to fight this pandemic has shown positive trends. The industry of Healthcare or Health economy is an integration of sectors within the economic system that supply goods and services to curative, preventive, rehabilitative, and palliative care treatments. Healthcare industry plays an important part in the economy and contributes to the GDP and also determines exports status, employment, capital investment etc.

Keywords: *COVID-19 Pandemic, Lockdown, Gross domestic product, Health Economy*

1.0 INTRODUCTION

Healthcare in general consists of following business segments:--

Hospitals:-- Government & Private Hospitals: -- District Hospitals, General Hospitals, Specialty Hospitals, and government Cancer Hospitals, Private Clinics, Nursing Homes, Private Hospital chains Etc.

Pharmaceuticals: -- Consists of Research, discovery and then production of Chemical compounds or drugs which can be used for medication and treatment of the diseases.

Diagnostics: -- Consists of public and private laboratories for checking, testing and analyzing the part or fluid samples from the body for its constituents to diagnose any presence of the diseases.

Medical Equipment and Supplies: -- Consists of the businesses manufacturing medical equipment and supplies, e.g. surgical, dental, laboratory instruments, PPE kits etc.

Medical Insurance: -- Consists of businesses providing health insurance to compensate the insured for expenses or loss incurred for medical reasons through illness or hospitalization.

Health care, a human right: -- The right to health care is very crucial and has been recognized internationally but most of the countries does not have mature healthcare system but only health insurance systems. If governments create good Healthcare systems then the cost of health insurance would be less.

1.1 Pre COVID Scenario

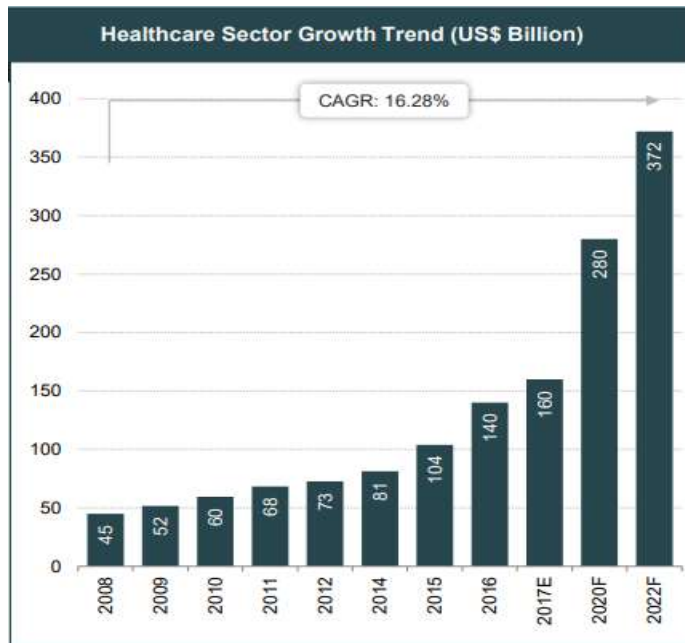
The Healthcare industry is growing at rapid pace because of awareness about personal well-being and also due to the availability of medical facilities nearby.

According to different studies by the leading industry researching bodies and government agencies like IBEF, the Healthcare is one of the largest sector in India and it was estimated at \$170 billion in 2017 and was estimated to grow by 16% CAGR to cross 2 Trillion by 2022. (See chart below)

The hospital industry in India stood at US\$ 61.79 billion in FY17 and is expected to increase at a Compound Annual Growth Rate (CAGR) of 16-17 % to reach US\$ 132.84 billion by FY22.

Healthcare expenditure by families and government has risen due to below factors:--

1. Per capita rise in income
2. Awareness about keeping up personal well being
3. Availability of nearby government and private hospitals
4. Availability of good diagnostics centers
5. State and center government incentivizing the Medicare under different schemes



Source: -- IBEF study

2.0 CHALLENGES POSED BY COVID:--

Almost all the nations are facing huge challenges in terms of the resources to deal with COVID - 19 pandemic and its impact on the economy and livelihood of human beings. Lockdown has been used as a major tool to restrict the widespread of pandemic but it also severely impacted the economic growth which is evident from the recent GDP numbers. The National Statistical Office (NSO) has put out the figures of India's Q1FY21 GDP which is at **-23.9%**.

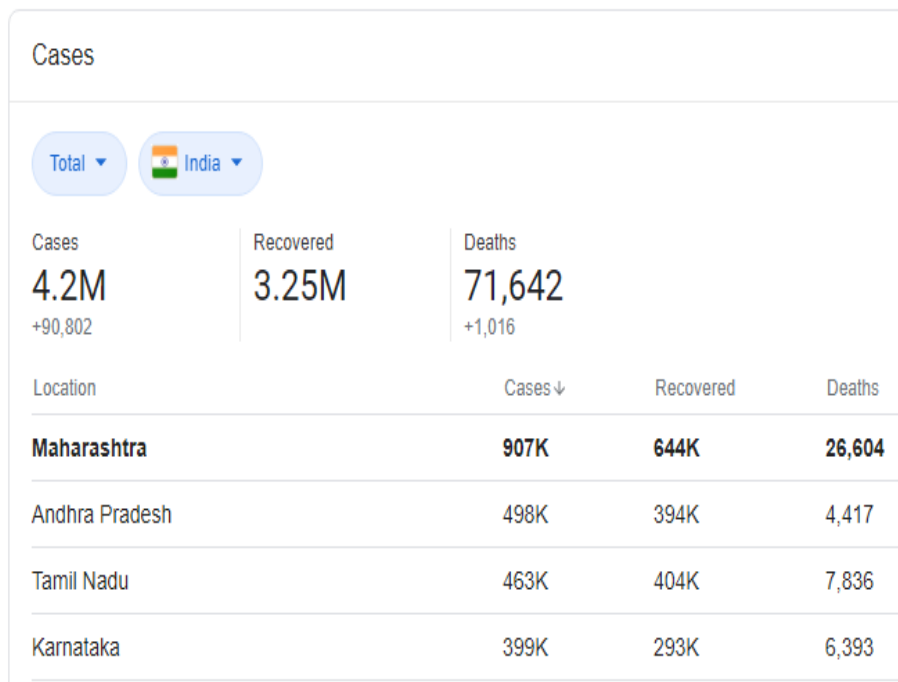
Except positive agricultural output most of other sectors have got impacted due to the pandemic and a lot of them would also face challenge of existence during or after the pandemic.

Though a lot of efforts are being put in to find the effective cure and vaccine for the Corona Virus but efforts are yet to bear any fruit. This pose a challenge and question mark on international organizations like WHO and our dependency on it.

While we have opened our economy to the world but it is evident from the widespread of pandemic that excessive globalization also have its own challenges. We need to learn from these experiences to develop new technologies and means to early identify such pandemics in future. Data sharing with the world is necessary so that the pandemics can be restricted to its source of origin or nation.

The pandemic also highlighted severe need of big healthcare and isolation facilities

near Tier 1 cities as those are first point of impact. We have seen that cities like Mumbai, Thane, Pune, Ahmedabad, Bangalore and Chennai have large number of patients across the nations. All the industrialized states are at the top of chart in terms of the Active and recovered cases. Sept 8, 2020 Data: --



The pandemic also highlighted severe need of having self-reliance in manufacturing of basic items for all critical industries. During the Pandemic, we severely faced shortages of PPE Suits, API and KSMs for Drugs, Ventilators etc. but we had heavy dependency on imports for these items on China and nations from Europe but unfortunately for us those were the severely impacted nations during the initial days of pandemic.

Not having large scale government diagnostics or testing facilities having availability of large scale testing kits for viral diseases impacted prevention and early detection. We are dependent on import of such kits from China, Korea which resulted in delayed response in detection of patients.

We would not only need trained doctors, Nursing Staff but also the good and certified Medical equipment, Beds, Life support systems, Sanitizing materials, large scale testing and isolation facilities, ICU rooms and equipment etc. to remain functional at any time in case of pandemic of any severity.

3.0 OPPORTUNITIES DURING AND POST COVID

As the saying goes “In Every Challenge lives a greater Opportunity” hence we

need to Change the Way We Think about Problems and always come out on Top.

During the Six Months of Pandemic the Healthcare industry is at the forefront of fighting it but it also highlighted the underlying issues and needs of healthcare systems, which in turn also showed us a lot of new opportunities awaiting for its growth in India.

The pandemic has shown us the critical need of manufacturing big healthcare facilities, good medical infrastructure, Government and Private Hospitals, Public and private isolation facilities near industrialized cities to save lot of lives and livelihoods.

To increase the economic activities, government spending can be increased to create new big AIIMS like facilities and isolation centers near industrialized and populated cities which would spurt up the demand as well.

Pandemic also shown a great opportunity for manufacturing of end to end supply chain of preventive and pharmaceutical gears and medicines. The preventive medical equipment like PPE Kits, Sanitizing materials, Testing kits etc. are basic backbone of healthcare. An even greater opportunity awaits for pharmaceutical companies to manufacture API KSM materials, Medicines, Vaccine, immunity boosting syrups etc.

The Medical equipment manufacturing industry can do advancements in manufacturing of quality and price effective life support systems like ventilators, Oxygen cylinders, and Medical beds etc. which would not only make us self-reliant but also help in generating foreign currency as there is huge demand of the same worldwide.

Thus, during COVID-19 pandemic and even after that Healthcare industry will emerge as a bright spot of economic activities is of no doubt. Hence a lot need to be done for its support and growth under **“Make In India”** program and **Self Reliant India mission**.

4.0 AATMANIRBHAR BHARAT: -- SELF RELIANT INDIA

'The world talks about how the 21st century belongs to India. It is not just our dream but also our responsibility to ensure that the 21st century belongs to India,'we have to protect ourselves, and also move forward. We have to be more determined than ever-- Honorable Prime Minister of India.

Below are some of the big positives emerged for healthcare during the pandemic.

4.1 PPE Kit Manufacturing Story

PPE Kits & N95 masks are acting as the major protective gears against the Covid-19 Pandemic for not only the frontline COVID workers like Doctors, Nurses, Pharmacists, Police but also for the overall public at large.

Before the Pandemic, we were completely dependent on imports for PPE Kits, but with the clarion call given by the PM for Aatmanirbhar Bharat, industries have started large

Scale production of PPE Kits. Now we are also able to supply some of these Preventive gears along with other medical supplies to Friendly SAARC nations like Nepal, Bangladesh, Maldives thus proving the famous proverb i.e. A Friend in need is Friend Indeed.

The Export is also generating revenue for the Country and it is estimated that PPE kits will have a market of Rs. 10,000 crore (US\$ 1.42 billion) in India by 2021.

Reliance Industries has converted its subsidiary Alok Industries into PPE Kit manufacturer which is now producing the PPE Kits at one third of the cost of imported PPE kits.

High grade polypropylene is the raw material used to produce the equipment. Reliance, which is already leader in manufacturing the High grade polypropylene is using its capacity to manufacture the Raw material and then the end Product which is the PPE kit from Alok industries.

Government bodies like Indian IIT- Kanpur, DRDO and Indian Navy also came up with their own Products at the fraction of the cost. The latest PPE kit developed by IIT Kanpur is breathable and made of lighter and soft material and can be used for long hours with price tag at around Rs. 950.

4.2 API & KSMs Story

Critical components in the manufacturing of medicines for pharmaceutical companies are active pharmaceutical ingredients (API) and key starting materials (KSM). There is a speculation that the prices of API and KSMs would rise after COVID 19 pandemic which would increase the prices of medicines hence the Indian government needs to provide incentives to the pharmaceutical industry under the 'Make in India' program to manufacture the key ingredients locally in India and reduce the import dependency to attain self-reliance and drug security.

The promotion of bulk drug parks would also help India to become self-sufficient and net exporter of Medicines.

4.3 Ventilators story

As COVID-19 virus directly attacks the respiratory system of human body a lot of Corona virus patients (around 10%) need ventilators during their treatment in hospitals. As the COVID patients tally is increasing day by day (while writing this article it has touched to 40 Lakhs Confirmed cases and 8.8 Lakhs active cases) it is estimated that India would need at least need 5 Lakhs ventilators. Before the pandemic India was heavily dependent on Imports for supply of the Ventilators for the Healthcare Institutions but now a lot of domestic players come forward to the manufacturing of the ventilators.

Whether the demand for ventilators will remain the same in future is not certain but it's good to have domestic manufacturing capacity to fulfill demands within India and then the extra output can be exported to other countries as there is a huge demand of good quality and cost effective equipment worldwide.

Government has already allocated Rs.2,000 Cores to production of made in India ventilators from PM Care fund. Even greater amount and incentives need to be provided for advancement of the research and production of good quality critical life support medical equipment.

5.0 PREVENTIVE MEDITATION AND YOGA

5.1 Prevention is always better than cure

India already has great knowledge of Ayurveda which consist of detailed analysis of medicinal herbs and plants. It has also provided different formulations like Chavan Prash or immunity boosting Kadhas to naturally boost the immunity without having any side effects. A large spurt in demand is seen for such products during the pandemic and with more research and advancements the Ayurvedic manufacturing companies can even try for their export to world so that even they would benefit of our ancient knowledge.

Yoga is another boon given by our ancient knowledge to the world. Its regular practice has proven track record of improving overall health of the body. Yoga has already propagated in the world and the present and future governments can provide a helping hand to propagate it further across the globe by setting up Yoga schools initially in India and then in rest of the world once we have good number of quality Yoga teachers available in our nation.

5.2 Telemedicine

Social distancing is one of the measure identified to prevent the spread of the pandemic. To avoid social contacts, telemedicine emerged as effective tool to diagnose and treat the non-life threatening diseases. Technology is critical to effectively utilize the telemedicine practices hence a lot of start of companies needed to do the research and produce market ready telemedicine technology. Government can provide incentives under make In India program for developing the technology support for industry and once its ready we can reap the gain by exporting our knowledge to rest of the world where medical professionals or facilities are not yet available.

6.0 CONCLUSION

With government support, the healthcare industry can invest in developing new technologies, researching new medicines, vaccines, devices and can leapfrog the COVID -19

challenges and turn them into opportunities and then emerge as new bright spot for the Indian economy to make India self-reliant nation and also to help other needy nations as well.

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CHAPTER 24

GHMC SANITARY WORKERS FRONTLINE WORRIES DURING COVID-19 LOCKDOWN IN HYDERABAD: A STUDY

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ABSTRACT

The role of the front lines during the covid-19 lockdown is unimaginable who are rendering the services to safeguard the society from the spread of the Covid-19 virus. The frontline worriers are sacrificing their life's and discharging their duties. This paper deals with the services of the sanitary workers working in GHMC Hyderabad.

Keywords: *Workers, Society, Safeguard, Frontline*

1.0 INTRODUCTION

Sanitary workers are the ones who lay foundation ensuring a resistant, durable first line of defence in battle against pandemic. Keeping their life's in the risk of attacking of corona virus even though they are engaged in discharging their duties regularly without any delay. The sanitary works played a very crucial role in maintain the slums, road, naals clean from time to time as a part of their daily work in the Hyderabad slums. The workers are involved even in the areas where the areas are under containment zones the areas where the covid-19 patients are residing. These frontline workers have each and every minute risk while discharging their duties. The workers even though they take precautions by wearing mask, gloves and sanitizing from time to time.

1.1 Role of sanitary workers

Sanitation work also includes clearing sewerage, emptying garbage pits and dumping the waste at garbage collection points. Nearly 22,500 workers are engaged in cleaning work of the city "These works can't be done by sitting at home or assigning the task to someone. Whatever might be the situation, they have to attend duty," either it rains heavily also, they are present to discharge their duties since the early morning 4:00 a.m. in cleaning roads, streets etc., Lifiting the garbage from lane to lane and keep the street clean.

Approximately they collect 5000 metric tones of garbage from the areas, the garbage smells very foul smell which deals to several health issues of the workers. Even though they are involved in the such type of work, they love their work in imparting their duties.

Undeterred by the fact that they can easily be targeted by viruses like the one behind the COVID-19 pandemic, sanitary workers with the Greater Hyderabad Municipal Corporation (GHMC) including sweepers, truck drivers and door-to-door collection agents have been going about their jobs, making sure that the city is clean and free from garbage. Using a broom to clear trash from the road and iron plates to dump the same into baskets,



Screening of Sanitary workers daily
Before attending the duties



Sanitary workers involved in duties

1.3 Perceptions of the sanitary workers

The perceptions of the sanitary workers is collected to analyz their role and responsibility towards discharging their duties. The GHMC workers are the frontline workers in discharging their duties without any delay. All most all the sanitary workers are involved in sweeping streets, collecting garbages, cleaning parks, public places, bus shelters etc., The perceptions of the sanitary workers during the pandemic period is here

- Raghu Ram 39 years who is uneducated a sanitary worker walks along a silent street in Somajiguda every morning. “It is the only profession I know for a livelihood. I know it is risky and unhygienic in these times, but I cannot stay away from work. This is the time I have to prove my worthiness,”. Even during this risk time he is faithfully involved in discharging the duties without any delay.
- Ramulu 47 years, who clears trash on the stretches of SR Nagar, says he toils around six hours each day from 5 am to 11 am, putting his health at risk. “My family members have been reluctant to let me go out. But I tell them that the city needs me now,” he said.

- Yellamma 51 year old lady is working as sweeper in secunderabad Gandhi Hospital area, she attends the duties early morning at 4:00 am and involves in cleaning the street and collecting the garbages. She says that, their family members are not allowing her inside the house as she is working near the Gandhi Hospital area which is a Government State Covid-19 Center. Where nearly hundred of covid patients visits for the treatment. Even though she feels happy that she is serving to the society the way she can help in discharging the duties.
- Jyothi 42 years sanitary worker who is working as outsourcing employee receives only Rs.6000/- as monthly salary. She says that if we stay at home we are unable to get even this salary. Being in risk task as frontline worries also they are preferring to work for the society, for their family members. Keeping their life in risk she attending the duties.



2.0 SANITARY WORKERS: FRONLINE WORRIERS

Pandemic is only one of the many risks they face on a daily basis. In cities where garbage segregation is poor, they have been forced to separate waste by hand, equipped with little in the way of safety gear. Workers employed on contract basis do not have access to paid leave, pension or health benefits. Their salary can be half of what permanent workers are paid and are often delayed. Contract workers are also less able to save and secure the future of their kids. Yet, in virtually every crisis—natural disasters or pandemic— it is they who are at the forefront of restoring normalcy at great personal risk. Praising them as heroes without recognizing the structural inequities that force them into such roles glosses over the systemic overhaul required to better their lives.

When the pandemic ends, it is essential that civil society and governments remember their work, the risk at which it was undertaken, and how poorly prepared and compensated they are. The governments must ensure their job security with reasonable

wages and benefits that allow for social mobility and civil society should pressure governments to make sure this is done.

2.1 How can the government support the frontline workers (Sanitary Workers)?

- **Providing protective equipments:** The government must provide safety measures to the frontliner workers by supplying the Protective equipments from time to time. So that they can discharge their duties towards the society protection during the covid period.
- **Financial support:** All the workers are mostly working on the outsourcing basis, who's salary is very less. The government must provide financial assistant to these workers during these pandemic period by paying extra allowances to them.
- **Providing nutritional food:** The workers who are working in these areas must be given the nutritional food. Because they are always working in the risk areas, their immunity boost must be improved and be healthy all the time.
- **Incentives:** Apart from the salaries the fronline workers must be facilitated with the extra incentives during this risk time. Where everyone is in risk zone, they are coming and working for the safety of the public. Hence, they must be awarded with incentives from time to time.
- **Motivation:** The sanitary workers must be motivated always. Because the work they are involved is very risk area. There is a threat of attack of corona virus to them who are working in red zones. The motivation of workers can lead to job satisfaction of the workers.
- **Health insurance:** The government must come forward to provide with the insurance facilities to these workers who are always working in the risk zones. There is a lot of threat to their lives and they are not the permanent employees. The insurance is the must to the workers

3.0 PROBLEMS OF SANITARY WORKERS

The risk of doing the work in this crucial pandemic period is very hard for the lifes of the sanitary workers in the country. All over the country the sanitary workers are rendering rest less work for the welfare of the common people. There is lot of risk towards implementing their duties. The sanitary workers have to work on shift system, by cleaning the surroundings, garbages, septic tanks etc., The following are the problems of the sanitary workers during implementing their duties in risk red zones areas.

- i. **Health issues** are the major problems of the sanitary workers who are working in these areas. As they are dailyworking in the trush areas of dirty and decomposed waste materials the risk of health issue is more like Breathing problems, Heart issues, BP, Diabetics, Skin Allergies etc.,
- ii. **Low salaries** are the major problems of the outsourced sanitary workers who are working for the govrnment. The government must take necessary steps for the welfare of the workers.
- iii. **Lack of housing facilities** : The corporation must provide the housing to the workers working in the municipal corporation are staying in the rented houses. The corporation must provide with the housing facilities to all of them.
- iv. **Health insurance Scheme** : The government must take the steps for granting the health insurance schem to the workers. Because the sanitary workers work in the risk zones where there is a chance of high health risks to the workers.
- v. **Lack of Compensation Job Facilities** : The worker must be provided with compenstion job facilities to the sanitary workers. Because most of the workers are below poverty line and dose not have a secured life.
- vi. **Unsecurity Life** : The workers are facing the unsecurity of life working in the corportation due to non security of health issues risk during the pandemic period.
- vii. **Non-Flexibility of Timings** : The women aged workers are facing the problem of non flexiable work timing in the early hours. Due to the early hours duties while cleaning the highway roads they are meeting with the road accidents frequently.

4.0 IMPACT OF CORONA VIRUS ON SANITARY WORKERS

The sanitary workers are working daily without any leave facilities during the pandemic corona virus period in all the areas. The risk of attacking of the virus is more to these frontliner worries. Most of the sanitary workers are faced with the POSITIVE while implementing their duties in the red zone ares of the corona virus and hospitals. Most of the sanitary wokrer let to the corona virus positive sympotoms and which lead to lost their valuable life also. In the Corporation number of workers lost their life due to the corona virus only. The State government announced the Insurance to the frontline worriers to support their families.

Narsaiah (50) year GHMC worker died due to the corona virus who was working in the Hyderabad corporation. The family members refused to take the dead body. The GHMC workers team only burried the body with the permission of the family members. Most of the

family members are worried to allow the workers to stay along with them. The number of positive effected cases are increasing day by day among the workers.

Only on one day they identified nearly 52 positive cases in GHMC office, all the employees are every day sanitized and they are attending the work with risk. The government is providing necessary support to all the workers working in the corporation.

5.0 CONCLUSION

Being the frontline workers the sanitary workers are facing the risk towards the corona virus. They are working without any compromise in discharging the duties. The sanitary workers have to take necessary preventive measures to protect themselves and their family members and neighbours also. The risk of impact of the positive symptoms are more among the sanitary workers who are always the frontline workers in the state. The services of the workers are never forgettable during this lockdown period. We always appreciate the work of the sanitary workers in the society.

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CHAPTER 25

DESPERATE MIGRANT WORKERS TRAPPED IN LOCKDOWN: CORONAVIRUS IN INDIA

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ABSTRACT

COVID- 19, a biomedical disease has serious physical and tremendous mental health implications as the rapidly spreading pandemic. One of the most vulnerable, but neglected, an occupational community of internal migrant workers is prone for development of psychological ill-effects due to double whammy impact of COVID-19 crisis and concomitant adverse occupational scenario. Migrant workers faced with the situation of spending a few days in temporary shelters, which may be quarantine centres, while trying to reach to their native places, are filled with anxieties and fears stemming from various concerns, and are in need of psycho-social support.

1.0 INTRODUCTION

On 23 March, India's Prime Minister, Narendra Modi, entered the country into a period of lockdown to manage the spread of COVID-19. While India's population of 1.3 billion people came to terms with the changes of enforced social distancing, India's 40 million migrant workers had a different set of challenges to contend with (BBC 2020).

Due to the precarious nature of labour jobs in India, many daily labourers, who are often migrants, lost their livelihood due to lockdown. This has created issues including starvation,

separation from family and no alternative forms of employment (Al Jazeera 2020). The interstate migrant workforce represents the lowest paying and most insecure jobs, in key sectors such as construction, hospitality, textiles, manufacturing, transportation, services and domestic work (BBC,2020).



As lockdowns around the world increase unemployment, many vulnerable workers will be pushed into more precarious situations and lack protection (UN 2020). Shortage of labour is likely in those sectors, increasing the possibility of exploitation the remaining workers, and how this will impact internal migrants in the coming months. Once the pandemic has been managed to a point that sites are safe to return to for work, migrant workers may be taken advantage of, and are likely to accept any type of work so they and their families have means of income.

Even when workers can resume their roles working on site, whether that is construction sites or textile factories, safety measures will have to be introduced to mitigate the risks of COVID-19 such as regularly checking the temperatures of workers and social distancing in working areas.

2.0 WHY ARE MIGRANT WORKERS MORE VULNERABLE?

Due to differing circumstances, some groups of people are more vulnerable to the impacts of COVID-19 than others. Migrants (including domestic migrants) may not be able to get home and may not have access to local healthcare or the same legal rights as local workers. Those without a right to work may be particularly vulnerable at this time. Many migrants live in crowded accommodation or dormitories where social distancing is challenging to implement. They have limited access to personal protective equipment, such as masks or sanitizer. Those working in factories producing key goods, such as canned or processed food are unable to distance themselves physically on labour-intensive production lines. Infection risks are high, yet few are offered hardship benefits or incentives. Many migrants, who are now jobless, may not be eligible for assistance from the government, or eligible for receiving unemployment benefits.

Food shortages and homelessness are therefore on the rise, and lead to the risk of modern slavery. Whether living in shelters, sleeping on footpaths or under flyovers, the migrants are restless and are waiting for restrictions to be eased so they can go home.

3.0 HOW VULNERABILITY CAN LEAD TO FORMS OF MODERN SLAVERY

When people are desperate, they are more willing to compromise their working conditions and expectations when it comes to pay, accommodation and simply being able to eat. In this way, there is a potential for exploitation to increase exponentially, because you have so many people who are desperate for work. Rather than receive minimum wage, they will accept the bare necessities – food and accommodation, just to survive. Migrant workers can often lack freedom of movement because of their immigration status, and their passports may be taken. They are therefore at greater risk of exploitation as they seek to return to their home countries or travel to find work irregularly and out of desperation. Border closures mean aspiring migrant workers already recruited, and those who returned home for document processing, are stranded in origin countries without employment, many heavily indebted and at risk of debt bondage. Migrant workers across the world are at increased risk of facing xenophobia and discrimination currently as society grapples with this pandemic.

In India, with factories and workplaces shut down due to the lockdown imposed in the country, millions of migrant workers had to deal with the loss of income, food shortages and uncertainty about their future. Following this, many of them and their families went hungry. Thousands of them then began walking back home, with no means of transport due to the lockdown. In response, the Central and State Governments took various measures to help them, and later arranged transport for them. More than 300 migrant workers died due to the lockdown, with reasons ranging from starvation, suicides, exhaustion, road and rail accidents, police brutality and denial of timely medical care.



There are an estimated 139 million migrants in the country, according to the World Economic Forum. The International Labour Organization (ILO) predicted that due to the pandemic and the lockdown, about 400 million workers would be poverty-stricken. Most migrants in the country originate from Uttar Pradesh and Bihar, followed by Rajasthan and Madhya Pradesh. The cities of Mumbai and Delhi attract the highest number of migrants. While most men migrate for work, women migrate due to marriage.

Migrant workers majorly comprise of daily-wage labourers working in the manufacturing and construction industries. They are often denied adequate healthcare, nutrition, housing and sanitation, since many of them work in the informal sector. They are mostly from rural areas but live in cities for work for most of the year. Many have no savings and lived in factory dormitories, which were shut due to the lockdown. Additionally, there was no central registry of migrant workers, despite the existence of the Inter-State Migrant Workmen Act, 1979. According to research published in the *Royal Geographical Society*, the workers who have been treated the worst are from areas like Odisha, Jharkhand and Chhattisgarh, in which the indigenous population's natural resources were extracted by outsiders. Further, workers paid the least for the hardest work belong to the backward classes, mainly from the Dalit and the Adivasi communities. The research also indicated that the families of the migrant workers supported them by maintaining their houses and taking care of them, either when seasonal work is unavailable or when they are no longer able to work.

Maharashtra has the largest number of migrants, according to the 2011 Census of India. Its state government imposed a lockdown on 20 March in Pune, Pimpri-Chinchwad, the Mumbai Metropolitan Region and Nagpur, leaving the migrant workers with no work. Thousands then gathered at the train termini and bus stations, seeking transport to their hometowns. With the nationwide lockdown, all transport facilities were closed.

4.0 PROBLEMS FACED BY MIGRANT WORKERS

i. Food shortages

The distribution system failed to be effective as the ration cards are area-specific and fair price shops were largely inaccessible. Additionally, the 'One Nation, One Ration Card' system has been implemented in very few states, as of mid April. While the scheme allowed migrant workers to retrieve food grains for free anywhere across the country, very few were aware of the scheme. In addition to this, the scheme also required biometric authentication, which was discontinued due to fears of spreading the virus through common fingerprint sensors.

ii. Migration

With no work and no money, and lockdown restrictions putting a stop to public transport, thousands of migrant workers were seen walking or bicycling hundreds of kilometres (or even more than a thousand kilometres) to go back to their native villages, some with their families. Many did so while hungry. Social distancing was not possible for these migrants since they travelled together in large groups. According to some of them, they would rather die from the virus at their own village than starve because of no work in the city. Many were arrested for violating the lockdown, after being caught at inter-state borders, forests between states and even on boats to cross rivers.

Some of the migrants died of exhaustion. Others died in accidents on the roads after walking or hiding in vehicles. On 31 March, as many as 120 migrant workers were allegedly beaten up by the police in Gujarat and forcefully rounded up in a single lorry and dropped in Maharashtra, despite being wounded. In Aurangabad, 16 migrants were killed on 8 May after a freight train ran over them while they were sleeping on the tracks, exhausted from walking. 26 migrants were killed in an accident between two trucks carrying migrants in Auraiya on 16 May.

Later in May, a 15-year-old girl carried her ailing father on a bicycle for 1,200 kilometres (750 mi) from Bihar to Gurugram over the course of a week. She was later approached to try out for the National Cycling Academy by the Cycling Federation of India, and received praise from Ivanka Trump. Later in May, despite the launching of special trains and buses by the government, the migrant workers chose to either travel together in large groups in the cargo compartments of trucks and containers, or travel by foot. They did not wait or their turn to board the government-arranged transport, mainly due to starvation. Additionally, they felt that going back to their hometowns; they could return to farming and take up small jobs under the MGNREGA.

iii. Reverse migration

Despite government promises and schemes to generate employment in rural areas, some migrant workers began going back to the cities due to lack of employment in their hometowns, as lockdown restrictions were reduced as part of Unlock 1.0 in June. A large number of these were returning to Mumbai. The reopening of the regular services of the railways also helped facilitate this. The cities, too, reported major shortages of labour, especially in the construction industry. A study conducted in April-May stated that 77% migrant workers were prepared to return to cities for work. The return of the migrants to cities is expected to help revive the economy, which had sustained an impact. Some

employers sponsored the travel of migrants back to their workplaces. This included taxis, trains and even flights.

5.0 GOVERNMENT RESPONSE

i. Directives

On 27 March, the Home Ministry ordered the states to ensure that migrants would not move during the lockdown, permitting the states to use the National Disaster Response Fund (NDRF) for providing food and shelter to the migrants on 28 March.

On 29 March, the government issued sweeping orders directing that the landlords should not demand rent during the period of the lockdown and that employers should pay wages without deduction. It also announced that those who violated the lockdown were to be sent to government-run quarantine facilities for 14 days, and that it had asked state governments to set up immediate relief camps for the migrant workers returning to their native states. However, the order regarding payment of wages was withdrawn in the guidelines for the lockdown extension issued on 17 May.

On 16 May, the government announced the National Migrant Information System (NMIS), an online database created by the National Disaster Management Authority (NDMA). This was to help streamline the movement of the migrant workers. It will help states find the current number of stranded migrant workers and their location. The government planned to keep the workers updated by feeding their phone numbers in the system.

On 14 July, the Ministry of Human Resource Development requested the state governments to create a database of children in rural areas who have migrated.

ii. Relief camps

Soon after the central government directive in late March, state governments set up thousands of camps to house lakhs of migrants and stop the exodus. Delhi government provided free food to 4 lakh people every day, as of late March. Over 500 hunger relief centres were set up by the Delhi government. By 5 April 75 lakh people were being provided food across the country in food camps run by the government and NGOs. As of 12 April, 37,978 relief camps and 26,225 food camps had been set up.

To cater to the needs of the migrants and prevent them from leaving the camps, the government of Kerala changed the food being provided by adding north Indian dishes to the menu, providing carrom boards and recharge facilities for phones, as well as provide other medical essentials such as masks, sanitizers, and medicines.

iii. Transport arrangements

As of 28 May 91 lakh migrants had travelled back home in government-arranged transport facilities. However, according to the Stranded Workers Action Network (SWAN), migrants were confused about the exact procedures to register themselves for travel. Additionally, many state registration portals were either in English or the local language of the states they lived in, which very few migrants could understand. Further, general lack of information from the government to the migrants had resulted in them paying large sums of money to register themselves.

iv. Buses

In late March, the Uttar Pradesh government decided to arrange buses at Delhi's Anand Vihar bus station to take the migrants back to their villages for free. Large crowds then gathered at the bus station. However, with the extension of the lockdown, many remained stranded till the last week of April, when the state governments were permitted by the central government to operate buses, but not trains. As of 23 May 40 lakh migrants had travelled to their homes by buses. Condition in the buses is generally poor, with social distancing being impossible due to overcrowding and higher fares being charged than promised.

v. Shramik special trains

Stranded migrant worker rushing to New Delhi railway station to reach native village by "Shramik Special" train. On 1 May, the central government permitted the Indian Railways to launch "Shramik Special" trains for the migrant workers and others stranded. On 3 May, the Ministry of Home Affairs mildly reprimanded the state governments for hurriedly requesting for trains to transport migrants, stating that the trains were primarily mainly meant for those who were stranded due to the sudden lockdown, and not the migrants. Additionally, this service was not free, with additional charges over the normal fares. The central government then faced criticism from the opposition, with the Indian National Congress promising to sponsor the tickets of the migrants on 4 May. The government then announced that the Railways would offer an 85% subsidy on the train fares, with the state governments funding the remaining 15%. However, the migrants were still forced to pay an undisclosed amount in some cases. The central government initially declined to share the details regarding this with the Supreme Court, but later confirmed that it was not paying for anyone's fare. Additionally, the central governments directives regarding which states should pay for the migrants' travel resulted in disagreement between Maharashtra and other states. A few days after the Shramik Special trains were introduced, the Karnataka government

cancelled the trains (reportedly supporting the construction industry) and the Bihar government did the same to trains coming from Kerala (refusing to provide a No-Objection Certificate). The two states later reverted their decisions.

Further, migrants faced many hardships while travelling by these trains. Many reported to have no food and water arranged for them while they travelled. A train from Goa to Manipur reported a 58-hour delay, no proper food or sanitation facilities on the train, and stone pelting. Others who received food packets and water reported that the provisions were simply dumped at the entrances, leaving workers fighting with each other for their share. Some migrants also died during the train journeys, but the Railways stated that most of them had existing illnesses. According to Railway Protection Force, there have been almost 80 deaths on board the Shramik Special trains between 9 and 27 May.

50% of the coaches converted into COVID-19 care centres were used for these trains. As per a report given by the Indian Railways on 23 May, migrant labourers from Bihar and Uttar Pradesh comprised 80% of the train travellers. Additionally, it was expected that 36 lakh migrants would be travelling in the ten days after the report. 4,277 Shramik Special trains had transported about 60 lakh people, as of 12 June.

vi. Relief measures

Soon after the nationwide lockdown was announced in late March, Finance Minister Nirmala Sitharaman announced a ₹1.7 lakh crore (US\$24 billion) spending plan for the poor. This consisted of cash transfers and steps to ensure food security. By 3 April, the central government had released ₹11,092 crore to states and UTs under the NDRF, to fund food and shelter arrangements for migrants. To help provide jobs and wages to workers, the average daily wages under the MGNREGA were increased to ₹202 (US\$2.80) from the earlier ₹182 (US\$2.60), as of 1 April. ₹1,000 crore from the PM CARES Fund was allocated for the support of migrant workers on 13 May. On 14 May, FM Sitharaman further announced free food grains for the migrant workers, targeting 80 million migrant workers by spending ₹35 billion (US\$490 million). The government of India launched the Garib Kalyan Rojgar Abhiyaan initiative to tackle the impact of COVID-19 on migrant workers in India. It is a rural public works scheme which was launched on 20 June 2020 with an initial funding of ₹50,000 crore (US\$7.0 billion) for 116 districts in 6 states.

vii. Labour laws

The governments of Uttar Pradesh, Madhya Pradesh and Gujarat sought to temporarily revise their labour laws in early May with the purpose of attracting industries and investments. Labour unions criticized this as being harmful to the migrant workers while

giving more authority to the employers. Ten of them then wrote to the ILO on 14 May regarding the same, to which the ILO responded by reassuring them that it had contacted Prime Minister Narendra Modi.

viii. Quarantine measures

Many states reported high numbers of positive cases of COVID-19 among the migrants returning home as lockdown restrictions eased. State governments opened thousands of quarantine centres to house them, with some states imposing mandatory institutional quarantine. States also imposed strict measures for migrants to follow, either while leaving or after entering state borders.

ix. Conduct towards migrant workers

Migrant workers who decided to stay back during the exodus faced assault from their neighbours, who accused them of being infected with coronavirus. They thus could not venture out to buy food. Many also faced police brutality if they ventured out of their homes. Upon their return to their hometowns and villages, they were treated with either fear or a "class bias", being hosed down with disinfectants or soap solution in some cases. They were feared to be carrying coronavirus from the urban areas where they had been employed. They faced assault and harassment from the people of their hometowns. Since many of them belonged to the lower castes, they had to face caste slurs. Thousands got into property disputes. Migrants travelling by Shramik Special trains reported that food and water provisions were either not provided or simply dumped at the entrances of the trains, leaving workers fighting with each other to get their share. Passengers then hurriedly filled their water bottles at the railway stations that the trains stopped at.

Many migrant workers expressed a fear of returning to their old jobs in the cities, after facing unemployment during the lockdown. Companies reported labour shortages from mid-April. Estimates state that this would last for at least another six months.

x. Supreme court hearing

The Supreme Court of India agreed to hear a petition on behalf of the migrant workers on 30 March. The Court asked the central government to file a status report with respect to the situation of migrant workers. In its report, the central government stated that the migrant workers, apprehensive about their survival, moved in the panic created by fake news that the lockdown would last for more than three months. The court added that it was satisfied by the government response thus far. A plea requesting payment of minimum wage was rejected by the Court on 21 April, on the grounds of workers already being provided free meals.

On 16 May, the Supreme Court rejected a PIL to direct the District magistrates to identify

and provide free relief and transport to the migrant workers, stating that it was the responsibility of the state governments. Speaking about the workers killed sleeping on the Aurangabad railway tracks, the Court stated that it could not have been prevented. Further, the central government stated that inter-state transport had already been provided to the migrants and requested them to wait their turn instead of choosing to walk.

On 26 May, the Supreme Court admitted that the problems of the migrants had still not been solved and that there had been "inadequacies and certain lapses" on the part of the governments. It thus ordered the Centre and States to provide free food, shelter and transport to stranded migrant workers. Hours before this ruling, senior lawyers from Mumbai and Delhi wrote a strongly-worded letter to the Court, regarding its "self-effacing deference" towards the government thus far.

xi. Deaths

Due to the lockdown, more than 300 deaths were reported till 5 May, with reasons ranging from starvation, suicides, exhaustion, road and rail accidents, police brutality and denial of timely medical care. Among the reported deaths, most were among the marginalised migrants and labourers. 80 died while travelling back home on the Shramik Special trains, in the one month since their launch. Notably, on 8 May, a freight train killed 16 migrants who had stopped to rest on railway tracks near Aurangabad in Maharashtra. On 14 May, eight migrant workers were killed and nearly 55 injured when the truck they were in collided with a bus near Guna, Madhya Pradesh. On 16 May 24 migrant workers were killed and many more were injured when a trailer carrying migrants (along with sacks of lime) rammed into a stationary truck, also carrying migrants, in Auraiya district of Uttar Pradesh. According to data collected by SaveLIFE Foundation, an NGO working in road safety, 198 migrant workers were killed in road accidents, as of 2 June.

xii. Reception

Thousands of migrants have since protested across the country, for reasons ranging from demanding transport back home, quality of food served, not being allowed to cross the border, and against government directives preventing them to walk home. Some of the protests turned violent.

Labour unions organised nationwide protests to protest the changes in labour laws, with the Bharatiya Mazdoor Sangh organizing one on 20 May and the Centre of Indian Trade Unions and the All India Trade Union Congress organizing another on 22 May. Seven left parties wrote to the President to intervene in the issue. Ten labour unions wrote to the International Labour Organization (ILO) regarding the labour laws, on 14 May. In response,

the ILO expressed "deep concern" to PM Modi and requested him to instruct the central and state governments to uphold commitments (towards labour laws) made by India.

Negative comparisons have been made between the situation of many domestic migrants and Indians abroad: Shekhar Gupta criticized the media and Modi for focusing on the Vande Bharat Mission and thus the more affluent at the expense of the working class. Some politicians criticised the central government for not focusing enough on migrant workers. NITI Aayog CEO, Amitabh Kant, admitted that the migrant workers could have been better taken care of and stated that it was the responsibility of the state governments. Economist Jean Drèze stated that the lockdown had been "almost a death sentence" for the underprivileged of the country, further stating, "The policies are made or influenced by a class of people who pay little attention to the consequences for the underprivileged".

6.0 CONCLUSION

India's nationwide lockdown amidst the COVID-19 pandemic has critically dislocated its migrant population. Lacking jobs and money, and with public transportation shut down, hundreds of thousands of migrants were forced to walk hundreds of miles back to their home villages – with some dying during the journey. The central government imposed the lockdown and closed businesses when India reached around 500 cases of COVID-19. Local authorities followed with measures such as creating strict containment zones to close off hotspots, which left millions of migrant workers stranded. 5,00,000-6, 00,000 workers who walked on foot to villages after lockdown. 1.03 million Persons reside in relief camps or shelter homes. 1.5 million Workers were given shelter of food by employers. 8.4 million were those given food by government and NGOs. The country's rapid response slowed down the spread of the disease, but also raised concerns about exacerbating existing inequalities and vulnerabilities.

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CHAPTER 26

FOOD SECURITY DURING COVID -19

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ABSTRACT

The global pandemic of Covid-19 that originated in the Wuhan province of China has stretched its arms in the entire world affecting each and every sector of the economy. This has led to a fall in the world economy especially in developing countries like India. India with its apt governance has however tried its best to combat this crisis with a country wide lockdown to prevent the health implications. But agriculture being the backbone of the country and the GDP has been impacted in a negative way with huge disruptions in the supply chain and cropping decisions for upcoming agricultural seasons. All these have a negative implication on the farming community that is and will be undergoing heavy financial and mental losses. The wave of corona virus which blew from China and reach to almost all the countries of the globe brought with it not only a dead deadly medical condition but many more associated problems Which the world is witnessing every new day. This pandemic has affected the security of life security of income security of relations and of course security of Security of food. This paper will discuss the food security the requirement of good food security system and how COVID-19 has adversely affected the food security in India.

Key words: Public Distribution system, food security and fair price shops.

1.0 INTRODUCTION

The COVID-19 pandemic has caused the whole world to face an economic crisis and hence putting people even more at risk of food insecurity; supply chain setup has been disrupted severely due to numerous transport restrictions. There is a need for various components of government machinery to work in complete synergy for aligning services, making provision for supplies and arranging means of delivery to the citizens. This review gives an understanding about the food security situation in India, problem faced by the citizens, in particular the poor and vulnerable population, small and marginal farmers during the COVID-19 pandemic. It also analyses the steps taken by the government of India to address the food security challenges during COVID-19. We have discussed the importance of macro level thinking and various measures that can be taken to strengthen public distribution system in India. We have also discussed policies to support the small and marginal farmers, wage labourers, and migrant workers. Many vulnerable households see their purchasing power reduced by aggregate macroeconomic shocks. Global economic growth is seen falling to -3% for the whole year, compared to an already weak 2.9 % in 2019. This review paper, will assess the impact of COVID-19 and subsequent lockdown on food security in India and different measures announced by the government of India/ministry of consumer affairs, food and public distribution to prevent food crisis when all economic activities are either closed or at a low key during this COVID-19 pandemic.

2.0 INDIA'S FOOD SAFETY NET AND MEASURES FOR COVID-19

The spread of pandemic with Covid -19 has given pain, suffering's, stress, fear, hunger and an overall crisis for the Indian as well as all other economies around the globe. There is no doubt about the fact that this cruel pandemic has impacted almost every sector and one of the major and serious impacts has been on the Food Security System. Keeping in the view the present scenario and lockdown it is scary to see that as the labourers and other helps have returned home leading to disruption of input availability of agriculture operations, stoppage of transportation facilities, all these factors will surely effect the food supplies. The regular fall in the incomes and increase in unemployment will result in decrease in demand of food supplies and will surely effect the economic growth of the nation. Presently no doubt that the food security in India has been impacted badly by the Covid 19 pandemic but if the situation will remain the same there will be sharp rise in the food insecurity. Now the question arises that what exactly is the food security?

All states needed to formulate eligibility criteria for ration cards and identify those who meet them, with the implementation of the National Food Security Act (NFSA) in 2013. But these criteria were opaque and remained unclear, according to the report. “In the move from the targeted PDS to NFSA, several states relied on data from previous surveys, including the Socio-economic Caste Census, 2011 and the 2011 Census to identify eligible households,” the report said. Some 100 million individuals were excluded. (Jean Dreze and Reetika Khera). Newly married women and children born after the survey period, in particular, were excluded. Family members living separately were also possibly affected. It was pointed out that migrant workers — who largely remain excluded from the PDS as they do not have valid ration cards — were covered by more than 63 per cent relief efforts. A majority of them were from Bihar, Jharkhand, Madhya Pradesh, Odisha, Uttar Pradesh and West Bengal. The Union government asked states and Union territories to begin national portability transactions in June 2020 to implement ‘One Nation One Ration Card’ by March 2021.

Stranded migrant workers can take advantage of the scheme only if their applications for ration cards were processed and approved promptly, according to the report.

With high levels of income inequality reflected in India’s score on Gini index, food insecurity in the country has been a challenge.⁸ Findings from the comprehensive national nutrition survey (2016-18) suggest that around 35% of children below 5 years of age are stunted and 33% of them are underweight. The national food security act (NFSA), enacted in 2013, marked a paradigm shift in addressing the problem of food security - from a welfare approach to a right-based approach. The act relies on the country’s public distribution system (PDS) to ensure access to food with a targeted approach to identify entitled people. Furthermore, NFSA includes integrated child development services (ICDS), mid-day meal (MDM), and Pradhan Mantri Matru Vandana Yojana (PMMVY) schemes. Under the PDS, the government provides 35 kg of food grains to every Antyodaya Anna Yojana household (poorest of the poor) per month and 5 kg of food grains to every member of priority household (poor and vulnerable section) per month through a network of 5,00,000 fair price shops (FPS) in the country. These food grains are provided at a highly subsidised rate of Rs 3/kg for rice, Rs 2/kg for wheat and Rs 1/kg for coarse grains by the central government. PDS covers around 800 million entitled people in the country. ⁹ NFSA has served to improve the general functioning of PDS to a huge extent. It has led to increased coverage of entitled people, a decline in exclusion error, a rise in the purchase entitlement ratio and improvements in the transportation of food grains where states undertook proactive measures. In the current

situation, the Indian government has declared that it has got surplus food grains of 435 lakh tons as on 23rd March 2020 of which 272.19 lakh tons is rice and 162.79 lakh tons is wheat.¹⁰ The PDS requirement for April is about 135 lakh tons of rice and 74.2 lakh tons of wheat. There is an availability of 646 lakh tons of food grains in the stock, which is 435 lakh tons more than the required.

The government has enough supply to meet the demand and states can lift the quota in advance.¹¹ Ministry of consumer affairs, food and public distribution, government of India, is the key ministry and is at the frontline during this pandemic. The central government has announced several measures to deal with the food security situation in the country because of the pandemic and the associated lockdown. Some of these measures are as below. Free distribution of additional 5 kg food grains per person and 1 kg of pulses per household under PM Garib Kalyan Ann Yojana scheme for next 3 months to 800 million entitled people covered under NFSA 2013 (Ref. FP No.7-1/2019(ii)-BP.III dated 30th March 2020) and they can lift quota of subsidised food grains for six months in one go. States and Union Territories have been allowed to lift food grains for three months in advance from food corporation of India (FCI) with close monitoring.

In addition to the steps taken by the central government, different state governments have also taken steps at their level as below. **The Tamil Nadu** government has issued an order to distribute Rs 1000/- each to rice cardholders and to supply rice, tur dal, oil, and sugar to all entitled families through FPS free of cost in April 2020. The token system will be adopted to avoid overcrowding at FPSs. Auto rickshaw drivers, construction workers, and registered pavement hawkers will get a cash grant of Rs 1,000. Families of migrant workers, construction workers, and auto rickshaw drivers have been handpicked by the Tamil Nadu government to be provided with 15 kgs of rice, 1 kg of dal, and free cooking oil. **Gujarat state government** has decided to distribute 3.5 kg wheat and 1.5 kg rice per person and 1 kg pulse, 1 kg sugar and 1 kg salt per family free of cost from 1st April 2020, to all the ration cardholders. Extremely poor migrant workers from other states who came to Gujarat for jobs will also get food grains kit free-of-cost under Annapurna Yojana in April 2020 from the 17,000 FPSs in the state.

After this disastrous pandemic the food security has been the major issue of discussion for any government. No doubt, Indian government has also tried to do justice to the food security system with some little help in the form of petty cash and grocery packets have been distributed in early lockdowns and curfews. Also high powered centres at state and central level with people good at leadership were set up to solve the challenges and

bottlenecks but lot and lot has been done for providing food by charity of NGOs youngsters, religious centres and also at personal level. The government has taken steps and announced several programmes like Pradhan Mantri Kissan anuj and direct cash grants to construction workers, raise of free and subsidised food grains, liberal financing under MANREGA, Social Security provisions, upgrading of health and manpower active Association and participation mission of all stakeholders. Although an endless list of schemes and yojnaas and programmes have been initiated but Along with these initiatives which the government has been announcing loudly to ensure the security of food the government should also focus towards the threats being ruled buy this pandemic in the form of rise rice black marketing physical availability of food almost vanishing incomes and livelihoods. The initiatives and programmes are easy to announce are easy to pen down but sometimes difficult to implement and review. Despite of so many so called schemes an initiatives millions yes millions of migrant workers and their children died of hunger still many sleep hungry still retailers are looting people with high prices incomes are declining at cheap rate everyday a rising number of people are getting unemployed the purchasing power is dropping with almost every beat of the heart and the unavailability of labour and inputs and many others such associated fearful factors are silently narrating the Storey of quid 19 and food security system of India during this pandemic and the efforts of the government for the same.

3.0 CONCLUSION

Food security exists when all people, at all time, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.¹⁵ In the current situation of the COVID-19 pandemic, all the public resources are concentrated on mitigating the extent of damage. Further, economic activities are likely to remain at a low key in the coming months. The government should make policies to support the small and marginal farmers, wage laborers and migrant workers.

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Where the tiny invisible virus brought the world to a standstill, what kept us going is the desire to overcome this pandemic. Emerging as one of the most widespread epidemics in the history of mankind, it has created a situation of health and economic emergency. The world which celebrated globalisation for years now looks down at it as the reason for widespread virus. Being highly disruptive in nature, affecting the lives of millions, the pandemic will leave its dark patches in the columns of history. From compelling to change the way humans used to live in COVID-19 times to requiring a rapid enhancement in the health care facilities, the virus has significantly affected all the spheres of human life, be it social, economic, financial or political. The virus has brought tough challenges to individuals and governments around the world to sustain lives and livelihood. The instant impact of the pandemic shows the disturbance in the economy and the long term impact would be dreadful unless the vaccine is developed and the virus is contained as early as possible.

ISBN: 978-93-90238-47-7



9 789390 238477

₹ 400/-