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**S. K. PATIL SINDHUDURG MAHAVIDYALAYA, MALVAN**

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Affiliated to University of Mumbai (NAAC Grade "B")

**Online One Day National Conference On  
"Post Covid 19 Strategies - Challenges and Innovations"**

Organised by  
Internal Quality Assurance Cell (IQAC),

**S. K. Patil Sindhudurg Mahavidyalaya, Malvan**

**Date : Thursday, 11 June, 2020**

**Time : 10:00 AM**

» **Theme of the Conference** «

**Post COVID-19 Strategies – Challenges and Innovations**

**Editor**

**Dr. Sumedha Naik**



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» Theme of the Conference «

**Post COVID-19 Strategies – Challenges and Innovations**

Sub Themes

- |                                       |  |
|---------------------------------------|--|
| ❖ Industrial and Economic Development | ❖ Environment Conservation             |
| ❖ Service Sector Development          | ❖ Agriculture and Rural Development    |
| ❖ MSMEs' Development                  | ❖ Tourism and Entertainment Industry   |
| ❖ Import- Export Management           | ❖ Politics and International Relations |
| ❖ Education, Health and Hygiene       | ❖ Labour and Reverse Migrations        |
| ❖ Public Transport & Logistics        | ❖ Science , Research and Innovations   |
| ❖ Socio – Psychological Environment   | ❖ Any Related Theme                    |

About College

Our S. K. Patil Sindhudurg Mahavidyalaya was established in 1965 and it is effectively run by Krishnarao Sitaram Desai Shikshan Mandal, Malvan. We have under graduate courses in Arts, Commerce and Science.

Invitee Experts

- Padmashri Dr. Milind Kamble, Chairman, DICCI
- Dr. Annasaheb Gurav, Dean, Commerce and Management, Shivaji University
- Dr. P. S. Kamble, Ex-HoD, Department of Economics, Shivaji University
- Dr. Jagdish Jadhav, Dean, School of Social Sciences, Central University of Rajasthan
- Dr. Vaidehi Daptardar, Principal, Adarsh College of Arts and Commerce, Badlapur

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## Chairman's Message

**Dear Academicians,**

It's my great pleasure to share my views with you on the occasion of 'Post Covid-19 Strategies: Challenges and Innovations' online National Conference organised by our S. K. Patil Sindhudurg Mahavidyalaya and the publication of the research papers presented therein.

Our institution was established in the year 1913 and has completed 106 year. We are running one Primary and one Secondary School, a D.Ed. College, a Junior College and the Senior College for Arts, Commerce and Science streams.

Covid-19 is spread all over the world. The whole world including India is fighting with covid-19. It has caused a massive set back and a great challenge to humanity. Hence with a view to create awareness among people our college has organised the National Online Conference on 11th June, 2020 and conducted it in a very systematic Manner. More than hundred delegates actively participated in this conference.

Our Institution has always supported for the academic and extracurricular activities. I am really proud of our Organising Committee Members, especially our Principal Dr. S. B. Mandale to bring up the idea of online conference during the lockdown period. I congratulate Conference Coordinator Prof. B. H. Chaugule, Organising Secretary Dr. Sumedha Naik along with other members Dr. M. R. Khot and Prof. S. P. Khobare for organising the conference efficiently and successfully.

My best wishes for this publication as well as for future activities to be undertaken.

**Mr. Balasaheb Pantwalawalkar**  
**Chairman,**  
**K. S. D. S. Mandal, Malvan.**

## Principal's Message

**Dear Delegates,**

It is my great pleasure to share my views with you on the occasion of the One Day Online National Conference and the publication of research papers by our college.

Our college was established in 1965 having Arts, Commerce and Science branches. We have completed second cycle of NAAC reaccreditation with B grade and now undergoing for the third cycle.

Today the whole world and human race is under lockdown caused by covid-19. Coronavirus emerged in Wuhan and spread all over the world has tremendously affected various sectors including Industry, Trade, Commerce, Agriculture, Education, Health and all the other sectors. It has adversely affected the GDP growth rate, employment, health and hygiene, security, law and order, social, cultural and day to day life.

Education is the main source of all-over development of the nation. Knowledge is a power and education is the source of this power. India has succeeded in quantitative but has not in qualitative development especially in higher education. Globalisation and specially the covid-19 has changed whole scenario of Education. The globalisation cracking all type of geographical, social, psychological and national barriers and now the covid-19 has forced us to come back from global to local.

To sum up, I would like to advise, "Be alert and let us come together to fight with covid-19 and overcome the present situation. We are the pillars of the society and we need to be the catalyst of positive change through education to enable the society to formulate and execute effective Post Covid Strategies, overcoming challenges and bringing innovative ideas."

I am thankful to all the delegates and eminent resource persons to bring this conference to success. I also take this opportunity to congratulate the Organising Committee of the conference.

**Dr. Shrirang Mandale,**  
**Principal,**  
**S. K. Patil Sindhurg Mahavidyalaya, Malvan.**

## Editorial

It is a matter of enormous pleasure and privilege for us to publish the research papers presented during the One Day Online National Conference on 'Post Covid-19 Strategies: Challenges and Innovations' held on 11<sup>th</sup> June, 2020 during the lockdown period of the Global Pandemic of Covid-19. In the midst of confusing scenario of Global Pandemic, the Conference was a serious attempt to search the ways of recovery from it, to assess the impact on various aspects of human life and economy and to find out 'the new normal' for each sector in terms of different innovative strategies for the Post Covid-19 period.

The Conference was inaugurated by Shri. Balashaeb Pantwalawalkar, Chairman of K. S. D. S. Mandal, Malvan. The Key Note Address on 'Post Covid Strategies for Industry and MSMEs' was delivered by Padmashri Dr. Milind Kamble, Chairman, Dalit Chamber of Commerce and Industry, India.

The first session on 'Impact of Covid on Indian Economy and the Strategy Ahead' was addressed by Prof. Dr. Prakash Kamble, Department of Economics, Shivaji University, Kolhapur. During the second session Dr. Jagdish Jadhav, Dean of School of Social Sciences, Central University of Rajasthan, Ajmer, addressed the participants on 'Post Covid Scenario of Higher Education: Challenges and Innovation.' The third session on 'Comparative Advantage to India' during and post Covid-19 period was addressed by Dr. Vaidehi Daptardar, Principal, Adarsh College of Commerce, Badlapur. Dr. A. M. Gurav, Dean of Commerce and Management, Shivaji University, Kolhapur delivered the Valedictory speech on 'Post Covid Strategies for the Service Sector.

All the sessions were conducted on a Digital Platform and followed by intellectual discussion on the session topic. All the renowned resource persons elaborated in detail to satisfy the queries in the minds of delegates regarding the post covid environment for various sectors.

The Academicians and Research Scholars presented their papers on the sub-themes of the conference viz. Industrial and Economic Development, Service Sector Development, Education, Health and Hygiene, Environment Conservation, Tourism and Entertainment Industry, Science,

Research and Innovations, etc. The Research Papers were presented online on You Tube Channel of the College, by the conference participants from the various universities and parts of the country.

We are obliged to all the Resource Persons, Academicians, Delegates and Research Scholars who contributed to the success of this Online National Conference during the lockdown period.

We are grateful to Shri. Balasaheb Pantwalawalkar, Chairman, K. S. D. S. Mandal, Malvan and all members of Management Committee for the constant support and encouragement for such Academic Brainstorming.

**Dr. Sumedha Naik**

**Editor**

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# An Analytical Review of Public Health Condition in India from COVID19 Pandemic Perspective with Special Reference to Maharashtra State

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## Abstract

*In the background of sudden outbreak situation of COVID19 nationwide pandemic, the paper has made an attempt to discuss whether the existing public health position with special reference to Maharashtra state, is able to combat spread of the Covid disease and provide adequate medical support service to the common people. The paper has used National Health Profile data and certain other sources for the purpose of analysis and conclusions. Especially, average annual expenditure on public health, vacant posts of key health personnel, weak infrastructure, poor ratios due to less number of doctors, primary health centres, govt. hospitals are the major issues being faced in the midst of pandemic situation. No wonder, the private sector health service has been exploiting poor public health situation through exorbitant prices to make money. The health of common people and especially economically poor are either being exploited or left ignored. The paper has exposed hard truth of the current public health situation and how the sector has been consistently neglected by the bureaucratic policies of governments. Few useful suggestions and long term recommendations such as independent judicial body Health Regulatory Authority of medical experts for policy framing, ensuring supplies of medicines, equipments, infrastructure, recruitment, training, hearing public grievances, controlling through measuring performance etc.*

*Keywords- Public Health system, per capita expenditure, primary health centres, rural hospitals, vacant posts, skilled manpower, govt. policies.*

## Introduction and Background-

After the emergence of Corona pandemic in India, the problem of public health condition has become core issue of the common people in India and it has been on the forefront along with other

serious problems of migrant labour, loss of employment and so on. In comparison with the huge population size and its rate of growth over the last three decades, the public health situation has been deteriorated. Except in few metropolitan cities, the quality of public health service has been falling in rest of India. The problem of weak public health condition has not arisen suddenly. Governmental Public welfare policies and administrative set up of entire public health and education has been slowly debilitated over the last 25 years through privatisation, liberalisation and globalisation. However, in true sense, the real intention behind introducing of Liberalisation, Privatisation and Globalisation (LPG) policies was not to undermine or destabilise the public welfare machinery in the country, but rather to encourage more investment of capital into public welfare for social benefit. But, it did not happen so according to the real motives of LPG policies and the big corporate and private partners especially in pharmaceutical, medical equipment, construction and insurance industry started misusing the LPG policy through various ways. The misuse of LPG policy was found mainly to weaken the administrative set up, substantial reduction in skilled medical staff, public medical infrastructure and closure of public enterprises and govt. undertakings in pharmaceutical and research sector. The major means used for abusing the LPG policy were the intervention, in government administration, procedures, and legal set up, deliberate lapses through unethical practices. The LPG policy was largely used as conspiracy against public health system in India and make huge profits.

### **Problem-**

Now, in the midst of highly contagious COVID 19 pandemic situation where the risk of community transfer is high and when the responsibility of government is more, the private star hospitals and medical industry of huge investment have become useless to accept the challenge of pandemic and disowning the responsibility of public health in exceptional emergency condition in India. At the same time, the public health system has already been enfeebled in normal situation as explained above by exploiting the common public. The worst hit by the pandemic is common man like labour, homeless people, children since they cannot afford the prices of the private hospitals. Majority of the people in India are betrayed not only by the private medical industry but also by the disloyalty of private major medical practitioners in India. Against this backdrop, it is time to take analytical review of the public health condition in India and how it has been badly influenced by the abuse of LPG policy over the last 25 years. This problem already existed in non-pandemic normal situation. Now in COVID19 pandemic situation, it is being severely experienced by the government and public at large due to defiance over public duties by the private health system.

### **Scope of Study-**

The paper undertakes review of public health situation of India in general and Maharashtra state in particular. The study shall consider the public health data in 2018 or earlier. The paper shall study only quantitative aspect of infrastructure, manpower and skilled staff condition, various medical and para medical services, condition of Primary Health Centres (PHC), Govt. Rural hospitals,

Corporation and local body hospital services etc. It would not go into core medical expertise field of research or would not express any opinion about particular disease and its effect on human. The paper would not beyond statistical position of public health in India and particularly in Maharashtra state.

### Research Methodology –

The paper would make absolute or bare analysis of the available statistical data of public health services. The secondary data from standard Newspapers in India with due authenticity has been used for the purpose of study. Simple bare analysis based upon population density and size has been attempted for the purpose of conclusions.

### Objectives-

- 1) To collect public health related statistical data and bring the true position of public health service in general before the public.
- 2) To analyse the collected public health statistical data on the backdrop of COVID19 pandemic disease spread in India.
- 3) To comment upon the public health service analysis and make recommendations to the policymakers and administrators from wider long term perspective.

### Hypothesis-

*H:0 - Public Health condition of India in general and Maharashtra state in particular is not enough to protect the health of common people and it does not assure the safety of the people in abnormal situation like recent COVID19 pandemic.*

*H:1 - Public Health condition of India in general and Maharashtra state in particular is enough to protect the health of common people and it assures the safety of the people in abnormal situation like recent covid19 pandemic.*

### Data Analysis-

According the 'National Health Profile-2018'(NHP) published by Health and Family Welfare Ministry of India, the following facts are available-

- 1) The Birth rate per one thousand in 1991 was 29.5 and it has been dropped to 20.4. The Mortality rate has also been declined over the period.
- 2) Infant Mortality rate has also dropped from 74 in 1994 to 33 in 2017 and the life expectancy rate of both male and female has increased 68.7 years from 49.7 years in 1970-75.
- 3) The epidemic diseases like Plague, Malaria, and cholera are extinguishing; but they are replaced by the novel epidemic diseases like Swine Flu, Chicken Gunia, Dengue and other viral diseases.

- 4) Due to change in life style, food habits and increasing luxury living, the non-communicable diseases like Stroke, Diabetes, Cardiac Heart Diseases, and Kidney problems, Gall Bladder Stones, Asthma and Bronchitis have been increased substantially.
- 5) In India, around 2.5 lakhs people die because of road accidents and snake or other wild animal or reptile bites.
- 6) Although it has been mentioned that leprosy has been completely eradicated, the recent survey in Maharashtra shows that there are at least 2.5 lakhs leprosy patients still existing in the state.
- 7) 80% of the total health service in India is provided through private sector and only 20% service is provided through govt. public health services.

#### **Other Medical Quantitative Data-**

- 1) According to World Health Organisation (WHO), at least one recognised govt. doctor per one thousand population has been recommended. The NHP 2019 report also states that there is only one allopathic government doctor for every 10,926 people in India against the WHO's recommended doctor-population ratio of 1:1000.
- 2) Until the end of 2017, the total number of Allopathic MBBS doctors were 10.41 lakhs and other streams doctors were 7.73 lakhs. In entire India, the number of dental doctors is only 7500.
- 3) It is heartening to find that only 1 lakh MBBS doctors are working in government public health service. As per WHO recommendation, we need 1.34 lakh doctors in govt. service according to our population size.
- 4) We have presently around one bed in govt. hospital for every 2046 patients.
- 5) The report also states that India's public expenditure on public healthcare continues to remain a matter of concern. India's public expenditure on health now stands at 1.28 per cent of the GDP, which is below than the average expenditure by poor countries like Nepal, Sri Lanka, Bhutan, Indonesia, and Thailand.
- 6) According to the report, over half the children between 6 and 59 months (58.4 per cent) and women in the age group 15-49 are anaemic.
- 7) Total MBBS course and Post graduate seats are hardly 67000 and 24873 respectively in 476 govt. and private medical colleges.
- 8) There are 6 crore diabetic patients in India. The number of diabetes specialist doctors in India are hardly in few thousands.
- 9) According NHP report, we have 20000 govt. hospitals in rural area accommodating 2.80 lakh beds.
- 10) According one survey, expenditure on health and medicine occupy 51% of the total annual personal expenditure of any Indian patient.

Health Economics of India -

- 1) Although public health service is a state subject, centre and state both have to bear public health expenditure. Presently, 67% of the public health expenditure should be borne by the centre.
- 2) As per WHO reports, India spends only 1% of its total GDP. Whereas, the lower income countries like Bangladesh in Indian subcontinent spend at a percentage more than India.
- 3) It is estimated that, out of the total annual personal medical expenses, 69% in Urban and 75% in rural area is spent as out of own pocket expenses. Major part of personal health expenditure need is satisfied by raising short term borrowings from friends, relatives and so on.
- 4) In order to meet the shortage of MBBS doctors in India, medical practitioners under central AYUSH composition are allowed to render medical service to the public. However, there is a strong objection from MBBS-Allopathy doctor association in India.
- 5) The fee for MBBS course in private medical colleges in India is not less than Rs. 25 lakhs per annum and for post graduate course, it goes up to few crores.
- 6) 66% posts in public health are vacant and 41% in medical education.

#### Public Health Situation in Maharashtra State-

Particulars	For Every	Number
PHC in Non- Tribal area	30000 Population	01 PHC
PHC in Tribal Area	20000 Population	01 PHC
Non-Tribal Area	05 PHC	01 Rural Hospital
Total PHC		1828
Total PHSC(sub centres)		10668
Total Rural Hospitals(30 beds)		361
Total Rural Hospitals(50 beds)		60
Total Rural Hospitals(100 beds)		29
General Hospitals		06
District Hospitals		23
Special Women's Hospitals		12
Super Speciality Hospitals		02
Leprosy Hospitals		04
TB Hospitals		04
Psychiatric Illness Hospital		04
Govt. and Private Blood Banks		336
Health and Family welfare Training Institutes		04
Ashram School Health Check-up teams		37
No. of Resident Govt. medical officers		7532
No. of vacant posts in the state in different category levels.		17000 (approx.)

### Various Health Welfare Schemes in force-

Scheme	Beneficiaries	Type of service
1. Mahatma Jyotiba Phule Janarogya Yojana	Yellow, Antyoday, Annapurna and Saffron colour Ration card Holders with annual income less than 1 lakh	Free Treatment and operations for 971 diseases under 30 special services, 121 follow up services
2. Ayushyaman Bharat	83.63 lakh poor families in the state covering mainly in unorganised sector.	Medical Insurance cover up to ₹5 lakh
3. National Health Mission (NHM)	NA	NA
4. Free or at concessional rate treatments	Eligibility- Income <0.85 for free and <1.60 for concessional rate	400 Public trust hospitals recognised for such treatment to low income groups

### Other Health data of the State-

- 1) As per WHO guidelines, the government should spend at least 5% of its GDP on public health annually. In India, the nationwide percentage is as low as 1.3%. In Maharashtra State, it is 0.5% of the stage GDP which is minimum in the country.
- 2) Maharashtra state ranks second in per capita income whereas it ranks 20th in public health expenditure among all states and Union Territories.
- 3) The state govt. per capita expenditure on public health is Rs.1075 and the people in the state per capita spend Rs.4500 out of its own pocket.
- 4) 80% of the specialist doctor posts in the state are vacant.

### Findings, Conclusions and Discussion-

1. As discussed in the introduction section above, the LPG policy was basically introduced with a noble objective of broadening public health base in the country. But, the intention was misused and it is seen manipulated for safeguarding vested interest of the private and corporate medical production and health industry.
2. Very less number of MBBS and PG qualified doctors come out annually considering the huge population. Especially, there is a dearth of MD, MS specialist doctors in medicine, diabetes, children, kidney, neurology, gynaecology, and epidemiology and so on. The shortage of expert doctors in public health has indirectly benefited the private hospitals and unauthorised practitioners. The private super speciality hospitals are taking undue advantage of the poor public health condition which is detrimental to public health and general welfare of the common people.
3. Health service in rural area is very pitiable and therefore rural people have either to move private hospitals in cities by losing the means of income or face the consequences of sticking to superstitions and ignorance.

4. Huge medical education fee in private colleges has resulted into further large amount of investment for establishing own hospital with costly diagnostic devices or highly paid jobs in multi-speciality star hospitals. The large amount investment in establishing hospital and educational cost is ultimately recovered from the patients at high prices and therefore unethical practices of making money have ruined the lives of common people. Only rich people can afford such private medical service.
5. Our public Health system has become rickety and dismal. It is very miserable in rural part of the state for want of trained medical staff.
6. Many times, it has been found that huge expenditure on building hospitals, furniture, buying costly diagnostic equipments and digital devices is spent without matching planning of deploying permanent skilled staff to benefit the public. No care is taken for the repairs, maintenance of the equipments either by the vendor companies or by entering due agreements for post-sale maintenance. In the absence of trained staff and maintenance, thousands of costly equipments, buildings are shut or not in working condition. This is like a squandering at public cost.
7. All decisions of buying equipments, devices for the entire state or at specified region are taken in Mantralay. Local District Medical Office is not empowered to take decisions. The centralised decision system with unnecessary bureaucratic and administrative procedures and time over runs is killing the spirit of the honest govt. doctors providing service to the poor. Therefore, newly qualified doctors are not willing to join government service as contractual employee. 80% of the posts in rural area are vacant since they better employment terms and benefits in private hospital. This situation is disgraceful to the state.
8. 'Asha' is a title of female health worker who plays key role in providing doorstep public health service in villages and collecting health data. One 'Asha' worker for every one thousand rural population is ratio in rural area. However, 'Asha' workers are not getting proper support from health machinery, training and adequate monthly remuneration. Their needs have always been neglected and their ground work is discouraged years after years.
9. In urban municipal area, the responsibility of public health service has been entrusted with local municipal councils or corporations. But, these local councils have now no independent source of income through levying additional tax except property tax.
10. The most disappointing truth is that there is no state wide independent professional well integrated Public Health System existing in the state. Public Health service is in fractured form.
11. Deficiency of Health facilities in quantitative form-

Health facilities	Existing Number	Shortage
District Hospitals/Sub divisional rural hospitals	23+361+ 89	675 more needed to fulfil per 'one lakh' population criterion.
Primary Health centres (PHC)	1828	1935 more needed to fulfil per '30000' criterion.
PHC Sub centres	10668	11895 more needed to fulfil per

'5000' population criterion.

*Based upon the above factual information, analysis and discussion, the Null Hypothesis H:0 is accepted and conclude that Public Health condition of India in general and Maharashtra state in particular is **not enough** to protect the health of common people and it does not assure the safety of the people in abnormal situation like COVID19 pandemic. H:1 is rejected.*

### Recommendations and Suggestions-

1. Public Health system should be strengthened urgently by recruiting permanent qualified doctors, trained para medical staff, lab technicians, attendants, radiologists and so on.
2. Vacant posts of resident doctors without any additional charge of other hospital should immediately be filled on better employment terms of service. Adequate support services and safety measures should be provided. It should also pertinent to note that after the emergence of COVID19, the Maharashtra govt. has taken the decision to urgently fill up the vacant post within a month period. The recruitment process has already begun with due administrative procedures.
3. The services of contractual medical staff should be immediately confirmed with due pay scale and other service benefits. The contract system of appointment should be immediately discontinued since it is not fair practice in public health service.
4. The expenditure on public health should be increased by at least four times of the present health expenditure. The public health service should lead over other private health services in the state.
5. An independent state wide judicial body- Health Regulatory Authority should be set up. This authority should consist of professional medical experts, NGO representatives, and medical scientists, professors and would be equivalent to High court. The authority will have *suemuto* power of, public hearing on complaints, procurement of necessary medicines, surgical equipments and other diagnostic devices control over super speciality hospitals management, mandatory recruitment of permanent staff and so on. This authority would work on Human Right principle of safety and welfare right.
6. Revolutionary technological changes in health service have taken place which includes information technology, computers, digital images, mobile apps, electronic devices and so on. Upgrading quality and skill has paramount importance in medical field. Therefore, the government should encourage investment on public-private partnership principle in health related industry like indigenous production of electronic machines, diagnostic devices instead of importing from outside countries. The govt. should also encourage investment in health tourism industry, health infrastructure. In short, the health related industry has potential to generate 3 crores jobs and ability to make substantial addition in the national income.
7. The central and government both should increase expenditure on public expenditure which should also include nursing training centres, para medical training centres, district wise

medical education institute from diploma to post graduate courses. Mobile dispensaries in remote areas, trauma centres for road accidents, necessary supply of vaccines, medicines, ventilators and other staff support services for emergency treatment of snake and wild animal bites.

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# Post COVID-19 Strategies for Tourism and Entertainment Industry\*

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## Abstract

*Outbreak of Covid- 19 since December, 2019 has changed the World. Global Pandemic of Novel Corona Virus has affected all sections of the World Economy. No one can exactly predict when the pandemic will be over and everything will be normal. With the start of the spread of Covid-19, Tourism and entertainment industries were immediately shut down. Both the world travel and domestic travel are withheld for the unknown duration.*

*This paper aims at analysing the impact of Covid-19 on Tourism and Entertainment Industry. It studies the role of Tourism and Entertainment Industry during the lockdown period and attempts to suggest recovery strategies to mitigate the impact of the long term lockdowns.*

**Keywords:** Hotel Industry, COVID-19, Hospitality, Lockdown Strategies, Business Recovery

## 1. Introduction

Globally Tourism and Entertainment Industry is witnessing serious threat after the outbreak of Novel Corona Virus. All the countries have the primary focus on the safety of the people, prevention of spread and healthcare of the infected people. The impact on global Tourism and Entertainment is huge. Most of the countries under the COVID-19 pandemic have to shut down the air travel, railways, other modes of public transport, hotels, restaurants, theme parks, cinemas and all have a significant impact on worldwide tourism and entertainment. This is one of the worst crises to hit the tourism industry and it has impacted all its segments –inbound, outbound and domestic, and leisure, cruise, adventure, corporate meetings, conference and exhibitions.

The Tourism and Entertainment Industry is offering its services to the extent possible in many ways to help out the society. Many of the hotels have made available their rooms for quarantined patients, hospital staff- doctors, nurses and para-medics and stranded people.

### 1.1 Objectives of the Study

1. To understand the impact of Covid-19 on Tourism and Entertainment Industry.

2. To identify role of Tourism and Entertainment Industry during lockdowns and unlocks.
3. To suggest recovery strategies for Tourism and Entertainment Industry during and after COVID-19.

## 2. Review of Literature

Ransinghe et al. (2020)<sup>i</sup> studied the impact of COVID-19 on Tourism, Hotel and MICE Industry in Sri Lanka and suggested flexi services, virtual and hybrid events as options for recovery.

Orion Market and Research Pvt. Ltd. (2020)<sup>ii</sup> conducted a study on impact of corona on Entertainment Industry all over world and revealed the growth deviations in the industry.

The Events and Entertainment Management Association (EEMA)<sup>iii</sup> conducted a member survey with 170 companies that were affected by COVID-19. They found that 63.1% companies i.e. around 107 companies suffered from a revenue loss of up to 1CR. Around 97 companies will need to raise capital or debt from institutions or shareholders, VC funding, etc. EEMA report notes that the government should consider some steps like the immediate payout of all income tax refunds, which have been due for a while, and the due payment from the central and state governments to event companies for work done or work-in-progress.

The perusal of literature revealed that there are a few research studies conducted identifying the impact of COVID-19 on Tourism and Entertainment Industry and post COVID-19 strategies for the same.

## 3. Methodology

This study is based on secondary data collected from journals, hospitality, tourism and entertainment related websites and industry experts' web articles.

## 4. Discussion

This section brings forth the impact of COVID-19 on Tourism and Entertainment Industry. It also attempts to explore the role of these industries during the lockdown period. Further, it discusses the post COVID-19 strategies for both the industries.

### 4.1 Impact of COVID-19 on Tourism and Entertainment Industry

Outburst of Corona Virus has spread the fear and confusion in the society, resulting in physical and emotional ill-health. COVID-19 is massively affecting all parts of our life by change in education, finance, business, manufacturing, supply chain and all day to day affairs. Due to the sudden lockdown all over the country, the Tourism and Entertainment Industry has been devastated.

- **Sudden Decline**

Global COVID-19 pandemic has thrown the Tourism and Entertainment Industry in India heavy financial crisis all of a sudden. In lockdown mode, India has cancelled and prohibited all major businesses, social and sporting events like the other countries and imposed Section 144 for prohibition of mass gatherings.

- **Small Businesses**

Parts of Tourism and Entertainment Industry like the tour operators, travel agencies, small hotels, tourist facilitation centres, theatres, cinema halls, pubs & clubs, cafés, are affecting much worse than the big players in the industry. Most of them are and might be fully shut down until the pandemic reduces.

- **Revenue Loss**

According to Federation of Associations in Indian Tourism & Hospitality (FAITH) India's tourism sector has lost Rs. 10 lakh crore on account of impact of COVID-19 pandemic.<sup>iv</sup> Indian media and entertainment industry's revenue is expected to lose by 16% according to domestic rating agency CRISIL.<sup>v</sup> The overall revenue loss of Rs 25,000 crore for the industry will translate to significantly lower profits for companies despite cost-cutting measures.<sup>vi</sup>

For Television, the advertisement revenue is cut down due to lack of new content on popular channels and postponement of major sporting events such as the Indian Premier League. For Movies, a sharp fall in box office collections has reduced the subscription revenue to a large extent. The movie business alone is estimated to drop from Rs. 23,600 crore to Rs. 12,700 crore over FY21.<sup>vii</sup> The postponed movie releases have affected the revenue of movie theatres and multiplexes.

- **Employment Loss**

The travel and tourism sector is more dependent than other industries on the free and confident movement of people. Due to national lockdown, all tourism activities have been stopped, resulting in disappearing jobs of around 38 million people.<sup>viii</sup> It is a major setback for national employment as the travel and Tourism sector accounts for 12.75% of employment - 5.56% direct and 7.19% indirect. Over 87 million people were employed in the tourism industry in 2018-19, according to the ministry of tourism's annual report for 2019-20.

- **Distorted Supply**

The supply chain for the entertainment industry is broken down due to the lockdowns, resulting into shortage of entertainment products. The shootings of the TV serials, Reality shows, movies and web series have been barred during lockdowns, so there is no new content available on TV Channels and digital entertainment platforms. However, people staying at home want different options of entertainment on their TV screens and digital devices.

## 4.2 Tourism and Entertainment Industry during Lockdowns and Unlocks

- **Lockdown Entertainment**

In this the grave situation, entertainment industry is showing solidarity by shooting home videos and providing online entertainment for the audience. Most of the TV channels are running repeat telecasts of favourite old series and events to entertain the people during lockdowns.

- **Strategies for Reopening**

- Tourism businesses should use the lockdown period to chalk out the plans for reopening. They should draw out their minimum operations sufficient enough for quick recommencement when unlock starts for them.
- They should prepare a digital and social media marketing strategy for maintaining their consumer share in the market.
- They need to bring out a plan in discussion with the accommodation and other service providers to re-engage.
- Consistent communication with key customers, employees, producers and local authorities is needed for smooth reopening of the Tourism and Entertainment Businesses.
- Tourism and Entertainment Businesses need to develop their customized reopening plan and chalk out the financial requirement.

- The available funds and the time should be utilized for up gradation of the business to the possible extent.

### 4.3 Post COVID-19 Strategies for Tourism and Entertainment Industry

#### 4.3.1 Role of Government

Governments have to play a vast role in saving the Tourism and entertainment industry. Central and State governments too should declare business recovery packages for this industry. Government needs to provide a moratorium of 6 to 12 months on all loans including principal & interest, working capital payments and overdrafts. The Credit Rating agencies do not down-grade credit ratings of businesses at least for one year. Government should offer fiscal support in form of a 12-month tax holiday to Tourism and Entertainment Industry. All state and central governments need to waive off or reduce the GST on the Tourism and Entertainment services and products for 12 months.

#### 4.3.2 Role of Tourism and Entertainment Businesses

- **Cost Cuttings** –Cost saving measures in Tourism businesses will enable to recover the losses, hence, making a service plan for all power equipments and digital equipments for safe and smooth functionality. The entertainment artists and crew members can charge lower fees for their services targeting at content making.
- **Revenue Generation-** Tourism Businesses should prepare special experiential packages and promotions targeted at ‘locals’ for generating revenue in post COVID-19 period. New concepts for benefit of the society in need of emotional retreats and focusing on psychological and physical wellbeing should be brought down by the Entertainment businesses. Both type of businesses should think promote value-added services and flexible booking terms. Tourism operators can provide services earlier they have not offered such as customized packages and home visits for promotion.  
In entertainment industry, the online streaming platforms like Netflix and Amazon Prime Video have benefited of the lockdowns during this pandemic. KPMG has reported a rise in OTT consumption in duration, and across demographics and devices.<sup>ix</sup>
- **Regaining Customer Confidence**  
Businesses need to consider the fact that the stranded people may not be ready for Travel and Tourism after lockdown. Whereas, they should sensitively welcome the customers ready to travel after long confinement at homes and reassure them by intensifying cleaning and hygiene measures. Monitoring and control of cleaning and hygiene measures are necessary for Tourism and Entertainment enterprises. Products and services promotions should be done in a positive, gentle and non-aggressive manner.
- **Employees**  
The tourism and entertainment businesses need to adapt the new trends of work culture for employee well-being. They should provide adequate support to the returning employees and team members to restart their work life, including assistance on matters such as food, housing etc. The employees need to be trained to communicate with and handle the needs of the customers from countries who have recently recovered or previously considered as high

risk of COVID-19. They also need training to communicate with the customers who are going to visit the countries or zones as per their severity of COVID-19 impact.

The daily wage earners of entertainment industry have most hard hit and will face huge repercussions if work doesn't resume soon. The producers need to ensure a safe working environment for the cast and crew. Being a labour-intensive industry, they have to ensure hygienic conditions on shooting sets.

- **Legal Compliance**

The tourism and entertainment businesses should comply with the revised government regulations, financial regulations, taxation policies, brand norms, employee policies, and insurance and health norms when the crisis will be over.

- **Social Distancing**

The Tourism and Entertainment Industry needs to ensure the social distancing after the lockdowns will be lifted. Alok Tandon, CEO of INOX Leisure Ltd has suggested cross allocation of seats and time management of shows to avoid the crowding in lobbies, restrooms, food counters during entry, exits and intermissions.

#### 4.3.3. Role of Public

Tourism Industry is in need for the right decisions made by the public for rescheduled travels in post crisis period. The public should believe in the Tourism and Entertainment enterprises and seek for various options of tourism and entertainment. However, during the lockdown period, people are binge watching on OTT platforms, they need to take care of their health, avoid the stress on their body and eyes.

### 5. Conclusion

It is definitely very challenging period for the Tourism and Entertainment Industries due to the global pandemic of COVID-19. Both the industries need strong backing from the government to lessen the impact. It should be also supported by the public to revive the demand and resume its services.

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## ISLAMIC BANKING – THE NEED OF THE HOUR

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### Abstract

*Repaying the society for its bountiful resources is a deed indeed indispensable not only for a suitable corporate image but also for compensating the generations to be for their premature loss, not to mention the morals upheld. A very sound and, if I may be permitted to say, astute step in this direction is the underplayed **Islamic Banking (IB)** which is quite a torch bearer for **Social Relevance**, considering the principles it upholds and the methods it propagates. Contrary to its seemingly religious overtones, IB is a practical approach to banking with morality given its due. The incumbent Governor of the Reserve Bank of India Shri. Raghuram Rajan has advocated the introduction of IB in India all along. The obstacle is the absolute refusal exhibited by IB for giving and receiving interest. And given the current mess the Indian economy is in, the principles propagated by Islamic Banking would surely come in use.*

**Research objective:** *This paper proposes to arrive at some conclusion as to whether the possibility of adoption of Islamic banking as a step towards a more meaningful financial solution to the current issues is realistic or merely a suppositious assumption. Nevertheless, a concept that has worked for so many nations cannot have a dubious premise as its operative methodology.*

**Methodology:** *The very nature of the topic under consideration requires use of secondary data for analysis.*

**Value:** *The value and significance of this study lies in the fact that it can act as a catalyst in the adoption of Islamic Banking in India, in fact as a step towards a better **Financial Future**.*

**Key words:** *Islamic banking, social relevance, financial future.*

**Introduction:** Banking is the mainstay of the economic progress of every economy. And what with the ever increasing concern for corporate social responsibility and business ethics, the value systems incorporated in the banking system adopted carry far more significance than earlier. Much as Islamic banking evinces religious fervour, it has strong social principles embedded within. Corporate governance may be concerned with the social validity of the organisation in particular, but Islamic banking calls for a whole new ethical approach. Islamic banking seems an alien concept in India's conventional banking world. Despite its impressive growth in other parts of world such as the Middle East, South East Asia (which primarily include Malaysia and Indonesia) And Europe, it is yet to find favour with the Indian authorities. The search for alternatives to conventional banking in the aftermath of the global financial crisis trained the spotlights on Islamic banking in many parts

of the world. The purpose of this paper is to provide a quick roundup of the global Islamic banking scenario and highlight its potential and need in India as well as the accompanying challenges. Islamic banking, also known as interest free banking or finance, is a banking system, which promotes profit sharing, but prohibits the charging and paying of interest. This system is based on the principles of Sharia Islamic Law, which are derived from the Holy Quran and the “Hadeeth”, a compilation of the noted sayings of Prophet Mohammad. Islamic Banks everywhere follow these principles in their business. In Islamic banking, productive activities which promote entrepreneurship, trade, commerce and societal development are supported, while those which earn income without risk – such as interest (Riba) bearing transactions – and unproductive activities like speculation or gambling are prohibited. Basic tenets of Islamic banking -

- Payment and receipt of interest (known as Riba) is strictly prohibited (haram).
- The business is based on profit and loss sharing.
- Certain industries, such as adult entertainment, alcohol, and gambling are “haram” (disallowed by Sharia) and prohibited for investment. This is why Islamic Banking is also referred to as Ethical banking.
- Banks may not lease or lend any product that they do not wholly own.
- Trading in debt is also not allowed, which is why Banks do not deal in traditional bonds; rather they have their own version of such instruments called Sukuk (Islamic Bond).
- Interest free loans (Qard Hasan) are encouraged to spread financial inclusion.

**Matter:** Islamic banking has the same purpose as conventional banking: to make money for the banking institute by lending out capital. But that is not the sole purpose either. Adherence to Islamic law and ensuring fair play is also at the core of Islamic banking. Because Islam forbids simply lending out money at interest, Islamic rules on transactions (known as **Fiqh al-Muamalat**) have been created to prevent it. The basic principle of Islamic banking is based on risk-sharing which is a component of trade rather than risk-transfer which is seen in conventional banking. Islamic banking introduces concepts such as profit sharing (**Mudharabah**), safekeeping (**Wadiyah**), joint venture (**Musharakah**), cost plus (**Murabahah**), and leasing (**Ijar**). In an Islamic mortgage transaction, instead of lending the buyer money to purchase the item, a bank might buy the item itself from the seller, and re-sell it to the buyer at a profit, while allowing the buyer to pay the bank in instalments. However, the bank's profit cannot be made explicit and therefore there are no additional penalties for late payment. In order to protect itself against default, the bank asks for strict collateral. The goods or land is registered to the name of the buyer from the start of the transaction. This arrangement is called Murabahah. Another approach is **Eljara wa Elqtina**, which is similar to real estate leasing. Islamic banks handle loans for vehicles in a similar way (selling the vehicle at a higher-than-market price to the debtor and then retaining ownership of the vehicle until the loan is paid). An innovative approach applied by some banks for home loans, called **Musharaka al-Mutanaqisa**, allows for a floating rate in the form of rental. The bank and borrower form a partnership entity, both providing capital at an agreed percentage to purchase the property. The partnership entity then rents out the property to the borrower and charges rent. The bank and the borrower will then share the proceeds from this rent based on the current equity share of the partnership. At the same time, the borrower in the partnership entity also buys the bank's share of the property at agreed instalments until the full equity is transferred to the borrower and the partnership is ended. If default occurs, both the bank and the borrower receive a proportion of the

proceeds from the sale of the property based on each party's current equity. This method allows for floating rates according to the current market rate such as the BLR (base lending rate), especially in a dual-banking system like in Malaysia. Some may view these methods as circumvention and some as deliberation but none as unethical. Whatever benefits Islamic banking may or may not have in its favour, public relations is not one of them. The Reserve Bank of India's recent nod to Sharia-based non-banking financial houses met with resistance from the usual suspects. Objections to Islamic banking in India range from regulatory inertia and concern about the unknown to Islamophobia. This is made worse by the existence of few rigorous analyses of Islamic finance. The first Islamic bank in the world was founded in Egypt in 1963, and since then, the phenomenon has grown slowly but steadily. Conceptually, an Islamic bank has an equity-based capital structure, composed of shareholders' equity and investment deposits based on profit and loss sharing. Islamic banks follow the standards prescribed by the Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI). The most known fact about Islamic banking is that it prohibits earning of interest, or *riba*. Muslims believe that profit should be based on effort; moneylenders expend little effort, their earnings accruing while they sit idle. Islamic banking also prohibits investment in activities considered haram, or sinful, according to sharia. Thus, projects involving alcohol, tobacco, pork products, weapons and defence, and pornography are all forbidden. The system also proscribes gambling and speculative activities. It should be mentioned that Islamic banks keep their doors open to all, including non-Muslims.

It should be noted, however, that while *riba* is prohibited, equity-based returns on investment are not. Islamic finance covers several types of financial contracts that vary in equity and profit-loss sharing. For the simplest accounts, Islamic banks perform a fiduciary role by primarily protecting the principle and sharing the surplus if any; for savvier depositors, the bank serves as an agency and provides administrative support. Modes of financing such as **Mudharabah** (one partner provides the money and the other contributes expertise) and **Musharaka** (investment, labour, expertise, risk is shared among all parties) may be seen as strictly profit-loss sharing, while **Murabahah** (sale of goods in which profit margin is decided upon by both buyer and seller), **ijara** (leasing), and **bai-us-salam** (advance payment on future delivery of goods) are not. There also exists a hybrid of these two types. To enlarge the field of operations of Islamic banking, the requisite infrastructure has been slowly put in place. In 1995, the Dow Jones Islamic Markets Index (DJIMI), a listing of sharia-compliant portfolios, was launched. A special Sharia Supervisory Board oversaw the process, and the stocks are widely traded. In general, Islamic banks have performed as efficiently as conventional banks despite their self-imposed restrictions. India's present laws obstruct the establishment of Islamic banking - the Banking Regulation Act (1949) prohibits the operation of banks on a profit-loss basis, forbids *Murabahah* or the buying, selling, or barter of goods, impedes *ijara* or bars the holding of immovable property for a period greater than seven years and requires the payment of interest. However, there is no reason for these regulations not to be amended. The purpose of regulations is to ensure smooth and standardised operations, not vet business models; the market will be the best judge of the efficiency and pitfalls of Islamic banking.

Let's have a look at the global scenario vis-a-vis Islamic banking. Global Islamic banking assets with commercial banks are expected to reach US\$1.72 trillion in 2013, according to Ernst & Young's latest World Islamic Banking Competitiveness Report 2013-14, launched at the World

Islamic Banking Conference in Manama, Bahrain. In 2012, global Islamic banking assets with commercial banks reached US\$1.54 trillion. The report revealed that six rapid-growth markets including **Qatar, Indonesia, Saudi Arabia, Malaysia, UAE and Turkey (QISMUT)** represented **78%** of the international Islamic banking assets with commercial banks, excluding Iran. This includes both pure-play Islamic banks and windows of conventional banks. There is also increased demand on established and new reference centers including Bahrain and Malaysia to provide leadership for the next phase of industry's development. According to the report, Islamic banks today serve approximately 38 million customers globally, two third of whom reside in QISMUT.

Let us now revert to the Indian scenario. While Islamic finance originates from religious principles, it is also a workable model of investment, based on risk sharing. The nations which have adopted Islamic finance have done so because it makes business sense. Islamic finance is all about encouraging and facilitating investment in real economic activity and societal welfare, while prohibiting investment in reckless businesses such as gaming, alcohol and adult entertainment or risky financial products like derivative contracts of the kind which led to the 2008 sub-prime crisis. Apart from being a viable alternative to capitalist financial systems prone to extreme risks, the interest-free solutions of Islamic Banking could restore equilibrium in Indian society by providing succour to debt-ridden farmers, labourers and other marginalized groups. Hence, Islamic Banking has potential as a tool of financial inclusion.

The relevance of Islamic Banking is even more in today's scenario due to the lockdown and the decimation of businesses and losses of jobs. Besides, although the Reserve Bank of India has made provision for the facility of moratorium, the interest payments have mounted leading to further financial burden. These problems could easily have been avoided with the adoption of Islamic Banking.

**Conclusion:** Growth of Islamic finance depends on two important factors: domestic demand and India's role in the globalization of the financial sector. By not introducing Islamic finance, India is losing the opportunity of garnering capital from a large section of the Muslim population as well as from Islamic nations in the Middle East and elsewhere. Islamic finance is an idea whose time has come. It is time the Indian Government recognizes this significant opportunity. In fact, with the financial challenge posed by the lockdown, Islamic Banking would have provided a healthy solution.

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## ISSUES OF SUSTAINABLE DEVELOPMENT OF AGRICULTURAL IN INDIA

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### *Abstract*

*Agriculture sector is still the backbone of Indian economy as it provides livelihood to 58% of the population, generates 14% GDP, employs 52% labour force, contributes to 20% of exports, and provides raw material for a large number of industries. It also contributes significantly to sustainable development of the country. Sustainable development is defined as the development that meets the needs of the present without compromising the ability of future generation to meet their own need. Such sustainable development is economically viable, socially equitable, environmentally non-degrading, technically appropriate, politically empowering, and culturally acceptable. Sustainable development of agriculture is the management and conservation of natural resource base, use of farming systems and practices to maintain and/or enhance economic viability and ecosystems and also introduction of institutional and technological changes to ensure the attainment of needs for the present and future generation. Sustainability in agriculture can be achieved through optimum use of natural resources, human resources, capital resources and technical resources.*

**Key Words:** Sustainable agriculture, Cropping pattern, Capital formation, Climate change, Rural infrastructure, Inclusive growth, Land degradation.

### **Introduction**

Agriculture provides livelihood to fifty five per cent population, employs over fifty two per cent of the labour force and contributes about 16 per cent of the national income. Since the available cultivable area has almost been utilised for agricultural purpose, the scope for bringing additional area under cultivation is thus very limited. Further, additional areas could be brought under crops

only by encroaching upon country's valuable but already depleted forest resources. About 23 per cent of the geographical area of the country was under forest, whereas the National Forest Policy has recommended one-third area under forest.<sup>1</sup> If the requirement like food and fibre of an ever increasing population of the country are to be met, there is no other alternative but to increase the productivity of the land and irrigation is one of the basic inputs to augment agricultural productivity.

### **Objectives of the Study**

- To study the role and performance of agriculture in Indian economy.
- To examine the growth rates, capital formation, and cropping pattern.
- To evaluate the development of irrigation potential during the planning period.
- To find out various existing challenges before Indian agriculture.
- To suggest measures to promote and develop Indian agriculture on sustainable basis.

### **Methodology**

The present paper is primarily based on secondary sources of data such as published annual reports of Ministry of Agriculture and Co-operation, Government of India, New Agricultural Policy, economic survey, government publications, and other publications. Research articles published in periodicals, journals and on internet are also referred to obtain useful data and information relating to agricultural development and other aspects.

### **Crop Production and Growth Rates**

The production of the major crops and the average annual growth rates of these crops reveal that there was a record production of food grains at 260 million tonnes due to timely and sufficient rainfall during 2011-12. During 2012-13, total food grains production was declined to 250 million tonnes due to of late onset of monsoon and deficient rainfall in many states. Production and yield of all the major crops have recorded positive growth rates, whereas production of wheat, bajra, maize, coarse cereals, gram, tur, other pulses, groundnut, soya bean, cotton and oilseeds has increased at more than 4% per annum. The production of wheat, bajra, maize, groundnut, oilseeds, gram, tur, other pulses, soybean, and cotton was attributed to both increase in yields and expansion in area.

Sugarcane, mustard, soyabean, rice, wheat and cotton recorded lower growth rates in yield during the 11<sup>th</sup> Plan period.

### Capital Formation in Agriculture

The gross capital formation in India is 40 per cent of the GDP, whereas the capital formation in agriculture is much lower at 19.8 per cent in 2011-12. The gross capital formation in agriculture and the percentage share of public and private sectors in GCF is given below.

**Table 1: Gross Capital Formation in Agriculture at Constant Prices (2004-05)**

Year	Public Sector (Rs. Crore)	Private Sector (Rs. Crore)	Total (Rs. Crore)	Public Sector (%)	Private Sector (%)	Total (%)
2004-05	16187	59909	76096	2.9	10.6	13.5
2007-08	23255	82484	105741	3.5	12.6	16.1
2009-10	22693	110469	133162	3.4	16.7	20.1
2011-12	22095	124483	146578	3.0	16.8	19.8

**Source:** Annual Report, 202-13, Ministry of Agriculture and Cooperation, New Delhi, 2013, p.8.

The share of public sector capital formation in agriculture has gone down from 25 per cent in 2006-07 to 15 per cent in 2011-12, while that of private sector capital formation increased from 75 per cent to 85 per cent during the same period. The public sector GCF in agriculture as per cent of GDP from agriculture sector has declined from 3.7% in 2006-07 to 3.0% in 2011-12 and that of private sector GCF in agriculture increased from 14 per cent to 20 per cent during 2004-05 to 2011-12 due to increase in agricultural production, income of the farmers and overall development of agricultural and allied sectors..

### Cropping Pattern in India

As agriculture practices shifts from subsistence to commercial farming, the cropping pattern in vogue undergoes a change from cultivation of rainfed crops to irrigated one. The cropping pattern in a particular area/region is governed by a variety of socio-economic and natural factors. During 1990-2010, the net sown area has gone down from 143 Mha. to 140 Mha., while the gross cropped

area has gone up from 186 Mha. to 192 Mha. on account of increase in the cropping intensity by 7 per cent from 130 per cent to 137 per cent. Area under food crops has come down from 75 per cent to 70 per cent and that of non-food crops increased from 25 per cent to 30 per cent since 1990-91. Maximum area 22 per cent was under paddy followed by wheat and oil seeds (15 % each), and coarse cereals (14%). Area under sugarcane, cotton, oil seeds, fruits and wheat has increased and area under food crops mostly decreased since 1990.

### **Major Challenges before Indian Agriculture**

Agricultural development is dependent on availability of natural resources e.g. land, water, soil and biodiversity. However, these natural resources are rapidly shrinking or under strain due to demographic and socio-economic pressures. Major challenges before agriculture are as under:

#### **Division of Land Holdings**

Increasing pressure of population, law of inheritance, indebtedness of farmers, and lack of employment opportunities in other sectors and other factors have contributed to division, sub-division and fragmentation of size of land holdings over the period of time. Per capita availability of agricultural land has declined from 0.5 ha. to 0.18 ha. from 1951 to 2001 and further declined to 0.15 ha. in 2011-12. The average size of land holding has also declined from 1.33 ha. to 1.16 ha. in 2010-11. This uneconomic size of holding is an obstacle in the sustainability of Indian agriculture.

#### **Unwanted Cropping Pattern**

Land use and cropping pattern in a particular region depends upon the climatic parameters, soil characteristics and availability of rainfall and water. Cropping pattern developed in most of the regions and states is not suitable and conducive to local agro-climatic conditions. There is unwanted crop diversification based on higher prices, market demands and higher economic gains. Farmers are interested in cultivating cash crops and an intensive agriculture from market point of view which need more water, fertilizer, pesticides and other inputs.

#### **Climate Change**

Global warming leads to changes in the climate all over the world which adversely affect agricultural production and growth of agricultural sector. Rising temperature, climate change and extreme weather conditions occur due to increasing emission of dangerous greenhouse gases in the atmosphere. This climate change has a negative impact on land use, cropping pattern and agricultural production due to higher frequency of floods and droughts, availability of less water for irrigation, heavy soil erosion, low soil organic matter, etc. Recent example of climate change is occurrence of heavy hail storm in Maharashtra which has destroyed agriculture in the state and brought thousand crores losses to farmers.

### **Degradation of Land**

Land degradation is another challenge faced by the Indian agriculture which is likely to be a threat to food security and environmental protection. About 120 Mha. i.e. 36 per cent area is afflicted due to various types of land degradation. Maximum area (80%) has been affected by soil erosion followed by soil acidity (15%), soil alkalinity (3%), soil salinity (2%), water logging, mining and industrial wastes. Water logged, acidic, alkaline and saline areas are mostly found in Northern India and Rajasthan, M.P. and Maharashtra where perennial irrigation facilities are prevalent over the period of time.

### **Irrigation Potential Created and Utilised**

The Ultimate irrigation potential of the country is estimated at 113.5 million hectares, 73.5 million hectares from surface water and 40 million hectares through ground water. This UIP of 113.5 Mha. comprises 58.5 from major and medium projects and the rest 55 Mha. from minor projects. The cumulative irrigation potential created has increased from 22.60 million ha. to 109.77 million ha. 1951-52 to 2011-12. The irrigation potential created from major and medium projects increased from 9.70 ha. in the First Plan to 47 Mha. and the rest 63 Mha. from minor projects.

The gap between the potential created and its utilisation has continuously been widening and therefore, the underutilisation of created irrigation potential has now become a serious problem particularly in respect of major and medium irrigation projects. For instance, by the end of Eleventh Plan, utilisation was 90.42 million ha. against a created potential of 109.77 million ha. This leaves a

gap of 20 mha. of underutilised potential. The pace of utilisation has been far too slow as the rate of utilisation declined from 100 per cent in 1951-52 to 82 per cent in 2011-12.

### **Bharat Nirman -Rural Infrastructure Development Programme**

The government launched a nationwide programme for creating rural infrastructure known as “Bharat Nirman.” It was a time bound programme to be implemented during 2005-2009. Six components were included under this programme viz., irrigation, drinking water, electrification, roads, housing and telephony. Active and transparent public and private partnership (PPP) was also included under this for execution of various infrastructure development projects. However, the goals set under this programme were not achieved fully by 2009. Hence, the government extended the time limit for completion of targeted goal to 2014.

### **Irrigation Development**

The Bharat Nirman targeted creation of additional 10 Mha. irrigation potential by March 2010, while 7.3 Mha. irrigation potential was created. However, the original target of 10 Mha. was surpassed by creating 11.2 Mha. irrigation potential by March 2012. Although sufficient irrigation potential has been created over the years, the created irrigation potential has not been fully utilised, leaving a widening gap between creation and utilisation of irrigation potential. The actual utilisation of created potential was 90.4 Mha. i.e. 82.4 percent.

### **Rural Electrification**

Availability of adequate electricity is crucial for sustained rural development of India. Since supply of power has been falling short of its demand, lack of power, power cut, load shading and power accessibility are serious problems in rural areas. The capacity addition during the Eleventh Plan was only 60 percent against a target of 623711 MW. To ensure power availability and accessibility, the Bharat Nirmal proposed to supply electricity to 2.3 crore households in 1.25 lakh un-electrified villages in Phase-I from 2005-2009.

### **Conclusions**

The performance of agriculture in respect of food production has been impressive mainly due to green revolution. However, Indian agriculture still faces resource constraints, infrastructural constraints, institutional constraints, and technological constraints. Sustainable agriculture needs to be technologically feasible, economically viable, socially acceptable and environmentally sound. Sustainability in agriculture can be achieved through efficient management of natural resource base and integrated approach to crop management. This include efficient use of land, conservation of soil and water, crop rotation, use of appropriate technology, crop management practices, integrated watershed management, reclamation of degraded land, use of GPS technology, social forestry and linking of agriculture with environment.

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# CHALLENGES AND OPPORTUNITIES OF TECHNOLOGICAL AND METACOGNITIVE LEARNING – POST COVID'19 ERA

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## Introduction

The pandemic has affected globally and everything has gone to a standstill and many sectors are facing challenges. One such is the educational sector where the lower to the higher education have been affected thoroughly. Educational institutions have been closed towards the end of the academic year where the students strive not knowing what to do. The schooling and the teaching learning are the first to be affected because of the mid-closure of the academic year. The government, the educationists, politicians as well the members of the society squeeze their brain to support the education system by inventing modern methods and revitalizing the existing technology. When a new or modern system is inculcated, the system as well as the people come across challenges. The teachers as well as the learners have to face the challenges and find out a way to educate the student society. The COVID'19 Pandemic has changed the way we look into our environment. It has also changed the way we look into education and how we can change the traditional teaching learning to an innovative and modern way using technology and metacognition.

## Learning During COVID'19 and Before

Learning has definitely undergone a change during COVID'19 pandemic. With the closure of the schools and educational institutions, the educationists had no other way except to rely on technology. Technology infused teaching learning has transformed the educational system not only the private institutions but also the government. Though the situation is still panicky due to the pandemic the teachers and the students are becoming technologically enriched. The learners as

youngsters find technology easier, whereas many of the teachers find it difficult to adopt technology and struggle to get the hang of it.

“Use of technology in education is one of those methods that will help improve the quality of education in India. It is also altering the way education is provided in India.” [Teja Gudluru, the Founder and CEO of UDO-now.com]

“Now, considering the lock-down situation, one can imagine that a lot of EdTech companies will see and perhaps seize the opportunity to fill the gap that may exist in bringing more schools on to the digital platform.” [Teja Gudluru, the Founder and CEO of UDO-now.com]

Classes are being conducted through video conferencing- which is done through various apps and also offline classes are being taken through what’s app. Majority of offline classes are being handled due to network connectivity problem. It may be online or offline classes, the teachers tend to keep themselves in touch with the students every day.

“This is a new learning experience for teachers. We are using technology to ensure that the students use their time productively and prepare them for the coming academic year.” [R. Jhansi Rani, a teacher in TVS School]

Teachers as well as the students maintain regular connectivity through the various applications. Use of technology is not limited to the private institutions. The government schools also tend to insert technology into their classrooms.

### **Technological and Metacognitive Learning**

When a person starts to learn and use technology, he involves metacognition in the process. Without metacognition learning of technology will not prove worthy and fruitful.

Metacognition is ‘thinking about how one thinks’. It involves one’s thinking process which involves cognition. It is a process where one has to know about one’s self-regulated learning viz. identify, plan or gather information, apply, evaluate, and adapt. It can also be said as visualise, activate and reflect.

“The ability to understand and monitor ones own thoughts and the assumptions and implications of one’s activities”. [John Flavell (1976)]

Though many people read, they lack comprehension. But when they think about it, they get to know what it states and they come to know what and the how of it. It settles down the confusion and creates self-awareness.

In a recent experiment undertaken by the researcher in the context of a digital media class, the use of metacognitive learning strategies resulted on improved students' learning outcomes. [Angulo, 2006]

As the computers along with the internet provides enough access to knowledge and reframing the ideas, the student is able to do his task tremendously. Though multimedia integrated with teaching and learning helps a lot in the process, many advanced techniques such as the online classes have come into existence. To use technology and achieve a brilliant learning metacognition is essential.

### **Challenges and Opportunities of Technological and Metacognitive Learning – Post COVID'19 Era**

There are many challenges being faced by the teachers and the learners when it comes to technology and metacognitive learning.

Some of the challenges that teachers face both in terms of metacognition and technology is the teachers' very flimsy knowledge. Though teachers are trained, they lack professional development in technological and metacognitive learning.

Teaching involves handling many interacting factors simultaneously that often cannot be neatly decomposed and treated one at a time (see Darling-Hammond & Bransford, 2005).

Computers have been of a great help in developing metacognitive learning and the usage of the electronic media and the electronic gadgets have already started and the teaching learning process will be nothing without technology and metacognition – Post COVID'19.

Graesser and McNamara (2005) used computers as tutors to help students generate questions (e.g., why, what-if, how) and develop self-explanation strategies while reading text.

Computers and the other electronic media help in the collaborative learning and to learn through technology, metacognition is essential. The learner when he starts using the computer, gadgets, etc. uses technology as well as metacognition.

Certain challenges that the teachers and the learners face affect the effective implementation of the teaching and learning such as network problem, improper usage of proper gadgets, etc. Challenges also include the teachers who stick to their traditional method of teaching and resist any change. These teachers refuse to acquire or try any metacognitive or technological method. They fail to use technology to assess or evaluate students. Even the simplest usage of webcams is found difficult by many of the teachers. Teachers also find it difficult to acquire the up gradation of electronic gadgets as well as metacognitive strategies. They try to remain in their comfort zone.

Today's education is faced not only with challenges but also with lots of opportunities. The students are able to learn from home under the guidance of their parents. The emerging trends in technology and metacognitive learning provide great opportunities to the teachers as well as the learners. Change to a larger extent is seen in the collaborative learning of today- especially the technology driven learning. The teachers are confronted with the resources found in abundance in the internet and how well it is going to be used.

Mobile learning and cloud computing are today's keywords in the field of technology. The learners and the teachers learn in a comfy zone sitting in their homes through gadgets. Each and every one possesses a tablet or a mobile and also a laptop or desktop and uses it for their teaching and learning. Open resources in the net are used for not only teaching and learning but also for assignments, homework and projects. The teachers and the students are able to find an alternative to buy gadgets according to budget economically. Classes are conducted and storage of lessons are handled through television channels, what's app, Zoom, Google classrooms, MOOCs (Massive Open Online Courses), Google Drive, Moodle, etc. Post COVID'19 is going to present a scenario where all those who are involved in the educational field need to be equipped technologically. E-Learning is definitely going to be the highlight of Post COVID'19 Era.

**Recommendations for teaching and Learning Using Technological and Metacognitive Learning – Post COVID'19 Era**

There will be a shift in the education system Post COVID'19. The teaching and learning process is going to be altered completely.

The future of education may be (i) Collaborative Learning using Technology and Metacognitive strategies, (ii) Online and Offline classes.

Schools may

- (1) have tie-ups with more education technology integrated companies,
- (2) recruit teachers with ICT background,
- (3) rely more on electronic gadgets,
- (4) make use of television channels for increased educational assistance,
- (5) reduce paper usage by not using books and notebooks which will be replaced by tabs,
- (6) conduct evaluation and assessment through online,
- (7) use software to develop e-content, (8) encourage e-learning 100 %.

## Conclusion

The academic curricula find it very difficult to fit in all the essential components to teach a learner all the aspects of learning. The memory of human being is dynamic and remembers a number of things which helps in the enhancement of cognition. There are various strategies to boost the memory which in turn helps in boosting the metacognition and use appropriate technology to boost self-regulation. Metacognitive learning strategies are used by effective learners while using technology. Technology is prevalent in many parts of life today and metacognition is needed to use it in technology. Technology is available in many phases of life and today it is considered most vital in the field of education and it is certain that it will bring in a change in the forthcoming months and years, in the Post COVID'19 Era.

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## POST COVID-19 & AN EDUCATIONAL SECTOR IN INDIA: ANALYTICAL STUDY

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### *Abstract*

*This paper is focused on COVID-19, its effect on educational sector in India and recommendations to overcome education sector. The COVID-19 and its effect of lockdown are badly influenced to whole education system of the world. School closures impact not only students, teachers, and families, but have far-reaching economic and societal consequences. The School closures in response to the pandemic have shed light on various social and economic issues, including student debt, digital learning, food insecurity, and homelessness, as well as access to childcare, health care, housing, internet, and disability services. The impact was more severe for disadvantaged children and their families, causing interrupted learning, compromised nutrition, childcare problems, and consequent economic cost to families who could not work. Therefore, the researcher has chosen this subject for study. The secondary data has been used for this study. Following suggestions has been given.*

- ✓ *Immediate measures are essential to ensure continuity of learning in government schools and universities. Open-source digital learning solutions and Learning Management Software should be adopted so teachers can conduct teaching online.*
- ✓ *Ensure inclusion of the distance learning programmes.*

✓ *Indian traditional knowledge is well known across the globe for its scientific innovations, values, and benefits to develop sustainable technologies and medicines. The courses on Indian traditional knowledge systems in the fields of yoga, Indian medicines, architecture, hydraulics, ethno botany, metallurgy and agriculture should be integrated with a present-day mainstream university education to serve the larger cause of humanity.*

**Key Words:** - COVID, education, management, yoga.

**Introduction:-**

Coronavirus disease 2019 (COVID-19) other names are Corona virus, Corona, COVID. Corona virus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) First identified in December 2019 in Wuhan, China; it resulted in an ongoing pandemic. The first case may be traced back to 17 November 2019.

**COVID-19 at a Glance:-**

Specialty	Infectious disease
<b>Symptoms</b>	Fever, cough, fatigue, shortness of breath, loss of smell; sometimes no symptoms at all[5][6]
<b>Complications</b>	Pneumonia, viral sepsis, acute respiratory distress syndrome, kidney failure, cytokine release syndrome
<b>Usual onset</b>	2–14 days (typically 5) from infection
<b>Causes</b>	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)
<b>Risk factors</b>	Travel, viral exposure
<b>Diagnostic method</b>	rRT-PCR testing, CT scan
<b>Prevention</b>	Hand washing, face coverings, quarantine, social distancing
<b>Treatment</b>	Symptomatic and supportive
<b>Frequency</b>	6,511,668 confirmed cases
<b>Deaths</b>	386,073 (5.9% of confirmed cases)

**According to the World Health Organization (WHO)**, there are neither vaccines nor specific antiviral treatments for COVID-19. On 1 May 2020, the United States gave emergency use authorization to the antiviral remedies for people hospitalized with severe COVID-19 [citation needed] Management involves the treatment of symptoms, supportive care, isolation, and experimental measures. The World Health Organization (WHO) declared the COVID-19 outbreak a public health emergency of international concern (PHEIC) on 30 January 2020 and a pandemic on 11 March 2020. Local transmission of the disease has occurred in most countries across all six WHO regions.

### **Objectives:-**

1. To know state wise status of COVID-19 in India.
2. To study effect of COVID-19 on Educational sector in India.
3. To give suggestions to face challenges before Educational sector in post COVID-19 in India.

### **Need For Study:-**

The COVID-19 and its effect of lockdown are badly influenced to whole education system of the world. School closures impact not only students, teachers, and families, but have far-reaching economic and societal consequences. The School closures in response to the pandemic have shed light on various social and economic issues, including student debt, digital learning, food insecurity, and homelessness, as well as access to childcare, health care, housing, internet, and disability services. The impact was more severe for disadvantaged children and their families, causing interrupted learning, compromised nutrition, childcare problems, and consequent economic cost to families who could not work. Therefore, the researcher has chosen this subject for study.

### **LITERATURE SURVEY**

- **Simon Burgess, Hans Henrik Sievertsen (2020) studied** ‘‘Schools, skills, and learning: The impact of COVID-19 on education’’, in his study, he depicted that in higher education many universities and colleges are replacing traditional exams with online assessment tools. This is a new area for both teachers and students, and assessments will likely have larger measurement

error than usual. Research shows that employers use educational credentials such as degree classifications and grade point averages to sort applicants. The careers of this year's university graduates may be severely affected by the COVID-19 pandemic. They have experienced major teaching interruptions in the final part of their studies, they are experiencing major interruptions in their assessments, and finally they are likely to graduate at the beginning of a major global recession. Evidence suggests that poor market conditions at labour market entry cause workers to accept lower paid jobs, and that this has permanent effects for the careers of some.

### RESEARCH METHODOLOGY

Every research work is done to find out conclusions. For every study, it is essential to use research method. For present study, secondary method has been used to collect data.

#### **Secondary Data:-**

The secondary data is necessary in developing a theoretical framework and to get knowledge about COVID-19, effect of COVID-19 on educational sector, strategies will be determine to face these problems in educational sector etc. Secondary data has been collected from books, Journals, periodicals, articles, research papers on different websites etc.

### ANALYSIS AND DISCUSSION

**Table No.-1**

#### State-wise status of corona virus cases in India June- 2020

Sr. No.	States	No. of Corona Virus Cases
1	Andaman and Nicobar Islands	33
2	Andhra Pradesh	2,205
3	Assam	87
4	Bihar	994
5	Chandigarh	191
6	Chhattisgarh	60
7	Dadara Nagar Haveli	1
8	Delhi	7,233
9	Goa	14

10	Gujarat	9,591
11	Haryana	818
12	Himachal Pradesh	74
13	Jammu and Kashmir	983
14	Jharkhand	197
15	Karnataka	987
16	Kerala	560
17	Ladakh	43
18	Madhya Pradesh	4,426
19	Maharashtra	27,524
20	Manipur	3
21	Meghalaya	13
22	Odisha	611
23	Puducherry	13
24	Punjab	1,925
25	Rajasthan	4,534
26	Tamil Nadu	9,764
27	Telangana	1,414
28	Tripura	156
29	Uttarakhand	78
30	Uttar Pradesh	3,902
31	West Bengal	2,377

Source :- <https://www.deccanherald.com/national/coronavirus-india-update-state-wise-total-number-of-confirmed-cases-deaths-on-may-13-836999.html>

India's COVID-19 count crossed the grim milestone of 80,000 today as the states added 3,967 fresh cases. Delhi witnessed the biggest spike in daily coronavirus count. As many as 472 people tested positive for the virus in the national capital. The total number of coronavirus cases in the country increased to 81,970, according to ministry of health and family welfare.

Maharashtra witnessed a huge spike in COVID-19 count as the state detected over 1,600 fresh cases in June 2020. Mumbai alone reported over 14,000 coronavirus cases. Maharashtra was the only state in the country to report over 25,000 COVID-19 cases. Coronavirus infected 27,524 people in state. Tamil Nadu overtook Gujarat as the state with second highest count of COVID-19 cases. However, the state saw a decline in new coronavirus cases.

### **Impact of COVID-19 on Educational Sector :-**

The pandemic has significantly disrupted the higher education sector as well, which is a critical determinant of a country's economic future.

Sometime in the second week of March, state governments across the country began shutting down schools and colleges temporarily as a measure to contain the spread of the novel corona virus. It's close to a month and there is no certainty when they will reopen. This is a crucial time for the education sector—board examinations, nursery school admissions, entrance tests of various universities and competitive examinations, among others, are all held during this period. As the days pass by with no immediate solution to stop the outbreak of Covid-19, school and university closures will not only have a short-term impact on the continuity of learning for more than 285 million young learners in India but also engender far-reaching economic and societal consequences.

The structure of schooling and learning, including teaching and assessment methodologies, was the first to be affected by these closures. Only a handful of private schools could adopt online teaching methods. Their low-income private and government school counterparts, on the other hand, have completely shut down for not having access to e-learning solutions. The students, in addition to the missed opportunities for learning, no longer have access to healthy meals during this time and are subject to economic and social stress.

The pandemic has significantly disrupted the higher education sector as well, which is a critical determinant of a country's economic future. A large number of Indian students—second only to China—enrol in universities abroad, especially in countries worst affected by the pandemic, the US, UK, Australia and China. Many such students have now been barred from leaving these countries. If the situation persists, in the long run, a decline in the demand for international higher education is expected.

The bigger concern, however, on everybody's mind is the effect of the disease on the employment rate. Recent graduates in India are fearing withdrawal of job offers from corporates because of the current situation. The Centre for Monitoring Indian Economy's estimates on unemployment shot up from 8.4% in mid-March to 23% in early April and the urban unemployment rate to 30.9%.

Needless to say, the pandemic has transformed the centuries-old, chalk–talk teaching model to one driven by technology. This disruption in the delivery of education is pushing policymakers to figure out how to drive engagement at scale while ensuring inclusive e-learning solutions and tackling the digital divide.

### **Measures by Government of India to face this problem-**

The Government of India announced a variety of measures to tackle the situation, from food security and extra funds for healthcare and for the states, to sector related incentives and tax deadline extensions. On 26 March a number of economic relief measures for the poor were announced totalling over ₹170,000 crore (US\$24 billion). The next day the Reserve Bank of India also announced a number of measures which would make available ₹374,000 crore (US\$52 billion) to the country's financial system. The World Bank and Asian Development Bank approved support to India to tackle the coronavirus pandemic.

The different phases of India's lockdown up to the "first unlock" on 1 June had varying degrees of the opening of the economy. On 17 April, the RBI Governor announced more measures to counter the economic impact of the pandemic including ₹50,000 crore (US\$7.0 billion) special finance to NABARD, SIDBI, and NHB.[15] On 18 April, to protect Indian companies during the pandemic, the government changed India's foreign direct investment policy. The Department of Military Affairs put on hold all capital acquisitions for the beginning of the financial year. The Chief of Defence Staff has announced that India should minimize costly defence imports and give a chance to domestic production; also making sure not to "misrepresent operational requirements".

On 12 May the Prime Minister announced an overall economic package worth 20 lakh crore (US\$280 billion), 10% of India's GDP, with emphasis on India as a self-reliant nation. During the next five days the Finance Minister announced the details of the economic package. Two days later the Cabinet cleared a number of proposals in the economic package including a free food grains package.

### **CONCLUSIONS AND SUGGESTIONS**

In the second week of March, state governments across the country began shutting down schools and colleges temporarily as a measure to contain the spread of the novel coronavirus. It's close to a month and there is no certainty when they will reopen. This is a crucial time for the education sector—board examinations, nursery school admissions, entrance tests of various universities and competitive examinations, among others, are all held during this period. As the days pass by with no immediate solution to stop the outbreak of Covid-19, school and university closures will not only have a short-term impact on the continuity of learning for more than 285 million young learners in India but also engender far-reaching economic and societal consequences. Only a handful of private schools could adopt online teaching methods. Their low-income private and government school counterparts, on the other hand, have completely shut down for not having access to e-learning solutions.

The pandemic has significantly disrupted the higher education sector as well, which is a critical determinant of a country's economic future. Therefore, following suggestions are given to overcome this problem of education sector.

1. Immediate measures are essential to ensure continuity of learning in government schools and universities. Open-source digital learning solutions and Learning Management Software should be adopted so teachers can conduct teaching online.
2. Strategies are required to prepare the higher education sector for the evolving demand–supply trends across the globe—particularly those related to the global mobility of students and faculty and improving the quality of and demand for higher studies in India. Further, immediate measures are required to mitigate the effects of the pandemic on job offers, internship programs, and research projects.
3. It is also important to reconsider the current delivery and pedagogical methods in school and higher education by seamlessly integrating classroom learning with e-learning modes to build a unified learning system.
4. Inclusive learning solutions, especially for the most vulnerable and marginalized, need to be developed. With a rapid increase of mobile internet users in India, which is expected to reach 85% households by 2024, technology is enabling ubiquitous access and personalization of education even in the remotest parts of the country. This can change the

schooling system and increase the effectiveness of learning and teaching, giving students and teachers multiple options to choose from. Many aspirational districts have initiated innovative, mobile-based learning models for effective delivery of education, which can be adopted by others.

5. Ensure inclusion of the distance learning programmes: Implement measures to ensure that students including those with disabilities or from low-income backgrounds have access to distance learning programmes, if only a limited number of them have access to digital devices. Consider temporarily decentralising such devices from computer labs to families and support them with internet connectivity.
6. Indian traditional knowledge is well known across the globe for its scientific innovations, values, and benefits to develop sustainable technologies and medicines. The courses on Indian traditional knowledge systems in the fields of yoga, Indian medicines, architecture, hydraulics, ethno botany, metallurgy and agriculture should be integrated with a present-day mainstream university education to serve the larger cause of humanity.

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# POST COVID-19: CHALLENGES BEFORE INDIAN ECONOMY

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## Abstract

*This paper is enumerate impact of COVID-19 on various sectors of Indian economy and challenges before Indian economy in post COVID-19 era. According to IMF, in April 2020 GDP rate had been decreasing due to Global recession. Its cause is COVID-19 pandemic-induced market instability and lockdown. Outcomes are sharp rise in unemployment, stress on supply chains, decrease in government income, collapse of the tourism industry, collapse of the hospitality industry, reduced consumer activity, plunge in fuel consumption, and rise in LPG sales. Here, need arises to decide strategies to overcome this problem. The researcher has chosen secondary data for this study. Following suggestions has been given.*

- *The companies must ensure the most resilient supply chain possible whilst protecting their workforce.*
- *At the same time companies must enable virtual work whenever possible to protect their people while ensuring highest levels of productivity.*
- *Small businesses should be on the look-out for borrower-friendly loans rolled out by government authorities.*
- ***Communicate transparently with the customers.***
- *Maintaining healthy relationship with creditors, investors and contract parties.*
- *Follow-up of Ayurveda, Yoga, and Meditation in regular life for controlling stress.*
- *Empowering rural youth towards agriculture by government agencies.*

*Key Words: - COVID, recession, lockdown, meditation.*

## **INTRODUCTION:-**

Corona virus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). First identified in December 2019 in Wuhan, China; it resulted in an ongoing pandemic. The first case may be traced back to 17 November 2019. As of 4th June 2020, more than 6.51 million cases have been reported across 188 countries and territories, resulting in more than 386,000 deaths. More than 2.8 million people have recovered.

## **Symptoms of COVID-19 -**

Common symptoms include fever, cough, fatigue, shortness of breath, and loss of smell and taste. While the majority of cases result in mild symptoms, some progress to acute respiratory distress syndrome (ARDS) likely precipitated by a cytokine storm,[citation needed] multi-organ failure, septic shock, and blood clots. The time from exposure to onset of symptoms is typically around five days, but may range from two to fourteen days.

## **How it is spread?**

The virus is primarily spread between people during close contact, most often via small droplets produced by coughing sneezing, and talking. The droplets usually fall to the ground or onto surfaces rather than travelling through air over long distances.

Less commonly, people may become infected by touching a contaminated surface and then touching their face. It is most contagious during the first three days after the onset of symptoms, although spread is possible before symptoms appear, and from people who do not show symptoms.

The standard method of diagnosis is by real-time reverse transcription polymerase chain reaction (rRT-PCR) from a nasopharyngeal swab Chest CT imaging may also be helpful for diagnosis in individuals where there is a high suspicion of infection based on symptoms and risk factors; however, guidelines do not recommend using CT imaging for routine screening.

### Global Position COVID-19 At A Glance on 4<sup>th</sup> June 2020

Corona Virus Cases	65,74,585
Deaths	3,88,047 (11%)
Recovered	31,71,177 (89%)
Active Cases	30,15,361
Currently infected Patients (in mild condition)	29,61,162 (98%)
Serious	54,199 (2%)

Source :- <https://www.worldometers.info/coronavirus/#countries>

### Recommended Measures:-

Recommended measures to prevent infection include frequent hand washing, maintaining physical distance from others (especially from those with symptoms), quarantine (especially for those with symptoms), covering coughs, and keeping unwashed hands away from the face. The use of cloth face coverings such as a scarf or a bandana is recommended in public settings to minimize the risk of transmissions, with some authorities requiring their use. Medical grade facemasks such as N95 masks should only be used by healthcare workers, first responders and those who care for infected individuals.

### Objectives :-

- 1.To study current status of COVID-19.
2. To assess impact of COVID-19 on Indian economy.
3. To study the challenges before Indian Economy in post COVID-19 era.

### Need For Study –

Amid the corona virus pandemic, several countries across the world resorted to lockdowns to “flatten the curve” of the infection. These lockdowns meant confining millions of citizens to their homes, shutting down businesses and ceasing almost all economic activity. The pandemic has pushed the global economy into a recession, which means the economy starts shrinking and growth stops. Therefore, need arises to study the impact of COVID-19 on industrial sector and challenges before Indian Economy in post COVID-19 era.

### Literature Review

- **Sunil Kumar, Pratibha B Thombare & Pandurang A Kale (2020)**, studied ‘Impact of coronavirus (COVID-19) on Indian Economy’. In this study, the researchers focused on impact of COVID-19 on various sectors of Indian Economy i.e. automobile, chemical, electronics, poultry, Foreign Trade etc.
- **Simon Burgess, Hans Henrik Sievertsen (2020)** studied “Schools, skills, and learning: The impact of COVID-19 on education’, In his study, he stated that In higher education many universities and colleges are replacing traditional exams with online assessment tools. This is a new area for both teachers and students, and assessments will likely have larger measurement error than usual. Research shows that employers use educational credentials such as degree classifications and grade point averages to sort applicants. The careers of this year’s university graduates may be severely affected by the COVID-19 pandemic.
- **Maryla Maliszewska, Aaditya Mattoo Dominique van der Mensbrugge (2020)** studied ‘The Potential Impact of COVID-19 on GDP and Trade’. In their report, they stated that the virus that triggered a localized shock in China is now delivering a significant global shock. This study simulates the potential impact of COVID-19 on gross domestic product and trade, using a standard global computable general equilibrium model. It models the shock as underutilization of labor and capital, an increase in international trade costs, a drop in travel services, and a redirection of demand away from activities that require proximity between people.

### RESEARCH METHODOLOGY AND ANALYSIS

**Secondary Data:-**For present study, Secondary data has been used. The secondary data is vital in developing a theoretical framework and to get deep knowledge about COVID-19, current status of COVID-19, and its impact on Indian Economy. Secondary data has been collected from books, Journals, periodicals, articles, research papers on different websites.

These data has been categorized as per following heads which makes data easy for analysis.

**Table No-1**

**State wise Distribution Estimated Number of MSME 2018-19**

Sr. No.	State	Estimated No. of enterprises (Number in Lakh)			
		Micro	Small	Medium	MSME
1	Andhra Pradesh	33.74	0.13	0.00	33.87
2	Arunachal Pradesh	0.22	0.00	0.00	0.23
3	Assam	12.10	0.04	0.00	12.14
4	Bihar	34.41	0.04	0.00	34.46
5	Chhattisgarh	8.45	0.03	0.00	8.48
6	Delhi	9.25	0.11	0.00	9.36
7	Goa	0.70	0.00	0.00	0.70
8	Gujarat	32.67	0.50	0.00	33.16
9	Haryana	9.53	0.17	0.00	9.70
10	Himachal Pradesh	3.86	0.06	0.00	3.92
11	Jammu & Kashmir	7.06	0.03	0.00	7.09
12	Jharkhand	15.78	0.10	0.00	15.88
13	Karnataka	38.25	0.09	0.00	38.34
14	Kerala	23.58	0.21	0.00	23.79
15	Madhya Pradesh	26.42	0.31	0.01	26.74
16	Maharashtra	47.60	0.17	0.00	47.78
17	Manipur	1.80	0.00	0.00	1.80
18	Meghalaya	1.12	0.00	0.00	1.12
19	Mizoram	0.35	0.00	0.00	0.35
20	Nagaland	0.91	0.00	0.00	0.91
21	Odisha	19.80	0.04	0.00	19.84
22	Punjab	14.56	0.09	0.00	14.65
23	Rajasthan	26.66	0.20	0.01	26.87
24	Sikkim	0.26	0.00	0.00	0.26
25	Tamil Nadu	49.27	0.21	0.00	49.48
26	Telangana	25.94	0.10	0.01	26.05
27	Tripura	2.10	0.01	0.00	2.11
28	Uttar Pradesh	89.64	0.36	0.00	89.99
29	Uttarakhand	4.14	0.02	0.00	4.17

30	West Bengal	88.41	0.26	0.01	88.67
31	A & N Islands	0.19	0.00	0.00	0.19
32	Chandigarh	0.56	0.00	0.00	0.56
33	Dadra & Nagar Haveli	0.15	0.01	0.00	0.16
34	Daman & Diu	0.08	0.00	0.00	0.08
35	Lakshadweep	0.02	0.00	0.00	0.02
36	Puducherry	0.96	0.00	0.00	0.96

Source:-www.msme.gov.in

The **MSME sector** was an important pillar of Indian economy as it contributed greatly to growth of Indian economy with a vast network of around 30 million units, creating employment of about 70 million, manufacturing more than 6000 products, contributing about 45% to manufacturing output and about 40% of exports, directly and indirectly. But in present position, it has been badly affected by COVID-19. According to IMF, in April 2020 GDP rate had been decreasing due to Global recession. Its cause is COVID-19 pandemic-induced market instability and lockdown.

#### Outcomes-

- Sharp rise in unemployment
- Stress on supply chains
- Decrease in government income
- Collapse of the tourism industry
- Collapse of the hospitality industry
- Reduced consumer activity
- Plunge in fuel consumption.
- Rise in LPG sales.

The economic impact of the 2020 corona virus pandemic in India has been largely disruptive. The World Bank and rating agencies had initially revised India's growth for fiscal year 2021 with the lowest figures. India has seen in three decades since India's economic liberalization in the 1990s. However after the announcement of the economic package in mid-May, India's GDP estimates were downgraded even more too negative figures, signalling a deep recession. On 26 May, CRISIL announced that this will perhaps be India's worst recession since independence. State Bank of India research estimates a contraction of over 40% in the GDP in Q1 FY21.

### **Impacts of COVID-19 on overall sectors of Indian Economy:-**

The trade impact of the corona virus epidemic for India is estimated to be about 348 million dollars and the country figures among the top 15 economies most affected as slowdown of manufacturing in China disrupts world trade, according to a UN report. Whereas according to Asian Development Bank (ADB) the Covid-19 outbreak could cost the Indian economy between \$387 million and \$29.9 billion in personal consumption losses (<https://www.livemint.com/>). For India, the trade impact is estimated to be the most for the chemicals sector at 129 million dollars, textiles and apparel at 64 million dollars, automotive sector at 34 million dollars, electrical machinery at 12 million dollars, leather products at 13 million dollars, metals and metal products at 27 million dollars and wood products and furniture at 15 million dollars. China has seen a dramatic reduction in its manufacturing Purchasing Managers Index (PMI) to 37.5, its lowest reading since 2004. This drop implies a 2 per cent reduction in output on an annual basis. This has come as a direct consequence of the spread of corona virus (COVID-19) (The Hindu). When we see the China's Share in total import to India, India's total electronic imports account for 45% of China. Around one-third of machinery and almost two-fifths of organic chemicals that India purchases from the world come from China. For automotive parts and fertilizers China's share in India's import is more than 25%. Around 65 to 70% of active pharmaceutical ingredients and around 90% of certain mobile phones come from China to India.

Major companies in India such as Larsen & Toubro, Bharat Forge, Ultra Tech Cement, Grasim Industries, Aditya Birla Group, BHEL and Tata Motors have temporarily suspended or significantly reduced operations. Young start-ups have been impacted as funding has fallen. Fast-moving consumer goods companies in the country have significantly reduced operations and are focusing on essentials.

### **CONCLUSIONS AND SUGGESTIONS**

COVID-19 has turned into a global crisis, evolving at an unprecedented speed and scale. No industry is immune, and Industrial Equipment is no exception. Industrial companies are grappling with the immediate impact of COVID-19 as both their manufacturing and supply chain operations are being disrupted, and their customer's own operations are facing similar challenges. It's crucial to determine strategies to face these challenges. Hence, following suggestions can be given.

1. There is no 'one-size-fits-all' solution to the issues facing Industrial due to the scale and diversity of the sector. Industrial manufacturers must act now to preserve the integrity of their operations and protect their people while preparing for the ramping back up of their operations and the future post COVID-19.
2. The companies must ensure the most resilient supply chain possible whilst protecting their workforce. This requires them to:
  - Establish a command center and begin rapid response deployment;
  - Rapidly adjust operations and continue response cycle;
  - Establish an on-going operating capability.All of this must be done with a specific focus and prioritization on their customers' core needs.
3. At the same time companies must enable virtual work whenever possible to protect their people while ensuring highest levels of productivity.
4. The businessman would require a revision of sales revenue goals and product timelines along with a new operating plan. In that case, entrepreneurs and leaders will have to keep the communication transparent as much as possible with their investors and employees.
5. Small businesses should be on the look-out for borrower-friendly loans rolled out by government authorities. The Reserve Bank of India had announced a number of measures which would make available 374,000 crore (US\$52 billion) to the country's financial system. Finance Minister Nirmala Sitharaman has announced some details of the Atmanirbhar Bharat Abhiyan package, to provide relief to Medium, Small and Micro Enterprises (MSMEs) in the form of an increase in credit guarantees. The government also unveiled a 2.3 trillion cheap loans programme for farmers to prop up the rural economy.
6. **Communicate transparently with the customers-** the ideal way is to stay transparent with your consumers about what your business is going through.
7. **Maintaining healthy relationship with creditors, investors and contract parties:-**  
The business concern should maintain healthy relationship with creditors, investors and contract parties; therefore they can adjust delay in payment, which will helpful for working capital cycle.
8. **Follow-up of Ayurveda-** Ayurveda, Yoga, and Meditation was followed by ancient Bharat. But in present era, it has been totally ignored. Meditation as an important precursor to mental as

well as physical health. By follow-up of Yoga and Meditation in regular life, staffs of companies do their jobs without any stress. Their physical as well as mental power can be increase. It will improve their productivity as well as profitability of company.

9. **Empowering rural youth towards agriculture**:-India is agro-based country. In India, 70% rural population is depend upon agriculture. But in present era, due to urbanization, follow-up of western culture, maximum rural residents are migrated to urban area like Pune, Mumbai, Delhi, Bengaluru etc. It is badly affected on regional balances as well as sustainable development of our country. There is massive dearth of programmes addressing agriculture by government to ensure youth empowerment. The government should take proper action for this issue.

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# STUDY OF IMPACT OF COVID-19 PANDEMIC ON EDUCATION SYSTEM IN INDIA

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## Abstract

*COVID-19 is a pandemic disease and the 6<sup>th</sup> public health emergency of global concern. As the entire world is facing the threat of COVID-19 (Corona Virus December 2019), the serious challenge before the education system is no exception. To avoid the spread of this deadly virus, several countries including India have shut down their schools, colleges and universities. Even as the Novel Corona crisis is bound to stretch longer, there is a dire need to take efforts for maximum utilization of online systems so that our students get prepared not only for completing their course work this academic year but also to get ready for the future tech-driven work environment.*

*There is a need for a collective call to raise to the highest potential and remain focused on the goals in imparting quality education. The experience gained and lessons learnt during the COVID-19 crisis should pave the way for redesigning India's higher education for tomorrow's industries, corporate and business enterprises as also to build responsible global citizenship.*

**Keywords:** COVID-19, Corona Virus, Impact, Education

## **Introduction:**

The novel Corona Virus, nCoV-2019, or the SARS-CoV2 causing COVID-19 is massively spreading across the globe. WHO declared COVID-19 as pandemic and the 6<sup>th</sup> public health emergency of global concern? The analysis of this novel SARS-CoV-2 was found to have different strains from the previously reported SARS and MERS. This caused a serious threat across the global causing panic of this Pandemic to the public. The ultimate cause of such epidemics may be malnutrition, lack of sanitation and lack of a proper public health system [1, 2]. In Unison are working to overcome several existing threats and weakness creating various opportunities and aiming to further strength then the effective measures to collectively combat COVID-19.

As the entire world is facing the threat of COVID-19 (Corona Virus December 2019), the serious challenge before the education system is no exception. To avoid the spread of this deadly virus, several countries including India have shut down their schools, colleges and universities beginning with ‘Janata Curfew’ on 22nd March 2020. According to UNESCO monitoring, 191 countries have implemented nationwide closures and 5 have implemented local closures, impacting about 98.4 percent of the world's student population.[3]

Likewise, this is also a blessing in disguise for the education sector. Although it is unprecedented in the history of education, COVID-19 has given us an opportunity to come out of the rigorous classroom teaching model. The lockdown has led many schools, colleges and universities to cancel their classes, examinations, postpone internships, and shift classes to online. So the present study is carried out to focus on ‘Impact of COVID-19 Pandemic on Education system in India’.

### **Positive and Negative Impacts**

Initially, the teachers and the students were quite puzzled and didn't understand how to move on in view of this sudden crisis that compelled closure of the educational institutions. But as it is said “There is always a silver lining behind every dark cloud”, we must realize that the lockdown has taught us so many lessons to cope up with the emergence of such pandemics. When teachers in Israel went on strike during the flu season of 1999–2000, visits to doctors and the number of respiratory infections dropped by more than a fifth and more than two fifths respectively. [4] Even when school closures are temporary, it carries high social and economic costs. The disruptions they cause affect people across communities, but their impact is more severe for disadvantaged children and their families including interrupted learning, compromised nutrition, childcare problems and consequent economic cost to families who cannot work.[5]

Working parents are more likely to miss work when schools close in order to take care of their children, incurring wage loss in many instances and negatively impacting productivity. Localised school closures place burdens on schools as parents and officials redirect children to schools that are open. [6] In the hectic schedules of current education system, students hardly find time for themselves. It is worth mentioning here that the students who are pursuing higher education are millennium kids who were born around 2000. Thanks to the fast paced developments, these kids

started with playgroup and got all the facilities on a platter. They were not so lucky to have holistic development in the rat-race. They missed out on family values, basic aspects of humanity taught by elders in the house, the real happenings in life and moral upbringing.

The lockdown has now enabled them to understand this angle and pursue their passion for reading, writing, music and other extra-curricular activities. In a world that was increasingly characterized by intense competition and materialistic pursuits, students now have an opportunity to spend quality time with their parents and siblings, to witness and reflect on the true nature, meaning and purpose of life, to develop a higher empathy towards humanity and to set their priorities right.

But now, the lockdown has given them a ray of hope with teachers attending the students online. The teachers are assigning work to students via Internet; they are giving lectures through video recording using Apps like Zoom, Skype etc. Our college has developed websites for all teachers who ensure to remain in touch with their students during the lockdown period. And even it was used before lockdown too. There are Whats app groups of guardian teachers, students and parents for affective communication through which they are always in touch and air their problems and difficulties through this E-medium. This online practice should be continued after the lockdown too as it is benefitting the students immensely. This new method of teaching is bound to bring in a revolution in the education field. India has a glorious history in higher education.

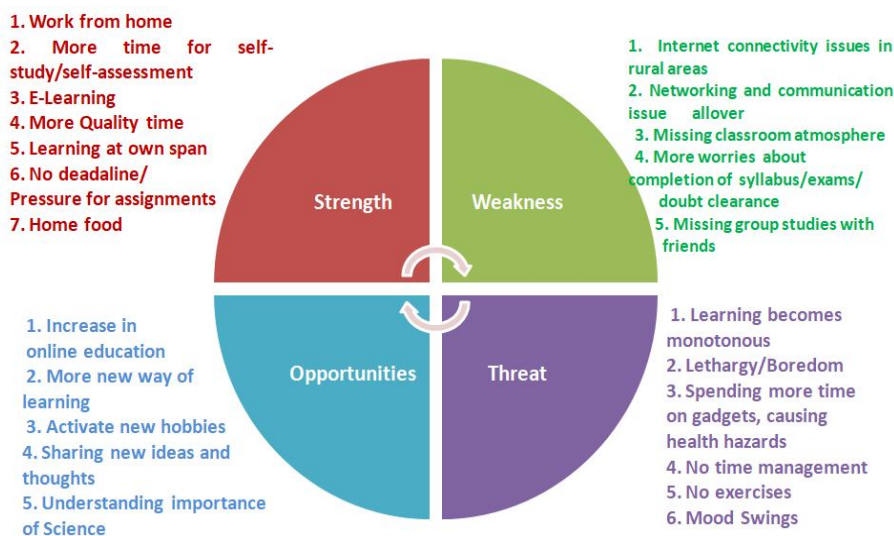
Challenges have created new opportunities and hence the colleges should now focus on the effective integration of classroom and laboratory- based teaching with classes, workshop, seminars and brainstorming in an online mode. It is time to explore such possibilities to evolve stronger online teaching methodologies as an essential tool. Nowadays, online teaching and learning have become a reality. You can find lots of online teaching and learning activity have been introduced for students through specific e-applications and software wherein they are studying and reading books through E-libraries.

The closure of colleges and universities has widespread implications for students, faculty, administrators, and the institutions themselves. Colleges and universities across the United States have been called upon to issue refunds to students for the cost of tuition and room and board [7]. The fear of poor quality of online teaching and teachers' reluctance to use online portals has now completely vanished. Teachers have taken up online teaching with great enthusiasm and the

students too are going for online learning with great excitement. This is definitely a positive aspect. It is need of the hour for the colleges to strengthen their knowledge and IT infrastructure to be future-ready for COVID-like situations. Our priority should be to utilize IT, to create an advantageous position for millions of young students in our country.

Even as the Novel Corona crisis is bound to stretch longer, there is a dire need to take efforts for maximum utilization of online systems so that our students get prepared not only for completing their course work this academic year but also to get ready for the future tech-driven work environment. For example, the industries and other placement agencies will also opt for smart ways of work. The concept of “work from home” has found greater relevance in such situations as it ensures productivity in case of industry (especially the IT sector), and this applies effectively to the academics as well.

### SWOT ANALYSIS



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# Forecasting and Management of Infectious Diseases using Big Data Analytics

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## Abstract

*Data is created every day through social media, blogs, cell phones, medical devices, etc. and most of the data is electronic in nature. This enormous data has massive scope for understanding a trend, to forecast an event. This big data can generate meaningful patterns to help in making a smart decision. Today, there are many mediums available to process the big data and utilize it to its full capacity. The unprecedented growth in processing power and software technologies such as Hadoop are allowing organizations to make decisions that simply could not be made before having a profound impact. Big data analytics plays a significant role in health care. Today most of health care data is stored in Electronic medical records, electronic health records, also there is a large amount of data available on the internet. The enormous medical data as well as data available on social media sites, and knowledge resources on the internet can have a significant impact on predicting a trend of infectious disease. Understanding the patterns and trends can help predict and prevent infectious disease outbreaks as well as design a comprehensive decision-making mechanism and a treatment plan. Today the world is suffering from various infectious disease outbreaks like COVID-19, SARS, Ebola, etc. and if data analytics can predict the infection trend, scope of spread, also possible treatments it can save lives. This paper highlights how big data analytics can play a significant role in managing the infectious disease.*

**Keywords: - Big Data, Health Care, Big data Analytics, infectious disease.**

## 1. Introduction

The digital age is the age of data where a large amount of data is created every day on the internet through social media sites, blogs, digital records, etc. Data is a powerful resource that can be used in many forms. The data generated every day is so enormous that it exceeds the capacity and capabilities of conventional storage, reporting, and analytics systems, such data is called "Big Data". This big data has potential if processed and analyzed can help in forecasting, user behavior sentiments, drawing patterns, and also aid in smart decision making. With the convergence of powerful computing, advanced database technologies, wireless data, mobility, and social networking, it is now possible to utilize this enormous big data in cost-effective and profitable ways. Specialized technology can capture, store and more importantly analyze the data.

## 2. Objectives

The objective of the project is to illustrate the possibilities that could be achieved with the utilization of big data in the field of health care. The successful implementation of big data can help in monitoring infectious diseases and also help in giving the best treatments to patients while benefiting the hospital as well as the patients.

## 3. Big Data Analytics

The large amount of data collected is profitable only when the data is analyzed and utilized to its full capacity. Big data analytics are used to uncover the hidden patterns, realize unknown correlations, understanding the market trends, customer preferences, and other useful business information. Data analytics can be categorized into three types namely

- **Descriptive analytics** helps to illustrate the picture of the previous history using business intelligence and data mining. Using these analytics helps to provide a way to draw an approach to accomplish the goal.
- **Diagnostic analytics** help you answer the question of *why* something happened. Queries and drill-downs enable you to request more detail related to a report, which can help explain surprising values
- **Predictive analytics** using the huge datasets helps to improve the customer experience increasing the outcomes comparative to the conventional business strategies. It helps to analyze large volumes of transactional data, unstructured data at once providing the outcomes helping to predict the future.
- **Prescriptive analytics** can better be called a suggestion tool. The system provides advices based on the outcomes it has generated, by learning the patterns, previous approach, and the inputs from the data (structured and unstructured). This mechanism also allows analyzing and prescribing based on the outcomes of any other research on the same activity by inputting the data from other research, it helps to connect the dots and provide solutions based on both the attributed works. Based on the outputs, extensive research can be performed considering the other possible solutions towards a problem.

## 4. Big Data analytics process

### · Data Collection

The first stage starts with the collection of data from the number of repositories, sources, and storing it in the Hadoop Distributed File System (HDFS). Data can be both structured and unstructured like clinical analysis, pharmaceutical purchases, patient history, reports, medical emergencies, health index, and social media content, wearable devices, etc.

### · Data Pre-processing

After the data has been collected and stored in a common database, it has to be cleaned and sorted for further analysis. All the missing values, columns, or data are discarded. This pre-processing stage is very important as raw data might not be helpful unless cleaned. In this process, any junk data will be discarded.

### · Data Reduction & Transformation

After the initial pre-processing the data is then pipelined to reduce to least prominent data (or) columns. This process applies various mathematical & compression algorithms while preventing data losses to help generate meaningful patterns and analyze the data with maximum efficiency.

#### · **Data Analytics**

In this process, the data is analyzed and interpreted for research or decision making. Using these outcomes, existing models can be improved, unknown correlations can be made, or an event is forecasted.

#### · **Data Output**

Meaningful information is presented to the user based on inputs given. The statistical, analytical information is generated as reports which can be interpreted for further use.

### **5. Big Data in Healthcare**

Today many healthcare systems have switched to the digital medium to save the medical records, lab records, biometrics data, and genomic data, unlike the conventional methods of the past. The analysis of these valuable sources can lead to significant life-changing outcomes. The data can be processed using Hadoop technology to provide an extra edge in data analysis. The computational capabilities of Hadoop processing will be able to stimulate the mathematical methods available currently, medical research approaches to increase the outcome quality [1].

Data analytics can also advise patients in managing their health by suggesting a personalized diet, exercise, and medication routine based on the medical condition. A critical analysis of Data can also help in reducing medical errors.

Using data tools a personalized care specific to patients individually can be designed. This can be achieved by bringing together a match of the skill set of the medical practitioner with the needs of a patient supported by a strong statistical analysis of the patients' clinical and lifestyle history [2].

Healthcare providers can analyze patient history data, real-time from clinical factors, lifestyle choices, and social determinants to develop the most effective care plans. Such treatments based on patient outcomes are beneficial to the hospital as well as the patient. Through big data analysis, medical crises can also be identified and prevented before they happen. A patient health risk can be predicted using predictive analytics to understand various clinical or social factors, to aid in designing an effective care plan. Big data can also contribute to providing timely meaningful insights to care providers who can then administer the most effective treatments.

Data mining can identify Missed warning signs, overlooked risk factors, and cursory assessments which are impossible to administer humanely. Using secure data querying technologies medical professionals can also get timely insight into the patient's ailment by accessing remote data [3].

Big Data can be used to create tools and equipment with built-in data processing capabilities of helping doctors make instant, life-saving dissections; this will be especially beneficial in the emergency room. The technology does not limit us to collect data on the patient's condition from smart toothbrushes, toilets, scales, etc. The big data gives us immense possibilities in the healthcare of which many are in being implemented. The qualitative use of data can certainly help save lives and improve medical technology.

## 6. Infectious diseases

The emergence of infectious diseases like Covid-19, SARS, H1N5, Ebola, etc. has contributed to a hazardous public health scenario in recent years [4]. Big data retrieved from electronic health records, social media, the internet, and other digital sources have the potential to provide more timely and detailed information **and improved surveillance** on outbreaks and threats of infectious disease than traditional surveillance methods. Technology in recent years has increased the scope of data collection through right from the society using various sensors, Internet of Things (IoT) devices, social network, etc. the incredible and rich data gives us much more flexibility to identify patterns that can forecast an outbreak of infectious disease and also help in understanding links and transmission. Critical analysis can also help in designing a treatment plan for epidemic and severe healthcare crisis. Governmental public health experts can better detect early signs of disease outbreaks while coordinating quarantine and vaccination responses [5]. Real-time data and big data technologies are needed to integrate real-time genomic with epidemiology data to not just control, but also prevent and predict the spread of infections within a healthcare setting [6].

Making the country more resilient in recovering from the disaster, reduced suffering, and save numerous lives. An example of such a system is the ARGO model, which uses several data sources, including Google search data to create a predictive model for influenza [7]. There are many systems created to track disease activity levels using twitter data.

Analyzing these data combinations such as travel, trade, climate changes, etc., could lead to a possibility for the development of predictive models for population-based interventions as well as improved personalized patient treatment.

Big Data tools can support ongoing research in Better understanding of triggers of chronic diseases and a better understanding of the relation between social and physical behaviours, nutrition, genetic factors, and environmental factors. Big Data technologies could help to provide more effective tools for behavioural change.

Big data analysis can also guide policies to address a certain population segment by specific interventions.

## 7. Conclusion

Healthcare is a very important sector, and with the rise of infectious diseases, public health is compromised largely. Also, the health care facilities have been generating data frequently which goes unutilized. In this paper, an attempt is made to highlight the application of big data analysis to help transform health care in the interest of public health and safety. The analytics can identify unique patterns in the data retrieved from social and public domains in combination with health care records forecast the possible outbreak, treatment plan, etc. Using big data tools can also create personalized treatment for patients.

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## Impact of Covid-19 on Indian Education Sector

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### Abstract

*As the world is battling Covid-19 and economies across the globe has declared a lockdown, more than 130 countries have now closed schools nationwide, impacting nearly 80% of students globally. This is unprecedented; the world has never seen this many children out of school at the same time. In this research we attempt to study the impact of covid-19 on the education sector all around the world. We also try suggesting different strategies which can be adopted by the education sector post Covid-19. We have also collected our primary data by creating a questionnaire which was circulated to few students and teachers. After conducting this study, we have drawn our conclusion.*

### Covid-19 and Indian Education Sector

In the second week of March, state governments across the country decided to shut down schools and colleges temporarily as a measure to contain the spread of the novel coronavirus. It's close to three months and there is no certainty when they will reopen. This is a very crucial time for the education sector - board examinations, nursery school admissions, entrance tests of various universities and competitive examinations, among others, are all held during this period. As the days pass by with no immediate solution to stop the outbreak of Covid-19, school and university closures will not only have a short-term impact on the continuity of learning for more than 285 million young learners in India but also engender far-reaching economic and societal consequences.

### Impact of Covid 19 on Education Sector

#### **1. Due to the lockdown, physical classes have been cancelled.**

In India, in the second week of March, state governments across the country decided to shut down schools and colleges temporarily as a measure to contain the spread of coronavirus. It's close to three months and there is no certainty when they will reopen. This is a very crucial time for the education sector - board examinations, nursery school admissions, entrance tests of various universities and competitive examinations, among others, are all held during this period.

- 2. Due to the lockdown most of the universities in the world are going bankrupt.**  
Universities need to pay their staff members, maintain the building and also look after their campuses which cost a lot of money. Now because of covid-19 there are no students attending these universities that means the university is not generating money which will ultimately lead to bankruptcy.
  
- 3. Students applying abroad for further studies are uncertain about their future.**  
Students who have received admission from a foreign university have no idea about their future as they do not know when the universities will commence their term because of which most of the students are withdrawing their admissions from foreign universities. This has also affected students who have already paid their tuition fees.
  
- 4. Many staff members have lost their jobs.**  
As many schools and universities are shut due to lockdown and because of this, schools and universities cannot generate any revenue, this has made universities either remove many staff members or cut their salaries. This caused many professors to lose their jobs.

#### **Strategies which can adopted by the education sector**

- 1. E learning**  
Many schools and universities can start conducting online classes. They can have lectures via zoom, Microsoft Team or Google Meet. They universities can also make a website and publish the recorded content of many subjects and students who are a part of that specific course can only access those concept videos. Universities can also shift to online exams which will be time based examination.
- 2. Reducing class size**  
The class size of Indian colleges are huge, it is best to reduce the class size to probable 30-40 students in a class at a time. If a class has fewer students then it will help in social distancing apart from that it will also improve the quality of education.
- 3. Regular sanitation of class rooms and the campus**  
There should be regular sanitation of the class after completion of every batch apart from that the campus should be sanitized at least every 3 hours.
- 4. Hygiene Practice should be adopted**  
Every student and staff member should mandatory wear a face mask, hand gloves and should always carry sanitizers. The universities should also place sanitizers all around the campus. There should be only 1 student on a bench to maintain social distancing.
- 5. Reducing tuition fees**  
As many people are unemployed and the economy is crashing it is best for universities to reduce their fees because most of the people will not be able to afford to pay such hefty amounts.

### **Conclusion**

Covid-19 has not only affected businesses but also affected education sector in various ways. Post Covid-19 will be a challenge for all the universities, schools and colleges to start their academic year. This will not only put pressure on the students but also on the teachers as they will have to cover up the portion in very limited time. This is the time when students and teachers have to make use of e-learning, it is also the time for universities to plan about the future measures which needs to be taken as the entire academic year cannot be taught online since it has its own pros and cons. So it is best that all the teachers and students come together during this unwelcoming time and fight the different challenges together.

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## Studies of Some Pollution Controlling Plants

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### Abstract

*The quality of the indoor environment has become a major health consideration, people spend their time indoors as well as outdoors. The studies show that plants can reduce indoor and outdoor air pollutants. An evaluation of these studies clearly indicates that potted-plants and some tree can provide an efficient, self-regulating, low-cost, sustainable, bioremediation system for indoor and outdoor air pollution.*

**Key words:** Pollution, shrubs, tree.

### INTRODUCTION

In modern times pollution has become the biggest problem for the survival of the living one. There are various types of pollution e.g. air, water, soil, sound, noise etc. There are various ways of pollution, it is the major problem in cities, is compounded by the fact that there is no exhaust for the polluted air to escape. Landscape architects can solve the pollution problems related to urban landscape by creating a micro-climate. The pollution may be due to human activities or natural ecosystems. Natural pollution contaminates the air by storms, forest fire, volcanoes and natural processes. Nature by and large treats, recycles and makes good use of the pollutants and renders them less harmful, whereas man-made pollutants threaten the integrity of the nature. Normally people suffering from common cold, bronchitis, asthma, hay fever etc. by the pollution. These diseases are no doubt airborne and spread the infection from several hundred kilometres under favourable conditions.

The indoor and outdoor pollutants that affect health are formaldehyde, Volatile Organic Compounds, airborne biological pollutants, carbon monoxide and nitrogen oxides, pesticides etc.

## Results -

### Indoor plants-

#### **Areca Palm** (*Chrysalidocarpus lutescens*)

Areca palm removed more toluene and xylene than any other plant. Toluene is hazardous to human health. It's most commonly found in paint thinners, nail polish remover, glues, and correction fluid. Areca palm also emits large amounts of water vapour—a boon in locations with dry air. It's tolerant of most indoor environments though prefers a humid area to avoid tip damage.

#### **Bamboo palm** (*Chamaedorea seifrizii*)

The bamboo palm is another plant that scored very high in its ability to remove formaldehyde from the air, it also effectively removed benzene, and Indoor palms may attract spider mites, which can be controlled by spraying with a soapy solution.

#### **Rubber Plant** (*Ficus robusta*)

The rubber plant is especially effective at removing formaldehyde from indoor air.

#### **Dracaena “Janet Craig”** (*Dracaena deremensis*)

Dracaena plant removing trichloroethylene from the air, the Dracaena is also one of the easiest houseplants to grow.

#### **Dwarf Date Palm** (*Phoenix roebelenii*)

Scoring very high for its ability to remove airborne chemicals, the dwarf date palm is especially effective at ridding the air of xylene, a common solvent ingredient.

#### **Ficus Alii** (*Ficus macleilandii* “Alii”)

The Ficus Alii is effective at removing chemical vapours from the air and grows easily indoors, resisting most insects.

#### **Boston Fern** (*Nephrolepis exaltata* “Bostoniensis”)

Boston remove formaldehyde from the air. Since formaldehyde appears in everything from plastic garbage bags to paper towels, facial tissues, floor coverings, tobacco smoking.

#### **Peace Lily** (*Spathiphyllum* “Mauna Loa”)

Excellent for removing alcohols, acetone, trichloroethylene, benzene, and formaldehyde, the Peace Lily also has a high transpiration rate to both purify and humidify indoor air.

**Tree-** During the study some trees are found as pollution controlling such as Bauhinia, Tuja, Tamarindus, Mangifera, Cassia, Dalbergia, Azardirachta, Tectona, Terminalia, Butea, Albizzia, Zizyphus, Ficus, Phyllanthus, Delaonix Polyalthia, Eucalyptus, Acacia, Annona etc. are absorb the gas and dust.

### Conclusions

The present study shows that the indoor and outdoor plants can greatly improve air quality by removing many major pollutants. Thus, the indoor and outdoor plant found very effective and low cost for controlling the pollution. Indoor and outdoor plant can remove air-borne contaminants such as volatile organic compounds CO<sub>2</sub>, Benzene, formaldehyde, trichloroethylene.

Trees also function as sinks of air pollutants because the large surface area of their leaves absorbs pollutants through numerous stomata, they are the best dust collectors.

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# POST COVID – 19 STRATEGIES CHALLENGES AND INNOVATIONS

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## Abstract

*This research reports flows through finding out about the current policies regarding environment conservation.*

*After observing the current situation of the nation and recent developments, the report follows through certain niches where the government and world leaders can take action and make policies for the prevention of such global disasters. It talks about solutions and suggestions, and importance of environment conservation in the current times, especially during the sensitive time when the world will be healing after the aftermath of the COVID-19.*

*The key point highlighted being- even though environment conservation may not seem to be the immediate plan of action, it is right one considering long term implications.*

## Introduction

2020 is going to be our year!

Cue- Australia burning. Amazon up in flames. Dangerous tweets about starting World War 3. Protests and rallies filling up our alleys. Bloodshed. And then the biggest bomb of all, one that came up unexpected – COVID-19 aka Coronavirus.

With it came lockdowns and clean roads, failing economy and breathable air, battles fought by the fragile healthcare system and whales showing up at abandoned ports. For some this pandemic was

filled with frustration of being caged inside, for most it was making the heart-breaking choice of migrating on foot.

This pandemic is going to wreak havoc on our sense of normality. It is going to shake up policies: for the better or worse. It is a terrible tragedy with insurmountable loss. Newspapers and channels have been informative and unbearable.

But a little birdie comes along with these tiny tit-bits of good news, the latest being the monsoon is on time this year. When the world stays home, the planet benefits. There's nothing good about the coronavirus, but with a ban on non-essential travel and some countries in lockdown, we're able to witness what happens to the Earth when we're largely absent for the first time.

Governments across the globe need to seize these opportunities, develop new policies while the world is adapting to the idea of nature's wrath (as many people like to call this) in the form of climate change induced epidemics and human- cruelty induced pandemics, that way a more green and sustainable lifestyle is easier to transition

## **OBJECTIVES**

- To identify the Environment conservation steps taken
- To identify the need for environment conservation in the aftermath of COVID-19
- To identify the niches where environment conservation will help ease future contingencies
- To find out plausible developmental strategies for the niches identified.

## **ENVIRONMENT CONSERVATION**

(UPTILL THE PRESENT)

The need for integrating environmental factors into the process of planned sustainable development was first highlighted in the Fourth Five Year Plan (1969-1974). Thus, in our country the debate between environments versus development was triggered as early as in the 1960s.

The other important milestones in the path of environment conservation are:

1. In 1972 the National Committee on Environmental Planning and Coordination (NCEPC) was set up to serve as a high level advisory body to the government.
2. In 1980 the N.D. Tiwari Committee was appointed which recommended the setting up of an independent Department of Environment under the Government of India, which subsequently became a full-fledged Ministry of Environment and Forests in 1985.
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## **AREAS HAVING POTENTIAL FOR DEVELOPMENT (POST – COVID)**

### **AVIATION SECTOR**

The term carbon footprint is lost on many people. As we go about the hustle bustle in our lives, we forget about what we are leaving around. Had a stressed month? “Let’s go on a vacation, I hear Italy is grand this time of the year.”

The aviation sector is known to be the heaviest contributor to the carbon footprint.

Worldwide CO<sub>2</sub> emissions from commercial flights are rising up to 70% faster than predicted by the UN, according to an analysis. Carbon dioxide emitted by airlines increased by 32% from 2013 to 2018, according to a study by the International Council on Clean Transportation.

The US-based ICCT, which exposed the Volkswagen diesel gate scandal, estimated global air travel for passengers and freight emitted 918m tonnes of CO<sub>2</sub> last year.

The ICCT report says: “The implied annual compound growth rate of emissions, 5.7%, is 70% higher than those used to develop ICAO’s projections that CO<sub>2</sub> emissions from international aviation will triple under business as usual by 2050.”

The total increase over the past five years was equivalent to building about 50 coal-fired power plants, the ICCT calculated. The study shows the UK is responsible for 4% of global aviation CO<sub>2</sub> emissions, behind only the US (24%) and China (13%).

Given nationwide lockdowns and ban on international travel there is great potential to form policies regarding the aviation sector and domestic and international travel laws.

### **Suggested Improvements and Policies for post- covid**

#### **1. Improved air traffic management**

To begin with operations could be significantly improved – and emissions cut – by reducing the time an aircraft spends in the air. This could be achieved by optimising the use of runways and terminals, improving air traffic management and deploying efficient navigation systems. A reduction in aircraft taxiing time on the runway by just 120 seconds could result in savings of 5, 000 kg of fuel burn and 15 tonnes of carbon emissions per day.

In Singapore’s Changi Airport, an Airport Collaborative Decision Making platform allows Air Traffic Controllers to sequence the departure of flights in advance based on expected readiness of flights. This helps to reduce the waiting time for departures and to cut taxiing time.

The Civil Aviation Authority of Singapore has used air traffic management procedures to shorten flight routes, which have resulted in significant fuel savings

Similar measures are already being adopted in some Indian airports. In Mumbai, for instance, the Chatrapati Shivaji Maharaj International Airport on December 8, 2018, recorded 1,007 aircraft movements, a world record for the largest number of flight movements on a single runway in 24 hours. This was achieved by ensuring the optimal utilisation of the runway and air space capacity, deploying advanced communication systems and improving air traffic management.

## **2. Sustainable alternative fuels for aircraft**

The development of sustainable alternative aviation fuel – advanced bio fuels used in jets – is a major breakthrough. Completely substituting conventional aviation fuel with sustainable alternative fuel could reduce CO<sub>2</sub> emissions from international flights by 63% by 2050, says the International Civil Aviation Organisation.

Since 2008, when the first flight using sustainable aviation fuel took off, a great deal of progress has been made in this regard. At present, five airports – Oslo, Stockholm, Bergen, Los Angeles and Brisbane – are regularly supplied with sustainable aviation fuel. Others like France's Caen airport offer occasional supply. As per an IATA fact sheet in May, "several airlines have signed significant off-take agreements" to purchase sustainable aviation fuel.

Since 2011, it said, 180,000 commercial flights have been operated using sustainable aviation fuel. In August 2018, Spice Jet operated India's first flight using bio fuel made from the jatropha plant. The flight ran between Dehradun and Delhi.

## **3. Greener airports**

Building green airports with environmentally friendly infrastructure and renewable sources of energy is also essential. Some airports are investing in offsetting schemes to become carbon neutral, carbon accreditation programmes and building green-certified terminals.

Among the features that have proved effective in reducing the energy consumption are LED lights. Queen Alia International Airport in Jordan, for instance, operates an LED-lit runway that reduces carbon emissions by 495 tonnes annually, electricity consumption by 779,454 KWH and has resulted in annual savings of around \$136,130.

In 2015, Cochin international airport became the first airport in the world to be fully powered by solar panels. This helped it reduce its carbon footprint by over 3 lakh metric tonnes – equivalent to planting 3 million trees.

London's Heathrow airport has been operating on 100% renewable electricity since April 2017.

## **BIOSPHERE RESERVES**

Recent developments have revealed the sneaky ways of the government. A good example would be the case of Dibang Valley of Arunachal Pradesh. A beautiful reserve hosting a wide variety of birds and mammals alike.

On July 18, the Cabinet Committee on Economic Affairs (CCEA), chaired by Prime Minister Narendra Modi, gave the go-ahead to the Dibang hydropower project in Arunachal Pradesh. Pegged at a capacity to yield 2,880 megawatts, the project is going to be India's largest hydropower venture. When completed, it would reach the elevation of a staggering 278 metres – also making it the world's tallest concrete gravity dam.

There were several reasons for public protests between 2008 and 2013. One, the project would displace several members of the Idu Mishmi tribe from their community land, which includes both rice fields and forest land that provide them with a source of livelihood..

The total area that would go under the water is 3,546 hectares – of which only 1,176 hectares is the river bed. Besides the submergence of the rice fields and loss of land in community use, 3.5 lakh trees would have to be felled to get the project going.

Besides, it underlined that the proposed site is a prime habitat for animals such as hoolock gibbon, elephants, Mishmi Takin, clouded and snow leopard, fishing cat and mithun among other species. The project site is also close to Mehao Wildlife Sanctuary.

In the times of forest fires ravaging up crucial habitats, government approved hacking of beautiful acres of biodiversity is unprecedented for.

Also with changing temperature and rainfall profiles due to climate change, there are chances of new diseases emerging. This is especially so when coupled with the stress of wild animals, already confronted with shrinking habitats, transmitting diseases to humans with whom they are in greater contact now. Given the current situation we know the power a pandemic has on shutting down our

operations. The chances of new diseases cropping up will be more prominent because of habitat loss, which would lead to more human-wildlife confrontations.

The COVID-19 pandemic gives the world an opportunity to think, what the economic cost is if we only talked about development and did not take the environment into consideration.

### **Here are some policy suggestions**

#### ***Support and consider the GREEN NEW DEAL***

The Green New Deal is a congressional resolution that lays out a grand plan for tackling climate change. It aims to guarantee new high-paying jobs in clean energy industries.

The goal of the Green New Deal is to reduce greenhouse gas emissions in order to avoid the worst consequences of climate change while also trying to fix societal problems like economic inequality and racial injustice. The resolution uses as its guide two major reports issued last year by the United Nations and by federal scientists who warned that if global temperatures continue to rise, the world is headed for more intense heat waves, wildfires and droughts. The research shows that the United States economy could lose billions of dollars by the end of the century because of climate change. Currently, carbon emissions are rising, by 3.4 percent last year in the United States and by 2.7 percent globally, according to early estimates.

Supporters of the Green New Deal also believe that change can't just be a technological feat, and say it must also tackle poverty, income inequality and racial discrimination.

It is going to be big socio-economic change and because it talks about absolute no use of fossil fuels it is going to be a very hard transition and would require years of extensive planning. But it is certainly doable.

#### ***Maintain local forests and bio reserves***

There is a storm churning up in the coastal areas. A voracious cyclone washes up on the shore carrying with it death and destruction; if this was a Marvel movie, there would be a superhero of sorts creating a barrier to break down the impact of the storm thus reducing maximum damage.

But in real life there is no superhero, at least not in the way we would think. Mangroves line the coastal areas precisely for this reason and many more.

They protect shorelines from damaging storm and hurricane winds, waves, and floods. Mangroves also help prevent erosion by stabilizing sediments with their tangled root systems. They maintain water quality and clarity, filtering pollutants and trapping sediments originating from land. It is called nature's way.

Proper measures need to be taken to conserve these superheroes.

### **Intensification of Agricultural Productivity**

Support for land reform and land-titling programs that address the issues of inequitable land distribution and encourage a more permanent and sustainable agriculture could do much to relieve pressure on forest land.

A government assistance program is under way in northern Thailand to achieve this. Intensification of perennial tree crop yields (mainly oil palm, rubber, and coconut) on plantations that cover some 20 million hectares in the Asian Region is receiving high priority in the agricultural development plans of Indonesia, Malaysia, and the Philippines. While from one point of view it can be argued that the establishment of such plantations has contributed to deforestation, there are some positive aspects to this development. Malaysian experience, such as that in the Jengka Triangle, has demonstrated that well-managed agricultural tree crops can provide attractive income for settled families and help to reduce dependence on shifting agriculture. From an ecological viewpoint, such tree crops do a good job in protecting soil and water resources. A well-thought-out government land-use plan for that region carried out in the 1960s demarcated more favourable bottom lands for agriculture and set aside some 60% of the area as forest reserves. After some 20 years, the village population of the Jengka region remains relatively stable. Furthermore, the forests originally excluded from settlement have been protected and are still there today.

Market constraints for commodities such as palm oil and rubber will curtail future expansion, and it seems unlikely that by the year 2000 such agricultural plantations could exceed 30 million hectares (10% of the remaining closed-forest area of the region). By contrast, the planting of perennial tree crops in settlement projects such as the Indonesia Transmigration program, in which there is a much higher degree of dependence on annual food cropping, are experiencing considerable problems

Another high-priority area for research is the food-cropping potential of the thousands of unresearched plants that grow within the tropical rain forests. Such research could help to widen the

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range of food crops available for indigenous consumption. A good example is the winged bean (*Psophocarpus tetragonolobus*). Although this plant has been known for centuries to the forest tribes of New Guinea, it was hardly recognized elsewhere. Research has demonstrated that the plant has a nutritional value equivalent to soybean (40% protein and 17% edible oil). It is now being cultivated for food production in some 50 developing countries.

### Conclusion

After observing the current situation, at a glance environment conservation might not be seen as the need of the hour. So one can say, it is understandable for the government to take up big projects such as the Dibang valley project, as it will generate job opportunities and help in generating electricity.

In the short term such measures might seem feasible but in the long term it is only going to make matters worse. Scientists all over the world have been giving warnings for decades regarding climate change and the various problems it comes with. World leaders from all over the globe need to come together and forge deals which are solid and help prevent such epidemics and pandemics- and conservation of environment needs to be at the forefront.

The time is fresh for change and citizens of the world need to realise that and take action to conserve our biodiversity.

# Impact of Covid 19 Pandemic on Higher Education in India: Challenges and Innovations

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## **A) Introduction :**

The covid pandemic affect on higher education system in both way negative and positive , negative effect are exam of the students are not conducted , classroom teaching , new admission processes etc. are disrupted , and positive effect is that using the digital technology to continues the education by using online teaching and learning techniques. Education plays an important and critical role globally in developing a skilled workforce. For many decades, the use of textbooks and notebook has been the traditional method of instruction and it is limited in classroom, but in 21<sup>st</sup> century as changing the nature of science & technology teaching, educational area get the benefits of digital learning and teaching, because of which knowledge of teachers goes beyond the classroom and spread worldwide.

## **B) Impact of Covid 19 on Higher Education System :**

The pandemic are significantly disrupted the higher education system, a large number of Indian students are enrol in universities abroad, especially in the countries which worst affected by pandemic US, UK , Australia , China etc. such students now have been barred from leaving this countries. The national lockdown and the ascending health crisis were striking the education of the students as well, with their universities being shut and their syllabi stranded. In India too, the government as a part of the nationwide lockdown has closed all educational institutions, as a

consequence of which, learners ranging from school going children to postgraduate students, are affected.

### **C) Role of Science and Technology in teaching and learning Process :**

- **Distance learning through online courses :**

Internet network are increases very rapidly, word goes on 5G stage, and any question in your mind you can get the answer in only one click by using internet. In world most of the people use the internet through android mobile platform , in rural area also most of the villagers are use android platform mobile by which learners can easily get the knowledge by online courses offered by various institutes and universities of the world . In India also govt. introduce the swayam online platform for learners and its very good platform of learning , very beneficial to student, if govt. remove some drawbacks from swayam online courses framework then it became most effective. One major drawback in swayam online courses is final exam are conducted in selected cities and hence most of the rural area students are not giving the exam, the learner which face the health problems are also unable to give the final exams, so the solution on this is conducting the final exam also on online mode or exam center is in each district headquarters.

- **Learning through social media :**

Majority of the people are use the social media platform for communication and spreading their thoughts , social media like facebook , twitter , whatsapp , you tube , these social media sites are also good source of learning and teaching , teacher easily spread their knowledge through social media .

- **Teaching and learning trough educational software's :**

Now in modern period number of educational software's available free like google classroom, google meet, google form. google sites, testmoz , edmodo , etc. through which teacher easily interact with their students

- **ICT tools for teaching and learning :**

ICT means Information and communication technology, by using different ICT tools teaching and learning become very easy and effective. Nowadays the role of Information and Communication Technology (ICT), in the education sector plays an important role, especially in the

process of empowering the technology into the **educational activities**. Education sector can be the most effective sector to anticipate and eliminate the negative impact of ICT. Technology in another side can be the most effective way to increase the student's knowledge.

The use of **ICT in education adds value** to teaching and learning, by enhancing the effectiveness of learning. It added a dimension to learning that was not previously available. After the inception of ICT in schools, students found learning in a technology enhanced environment more stimulating and engaging than in a traditional classroom environment. In the higher education ICT become most effective if faculty are well trained and know how to use of ICT tools for effective teaching then it prove beneficial to their students, college and university faculty member must use ICT tools like Desktop or Laptop with good speed of internet, Projector, Digital cameras, printer, photocopies, tablet, pen drive, web board, scanners, microphone, interactive white board etc. for effective online teaching.

#### **D) Importance of technology in Education :**

1. Students demand it: Students are engaging with technology constantly outside of the classroom.
2. New teachers are demanding it: The technology movement has been implemented in post-secondary education as well as other professional jobs. For new teachers, technology is considered a necessity for the learning environment.
3. With technology, there are no limitations. Having access to other information outside of the book gives students many different ways to learn a concept. Teachers can come up with creative ways to teach their students that keeps them engaged. Technology has changed the learning environment so that learning is more hands-on.
4. Technology has the ability to enhance relationships between teachers and students. When teachers effectively integrate technology into subject areas, teachers grow into roles of adviser, content expert, and coach. Technology helps make teaching and learning more meaningful and fun. Students are also able to collaborate with their own classmates through technological applications.

5. Testing has gone online one protocol that schools don't have control over, but must adapt to, is online testing. Testing online is the way of the future, but it has a lot of advantages. Assessing students' performance can be done instantly with technology. Beyond seeing test scores in real-time, teachers can better track and understand students' grasp of the subject.
6. Multitude of resources Computers, tablets, and other forms of technology bring multiple resources for the teacher that's not in the book. They not only keep students engaged with exciting new features and apps, but also have other ways to teach students material. Every kid learns differently, and technology helps with this gap as well.
7. Technology is necessary to succeed outside of primary, secondary, higher education whether we like it or not, technology is an essential concept to learn. Because it changes so quickly, children are better off learning about it sooner. It is a primary part of every industry, and there is no way around it. These days, technology means more than just learning basic computing skills. Technology has made itself part of every aspect of our lives today, and the students who understand it are the ones who succeed in the business world.

#### **E) Challenges & Suggestions :**

- 1) Traditional setup of educational institutes: it's necessary to change the traditional setup of educational institutes, traditional classrooms are converted in digital classrooms, and mainly rural area are need to change the setup of institutes.
- 2) Awareness in peoples for digital education : create the awareness among the students, parents and teachers also for importance of digital education and their use
- 3) Using android platform for education: it's be compulsion to every institute to developed their own app and maintain well.
- 4) Need to reform streams : I thing now a day college provides B.A./ B.Com/ B.Sc. degrees but it has need to lot of reformation like B.A.students totally unknown about science and technology so if science and technology subject included in B.A.and B.Com stream then it's good for students and nation also.

- 5) Need to provide the technique education because day per day govt. jobs are reduces so if students are technologically advanced then they easily gets job in different field.
- 6) Economically backward students are facing the problems to adopt the e-learning facility, government can solve this issues by discussing with educational experts and providing them online learning tools.

#### **F) Conclusions :**

On overall discussion we can conclude that the online teaching and learning by using digital platforms is the need of time and in the present time of corona virus pandemic lockdown period teaching and learning is goes continues because of above mention innovative changes in teaching and learning method . The passionate teacher and learner are those who teach and learn in every situation. Teaching and learning never stop in digital this era.

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## Reverse Migration in India Due to COVID-19 Pandemic

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### **Absract-**

*Corona virus (COVID-19) has been declared as pandemic and its impact on the world is yet to be fully assessed. Tribal peoples living on the margins of the Society are unlikely to be considered in the scheme of responses and reaction by most of the states.*

*India has affected COVID-19 too but the scale of infections is 190535 including 5394 deaths, according to data from the Union Health Ministry. The test are expensive-their cost is pegged at Rs 4,500 per test at present (1) and testing facilities only exist in Metropolises. As far as the history of human civilization is concerned there are instances of severe outbreak of diseases caused by a number of viruses.*

*This paper described the Impact COVID-19 on tribal peoples, we have noticed that the COVID-19 destroys economies and Jobs, homes and Foods, these indigenous migrant worker are all set to return. Reverse Migration possibly carrying disease can have devastating impact on Tribal people.*

**Keywords-** COVID-19, Pandemic, Tribal, Indigenous people

### **Introduction-**

Corona virus outbreak was first reported in Wuhan, China on 31 December, 2019. WHO is working closely with Global experts, Governments and other health organization to provide advice to the countries about precautionary and preventive measures. The outbreak of Corona virus disease 2019 has created a global health crisis that has had a deep impact on the way we perceive our World and our everyday life. A new class of Corona virus, known as SARS-COV-2 (severe acute respiratory syndrome corona virus 2) has been found to be responsible for occurrence of this

disease. As far as the history of Human civilization is concerned there are instances of severe outbreaks of diseases caused by a number of Viruses. Covid-19 has rapidly spread around the world.

The “Report of the Expert Committee on Tribal Health” Tribal Health in India “Bridging the Gap and a Roadmap for the future of the government of India in December 2018 had stated,”104 million tribal people in India are largely concentrated in ten states and in the North-East. Almost 90% of the tribal population of the country lives in rural areas.”(5) It is clear that indigenous peoples are unlikely to have access to even test to determine COVID-19 infection in near future.

Even hundreds of migrants walking to their villages are being vilified on way as many villages have stopped them from crossing their geographical area for the fear of the virus being spread. They have the least landholding, they have the least access to irrigation, and they have the least level of education. Now, without the livelihoods they could pursue. Outside, they are back in the old regressive system that has perpetuated inequality. One can argue that the massive relief operations and packages being implemented would help them out. And secular government and Non-government system would not bring back the social distances of caste and class in this time of crisis.

But pandemic in the past have demonstrated that inequality has been widened in such crises. To begin with, pandemics have impacted the already poor. Researchers say that the pandemic of 1918 was “social neutral” but scientific examinations showed that those who are share room/apartment with higher population density suffered the most or died the most.

Since Liberation of Indian economy in 1990s, hundreds of thousands of indigenous peoples migrated to the metro cities primarily to work in unorganized sectors .As COVID-19 destroys economies and absence of Jobs, homes and food, these indigenous migrant workers are all set to return. Reverse migration, possibly carrying the disease can have devastating impact on indigenous communities. It can wipe out endangered indigenous people of India and further, permanently damage the survival of many communities.

## **Observation and Discussion-**

### **Loss of jobs and reverse migration to native places:**

The Nationwide Lockdown all commercial business, Industries have been closed and this has resulted in joblessness and return from cities to their native place or villages or hometowns by lakhs of migrant labour, including tribals.

On 25 March 2020, The Hindu reported by Down to Earth stated that thousands of migrant workers, mostly tribals, returned to their homes in Bansara, Dungarpur, Udaipur, Sirohi of Rajasthan, Jhabua in Madhya Pradesh and Tribal district of Dahot Panchmahals, sabarkantha in Gujrat, Mumbai, Pune in Maharashtra. Most of them have reportedly walked hundreds of kilometers in absence of public transport (2).

On 27 March 2020, the Hindu reported that over 30,000 tribal labours from Jhabua district in Madhya Pradesh and another 30,000 from this district were left stranded in these state. On 16 May 2020, news channel reported 16 migrants died in rail accident in-between Jalana and Aurangabad in Maharashtra.

### **Indigenous Migrant Worker Stranded by the lockdown without adequate food:**

Rajendra Hembr, who is employed in the textile industry in Surat, Gujarat and originally belongs to Giridih in Jharkhand, claimed that 50 of them were stranded in the city as their employers and contractors have left the town and they have no money to feed themselves. He alleged that they cannot even go out as police were standing outside our homes (3). It has been also reported that many other migrant tribals were stranded in Madikeri, Virajpet and other places in Mumbai, kodagu District and are living in dire situation.

The New Indian Express on 29 March 2020 reported that about 200 migrant laboures were stranded at coffee estates in a village of Kodagu district near the Karnataka Kerala border, due to the lockdown and they were running out of food(7). The state government of Karnataka provided, food, 8kg ragi, Wheat, Sugar, Jaggery, Dal, Green gram, Eggs and Edible oil to tribals from chana rajnagar stranded in Kodagu.

### **Hunger laboures in tribal areas-**

The Scheduled Tribes have higher poverty rates than the general population. According to the Ministry of Tribal Affairs, ST people living below the poverty line in 2011-12 were 45-5% in the rural areas and 24.7% persons in rural areas and 13.7 persons in urban areas below poverty line for all population (6).

In lockdown the local administration does not take practice measures to reach out to tribals with food grains and essential supplies. The tribals already face hunger and suffer from malnutrition but the lockdown, which resulted in restrictions of movement, lack of livelihood sources, and returning of migrant workers, have aggravated the hunger crisis. There are reports that the “Gond tribals” are surviving on rotis with salt at Darera village in panna district in Madhya Pradesh (6).

The stateless indigenous peoples like the Chakmas and Hajongs of Arunachal Pradesh remain extremely vulnerable assistance from the state for COVID-19 does not cover them. There have been reports of starvation as since previously they remained excluded from benefits of any socio-economic scheme such as National Food Security Act, National Rural Employment Guarantee Scheme, Rations under the Antoyodaya Scheme, Prime Minister Flagship health insurance Scheme Ayushman Bharat, among others.

#### **Other Impacts of COVID-19 on Tribal Peoples in India-**

The government of India has the lockdown the country effective form 25 march to 14 April contain the spread of covid-19 prior to the lockdown indigenous people from the north east India faced heightened racism and eats of jobs and reverse migration of indigenous people to their native places. Thousands of indigenous migrant workers have been stranded without home and insufficient food while there are reports of starvation among indigenous communities in the rural areas. As this is the harvest season, traditional livelihood too will be affected, hunger looms large on indigenous communities.

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## \STUDY THE IMPACT OF COVID 19 ON INDIAN CONSUMER BEHAVIOUR

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### ABSTRACT

*The speed and global spread of coronavirus has brought about a huge shift in people's behaviour, such as bulk-buying or self-isolating. The virus has led to our environment becoming increasingly 'liquid', subject to change and operating without familiar context and predictable patterns. With these shifts in consumer behaviour, how can brands stay relevant to want their customers want? Coronavirus means brands need to be flexible and adapt to change.*

*The magnitude of the economic impact will depend upon the duration and severity of the health crisis, the duration of the lockdown and the manner in which the situation unfolds once the lockdown is lifted. In this paper we describe the state of the Indian economy in the pre-Covid-19 period, assess the potential impact of the shock on 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.*

**Keywords:** Covid-19, pandemic, economic downturn, aggregate demand, supply chain, informal sector, financial institutions, fiscal policy.

### 1. INTRODUCTION

As COVID-19 becomes a global pandemic and consumers change their buying habits, it's more important than ever that you have a complete view of the marketplace. Our global study reveals

how this changing behavior can create new opportunities for marketers. In addition to its impact on individuals and communities, the COVID-19 (Coronavirus) has notably impacted retailers and manufacturers around the globe and here in the United States. Retailers are struggling to keep products on the shelves, and sales data confirms for us that across the country, many categories are seeing elevated sales numbers. Our clients have been looking for more answers, so we've compiled a list of commonly asked questions and attempted to answer as holistically as possible. Here's what we're seeing.

We analyzed purchase behavior captured from Numerator Insights data mid-February through Sunday, March 8, with particular attention on late February and March. We supplemented this with a survey of shoppers who had made purchases of household, grocery, and health-related products between March 1 and March 9.

Given the fluid nature of the situation, we'll continue to update and iterate as we see more, especially in light of the March 11 announcements regarding travel restrictions and event cancellations, which we anticipate will impact consumer sentiment and behavior beyond what we're already seeing. Consumers are dramatically reducing most discretionary spending, which has grave consequences for some industries, such as restaurants, apparel, footwear, accessories, travel and entertainment out of home. As many consumers are under stay-at-home or shelter-in-place orders around the nation, they are likely to continue reduced spending patterns in these and other product categories. We can see from other countries that are ahead of the United States, in terms of progress along the contagion curve, that shopping habits before, during and after the COVID-19 peak indicate that spending in a number of categories remains low for months or possibly even longer. For example, consumption for apparel and in department stores has not yet picked up significantly in China and some other countries that reportedly consider themselves to be "past peak." This is in line with consumers' expectations that we may have to wait for several more months, if not longer, before routines can go back to normal, and many households expect their income to be negatively impacted for a long time.

In terms of behavior changes, the rise in online buying, specifically for groceries, is noteworthy. Among all age groups, there is a large segment of consumers who tried online grocery buying for the first time in March, and many will likely continue to buy groceries online, at least as long as

the pandemic continues. Of course, it is impossible to foresee whether a large share of consumers will remain loyal to online shopping or go back to the brick-and-mortar store experience once we feel safe to do so. Most of us have missed the social experience of shopping for many weeks now, and the convenience of the online channel may not make up for this.

Another way in which consumer behavior has changed is in terms of stockpiling. Many American households did not store food and household items in an amount necessary to overcome even short supply shortages. Most American consumers grew up with well-stocked, if not overstocked, shelves and a wide variety of brands to choose from at all price levels. Some older consumers or those living in areas struck by natural catastrophes may remember a time when they could not simply go to the store and get whatever they wanted. Until very recently, it was not conceivable that staple products such as diapers, soap or the infamous toilet paper would not be readily available in any quantity one wanted to purchase. This experience of scarcity and underpreparedness for disasters likely will impact our consumer behavior going forward, and it may also make many consumers consider keeping safety stock inventory at home on an ongoing basis

## **2. RESEARCH DESIGN AND METHODOLOGY**

### **2.1. SELECTION OF RESEARCH TOPIC**

COVID 19 pandemic has had a sudden and significant impact on all aspects of people's lives with 2.6 billion across the world now living under some sort of lockdown quarantine. This paper focuses on impact of COVID 19 on consumer behaviour of the world.

### **2.2. SIGNIFICANCE OF THE STUDY:**

The research paper will help to know the COVID 19 on consumer behaviour.

### **2.3. OBJECTIVES OF THE STUDY**

1. To study the virus COVID -19.
2. To examine COVID 19 cases across Indian states and Union Territories.
3. To review the impact of COVID on consumer behaviour.

4. To study the Government Intervention.

## 2.4. RESEARCH METHODOLOGY

The paper is based on secondary data. The data has been collected from internet. Graph and percentile method has been used to presentation and analyze the data.

## 2.5. LIMITATIONS OF THE STUDY

1. The study has been conducted on secondary data.
2. India's population resides in the rural areas, and the research is limited only to the urban population.

## 1. CORONAVIRUS DISEASE 19

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus.

Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.

The best way to prevent and slow down transmission is be well informed about the COVID-19 virus, the disease it causes and how it spreads. Protect yourself and others from infection by washing your hands or using an alcohol based rub frequently and not touching your face.

The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it's important that you also practice respiratory etiquette (for example, by coughing into a flexed elbow).

At this time, there are no specific vaccines or treatments for COVID-19. However, there are many ongoing clinical trials evaluating potential treatments. WHO will continue to provide updated information as soon as clinical findings become available.

The COVID-19 virus affects different people in different ways. COVID-19 is a respiratory disease and most infected people will develop mild to moderate symptoms and recover without requiring special treatment. People who have underlying medical conditions and those over 60 years old have a higher risk of developing severe disease and death.

**Common symptoms include:**

- fever
- tiredness
- dry cough.
- Other symptoms include:
  - shortness of breath
  - aches and pains
  - sore throat
  - Very few people will report diarrhoea, nausea or a runny nose.

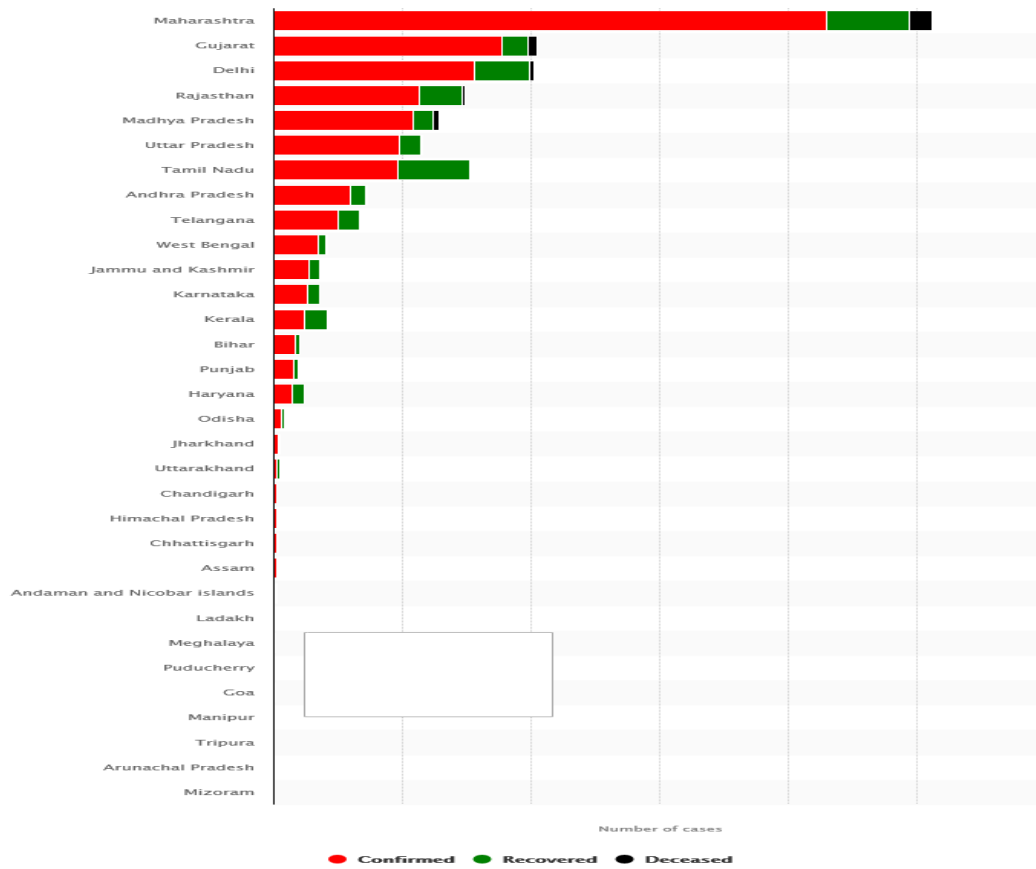
People with mild symptoms who are otherwise healthy should self-isolate and contact their medical provider or a COVID-19 information line for advice on testing and referral.

People with fever, cough or difficulty breathing should call their doctor and seek medical attention.

**To prevent infection and to slow transmission of COVID-19, do the following:**

- Wash your hands regularly with soap and water, or clean them with alcohol-based hand rub.
- Maintain at least 1 metre distance between you and people coughing or sneezing.
- Avoid touching your face.
- Cover your mouth and nose when coughing or sneezing.
- Stay home if you feel unwell.
- Refrain from smoking and other activities that weaken the lungs.
- Practice physical distancing by avoiding unnecessary travel and staying away from large

**2. EXAMINE COVID 19 CASES ACROSS INDIAN STATES AND UNION TERRITORIES**



Source (<https://www.statista.com/statistics/1103458/india-novel-coronavirus-covid-19-cases-by-state/>)

### 3. IMPACT OF COVID 19 ON CONSUMER BEHAVIOUR

#### 5.1. Health and safety products

Anyone who has faced empty shelves or seen price gouging online knows that health and safety products are being purchased far faster than they can be produced and restocked.

According to data from Nielsen, items like hygienic and medical mask sales are up by more than 300%.

4.

#### 5.2. Shelf-stable goods

Another category of consumer packaged goods that is booming is shelf-stable items. These fit into the category of people planning for long-term quarantine. According to Nielsen, products like shelf-stable milk and milk substitutes (particularly oat milk) are up by more than 300% in

dollar growth. Other items seeing increases are things like dried beans and fruit snacks that have a long shelf life.

### **5.3. Food and beverage**

Development of the frozen and instant food industry chain is likely to be promoted to ensure supplies during the pandemic. The lockdown situation has led to consumers stocking essential products at home leading to greater demand initially. Further, quick recovery for F&B products is expected after this situation concludes. Consumers' close attention to hygiene and their awareness to improve immunity is expected to surge, prompting escalating consumer demand that can only be met with upgraded materials, techniques, and equipment.

### **5.4. Digital streaming.**

While less about the immediacy of protecting and feeding themselves, it comes as no surprise that as people are homebound and no longer pursuing external entertainment options that there is an increase in digital streaming services. In addition to streaming services like Netflix, Amazon, Hulu, and Disney+ seeing atypical gains in subscribers in the first quarter of 2020, non-traditional streaming services like movie studios are releasing media streaming, on-demand, sometimes earlier than projected release.

### **5.5. Luxury goods.**

While the above products and services are increasing in sales due to the current situation, other industries are not doing as well. In addition to obvious ones like entertainment, restaurants, and travel, one area projected to have significant losses is the luxury goods industry.

Vogue Business projects a potential loss as great as \$10 billion for this industry in 2020 due to COVID-19. This is in part because luxury goods rely heavily on the Asian market's purchasing power, where the pandemic has been affecting consumers since January.

### **5.6. Fashion and apparel**

As mentioned above, Omni channel sellers are seeing big losses, in part because they're closing the retail arms of their businesses all together. People are understandably not interested in

shopping for clothes in person. Department stores like Macy's and Jenney, large chains like Abercrombie & Fitch and Nike, and DTC brands with some storefronts like Rothys and Everlane are all closing their physical stores and experiencing losses. Some stores like Patagonia are halting even their online stores to protect all workers in their supply chain.

Even online apparel sales are down as people are putting more of their budgets into daily essentials. The chart below is again from Shipbob's data of their 3,000+ merchants. This shows an overall 20% decrease in sales month-over-month.

**5.7. Apparel and footwear:** Inventory and distribution challenges amid the lockdown would imply that most enterprises' survival is likely to be determined by two quarters of destocking and withdrawal of funds, prompting reshuffles and integration. Use of on-site workplaces, party venues, gyms, and other places of gathering is expected to remain limited, leaving companies with a demand only for indoor products. Some brands might need to temporarily shut down or even close stores, providing an opportunity for business restructuring and store network reorganization.

**5.8. Beauty:** Fewer makeup scenarios are expected to give rise to new areas of demand, including "home makeup," "mask makeup," and "contrast makeup," influencing the pattern of beauty products. Amid the downturn for offline beauty stores, demand for in-home skincare is expected to increase • Supported by increasing use of virtual technologies, online shopping is likely to gradually replace offline shopping, making decentralization imperative for the industry.

**5.9. Retail:** Non-contact demand during the pandemic is expected to boost sales at smaller stores that can host smaller crowds at a time. However, supermarket chains have ensured supply of products at regular prices. Due to the pandemic's impact on consumer behavior and habits, "online-sales" are expected to witness a significant surge, even after the industry recovers. The establishment of online platforms is expected to become indispensable for offline stores, and online–offline service integration is expected to increase.

## 6. GOVERNMENT INTERVENTION:

1. **Ensuring stock availability :** While the PM has assured normal distribution of products and services for the consumers, current circumstances of country lock-down, “janta curfew,” closure of public transportation and public places, etc. imply a challenging outlook for the sector • The government must try to ensure that there is none to minimal disruption in the supply chain of consumer products, and their distribution follows normal course, else the panic may lead to mass shortage of essential products and commodities.
2. **Facilitating e-commerce:** One of the major steps for the government to ensure minimum disruption is to encourage and facilitate ecommerce • There are various players in the consumer industry who have launched contact-less pickup and delivery models to ensure zero contact with consumers, and thus minimize the risk of contagion • Such contact-less methods are apt in the current scenario and could also lead to greater employment in the logistics and distribution departments for e-com players and retailers.
3. **Incentivizing and assisting logistics and delivery:** While the risks associated with COVID-19 are common for all citizens, the government can offset its impact in the consumer sector by incentivizing logistics and delivery personnel, and increasing its delivery fleet • Further, assisting such personnel by way of distribution of essential precautionary and protective healthcare products, and mandating timely disbursements of salaries could boost their morale.
4. **Boosting non-urban consumption:** To ensure that rural and non-urban citizens have adequate disposable income at hand, the government may resort to direct-benefit transfers and direct-account transfer of wages • Already implemented by few state governments, this could allow immediate cash in hands of consumers, and they may not be constrained by no availability of funds owing to delays or leakages • At the same time, ensuring digital infrastructure in non-urban areas for consumers for ordering products online is also critical during such times
5. **Offering unified solutions:** Large organised consumer companies, retailers and food service providers are likely to be amongst the most severely impacted lot owing to

the closure of malls, restaurants, and people avoiding super and hypermarkets, etc. • The government can encourage these players to unite with smaller retailers (kiranas) and e-commerce marketplaces and supply their stocks to ensure product availability • This will not only ensure revenue generation and inventory circulation for the larger players, but will also lead to better availability of products for consumers

## 7. CONCLUSION

An outbreak of COVID-19 impacted the whole world and has been felt across industries. The outbreak is declared as a national emergency by the World Health Organization. In India the three major contributors to GDP namely private consumption, investment and external trade will all get affected. World and Indian economy are attempting to mitigate the health risks of COVID-19 with the economic risks and necessary measures needed will be taken to improve it.

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## Study of the Post Covid 19 Strategies for the Development of Industries and Economy of Maharashtra

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### ABSTRACT

*The outbreak of the Covid-19 pandemic is an unprecedented shock to the Indian economy. The economy was already in a parlous state before Covid-19 struck. With the prolonged country-wide lockdown, global economic downturn and associated disruption of demand and supply chains, the economy is likely to face a protracted period of slowdown. The magnitude of the economic impact will depend upon the duration and severity of the health crisis, the duration of the lockdown and the manner in which the situation unfolds once the lockdown is lifted. In this paper we describe the state of the Indian economy in the pre-Covid-19 period, assess the potential impact of the shock on various segments of the economy, analyse the policies that have been announced so far by the central government and the Reserve Bank of India to ameliorate the economic shock and put forward a set of policy recommendations for specific sectors.*

**Keywords:** Covid-19, pandemic, economic downturn, aggregate demand, supply chain, informal sector, financial institutions, fiscal policy.

### INTRODUCTION

COVID-19 has had a deep impact on every aspect of our lives in India and the world. The anxiety, and the lurking fear in the subconscious reminds one of an eerie feeling experienced while viewing

Alfred Hitchcock's masterpiece *Birds*, a 1963 film. The whole island of Bodega Bay was locked down with the fear of repeated bird attacks. The panic was everywhere. It had emptied roads, offices and radio stations, etc., and a fear of 'who and what next' had gripped the populace. Today it's a virus and not birds. But the anxiety, fear and lockdown is quite similar. The biggest difference, of course, is the fear causing object in Hitchcock's film were acting in local confines and not in an interconnected global world. The challenges today are, therefore, more profound. Movements of men, material and cargo have been completely paralysed in India and many parts of the world. A small segment of the services sector is trying to make up for the loss through "work from home" practices. The manufacturing, logistics, rest of the real economy as well as the services sector involving movements, are completely shut down, almost everywhere. No doubt, extraordinary situations require extraordinary action. However, it is important to understand what could be the impact of this dislocation on the economy of India and the world.

Economists have put out a grim forecast for the US economy. All projections are unified in their opinion of a sharp contraction in the second quarter, after a mild contraction in the first. The second quarter contraction is projected at 14 percent by JP Morgan, 12 percent by Bank of America and Oxford Economics, and a massive 24 and 30 percent respectively by Goldman Sachs and Morgan Stanley. The forecast of the first quarter contraction varies between 0.8 percent (Bank of America) and 4 percent (JP Morgan). A striking feature in all the studies is that the pessimism of the near-term, yields place to an optimistic growth outlook in the third and fourth quarters. The projections add up to a positive, though mild, growth for the US economy, for the year as a whole. The recovery is expected to be 'V'-shaped, after the second quarter.

## **2. RESEARCH DESIGN AND METHODOLOGY**

### **2.1. SELECTION OF RESEARCH TOPIC**

COVID 19 pandemic has had a sudden and significant impact on all aspects of people's lives with 2.6 billion across the world now living under some sort of lockdown quarantine. This paper focuses on impact of COVID 19 on Maharashtra Industry and economic.

### **2.2. SIGNIFICANCE OF THE STUDY:**

The research paper will help to know the COVID 19 on development of Industry and economic of Maharashtra.

### **2.3. OBJECTIVES OF THE STUDY**

- 1) To study virus COVID -19 in Maharashtra.
- 2) To examine the impact of COVID 19 on industries and economy of Maharashtra.
- 3) To review post COVID 19 strategies for the development of industries and economic of Maharashtra.

### **2.4. RESEARCH METHODOLOGY**

The paper is based on secondary data. The data has been collected from internet. Graph and percentile method has been used to presentation and analyze the data.

### **2.5. LIMITATIONS OF THE STUDY**

1. The study has been conducted on secondary data.
2. Maharashtra population resides in the rural areas, and the research is limited only to the Maharashtra.

## **5. CORONAVIRUS DISEASE 19 IN MAHARASHTRA**

Maharashtra is a leader among Indian states in terms of agricultural and industrial production, trade and transport, and education. The state occupies the western & central part of the country and has a long coastline stretching nearly 720 km along the Arabian Sea. Maharashtra has a good presence of industrial clusters, especially automobile, IT &ITeS, chemicals, textiles and food processing clusters and offers lucrative investment opportunities in these sectors.

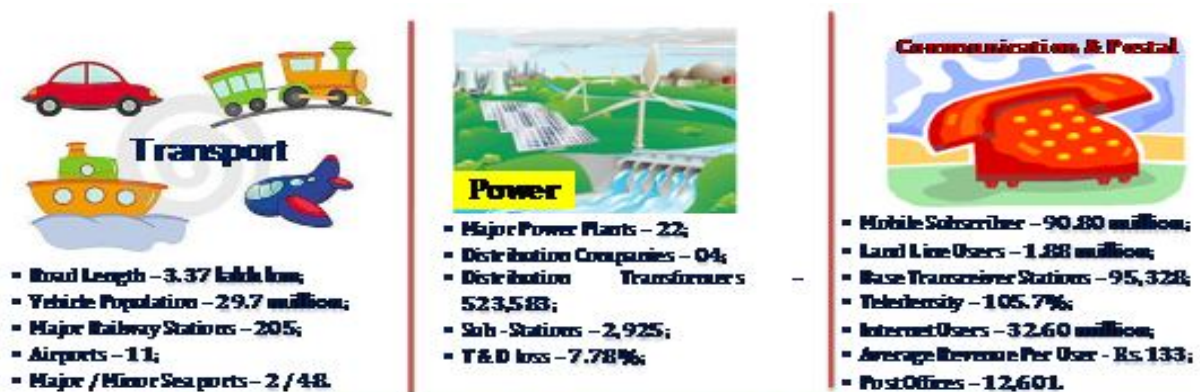
This comes at a time when companies were already facing severe economic headwinds with clear signs of a recession in their main markets around the globe. The global economy was cooling down and Industrial production in most global markets has strongly decelerated. The

COVID-19 crisis is adding yet another vast layer of complexity to an already hugely challenging environment.

The first case of the COVID-19 pandemic in the Indian state of Maharashtra was confirmed on 9 March 2020. The state has confirmed a total of 14,541 cases, including 583 deaths and 1,879 recoveries, as of 5 May 2020.

As of 5 May, 2020, Maharashtra accounts for **31.29%** of the total cases in India as well as **37.11%** of all deaths. As of 5 May, the state's case fatality rate is **4.01%**, which is lower than the global average but significantly higher than other Indian states with large numbers of cases. More than two-thirds of the cases in the state have emerged from the Mumbai Metropolitan Region (MMR). Mumbai and Pune are among 10 coronavirus hotspots in the country identified by the Government of India.

### Maharashtra Key Sector Statistics



### Critical Infrastructures of Maharashtra



### ECONOMY IN MAHARASHTRA

Maharashtra is one of the largest, wealthiest and developed states in India. On the backdrop of scanty and uneven rains resulting in draught situation during 2018-19 the State economy is expected to maintain the pace of growth, as registered in the earlier year. As per the advance estimates, nominal GSDP of 2018-19 is expected to be *INR. 2,660,318 crore*, higher by *10.3%* over the previous year, while real GSDP is estimated to be *INR. 2,088,835 crore* with expected growth of *7.5%* over 2017-18. Total expenditure for 2019-20 is estimated to be *INR. 404,794 crore*, an *8.5%* increase over the revised estimate of 2018-19. In 2018-19, as per the revised figures, there is estimated to be an increase of *INR. 5,954 crore* (1.6%) of expenditure over the budgeted estimate. Total receipts (excluding borrowings) for 2019-20 are estimated to be *INR. 3,16,930 crore*, an increase of *9.8%* as compared to the revised estimate of 2018-19. In 2018-19, total receipts (excluding borrowings) are estimated to be higher than the budgeted estimate by *INR. 512 crore*. Revenue deficit for 2019-20 is targeted at *INR. 20,293 crore*, or *0.68%* of the Gross State Domestic Product (GSDP). Fiscal deficit is targeted at *INR. 61,670 crore* (2.07% of GSDP). Sectors such as rural development (62%), water supply, sanitation, housing and urban development (26%), and education (25%) saw the highest increase in allocations. On the other hand, social welfare and nutrition (33%) and agriculture (25%) saw the highest decrease in allocations.

Government of Maharashtra is taking up all effective steps to contain the spread of Covid 19 with several places in the state, where multiple confirmed cases were reported, were sealed off to prevent community spread.

The central government classified the country's districts into zones based on the extent of the spread of virus, with 14 districts in Maharashtra being identified as hotspots and labelled as red zones. The state government announced that it would relax the lockdown restrictions in districts with fewer than 15 confirmed cases.

## 6. IMPACT OF COVID 19 ON INDUSTRIES AND ECONOMY IN MAHARASHTRA

1. **Education:** Maharashtra government cancelled all the exams from standard 1–8. to make it easier to stop Coronavirus outbreak through schools in students. The students of standard 1st to 8th standard were directly promoted to their next standard.

2. **Transport:** Over 20,000 bus services of Maharashtra State Road Transport Corporation were cancelled
3. **Tourism:** Tourist spots in the state like Ajanta and Ellora Caves in Aurangabad district, Elephanta Island in Raigad district and Gateway of India in Mumbai reportedly witnessed a sharp decline in the number of visitors. Hotel, cab and private bus businesses in the state also reported a high number of booking cancellations in March.
4. Amidst a surge in confirmed cases across the state, the health officials declared that several tourist and religious sites will be closed down as a precautionary measure. These sites included Siddhivinayak Temple in Mumbai, TuljaBhavani Temple in Osmanabad district, Ajanta and Ellora Caves in Aurangabad district, DagadushethHalwaiGanapati Temple in Pune, Mumba Devi Temple in Mumbai and Saibaba Temple in Shirdi. Entry restrictions were also enforced at Mantralaya, Mumbai. Mumbai Police placed a ban on all group tours in the city until 31 March.
5. **Economic Effects:** The virus outbreak had a significant impact on all sectors. Most of companies have temporarily closed down their manufacturing facilities and are expected start with more vigor after the lifting of the lockdown. The economy of Mumbai was projected to suffer losses worth at least *INR. 16,000 crore* per month in the service sector, as a result of the outbreak. In addition, it predicted that the city's tourism industry would lose *INR. 2,200 crore* per month from international tourists.
6. The entertainment industry in the state also suffered financially, with several Bollywood films postponing release dates or halting production, causing an "acute financial crunch" for many members of the Federation of Western India Cine Employees. Bollywood films were estimated to lose box office revenue of over *INR.1, 300 crore* due to the lockdown.
7. On 30 March, the state government slashed electricity tariff by an average of 8% for a period of five years in order to minimize the economic impact of the outbreak on industries.
8. **Migrant workers:** After the enforcement of lockdown, scores of migrant labourers in Maharashtra have left and would return immediately once normalcy comes back.

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## **5. STRATEGIES FOR THE DEVELOPMENT OF INDUSTRIAL AND ECONOMIC DEVELOPMENT**

“Secured Governance offers a strategy for the government to get all the basic infrastructure development with a negligible investment by the Government. It is a concept of developing Techno Economic Corridors connecting HUBs which will act as growth centre for individual sectors. The very concept of “Secured” here implies a secured convergence or knitting with various sectors defining a growth for an economy.”

### **5.1 Secured Governance**

Secured Governance is a concept that is catching the attention of many as a holistic approach to infrastructure needs, promising a great deal. It professes taking advantage of valuation of assets created, and delivering at negligible cost to the government. It aims at balanced growth in all sectors in need of better facilities, in a more holistic manner, rather than focusing only on say expressways, or power or any one of numerous other sectors. It promises more societal participation and benefit sharing with transparency. Underlying this is a strategy of developing techno-economic corridors connecting Super Smart Cities across the state which coincidentally meshes with the idea of having ‘24 new super smart cities’ along the HSBMSMM.

### **5.2 Holistic Infrastructure Development**

The idea is a common sense approach yet is backed by a wealth of information collected to show its potential, and that there is more to it. The key ingredients are:

### **5.3 Balanced Growth**

It is normal to look at planning of infrastructure as a function of a number of ministries, such as Roads and Expressways, Power and so on the Power Project as hub around which all the related infrastructure needs to develop simultaneously, Connecting Super Smart Cities with a highway will also become part of the larger project. A super smart city developing near the HSBMSMM corridor will be better planned, more complete and benefit many more rather than the few ‘more enterprising’ who tend to otherwise take advantage of the development process and the valuation due to it.

### **5.4. Development in Backward Areas**

Moving away from populated areas makes more sense 2% of the land in our country is populated. The reason is the age old preference to settle beside rivers and streams and adjacent to existing cities. Connecting these areas with roads and making new centers of development more beneficial and cost effective than trying to develop projects in areas already populated. Setting – up of various HUBs, Mini HUBs and Nano HUBs in Maharashtra with the contribution of private stake holders / foreign investors who will develop the infrastructure on the guidelines of state or local government. Besides, the state has approximately **36,075.15 sq. km** of degraded wasteland that lies outside the areas demarcated as national forests. Development of these wastelands offers enormous potential both for economic development and sustainable employment generation.

PPPs are essentially “risk sharing partnerships” between governments and the private sector on financing, designing, constructing and operating public infrastructure and public services. Infrastructure projects are inherently complex and unpredictable, and, under PPP arrangements, governments opt to transfer specific tasks and the risks associated with them to private enterprises that might be better able to execute and mitigate them.

### 5.5 Blue Economy

“The Blue Economy is envisaged as the integration of Water based Economy included Inland Water Body & Ocean Economy development with the principles of social inclusion, environmental sustainability and innovative, dynamic business models”. Islands are expected to gain more from the blue economy orientation through smart city development in big islands mini HUBs in small islands and Nano HUBs in tiny islands. The protagonists of this approach visualize a great potential for economic growth and huge job creation in the blue economy sectors.

The seabed around Maharashtra is the source of untold wealth and potential, if it is used effectively and responsibly proving the enormous potential of India’s blue growth industry.

Maharashtra comprises **18** islands spread over Continental shelf area of some **0.112 Million sq. km**. The state has **3** major & **48** minor ports spread over a distance of **720 km**. of sea coast. Moreover it has water network length is around **16,000 km**, in the form of rivers, canals, backwaters and creeks. There is a need to develop fit-for-purpose, dedicated policy tools and

initiatives, on the basis of general planning principles for waterfront development. Various commercial activities such as play courts, Yoga & Open Gym, park, Café & small Restaurant, fishing point, boat & net repairing service, recreational zone, informal market have been added along the riverfront making it a vibrant public & cultural place. Active public spaces will make the area safe. The recreation, activity & commercial areas will also help generate revenue and huge employment opportunity.

### Secured Governance HUB

**Secured Governance HUBs:**-Development of a Primary economic sector for a defined region with development of a *Township or smart city* which includes infrastructures such as Residential complexes, Official and Industrial Facilities, Disaster Management System, Power and Water, Sewage and Solid Waste Management, Telecom, Banking, Educational Institutes, Transport facilities and infrastructures, Healthcare, Hospitality Sectors, Retail Market for all including food grains and fruits & vegetables, and other subsidiary Sector.

### Various Secured Governance HUBs

**Healthcare Sector:** health industry needs to be prioritised by pooling together private and public, domestic and international resources. Research, manufacturing and practical implementation through health hubs need to be promoted. Around this nucleus rest of the development can flourish.

**Smart Urban Model:** Town planning needs to be relooked. Every complex must have enough retail outlets to make it self-sufficient. Houses for moneyed persons and supporting servants need to be constructed at one complex as absence of the same results in mushrooming of slums.

**Food Security:** Agricultural colleges and food preserving units need to be together accompanied by cold storages and transport/ rail, air connections to markets.

**Prior online experiences:** More emphasis on broadband internet use in day to day operations rather than rushing physically to places for various activities.

**Mini HUBs:** Around 1,000 Mini HUBs can be developed adjacent to Major Roadways. Every 15 kilometre one mini HUB such as amusement park, Yoga centre, Mini food court, Cinema halls, children's water park etc. In additional mini HUB includes Small scale economic activities like food processing industry, boat & fish net repairing centre, mini market, shopping malls etc.

Local government will get additional revenue through this various mini HUBs to meet extra budget burden of river maintenance (includes deepening, cleaning etc.) expenditure.

**Nano HUBs:** Nano HUBs will be a part of an existing or new development project. These HUBs will not only facilitate public utility space for the travellers but also promote small scale commercial units generating employment and revenue for the defined region.

A typical Nano-HUB will be spread over an area of 1000 to 2000 sq. m, comprising of facilities like Roadside Stations, Motorway Service Areas, Retail & Minor Ancillary Uses, Toilets/Washrooms, Parking Facilities, Health Clinics, Internet Cafes, ATMs, Handicraft shops, Small Hotels, Restrooms, etc.

Establish around **43,665** NanoHUBs in the villages of Maharashtra is an effort to create a small yet compact mechanism to generate employment opportunity and minimize the rural urban migration. Detailed investment and employment opportunity is given in below table:

Growth Centre	Number of HUBs	Expected investment by private Bodies (in INR. Crore)	Expected Output to Govt./Annum (in INR. Crore)	Employment Opportunity (in million)
Tourism HUBs	02	3,000	600	0.10
Industry HUBs	03	32,000	3,000	3.00
Transport HUBs	02	15,000	2,000	1.50
Power HUB	01	2,500	1,000	0.10
Education Hubs	02	1,500	800	0.20
Agriculture HUBs	02	800	300	1.40
Healthcare HUB	01	1,000	200	0.15
Sports HUB	01	200	100	0.05
Other HUBs	02	4,000	1,000	1.00
Mini HUBs	1,000	500,000	35,000	5.00
Nano HUBs	43,665	240,000	26,000	2.50
<b>Total</b>		<b>800,000</b>	<b>70,000</b>	<b>15.00</b>

## 6. CONCLUSION

The imperative of rapid scaling up of the infrastructure capacity – in the Government and private sector (developers, contractors, consultants, financial intermediaries and investors) – entails

developing and implementing projects of the required scale and within the tight time frames envisaged. The new initiatives of “24 Super Smart City” on the part of the Government have begun to turnaround the project as far as the private participation is concerned through project execution and planning new investments. Public private partnerships will be leveraged for the state of Maharashtra to attract an investment of INR. 8.00 lakh crore from private / foreign investors during the period 2021-25. And at the same time additional revenue of the state government (excluding state’s share in taxes) is estimated to be INR. 70,000 crore to minimise budget deficit of the state government. This implies that it will generate over 15 million jobs over the next five years, which will translate to about three million jobs annually.

Lastly, to implement an ambitious roadmap for this project, improved standards of secured governance and concerted action would be required to take these targets and goals from inspirational statements to actual development. We need a system to integrate economic interdependence in today’s modern societies which not only decreases uncertainty regarding where risks begin and end, but also help in judicious planning and development of new empowered, transparent and interdependent Governance systems with higher degree of society participation in nation building Process. Secured Governance is a novel concept which equips to create adequate and coordinated measures to ensure the provision of financial, human, technical, information and sustainable economic growth of the state and nation.

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**POST COVID-19 OPPORTUNITIES AND CHALLENGES FOR  
MICRO SMALL MEDIUM ENTERPRISES (MSMEs)  
DEVELOPMENT IN INDIA**

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**Abstract**

*The Micro Small Medium Enterprises (MSMEs) are considered to be back bone of Indian Economy. Their contribution to the GDP of Indian Economy has been significant over past decade. They have a major role in development of rural and backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. The unprecedented outbreak of COVID-19 in Wuhan Province – China during the month of December 2019 has turned out to be pandemic affecting the entire globe and paralyzing the economic activities. The impact of this has severely affected the MSME sector. This paper reviews the present Scenario of MSMEs. Based on above background, the researcher has made an attempt to analyze the challenges and development ahead for the MSME sector post COVID 19.*

**Key words: Micro Medium Small Enterprises, Challenges, development of MSMEs**

**Introduction**

The COVID-19 is being considered as worst in the history of mankind, the magnitude of it is more than the Spanish Flu of 1918, Great Depression of 1929 and Great Recession. It has not only severely impacted global health but also caused a deep wound in the economic, financial, social, emotional, mental wellbeing of people and almost all the sectors of the economy globally, nationally and locally. World Health Organization (WHO) has declared this COVID-19 as pandemic. The world leaders have compulsorily asked people to go for social distancing, leading

closure of businesses and factories which are considered as the best medicine to combat the spreading of virus till vaccine is found. This closure has led to an unusual shock of both demand and supply globally. Global supply chains are set for a serious overhaul because the COVID-19 crisis has exposed the vulnerability of nations and corporations that rely heavily on a limited number of trading partners. Many multi-national companies (MNCs) have already started re-evaluating their supply chains and are within the process of shuffling their supply chains. As Small and Medium Enterprises (SMEs) and Micro Small & Medium Enterprises (MSMEs) occupy a predominant role both in developed and developing economies. They account for 90% of business and 50% of job creation worldwide.

In the whole process the bigger sharks tend to survive in the business world where as the smaller fishes tend to get wiped out. Here, the bigger sharks are being referred as the large corporate houses globally and nationally who have the cushion to observe the impact of COVID-19 and small fishes are being referred to the Micro Small and Medium Enterprises (MSMEs). The COVID-19 pandemic has severely affected MSMEs across the world in three aspects demand, supply and containment.

In India, Micro Small Medium Enterprises are considered as an engine for the economic growth and sustainable development, and forms a larger part of ecosystem. MSDMED Act 2006 provides the first-ever legal framework recognizing the concept of enterprise (comprising both manufacturing and service entities), defining medium enterprises and integrating the three tiers of these enterprises, namely micro, small and medium. There are about 63.4 million micro enterprises employing one to two workers on an average, 0.33million small enterprises employing 8-10 workers on an average and 5000 medium enterprise employing 25-30workers on an average contributing to 11 crore employment generation. Their contribution to GDP accounts to 29% and 48% to exports.

### **Literature Review**

Tarak Shah (2011) The major problem of inadequate financing to SMEs needs an urgent attention amongst the others such as adequate credit delivery to SMEs, better risk management, technological up gradation of Banks esp. Public Sector Banks, attitudinal change in Bankers. A number of issues and business practices of global players and markets can be observed, learnt and adapted for ensuring competitiveness of Indian SMEs.

Venkatesh and Muthiah (2012) researched on the performance, growth and issues of MSMEs in Indian Economy. The study highlighted that the rapid growth of SME attractshigher attention to contribute towards the wellbeing of Indian economy.

Sonia Mukherjee (2018) attempted to study the challenges found by MSME in India. This study emphasized the involvement of Government and others in terms of higher investment in reducing the infrastructure gap, strengthening the human resource and imparting digital technology. The author believed that by paying attention to these measures will result in MSMEs to have access to the global market.

### Objectives of the Study

The broad objective of the paper is to assess the general growth and developments within the MSMEs sector in India. It further highlights on the following areas:-

1. To review the overview of Micro Small and Medium Enterprises.
2. To look at the expansion of employment, output, promotion of exports of MSMEs in India.
3. Prospects and development of MSMEs in India.

### Research Methodology

The study is based on secondary data covering all financial data are compiled from Annual report of MSMEs, Government of India different books and periodicals. Further, articles and data available in several different newspapers, websites, journals and magazines also are also mentioned for compilation of this study.

**Growth of MSME sectors in India**(Source Annual Report 2018-19www.msme.gov.in)

Parameter	NSS 73rd Round, 2015-16	Fourth All India Census of MSMEs, 2006-07	Annual Compound Growth Rate (%)
<b>No. of MSMEs (Total)</b>	<b>633.88</b>	<b>361.76</b>	<b>6.43</b>
Manufacturing	196.65	115.00	6.14
Services	437.23	246.76	6.56
<b>Employment (Total)</b>	<b>1109.89</b>	<b>805.24</b>	<b>3.63</b>
Manufacturing	360.42	320.03	1.33

Services	749.47	485.21	4.95
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**Distribution of Enterprises and Employment Category wise (Number inLakh)**

Sectors	Micro		Small		Medium		Total Enterprise		Total Employment	
	Enterp rise	Employ ment	Enter prise	Empl oyme nt	Enter prise	Emp loym ent	Enterpri se	%	Employ ment	%
<b>Rural</b>	324.09	489.30	0.78	7.88	0.01	0.60	324.88	51	497.78	45
<b>Urban</b>	306.43	586.88	2.53	24.06	0.04	1.16	309.00	49	612.10	55
<b>Total</b>	<b>630.52</b>	<b>1076.19</b>	<b>3.31</b>	<b>31.95</b>	<b>0.05</b>	<b>1.75</b>	<b>633.88</b>	<b>100</b>	<b>1109.89</b>	<b>100</b>

(Source Annual Report 2018-19 www.msme.gov.in)

The table indicates that there is an overall balanced regional development of the economy in terms of enterprises and a slight increase in urban with reference to employment.

**Current Status of MSME sectors in India**

1. The unprecedented COVID 19 which started with the social distancing norms and lockdown, initiated across the globe to prevent the spread of the virus has hithard on MSMEs by disrupting the supply chain.
2. Fixed costs such as wages or salaries for their employees, interest on loans borrowed, rent of the premises etc. has been a huge burden on them when the economic activities have come to standstill due to social distancing and lockdown.

As per All India Manufactures Organization survey in the month of March 2020 of approximately 5,000 traders/MSMEs across the country indicate that 71% of MSME entities have failed either completely or partially to pay the wages due to logistics and distribution issues, orders not there, absence of workers reporting to work and 63% of them have indicated cash crunch and over 47% of the traders found it difficult to pay salaries to workers who did not have access to bank account or had migrated back to their hometown.

3. The most immediate concerns currently on the minds of MSMEs are cash flow and working capital.

**Opportunities for Indian MSMEs**

1. MSMEs with alternate supply arrangements reduces potential disruption to the extent possible by ensuring adequate stockpiles. It provides a buffer against temporary turbulence.

2. Looking way ahead MSMEs in India have opportunities to flourish, as stated by Ian Bremmer, prominent thinker in F&D International Monetary Fund Article. “The first trend is **de-globalization**; the logistic difficulties brought to light by the current crisis are already pointing to a shift away from global just-in-time supply chains. Yet as economic difficulties mount, **the inevitable growth of nationalism and “my nation first”** politics will push companies to localize business operations that favor national and regional supply chains”

3. The MSME sector in India is highly heterogeneous in terms of the size of the enterprises, variety of products and services. It complements large industries as ancillary units and contributes immensely to the socioeconomic development of the country.

**Schemes of MSMEs during 2018-19** are My MSME, UdyogAadhaar Memorandum (UAM) – ease of doing business, digital payments, direct benefit transfer in the M/o of MSMEs, skill development and training, marketing assistance, technology up gradation, credit and financial assistance to MSMEs and other services such as National Scheduled Caste and Scheduled Tribe Hub, scheme for promotion of MSMEs in North East Region and Sikkim, Building awareness of Intellectual Property Rights etc.(Source Annual Report 2018-19 [www.msme.gov.in](http://www.msme.gov.in))

**Government Initiatives and Policies for MSMEs during COVID -19**

**Atmanirbhar Bharat Scheme**

<b>Existing MSME Classification</b>			
<b>Criteria : Investment in Plant &amp; Machinery or Equipment</b>			
<b>Classification</b>	<b>Micro</b>	<b>Small</b>	<b>Medium</b>
Manufacturing enterprises	Investment < Rs.25Lacs	Investment < Rs.5 crores	Investment < Rs.10 crores
Service Enterprises	Investment < Rs.10 Lacs	Investment < Rs.2 crores	Investment <Rs. 5 crores
<b>Revised MSME Classification</b>			
<b>Composite Criteria : Investment and Annual Turnover</b>			
<b>Classification</b>	<b>Micro</b>	<b>Small</b>	<b>Medium *</b>

Manufacturing and Services	Investment < Rs.1crore & Turnover <Rs. 5 crore	Investment < Rs.10 crore& Turnover <Rs.50 crore	Investment < Rs.50 crore& Turnover <Rs.250 crore
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Source : Ministry of Finance, www.taxguru.in

\*Exports will not be counted in turnover for any enterprises whether micro, small or medium.

\*\*The new definition and criterion will come into effect from 1<sup>st</sup> July 2020. (\*\*source www.pib.gov.in)

- Launch of Champions Portal, a robust ICT based system, a one-stop place for MSME sector. It seeks to solve the grievances of MSMEs besides encouraging, supporting, helping, and handholding them.
- Collateral- free automatic loans of Rupees Three lakh crore for MSMEs. It meets operational liabilities, buy raw material and restart businesses and protect their jobs.
- Global tenders in procurements up to Rupees 200 crores is disallowed. It creates more opportunities for domestic players. Small units being part of Government purchases leads to Self-reliant India through Make in India.
- Clearance of MSME dues within 45 days by the Government and Public Sector Units.
- Approval for provisioning of Rupees. 20,000 crore to the stressed MSMEs as subordinate debt providing equity support. It benefits 2 lakh stressed MSMEs.
- Approval for equity infusion of Rupees. 50,000 crore for MSMEs through Fund of Funds. It establishes a framework to help MSMEs in capacity augmentation and an opportunity to get listed in stock exchanges.

### Challenges

- High degree of uncertainty in all aspects of businesses due to existence of COVID-19 till suitable vaccine is found.
- Avoiding further spread of COVID -19 in workplace through the movement of people and materials. It may result in some degree of restrictions.
- Overcoming manpower constraints for MSMEs due to non- return of workers from home town.

- Impact of decrease in demand for non-essential goods on some MSMEs. The demand in different group of industries will have to be stimulated using different instruments and channels.
- Knowledge gap with reference to technical and financial literacy.
- In effective marketing strategies and identification of markets.

### **Limitation**

The limitation of the study is non-availability of primary data.

### **Conclusion**

With liberal infrastructure facilities and a simplified registration procedures and receiving benefits from the Government MSMEs in India are expected to grow a long way by creating more employment opportunities by import substitution and export promotion. In most of the MSMEs, the owners are managers. They do not have enough funds to hire professional managers to make informed decisions regarding technology and capital. Hence, managerial competency is essential for significant growth of MSMEs in India.

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# STUDY OF THE IMPACT OF REVERSE MIGRATION OF MIGRANTS IN MUMBAI

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**“The fire that warms us can also consume us; it is not the fault of the fire.”- Swami  
Vivekananda.**

## **Abstract:**

*Normal is not normal anymore. There is a new normal which the world is adapting to after the rapid spread of the novel coronavirus (SARS-COV-2) across the globe. The novel coronavirus disease (COVID-19) pandemic has changed everything. It has forced humanity to flex and evolve, both in real-time and in the long-term. Physical- and social-distancing are buzzwords and an integral part of daily life.*

*With the outbreak of Corona epidemics (COVID-19) in India, a sporadic phenomenon of reverse mass migration of people living from hand-to-mouth conditions in metropolitan cities to their natives have started. My study concentrates on the effect of reverse migration of migrants in Mumbai as on JUNE 2020.*

**Keywords:-** coronavirus, COVID-19, Naresh Sukhani, Mumbai, Reverse Migration

## **Introduction:**

During the 1947 Partition, 15 million people crossed borders. Seventy years later, India is now again witnessing it's a mammoth reverse migration from its cities to rural districts due to COVID-19.

Since the start of April, until early June, 2020 in India, post COVID19 lockdowns, millions of daily wage laborers belonging to the unorganized sector have been reverse migrating from big

metropolitan cities like Mumbai, Delhi to rural areas of Uttar-Pradesh, Madhya-Pradesh, & Bihar. Some 56 districts in nine Indian states account for half of inter-state migration of male workers, according to a government report. The population exodus is at least around 30 million this time almost double.

They have no other alternative but to return to their villages though their future there is also bleak. Having no public means of transport, many have left on foot to remote places like Bihar, up & MP from the economic capital of India. Some have taken rickshaws to reach their destinations. They have taken a long time to reach their villages. And, their plight is beyond imagination.

The policies and programmes of urban development and planning in India hardly launched any specific programmes for the migrants. Many programmes meant for the poor do not reach migrants due to various reasons especially lack of identity and residential proofs. Failure to recognize migrants as a stakeholder in urban development is one of the biggest mistakes in achieving urban sustainability and realizing the goals of sustainable development in India.

Even though migrants are formal citizens, their substantive economic, social and political rights are not fulfilled. The Working Group on Migration (2017) set up by the Ministry of Urban Housing and Poverty Alleviation has examined the plight of the migrant workers in the country and submitted its report in 2017. However, actions on the report are still awaited.

In the meantime, sudden eruption of migration crisis resulting from out-break of COVID-19 again reminds us the urgency of the matter. This research paper presents how our understanding of migration and livelihood could be helpful in designing a mitigating strategy of economic and social impact of Coronavirus infection 2019(COVID-19).

### **Methodology of the Study:**

In light of the objectives of the study, the paper has been designed to illustrate the impact of reverse mass migration of people and the available support services in the maximum city of Mumbai.

To this end an extensive literature survey has been conducted by Government agencies. The study is based largely on secondary data from published Govt. & non-govt. sources including websites of different organizations. Data and information from secondary sources were collected

by consulting various relevant webpages, studies conducted by various donor and development agencies.

### **Objectives of the Study:**

The need of the hour is a self-sustaining economy, where the self-sustaining parts i.e. the villages and the cities makes the whole i.e. the country self-sustaining.

The policies and programmes of urban development and planning in India hardly launched any specific programmes for the migrants. Many programmes meant for the poor do not reach migrants due to various reasons especially lack of identity and residential proofs.

Failure to recognize migrants as a stakeholder in urban development is one of the biggest mistakes in achieving urban sustainability and realizing the goals of sustainable development in India.

### **Concept:**

Even though migrants are formal citizens, their substantive economic, social and political rights are not fulfilled. The Working Group on Migration (2017) set up by the Ministry of Urban Housing and Poverty Alleviation has examined the plight of the migrant workers in the country and submitted its report in 2017. However, actions on the report are still awaited.

In the meantime, sudden eruption of migration crisis resulting from out-break of COVID-19 again reminds us the urgency of the matter. This research paper presents how our understanding of migration and livelihood could be helpful in designing a mitigating strategy of economic and social impact of Coronavirus infection 2019 (COVID-19).

Migrant workers constitute backbone of Indian economy as migration is a livelihood strategy of millions of people in India. Out of 482 million workers in India, about 194 million are permanent and semi-permanent migrant workers as per 2011 Census. In addition, there are about 15 million short-term migrant workers of temporary and circulatory nature. At the state level, in-migration rates are higher in high-income states such as Delhi, Goa, Haryana, Punjab, Maharashtra, Gujarat and Karnataka. Some of them are badly affected by the COVID-19 compared to low-income states such as Bihar, Uttar Pradesh, Jharkhand, Rajasthan and Odisha with relatively higher rates of out-migration. There are conspicuous migration corridors within

the country – Bihar to Delhi, Bihar to Haryana and Punjab, Uttar Pradesh to Maharashtra, Odisha to Gujarat, and Odisha to Andhra Pradesh and Rajasthan to Gujarat. It is quite likely that the incidence of COVID-19 may also rise sharply in out migrating poorer states due to return migration.

Among the migrant workers, about 30 percent of them are working as casual workers, and therefore they are quite vulnerable to the vagaries of the labour market and lack social protection. Only 35 percent of migrant workers are employed as regular/salaried workers and the rest are self-employed (NSSO, 2010).

### **Review of Literature:**

Most of the migration for work and employment is directed towards the urban centres in general and mega cities in particular. The respective districts of eight mega cities namely Delhi, Greater Mumbai, Kolkata, Chennai, Bruhat Bangalore, Hyderabad, Ahmedabad, and Pune reported about two-fifth of the total corona virus positive cases in India by the middle of April, 2020. (<https://www.mohfw.gov.in/pdf/DistrictWiseList354.pdf>).

As speculated by ILO (2020), India is likely to face the job crisis because of the COVID-19 and subsequent lockdown, and migrant workers and workers in informal sector are likely to be badly hit. It may also impoverish them and affect hugely their food and nutritional intake, access to health care and education of children.

The Government of India and state governments along with Non-Governmental Organizations (NGOs) and charitable societies have taken various steps to mitigate the effect of the lockdown on the vulnerable groups including migrant workers. These include providing shelter, relief camps with provision of food, health care and other basic necessities. In a recent report, government has proposed to send trained counsellors and community group leaders belonging to all faiths to the relief camps and shelter homes to deal with any consternation that the migrants might be going through (Press Trust of India, 2020).

### **Observations:**

The incidence of COVID 19 shows that these metropolitan areas are the centers from where the disease has been spreading to the near as well as far off places.

The Government of India declared COVID-19 as national disaster and imposed complete national lockdown to contain the spread of outbreak and suspended transportation and all economic activities and services. This brought turmoil in the lives of millions who are primarily involved in the informal sector. They lost their livelihood overnight and got stranded in different pockets.

However, the fear of loss of livelihood sparked into the mass exodus of millions of these migrant labourers in some parts of country, who started on a long 'barefoot' journey with their families, in the absence of the transportation facilities, to their native places. Though the lack of proper guidelines to implement the strategies posed several challenges in front of state governments in form of lack of preparedness, in line with orders given by central government, majority states have also devised their own strategies and taken substantial measures to protect the lives and rights of migrants during this time.

The ongoing lockdown period has been extended up to 3<sup>rd</sup> of May with resumption of selective economic activities from 20<sup>th</sup> of April. There is a huge uncertainty about how long this crisis will last and what damage it would do to the economy, livelihood of people and availability of basic healthcare services.

Slums in India majorly consist of migrant workers who are engaged in short- and long-term employment in the unorganised economy which is very sporadic in nature, with constant job insecurity. The unprecedented lockdown in the country to prevent the spread of the virus may be well-intentioned but not adequate for this section of the population.

While Dharavi is famous as Asia's largest slum, there are many other similar or smaller zones spread across the urban landscape of India where media outreach is minimal, and it is unclear whether the virus has made its way to those slums.

A lockdown may be an effective approach to stop the spread of virus. However, the impact of COVID-19 on informal workers, domestic workers, street-vendors etc. who are often 'invisible' during the normal days, will not just be restricted to them, but will have multidimensional risks to the country as a whole.

### 1. Economic impact

**2. Socialimpact**

**3. Healthimpact**

**Economic impact**

- a. **Cash liquidity Crunch** - Migrant workers, who are anchors of a slum population, started returning to their native places due to fear, anxiety and hunger. Most of them were daily wagers and did not maintain cash liquidity for this kind of uncertain situation.
- b. **Un-organised sector** - According to the latest India 2020 publication, the unorganised sector in India accounts for 97 per cent of the workforce and the majority of them are inter / intra statemigrants.
- c. **Finding the right co-workers** - Some adventurous young men have gone from big IT cities to Tier II to start new ventures in agritech and similar start-ups. But the problem of finding the right co-workers will remain a perpetual challenge forentrepreneurs.
- d. **Few alternatives of earningcash-** Migrants who return home have few alternatives of earning cash. Their small pieces of land if they have any, cannot sustain them and daily wage labour and artisanal work is not possible in an economy which is under great stress.
- e. **Increase injoblessness** - In fact, rural demand has been declining as a result because of the increase in joblessness. There are no light industries except in some villages and the nearest town is the only place they can find work. From small towns, they often migrate to cities in search of work. Most of the migration that has taken place in recent years has been from small towns to cities.

Reverse migration of these workers will adversely affect sectors, including but not limited, to real estate, manufacturing, milling, textile, travel and tourism, e-commerce delivery, private security and facilities management. Once the curve of COVID-19 flattens, the reverse migration will have a notable economic impact on both, the states that the migrant workforce belongs to and the ones to which they go to. States like Uttar Pradesh, Bihar, Odisha and West Bengal, which are the native places of most migrants, may witness a sudden flood of people, creating an unusual burden on the economic and social infrastructure, whereas states such as Delhi, Haryana, Punjab,

Gujarat, Karnataka, Maharashtra and Tamil Nadu will witness a sudden demand of workforce, leading to reduction in production capacity.

### Social impact

A random telephonic survey conducted in Mumbai indicates the social stigma faced by low income families living in urban slums.

- a. **Partial or no salary** - Close to Eighty four per cent of respondents stated they had lost their primary source of income due to lockdown while half (53 per cent) of those did not receive full salary for the month of March 2020 and thereafter no salary for months of April, May & June 2020.
- b. **Grossly inadequate to ensure social security** - Undoubtedly, there is support from government in terms of providing free food / ration and direct infusion of cash into bank accounts, but these provisional measures are grossly inadequate to ensure social security.
- c. **Uncertainty of Normalcy** - The uncertainty to resume the normalcy of life invites anxiety, stress and fundamental concerns about financial well-being.
- d. **Increased Social family stress & Crimes against women** - Though there are less-reported instances, but based on psychological theories, a high degree of possibility exists to support the prediction of increased incidences of domestic violence, crimes against women, theft, dacoits and robbery etc., due to emotional and financial stress.

This pandemic raises a pressing need of policy level reform to ensure holistic inclusiveness and preparedness of the country to develop a more responsive framework to mitigate urban inequality during any similar outbreaks in future.

### Health impact

Healthcare institutions, the government and the World Health Organization have been delivering lessons on hand washing and social distancing since the start of the pandemic.

- a) **Poor-resourced settings** However, in most slums of the country, where a shared tap is the only source of water, it is unclear as to how this segment of the population will adhere to the preventive guidelines. Poor-resourced settings are most vulnerable to any communicable disease.
- b) **Short-supply of Primary healthcare services** - In the absence of a curated strategy to

control the pandemic among the urban poor, India cannot boast of flattening the curve. Primary healthcare centres that are at the bottom of the healthcare system pyramid are already in short-supply or facing infrastructural deficits.

- c) **Pre-existing critical ailments** - They are not adequate to shoulder the burden of a pandemic. Apart from those who are active COVID-19 patients, the virus creates a passive challenge for those who are suffering from other critical ailments such as cardiovascular, renal etc.
- d) **Routine Health Schemes taken a back seat** - Most importantly, it impacts the scheduled care of expecting mothers and children whose routine check-ups, immunisation and treatments are disrupted. Malnutrition among children below five years from the urban poor population is still a persistent problem in India.
- e) **Increased dependency on Govt. or NGO support** - Lack of income due to the lockdown may result in further dependency on food from government or charitable organizations and if this is not taken seriously, this may result in a bigger outbreak of multiple diseases caused due to nutritional deficiency.

Considering the epidemiology of COVID 19-transmission through physical contact, droplets, contaminated surfaces and aerosols, the government should create community-specific detection, containment and treatment plans. The standard procedure of testing, containment and treatment followed in a well-resourced society cannot work in an urban poor settlement.

### **Conclusion**

The government should ensure access to food, shelter, healthcare and basic needs of the urban poor population as an interim relief.

In addition, it should learn from this pandemic and focus on social determinants of healthcare by creating a robust, equitable and sustainable infrastructure that should be inclusive for all levels of society and ensure strong grassroots level partnership with communities.

The government should create a communication strategy that ensures preventive measures such as basic sanitation practices and hygiene get blended into day-to-day culture rather being promoted as a temporary situational treatment.

The current situation demands for a social innovation framework where every citizen is an actor of change and having certain roles and responsibilities towards creating a safer, healthier nation. References

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## COVID-19 – Impact & Challenges

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### Introduction-

COVID-19 is a CORONA VIRUS which took birth in Wuhan city China in December 2019. It spread almost in 200 countries in the world including India.

It affected the world economy as well as Indian economy. It affected industry, Trade, Commerce, Agriculture, Transport, Communication, Tourism, Education, Health, Law and order, Personal and Social Security, National and International relations, art. Literature culture, Sports, entertainment and our daily life. It forced whole world into almost 3 months Lockdown.

Although COVID-19 is a disaster, it taught us and we learned much ware things from this disaster. This online Conference is an attempt to highlight COVID-19 disaster and accordingly formulate new strategies to build of nation. The present research paper highlights the impact and challenges created by COVID-19.

### Objectives-

1. To understand the COVID-19 disaster and its impact.
2. To highlight challenges created by COVID-19.

### Collection of Data-

The necessary data is collected from the following sources.

1. Newspapers
2. Television
3. Social Media

### I) About COVID-19 –

**1) Emergence of COVID-19-**

COVID-19 is a virus which spread CORONA, an epidemic disease in the whole world. It was founded in Wuhan city of China in Dec. 2019. According to majority super power comities in the world, it is not a biotic but an artificial virus created by China as a part of its Genetic war plan.

**2) Most affected Countries –**

COVID-19 has largely affected America and most of the developed European countries including Italy, Britain, Spain, France, Russia and Australia. It also affected largely on China. But it has not published real statistic about COVID-19 disaster. Most of these superpowers do not followed ‘Lockdown’ policy earlier and hence they become hot spots of COVID-19. America and New York are the major hotspot country and the city of COVID-19.

**3) COVID-19 and India –**

COVID-19 firefly found in India in March 2020 in Mumbai. India used ‘Lockdown’ policy in the early stages. The Janata Curfew on 20<sup>th</sup> March was its spontaneous beginning and the first ‘Lockdown’ was announced on 22<sup>nd</sup> March. Till then we are experiencing fifth ‘Lockdown’ which will end on 30<sup>th</sup> June COVID-19 impact on India is less as compared to above mentioned superpower Countries. But Maharashtra and Mumbai are still hot spot state and city of COVID-19 in India.

**II) COVID-19 Impact –**

- 1. Industrial Shutdown in India –** It caused close down of large, medium as well as small scale industries. It affected largely on Mumbai which is economic capital of the country and contributes 14 to GDP.
- 2. Industrials shutdown in World –** It caused close down of industries all over the world and adversely affected their economies.
- 3. Increased Unemployment-** Especially industrial shutdown caused increase in unemployment for overseer Indians and home Labour.

4. **Decline in GDP Growth Rate** – The GDP Growth rate of India declined up to 2.1% to 2.5% and it is assumed that it will decline up to 1.9% digital section is the only inception in this regard.
5. **Increase in poverty**- Due to loss of job and income approximately 3.00 was people become incomeless poor in the world. It has decreased purchasing power of people.
6. **Migrated labour**- Industrial shutdown forced migrated labours from U.P., Bihar, Rajasthan and other states to go back to their home state went back to their state. Sudden decision of lockdown India created various political and social influences created unnecessary havocs among the migrated labour.
7. **COVID-19 & Education**- It banned School, College and University Examinations. Due to lockdown Teachers were not able to finalize result even after completion of examinations of certain classes. Final examination of degree classes at all branches are still pending. The professional Course students like Engineering, Medical, Managements, and Law were awaiting for their practical work but not succeeded. The whole educational scenario has become havoc scenario and almost all stakeholders including Education University. The UGC the Government Chief Minister. Political leaders students and parents are expressing their. Overwhelmed feelings about final examination and result making.
8. **Social Distancing** – The social distancing measure to control COVID-19 caused everybody to stay in become Social distancing put ban on personal and social activities. It caused bon on daily activities like morning walk, exercise, jogging, marketing get together parties and raised socio-psychological problems among the family members.
9. **Social Activities** - It banned socio- cultural- literary programmers including meetings conferences, Seminars, Workshops, Fairs Festivals parties etc. to be organized in school colleges, Govt. offices, Mandir, Masjid, Church, Gurudwaras and Samaj Mandirs , unfortunately the Tablighi organization organized it's Parishad in Nijammuddin, New Delhi and boasted COVID-19 all over India.
10. **Medical Facilities**- It highlighted one shortage of medical facilities including Hospitals, Clinics, Laboratories, Doctors, Nurses, Ventilators, Tablets, Beds, Masks, Vaccines etc. lack of awareness among the people as well as the government. Thanks a lot to Government Health

Ministry. Doctors, Nurses and Medical researches that India is producing lacks of PPT'S and Masks and lacs of swab testing's every day. India stood third in the world in this regard.

11. **International Scenario-** COVID-19 has given rise to trade war, Genetic war between America and China. America and all other European Super powers including Britain, Spain, France Italy and Australia are blaming China for COVID-19 disaster. WHO has safeguarded China but America has disconnected WHO on this ground. WHO is under control of emerging super power China besides having America. The major finance of WHO Moreover China is a political player especially with India and creating border issues with the help of Pakistan, Nepal and other neighboring countries.

### III) COVID-19 - Challenges & Opportunities

1. **Labour force dividend** – COVID- 19 forced industrial shutdown and Indian overseas employees and labour force returned back to their home country and the state. Almost 3.5 crone labour force got unemployed. Almost 40 lac labours went back to UP, Bihar, Rajasthan and other States. This labour force can be used for home state. This labour force will be skilled, cheap and competent to handle the duties.
2. **Demographic dividend-** India is most populated country next to China and has almost 55% young age population. The young age population can be an asset if it is trained and well equipped to handle their duty.
3. **Emergence of More Automation-** COVID-19 has imposed Lockdown and social distancing that human being mild be replaced by automatic machines, auto Carts, Robots for carrying out responsibilities at industries, workshops, Godowns, commercial offices, etc. They will handle the job of Receptionist Security guard, and Representative of a Directors to conduct the meeting.
4. **Online Education-** Social distancing has caused emergence of Online Education. According to one survey almost 75%. Students and parents have-not Android/Smart Phones. Lack of internet connectivity is the major problem. Most of the students, teachers and

parents use not familiar with ICT in education. Hence it is a challenge to overcome all above problems to implement online education.

5. **Digital India-** Social distancing has once again boosted digital India. Digitalization in industry, Banking, Insurance, Hospitals, Schools & Colleges, Government Office and day today Transactions will definitely help to control COVID-19.
6. **FDI in India - COVID-19** has pushed back China at international level. America, European super powers and all other countries have lost faith in China. The MNCs from all over the world want to quit China and they are in search of a reliable market and that is India. India can grab this opportunity and attract foreign MNC'S toward was worthy. Hence it is new challenge for India to create more healthy and motivational business environment to attract FDI in India
7. **Public v/s Private Sector** – During CORONA Period thousands and less of people especially migrated labour were expecting their provision of basic need medical facilities, transport etc. It is the government that is a Public Sector who had taken care of these labour. Government Hospitals, Doctors, Nurses, Buses, helped them to reach their house. Hence, it is necessary to strengthen Public sector who takes care of rural poor and weaker section.
8. **Globalization to Localization-** The Globalization started in the decade of 1990 and it boosted establishment of MNC's all over the world. The China become industrial Hub due to Globalization. But COVID-19 problem changed whole things and majority of economic super powers including America, Britain, Germany, Australia have lost faith in continuing their projects in China. They are planning to withdraw their investment from China. According to World Economic Forum the world economy has taken reverse gear that is "Globalization to Localization".
9. **Essence of Gandhian Philosophy-** Village economy and Panchayatraj were main features of Gandhian philosophy. During CORONA period the central, state and local self-government including Z.P., Tehsil, Municipalities and Gram Panchayat played major role in fighting with and controlling CORONA disease. Hence, it is new challenge of India to strengthen Panchayat, Raj System by following Gandhian Philosophy.

10. **Importance of Ayurveda** - Medical science has failed to control COVID-19 due to lack of vaccine. The research is in process but still not succeeded. COVID-19 attacks immunity of patient and results into death. Ayurveda and its principles are useful to increase immunity and control COVID-19. Hence, it is an opportunity for India to promote Ayurveda at international level.

#### **Conclusion -**

COVID-19 has affected adversely on economic, social, cultural and day today life of Mankind. It has pushed back human life. But if we look it positively, we will find certain opportunities to come up and defeat CORONA disease. Self confidence, integrity, spirituality, will strengthen us to face such type of natural calamities.

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## कोरोना युद्ध आणि भारतीय अर्थव्यवस्थेवरील परिणाम

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### प्रस्तावना

कोवीड 19 (कोरोना) हा विषाणूने साऱ्या जगात थैमान घातलेले आहे. जवळजवळ 180 देशात या विषाणूने आपले पाय घट्ट केले आहेत. जगात आज घडीला 50 लाख पेक्षा जास्त लोकांना या विषाणूची लागण झालेली आहे. 5 लाख पेक्षा अधिक लोक मृत्यूमुखी पडले आहेत. भारतावर याचा जास्त परिणाम झाला नसला तरी अलीकडे भारतातील कोरोना बाधितांची संख्या वाढत आहे. सध्या 3.7 लाखापर्यंत पेक्षा अधिक जास्त कोरोना बाधित झाले आहेत. 13000 पेक्षा अधिक लोक मृत्यूमुखी पडले आहेत. कोवीड विषाणू डिसेंबर 2019 ला चीन मध्ये जन्माला आला. तो जन्माला आला की तो जन्माला घातला हा संशोधनाचा विषय आहे. मात्र या विषाणूने जगाला वेढीस धरले आहे. भारतात याचे आगमन मार्च 2020 मध्ये झाले आणि भारतातील लोकांना वेढीस धरले आहे. आज पृथ्वीवरील मानवजातीचे अस्तित्वच धोक्यात आले आहे.

भारतीय अर्थव्यवस्थेच्या बाबतीत विचार केल्यास या आजारामुळे फार मोठ्या परिणामांना सामोरे जावे लागणार आहे. 22 मार्च 2020 या तारखेनंतर महाराष्ट्रात व देशात लॉकडाऊन/संचारबंदी लागू करण्यात आली आहे. यामुळे अनेक उद्योग व्यवसाय बंद झाले आहेत. यंत्राचा आवाज व चाकांची गती थांबली आहे. मागणी आणि पुरवठा यांचे संतुलन बिघडले आहे. मानवी जीवन धोक्यात येत आहे. एकंदरीतच देशाच्या अर्थव्यवस्थेवर मोठ्या प्रमाणात परिणाम झाला आहे आणि भविष्यातील काही वर्षे या परिणामांना सामोरे जावे लागणार आहे. अशा वेगवेगळ्या परिणामांची चर्चा पुढील प्रमाणे केली आहे.

### अ) औद्योगिक क्षेत्रावरील परिणाम :

कोवीड विषाणूमुळे निर्माण होणाऱ्या आर्थिक परिणामांचा विचार केल्यास देशात मोठ्या प्रमाणात बेकारी वाढण्याची शक्यता आहे. मुळातच देशात लोकसंख्या अधिक असल्यामुळे उघड बेकारी, अर्ध बेकारी मोठ्या प्रमाणात आढळून येते. मात्र सध्या अनेक उद्योग बंद पडल्यामुळे तसेच कोरोनाच्या मृत्यूच्या दाढेतून

वाचण्यासाठी अनेक लोकांनी "गडया आपुला गाव बरा" म्हणून गावाकडची वाट धरली आहे. परिणामी लॉकडाऊन काढून पुन्हा उदयोग चालू केले तरी उदयोजकांना कामगारांच्या समस्येला सामोरे जावे लागणार आहे. अर्थात बेकारीचे प्रमाण वाढणार आहे. अनेक कामगारांच्यामध्ये चिंतेचे वातावरण निर्माण झाले आहे. नोकऱ्या जाण्याची भिती निर्माण झाली आहे. देशात 93% कामगार असंघटीत क्षेत्रात काम करतात. या लोकांच्या रोजगारामध्ये अशाश्वतता निर्माण झालेली आहे. जेव्हा फक्त मागणी कमी होते तेव्हा मंदी निर्माण झाली असे म्हटले जाते. मात्र मागणी आणि (उत्पादन) पुरवठा ज्यावेळी कमी होते तेव्हा त्याला महामंदी असे म्हटले जाते त्यामुळे पुढील काही कालावधीसाठी अशी स्थिती निर्माण होण्याची दाट शक्यता आहे. भुकबळी, उपासमार, कुपोषण यांचे प्रमाण वाढण्याची शक्यता आहे. परकीय गुंतवणूकीवर सुध्दा गंभीर परिणाम झाला आहे. पुढील काळात होत राहणार आहे. उदयोजकांचे उदयोग चालू नसल्यामुळे तसेच मागणी कमी, कच्च्यामालाची कमतरता अशा अडचणीमुळे पूर्ण क्षमतेने उत्पादन घेऊ शकत नाही. परिणामी कर्जाचे हप्ते थकीत राहून कर्जबाजारीचे प्रमाण वाढणार आहे. कोरोना मुळे आयात निर्यात यांचे प्रमाण देखील घटले आहे. आज प्रत्येक देश आपली सुरक्षितता घेण्यासाठी दक्षता घेत आहे त्यामुळे आयात व निर्यातीवर निर्बंध लादत आहे. परिणामी भारताची देखील तीच अवस्था निर्माण झाली आहे.

#### ब) सामाजिक व सांस्कृतिक परिणाम :

माणूस हा समाजशील प्राणी आहे. त्याला एकटे राहणे शक्य नसते. मानवाच्या उत्पत्तीपासून मानव समूहाने राहत आला आहे. मात्र कोरोना मुळे आज मानवाला मिळून मिसळून राहणे कठीण झाले आहे. प्रत्येक माणसाला आपल्याच माणसापासून दूर रहावे लागत आहे. सध्या लॉकडाऊन मुळे अर्थात कोरोना संकटामुळे अनेक प्रकारचे सामाजिक/सांस्कृतिक कार्यक्रम होत नाहीत उदा. लग्न समारंभ, सभा, मेळावे, यात्रा, सहली, दहीकाला, भजन, किर्तन, चित्रपट, सणसमारंभ, नाटके, वेगवेगळ्या प्रकारचे खेळ अशा सर्वांवर निर्बंध आले आहेत. माणसाचं दिलखुलास जगणं कोरोनाच्या राक्षसाने गिळंकृत केले आहे. माणूस प्रत्येक माणसाकडे संशयाने बघू लागला आहे. आपल्याच माणसाची भिती त्याला वाटू लागली आहे. नैराश्य, भिती, गृहकलह यांचे प्रमाण वाढले आहे. समाजामध्ये दिवसेंदिवस उदासिनता वाढत चालली आहे. लहान मुलांच्या खेळण्या बागडण्यावर बंधने येऊन त्यांच्या मानसिकतेवर परिणाम होत आहे. देशात आतापर्यंत मृत्यूचे प्रमाण दिवसेंदिवस वाढत आहे. एकूणच समाजामध्ये भितीचे वातावरण निर्माण होऊन सामाजिक व सांस्कृतिक जीवन विस्कळीत झाले आहे. नजीकच्या काळात कोरोनाचा नायनाट झाला तरी पुढील काही कालावधीमध्ये सामाजिक जीवनामध्ये भितीचे वातावरण कायम टिकून राहिल असे वाटते.

#### क) आंतरराष्ट्रीय परिणाम :

कोरोनाचा शिरकाव जगातील 180 देशामध्ये झाला आहे. त्यामुळे जगातील जवळजवळ सर्वच राष्ट्रांनी अत्यावश्यक वस्तू व सेवा शिवाय सर्व आंतरराष्ट्रीय व्यापारावर बंधने घातली आहेत. लॉकडाऊन टप्प्याटप्प्याने कमी होत असले तरी कोरोनाने साम्राज्य विस्तारण्याचे कार्य थांबविलेले नाही आणि त्याला थांबवणे अदयापही कोणत्याही देशाला शक्य झालेले नाही. त्यामुळे पुढील काळात जरी कोरोना समूळ नष्ट झाला तरी आंतरराष्ट्रीय व्यापारामध्ये प्रत्येक देश आपली दक्षता घेण्यासाठी मोठ्या प्रमाणात व्यापार व व्यवहार करणार नाही. अर्थात जागतिकीकरणाच्या घोड्याला सध्यातरी कोरोनाने लगाम घातली आहे त्यामुळे जागतिकीकरणाचा वेग पुढील काही वर्षे हा कमी राहण्याचा अंदाज आहे. इथून पुढच्या काळाने प्रत्येक देश आत्मनिर्भरतेला भर देण्याचा प्रयत्न करील. कोरोना नंतरच्या काळात आयात निर्यातीचे प्रमाण भारताबरोबर प्रत्येक देशाचे कमी झाले आहे. एकूण पुढील काही वर्षे आंतरराष्ट्रीय व्यापारावर नकारात्मक परिणाम होणार आहे. भारतातून 7500 अधिक वस्तू 190 देशांना निर्यात केल्या जातात. 6000 वस्तू 140 देशातून आयात केल्या जातात. देशाच्या एकूण निर्यातीच्या 22% वाटा एकट्या महाराष्ट्राचा आहे. आणि महाराष्ट्रामध्ये कोरोनाने मोठ्या प्रमाणात थैमान घातल्यामुळे राज्याच्या निर्यातीवर मोठ्या प्रमाणावर परिणाम होणार आहे. फेब्रुवारी महिन्यामध्ये देशाची निर्यात 31 बिलियन डॉलर इतकी होती. ती एप्रिल मध्ये 17 बिलियन डॉलर इतकी झाली आहे. निर्यातीमध्ये देखील 60% ने घट झाली आहे. थोडक्यात आंतरराष्ट्रीय व्यापार व्यवहारावर चिंताजनक परिणाम होणार आहे.

#### ड) भोतीक्षेत्रावरील परिणाम :

भारताची ओळख जगामध्ये कृषीप्रधान देश म्हणून आहे. मानवाला जगण्यासाठी अन्न, पाणी व हवा या प्रमुख गोष्टी आहेत. या तीन गोष्टींची पूर्तता झाली की माणूस जगू शकतो आणि अन्नाची गरज शेतीतून भागवली जाते. अर्थात माती पिकली नाही तर माणसाची देखील माती होण्यास वेळ लागणार नाही त्यामुळे माणसासाठी शेती ही अत्यंत महत्वाची आहे. देशाच्या GDP मध्ये 15% पेक्षा कमी हिस्सा शेतीचा असला तरी जवळजवळ 60% लोकांना अदयापही शेतीच रोजगार उपलब्ध करून देते. कोरोना संकटामुळे शेती चांगल्याप्रकारे पिकून देखील लॉकडाऊन मुळे शेतीतील नाशिवंत मालाचे प्रचंड प्रमाणात नुकसान झाले आहे. असे म्हटले जाते की, भारतीय शेतकरी जगतो कर्जात आणि मरतो पण कर्जात. सध्याच्या या विश्वव्यापक कोरोना संकटामुळे भारतीय शेतकरी हवालदिल झाला आहे. त्याच्या डोळ्यातून अश्रू वाहात आहेत. शेतात उत्पादन असून देखील उपाशी मरायची वेळ त्याच्यावर आलेली आहे. मोठ्याप्रमाणात नुकसान झालेले आहे. दुष्काळ, महापूर, रोगराई, अपुरा पाणीपुरवठा निसर्गावर अवलंबित्व अशा दृष्टचक्रात शेती नेहमीच अडकलेली आहे. आणि त्यातच चालू वर्षी कोरोनाचा राक्षस शेतकऱ्याचा घात करित आहे. सध्या शेती उत्पादनासाठी

लागणारी अवजारे, खते, किटकनाशके, बी बियाणे वेळवर उपलब्ध होत नाहीत त्यामुळे त्याचा परिणाम पुढच्या शेती उत्पादनावर होणार आहे. भारतीय शेतीमध्ये अर्ध बेकारी, हंगामी बेकारी व छुपी बेकारी मोठ्या प्रमाणात आहे. सध्या शहरातून कोरोनाच्या भितीने आलेल्या लोकसंख्येमुळे शेतीतील बेकारीचे प्रमाण वाढण्याची शक्यता आहे.

### इ) सेवाक्षेत्रावरील परिणाम :

सेवाक्षेत्रामध्ये पुढील प्रकारच्या सेवांचा समावेश होतो. उदा. व्यावसायिक सेवा, दळणवळण सेवा, वितरणविषयक सेवा, शैक्षणिक सेवा, पर्यावरणिय सेवा, वित्तीय सेवा, आरोग्य व सामाजिक सेवा, पर्यटन व प्रवासविषयक सेवा, वाहतूक सेवा, मनोरंजन व सांस्कृतिक सेवा अशा अनेक प्रकारच्या सेवांचा समावेश होतो. सध्या माहिती व तंत्रज्ञान क्षेत्रात बेरोजगारीचे प्रमाण वाढत आहे. वाहतूक क्षेत्रात बेरोजगारी वाढत आहे. पर्यटन क्षेत्रावर मोठा परिणाम झाला आहे. हॉटेल, रेस्टॉरंट बंद आहे त्यामुळे पर्यटन क्षेत्राला मोठा धक्का बसला आहे. मोठ्या प्रमाणात पर्यटन क्षेत्रात बेकारी निर्माण झाली आहे. पर्यटन क्षेत्र हे पूर्ण बंदच झाले आहे. नजिकच्या काळात देखील पर्यटन उदयोग ताबडतोब उभारी घेणार नाही कारण पुढील किमान एक दोन वर्षात जरी कोरोना नष्ट झाला तरी लोकांच्या मनामधून भिती जाणार नाही. त्यामुळे लोक पर्यटनासाठी लगेच बाहेर पडण्यास तयार होणार नाहीत. शिक्षणाच्या बाबतीत विचार केल्यास आपला देश खेडयापाडयाचा आहे. बऱ्याच खेडयामध्ये नेट पोहोचत नाहीत. बहुतांश खेडयामधील विद्यार्थी गरीब असल्यामुळे त्यांच्याकडे मोबाईल व नेटची सुविधा नाही. त्यामुळे ऑनलाईन शिक्षणपध्दतीला मर्यादा येत आहेत. विद्यार्थ्यांच्या परीक्षा अदयाप न झाल्याने विद्यार्थी देखील सम्रंभावरस्थेत आहेत. अर्थात सेवा क्षेत्रावर देखील कोरोना संकटाचा मोठा परिणाम झाला आहे. विद्यार्थ्यांचे मोठ्या प्रमाणात नुकसान झाले आहे. मात्र पुढच्यावर्षी देखील या विद्यार्थ्यांना एकत्र बसवून शिक्षण देणे ही चिंतेची गोष्ट आहे.

### कोरोना संकटातून अर्थव्यवस्था सावरण्यासाठी उपाययोजना :

भारत सरकारने आताच आत्मनिर्भर भारतासाठी 20 लाख कोटी रुपयेचे पॅकेज जाहीर केले आहे. त्यामुळे भारताच्या उभारणीसाठी निश्चित मदत होईल. मात्र एकूण लोकसंख्येचा विचार केला असता आणखीन मोठ्या प्रमाणात गुंतवणूकीची गरज भारताला आहे. जगाच्या 17% लोक भारतात राहतात. यामुळे लोकसंख्येच्या मानाने देशात दवाखान्याची, डॉक्टरांची व इतर आरोग्य सुविधांची मोठ्या प्रमाणात कमतरता आहे. भारतात 2000 लोकसंख्येच्या पाठीमागे एक डॉक्टर आहे. प्रगत देशात हे प्रमाण 8 ते 10 असे आहे. बेडची संख्या देखील अत्यंत कमी आहे. आजपर्यंतच्या इतिहासात आरोग्यसुविधांवर अत्यंत अल्प प्रमाणात खर्च केला जातो. (2% ते

3%) GDP च्या किमान 10% खर्च आरोग्य सुविधांवर त्याचबरोबर शिक्षण सुविधांवर करणे गरजेचे आहे. तरच आपण आपल्या देशातील जनतेला चांगल्या प्रकारे आरोग्य व शैक्षणिक सुविधा उपलब्ध करून देऊ शकतो. सध्या आपल्या देशांमध्ये सेवा क्षेत्रावर जास्त भर दिला जात आहे. त्याचबरोबर शेती व उत्पादन क्षेत्रावर भर देणे गरजेचे आहे. जास्तीत जास्त उत्पादन निर्मिती याकडे लक्ष दिले पाहिजे. चीन मध्ये मॅन्युफॅक्चरिंग मोठ्या प्रमाणात चालते त्यामुळे त्या देशाने भरारी घेतली आहे. त्याच धरतीवर आपणही उत्पादन क्षेत्रात चांगली क्रांती घडवून आणली पाहिजे. आज कोरोनाच्या संकटातून देशाच्या अर्थव्यवस्थेला उभारी आणण्यासाठी मोठ्या प्रमाणात पैसा खर्च केला पाहिजे. आता हा पैसा कसा उभारायचा? एकतर श्रीमंतावर अधिक दराने कर लावणे त्यातून पैसा उभारणे. आज बरेच श्रीमंत लोक देश संकटात असताना देखील पैसा मदतीसाठी बाहेर काढत नाहीत. उलट निर्माण झालेल्या परिस्थितीचा फायदा घेण्यासाठी पैसा राखून ठेवला जात आहे. त्यामुळे श्रीमंतांवर अधिक दराने कर लावणे. आज देशात वरच्या 1% लोकांकडे देशाची 58% संपत्ती आहे. काळा पैसा बाहेर काढणे व तो विकासकामांसाठी वापरणे त्यानंतर बॉन्ड्स विक्री करून पैसा उभारणे. आंतरराष्ट्रीय व राष्ट्रीय पातळीवर कर्जे काढणे त्यातून पैसा न उभारल्यास सरतेशेवटी नोटा छापून पैसा उभारणे व विविध मार्गांनी लोकांच्या पर्यंत आणणे कारण याकाळात लोकांना जगवणे हे अत्यंत महत्वाचे आहे. नोटा छापून विकासकामे केल्यास महागाई वाढेल मात्र माणूस जगणं महत्वाचे आहे. त्याच्या शांत थांबलेल्या हातांना काम देणे महत्वाचे आहे. सुनियोजित मार्गाने देशाची अर्थव्यवस्था सावरणे गरजेचे आहे.

जगात पूर्वी झालेल्या सर्व युद्धांमध्ये कोटयावधी माणसे माणसांकडून मारली गेली आहेत. मात्र सध्याचे युद्ध आहे ते माणसे जगविण्यासाठीचे युद्ध आहे. जगभरातून माणूस जगविण्यासाठी युद्ध चालू झालेले आहे. या युद्धात भारतासहीत सान्या जगाचा विजय व्हावा.

संदर्भ :

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## कोरोनाचा साहित्य विष्वावरील परिणाम

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कोरोनाचे संकट जगभरात थैमान घालत आहे. आपल्या जवळपास 130 कोटी लोकसंख्या असणाऱ्या देशालाही त्याची फार मोठी किंमत मोजावी लागत आहे. आपल्या देशाच्या अर्थकारणावर याचा दिर्घकाळ परिणाम जाणवणार आहे. लॉकडाऊनच्या काळात अनेक प्रश्न व आव्हाने देशासमोर उभी आहेत. पर्यावरणातील बदलामुळे कधी अतिवृष्टी, अवकाळी पाऊस महापूर, चक्रीवादळ अनुभवत आहोत. नुकतेच अतिवृष्टीमुळे महापुराच्या संकटातून आपण गेलो आहोत. शेतकऱ्यांचे मोठ्या प्रमाणात नुकसान झाले. शेती पुरक व्यवसायाची वाट लागली. घराची पडझट, शेतीचे नुकसान शेतमजुराला मजुरी शिवाय काढावे लागलेले 2-3 महिने हे ज्याला भोगावे लागत आहे त्यालाच त्याची दुःखे समजणार. शेतकरी कर्जबाजारी होत आहे, शेतकऱ्यांच्या आत्महत्या चालूच आहेत. शेतकऱ्यांच्या घरातील अबाल वृद्धांना औषध उपचार व शिक्षणासाठी हाती पैसे नाहीत मिळणाऱ्या तुटपुंज्या उत्पनावर उदार-उसनवारी करून कर्ज काढून त्याला संसाराचा गाडा हाकावा लागत आहे.

त्यात आता आलेला कोरोना यामुळे सार जीवनच टप्पे झाले आहे. उध्वस्त झाले आहे. मजुरांच्या हाताला काम नाही शेतकऱ्यांच्या शेतमालाला बाजारपेठ नाही, फळे, फुले, भाजीपाला शेतातच टाकून द्यावे लागत आहे. कोकणात आंबा व्यवसायाला मोठा फटका बसला आहे. कवडीमोल भावाने आंबा विकला गेला बाजारपेठ खुली नाही. नाईलाजपणे मिळेल त्या किंमतीला आंबा विकावा लागला. द्राक्ष बागायतदारांचे असेच झाले ऊस उत्पादक, कांदा उत्पादक शेतकऱ्यांचे असेच झाले. 'न घाट का न घरका' अशीच सर्वांची अवस्था झाली ऊस तोड कामगारांची अन्नअन्न दशा झाली. कोकणातील बिहारी कामगार विजापूरहून उदरनिर्वाह करण्यासाठी आलेले मजूर आपल्या मुळगांवाकडे परतीचा प्रवास करू लागले. हाताला काम नाही आणि जगण्यासाठी अन्न नाही 'इथे मरायचे ते कुंटुबात जावून मरू' अशीच सर्वांची भावना झाली. संपूर्ण उद्योग धंदे बंद पडले. छोट्या-मोठ्या उद्योगधंद्यात काम करणारे कामगार निराश झाले. बायका-मुलांसह घरची वाट धरू लागले. नियती माणसाचा पाठलाग करते ते हेच "आई जेऊ घालीना अन बाप भिक मागु देईना" असेच काहीसे झाले पोल्ट्री व्यवसाईकांची अवस्था याच्यापेक्षाही भयानक झाली. वाहतुकीची सोय नसल्याकारणाने कोंबड्यांना खाद्य नाही. काही कोंबड्या शंभर रुपयास चार या भावाने विकाव्या लागल्या. कोंबड्यामुळेच कोरोना होत आहे. ही अफवा

पसरली गेली त्यामुळे पोल्ट्री व्यवसाईकाचे मोठ्या प्रमाणात नुकसान झाले. कर्ज काढून ज्यानी हॉटेल उभारली, व्यवसाय सुरु केलेत त्यांची कोरोनामुळे पायाखालची वाळू सरकली, चर्मकार बांधव, नाभीक बांधव, यांचा तर धंदाच बसला. लोक विचारून कामे मागत फिरत होती.

कोरोनाच्या काळात लॉकडाऊन आवश्यक आहेच पण पोटाचे काय? साबणाने हात स्वच्छ धुवा, घरात बसा, सोशल डिस्टन्स ठेवा हे सगळे जरी खरे असले तरी माणसाच्या जगण्याचा प्रश्न शिल्लक उरतोच ज्यांना क्वारंटाईन करण्यात आले त्यांच्या राहण्या-जेवणाचे तिनतेरा वाजले सुरुवातील त्यांना निकृष्ट दर्जाचे जेवण लांबून देण्यात आले आहे. काहीजण पळून गेले, काहीजण पर्यटक असल्यासारखे शहरातून वावरु लागले. काही जणांनी दारु मिळत नाही म्हणून आत्महत्या केल्या गोवा बनावटची दारु अब्बाच्या सव्या दरानी विकली गेली. यामुळे दारु दुकानदार तेजीत होते.

वर्तमान पत्रातून व टी.व्ही वरील त्याच त्याच बातम्या ऐकून मानसाची मने बधीर झालीत. काही लोक मानसिकदृष्ट्या खचली, गेली काही मनोरुग्णासारखी वागू लागली. लोकाची मानसिक स्थिती चांगली राहिली नाही. शिक्षण व्यवस्थाही याला अपवाद राहिली नाही. वर्षभर प्रामाणिकपणे अभ्यास करून शेवटी विद्यार्थ्यांच्या पदरात काय पडले. जे खुशाल चेंडू ज्यानी कधी ही कॉलेजची पायरी चढली नाही, त्यांना कोरोना पावली म्हणायचे हुषार कर्तबगार, मेहनती मुलाच्या मनावर परिणाम झाला सरसकट, Promoted, श्रेणी मुल्यांकन करायचे पुढे याचे काय होणार या प्रश्नांचा विचार झाला नाही विद्यार्थ्यांचे भवितव्य अजूनही अधांतरी आहे.

ही विस्कटलेली घडी बसविण्यासाठी खूप वेळ जावा लागणार आहे. मात्र एक गोष्ट मान्य करावी लागणार आहे ती म्हणजे हातावरती पोट आहे त्याची दशा वाईट झाली त्यात वाढती महागाई कवी नारायण सुर्वे यांच्या शब्दात सांगावयाचे झाल्यास "भाकरीचा चंद्र शोधण्यास जिंदगी बरबाद झाली" असेच म्हणावे लागेल.

हे बदलण्यासाठी परिस्थिती नियंत्रणात आणण्यासाठी भारत सरकारने व महाराष्ट्र शासनाने जिवाची बाजी लावली. डॉक्टर, नर्सस, पोलिस अधिकारी, कर्मचारी, सफाई कामगार, सेवाभावी संस्थेतील कार्यकर्ते यासर्वांनी आपआपल्या परीने मदत देऊ केली. लोकंना धीर दिला शिस्तीचे पालन करण्यावर भर दिला पण लोक त्याच्या आव्हानांना साथ देत नसल्याचे दिसून येत होते म्हणून काही ठिकाणी शिस्तीचा बोजवारा उडाला "जो घरात बसला तोच या काळात टिकला" सरकारने विविध पॅकेजाची खैरात केली पण ते गोरगरिबांच्या खिशात पडतील तेव्हा.

या कोरोनाचा परिणाम सर्वच क्षेत्रावर झाला आहे. व्यापार, उद्योगधंदे, शेतमजुर, शेतकरी, कष्टकरी कामगार, सहकार क्षेत्र, शैक्षणिक क्षेत्र, वाहतूक दळणवळण, अर्थव्यवस्था त्यातील गुंतवणुक, चित्रपट व्यवसाय, मराठी नाट्यसृष्टी, आदि सर्वच क्षेत्रावर याचा परिणाम झाला आहे. या सर्वांबरोबरच साहित्य विश्वाची फार मोठी हानी झाल्याचे दिसून येत आहे. कोविड-19 चा साहित्य विश्वावरील परिणामांचा विचार करित असताना, प्रकाशक समीक्षक, लेखक, वाचक, ग्रंथालय, पत्रकार, रंगभूमीवरील कलाकार, मराठी नाट्यसृष्टी, मराठी चित्रपटसृष्टी व बॅंगस्टेजसाठी काम करणारे कामगार, पुस्तक विक्रेते, कथाकथनकार, प्रवचनकार, किर्तनकार आदि सर्वांचा समावेश होतो.

मराठी मधील जेष्ठ व श्रेष्ठ नाटककार श्री. रत्नाकर मतकरी यांचे कोरोना या रोगामुळे निधन झाले त्यांच्या निघून जाण्याने मराठी साहित्य विश्वासाची फार मोठी हानी झाली आहे. एक नाटककार, समीक्षक, वैचारिक स्वरूपाचे लेखन करणारे मराठीतील नामवंत व प्रतिभावंत साहित्यिक आपल्यातून निघून गेले. कोरोनामुळे (कोविड-19) प्रकाशकाचा धंदा बसला. प्रकाशन व्यवस्थेत काम करणाऱ्या कामगारांच्यावर उपासमारीची पाळी आली. प्रकाशन व्यवसाय बंद पडल्यामुळे समीक्षकाची मोठी हानी झाली. प्रकाशन सोहळे जे होत होते त्याला मुरड बसली. वाचक व ग्रंथालयाची कोंडी झाली, "पुस्तके ग्रंथालयात अन वाचक घरात" ही अवस्था झाली. कोरोनाच्या काळात लॉकडाऊन पुकारल्यामुळे जीवनावश्यक वस्तू सोडून सर्व व्यवहार थांबले गेले. यात ग्रंथालयाचा देखील समावेश होता. पाचव्या लॉकडाऊनमध्ये ही ग्रंथालयाची दारे बंदच ठेवण्यात आली याचा वाचकांच्या मनस्थितीवर परिणाम होत गेला आज सर्वच ग्रंथालये बंद असल्यामुळे घरात कोंडल्या गेलेल्या मुलांना पुस्तकावाचून वंचित राहावे लागले. वाचनाची आवड असणाऱ्या वाचकांची व मुलांची परिस्थिती बिकट झाली आहे. सध्या शाळा कॉलेजस बंद आहेत त्यामुळे सर्व मुले घरात कोंडली आहेत अशा काळात मुले मानसिक तणावाखाली असल्याने मुलांना मोबाईलचे व्यसन लागण्याचा धोका अधिक आहे.

अशा स्थितीत मुलांना पुस्तकापासून वंचित ठेवणे हा त्यांच्यावर अन्याय केल्यासारखे आहे. ग्रंथवाचन एकांतातच केले जाते त्यामुळे सोशल डिस्टन्सचा प्रश्नच येत नाही. त्यामुळे सुरक्षित अंतर ठेवणे आवश्यक असलेल्या काळात वाचन संस्कृतीला प्रोत्साहन देणे गरजेचे आहे.

मराठी नाट्य कलाकारांच्यावर ही कोविड-19 चा परिणाम झाला आहे. कलाकरांच्या नाटकांच्या तारखा या ठरलेल्या असतात. मुलांच्या परीक्षा झाल्यानंतर अनेक नाट्यगृहात उत्तम दर्जाची नाटके ठेवली जातात. काही नाट्यगृहे अगोदर बुकींग केली जातात. त्यामुळे या कोरोनाच्या काळात कलाकारांच्या कला-गुणांना पुरेसा वाव मिळाला नाही. त्याचीही अधिक हानी झाली आहे. चित्रपट किंवा नाटकामध्ये बॅगस्टेजसाठी जे विविध कामगार काम करतात त्यांचे ही मोठ्या प्रमाणात नुकसान झाले आहे.

हिंदी व मराठी चित्रसृष्टीचे फार मोठ्या प्रमाणात नुकसान झाले आहे. सर्व चित्रीकरणाचे काम थांबले, कलाकारांना घरी बसावे लागले. सिने-सृष्टीतील श्रेष्ठ कलाकार ऋषी कपूर, इरफान खान यांचे निधन झाले. या दोघांचे निधन जरी कोरोनामुळे झाले नसले तरी सिनेसृष्टीमध्ये त्यांच्या जाण्याने पोकळी निर्माण झाली. आज महाराष्ट्रात त्यांचा चाहतावर्ग मोठा आहे. त्याचे अत्यंदर्शनही काहींना कोरोनामुळे घेता आले नाही.

वेगवेगळ्या व्याख्यान मालेसाठी समाज प्रबोधनपर आपले विषय मांडण्यासाठी जायचे पण ते ही थांबले. ग्रामीण साहित्यसंमेलन, दलित साहित्यसंमेलन प्रादेशिक स्तरावर घेतली जाणारी साहित्य संमेलने टप्पे झालीत. या संमेलनामध्ये पुस्तक विक्रत्यांची रेलचेल असायची त्यांना मुरड घालावी लागली. त्यांचा धंदा बसला, महाराष्ट्रातील वेगवेगळ्या मंदिरातून किर्तन प्रवचन या कार्यक्रमाचे आयोजन आयोजक करावयाचे. सोशल डिस्टन्समुळे हे कार्यक्रम थांबले. कथाकथनकार, प्रवचनकार, किर्तनकार, यांनी घरीच राहणे पसंत केले. साहित्य लेखनावरही याचा परिणाम झाला. भविष्यात या विषयावर चित्रपट, नाटके, एकांकिका, व पुस्तके वाचायला व पहावयास मिळतील.

## शेती आणि ग्रामीण विकास

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### प्रस्तावना :

देशाच्या आर्थिक विकासात शेती क्षेत्राचे स्थान महत्वाचे आहे. शेती व्यवसाय हा अत्यंत पुरातन आहे. शेती व्यवसायाने मानवाला अगदी सुरुवातीच्या काळात जीवनमान व स्थैर्य प्राप्त करून दिले. मानवाची अन्नधान्याची गरज शेती व्यवसायातून पूर्ण करण्यात येते. भारतीय अर्थव्यवस्था विकसनशील अर्थव्यवस्था असल्याने एकूण राष्ट्रीय उत्पन्नातील शेती क्षेत्राचा वाटा फार मोठा आहे. शेती व्यवसायाचा विकास घडवून आणल्यास ग्रामीण दारिद्र्य, बेरोजगारी नष्ट होवून ग्रामीण लोकसंख्येचे शहराकडे होणारे स्थलांतर कमी प्रमाणात होवून ग्रामीण भागातच अर्थाजनाचे साधन निर्माण होईल. कुटीरउद्योग व लघुउद्योगांना प्राधान्य मिळाल्याने रोजगाराची नवनविन संधी निर्माण होईल. परिणामी शेतमालाच्या निर्यातीला चालना मिळून परकीय चलन प्राप्त होण्यास मदत मिळेल. दुस-या बाजूने विचार करता ग्रामीण भागातील शहराकडे होणा-या स्थलांतराचे दुष्परिणाम टाळता येतील. याकरिता शेतीकडे एक व्यवसाय म्हणून पाहणे गरजेचे आहे. भारत हा खेडेप्रधान देश आहे. ग्रामीण भागातील मुख्य व्यवसाय शेती आहे. शेतीकडे व्यवसाय म्हणून पाहिल्यास व शेतीचा विकास घडवून आणल्यास आर्थिक सुबत्ता प्राप्त होते.

### उद्देश :

१. शेती व्यवसायात आमूलाग्र बदल घडविणे.
२. शेती पारंपारिक पध्दतीने करण्या ऐवजी आधुनिक पध्दतीने करणे.
३. शेती मालाला योग्य हमीभाव देणे.

आर्थिक विकासात शेती क्षेत्राचे महत्व अनन्यसाधारण असले तरी शेती व्यवसायाकडे पुरातन व्यवसाय म्हणून पाहिले जाते. शेती व्यवसायात पर्यायी उपलब्धता असते. आपल्या जवळील उपलब्ध जमिनीतून एकापेक्षा अधिक पिके गरजे प्रमाणे घेता येतात. उपलब्ध जमिनीमधून चांगल्या प्रतिलिपी बी-बियाणे, खते, औषधे, किटकनाशके इत्यादींचा अधिक वापर करून त्याद्वारे उत्पादन वाढवू शकतो. मात्र आजही ग्रामीण भागामध्ये शेती व्यवसाय हा पारंपारिक पध्दतीने केला जात असल्याने उत्पन्नाचे प्रमाण अत्यल्प आहे त्यामुळे या व्यवसायाला धोका व अनिश्चितता जाणवते. शेती उत्पादन हे निसर्गावर अवलंबून असल्याने एकदा बी पेरल्यावर आपल्या हाती किती उत्पादन येईल हे शेतकरी निश्चितपणे सांगू शकत नाही. अतिवृष्टी, दुष्काळ यासारखी नैसर्गिक आपत्ती उदभवल्यास पीक वाया जाते. त्यामुळे शेती व्यवसायात धोका व अनिश्चितता जाणवते.

शेतमाल बाजारात आणल्यानंतर व्यापारी, अडते/दलाल शेतमालाला योग्य किंमत देत नाही, बाजारपेठेत व्यापारी वर्गाचे वर्चस्व असल्याने शेतक-यांचा शेतमाल अत्यल्प किंमतीने खरेदी करतात त्यामुळे शेतक-यांच्या मालाला हमीभाव मिळत नसल्याने, शेतकरी नाखूष होवून शेतीकडे दुर्लक्ष करावयास लागतो. त्याचप्रमाणे कमी श्रमात शेतीतून पीक घेण्यास प्रयत्नशील होतो.

याकरिता शेती व्यवसायात शास्त्रीय व्यवस्थापन पध्दतीचा विचार करावयास हवा. शेती व्यवसायाचे व्यवस्थापन, धोका व अनिश्चिततेची मोजणी, उत्पादन तंत्र निवड, बाजारात अचूक वेळी वस्तू उपलब्ध करून देण्याचे तंत्र, योग्य खते, बी - बियाणे ह्यांची अचूक निवड, इत्यादी विषयीची शास्त्रीय माहिती अभ्यासपूर्वक जाणून घेतल्यास शेती व्यवसायात प्रगती करता येते. अलीकडील काळात शेती व्यवसायाचे व्यवस्थापन, उत्पादन तंत्र, खते, बी - बियाणे यांचा अभ्यास होवू लागला. शासकीय पातळीवरून त्याबाबत मार्गदर्शन होवू लागले आहे. शेती व्यवसायाकडे शासन एका वेगळ्या दृष्टीकोनातून पाहत आहे. शेतक-यांची स्थिती, ग्रामीण भागाचा विकास यांकडे सरकार आता लक्ष देत आहे. शेतक-यांच्या उत्पादनासाठी आधार किंमत निश्चित करणे, एकाधिकार खरेदी योजना यांसारख्या योजना आता सरकार राबवित आहे. जमीन सुधारणा कायद्यांची अंमलबजावणी करून जमिनीचे समान पुर्नवाटप घडवून आणण्याचा व जमिनीच्या मालकीतील विषमता कमी करण्याचा सरकार प्रयत्न करत आहे. राष्ट्रीयकृत बँका व पतसंस्था यांच्यामार्फत शेतक-यांच्या आर्थिक गरजा भागविण्याचा प्रयत्न करण्यात येतो. यासाठी अल्पभूधारक, मध्यम व जमिनदार असे वर्ग करण्यात आलेले आहेत. यासाठी वार्षिक उत्पन्नाची मर्यादा निर्दिष्ट करून संबंधितांना कर्जपुरवठा करण्यात येतो. शेतमाल साठविण्यासाठी गुदाम व्यवस्था, शेतक-यांचे मध्यस्थ, दलाल यांच्यापासून रक्षण करण्यासाठी नियंत्रित बाजाराची स्थापना

इत्यादी व्यवस्था सरकारने उभारली आहे. तसेच सर्व पातळीवर कृषी उत्पन्न बाजार समितीची स्थापना करण्यात आलेली आहे की जेणेकरून शेतक—यांच्या शेतमालाला योग्य हमीभाव मिळायला पाहिजे.

शेती व्यवसायामुळे ग्रामीण विकासास चालना मिळते. शेतमालावर आधारित ग्रामीण भागात ग्रामीण उद्योग सुरू करता येतात. ग्रामीण भागातच रोजगाराची संधी उपलब्ध झाल्यामुळे ग्रामीण भागातून सातत्याने होणारे स्थलांतर रोखण्यास मदत होते. परिणामी शहरी समस्या कमी होण्यास मदत होईल. ग्रामीण भागात उद्योग व्यवसाय सुरू झाल्यामुळे ग्रामीण भागातील समस्या दुर होतील. ग्रामीण भागात आर्थिक, सामाजिक, सांस्कृतिक सुधारण्या होण्यास मदत होईल. एकंदरीत ग्रामीण भागाचा विकास होण्यास आर्थिक सुबत्ता प्राप्त होण्यास शेती क्षेत्राचे महत्व अनन्यसाधारण आहे. म्हणून ग्रामीण भागातील शेतकरी वर्गाचे प्राप्त परिस्थितीत उपलब्ध असणा—या जमिनीचा प्रथम अभ्यास करून नंतर शेती क्षेत्राचा विकास करता येईल. मात्र त्यासाठी ग्रामीण भागातील शेतक—यांच्या मानसिकतेत बदल होणे गरजेचे आहे. मानसिकता बदलल्यास ग्रामीण भागाचा विकास होण्यास मदत होईल.

#### निष्कर्ष :

१. ग्रामीण भागाचा शेती व्यवसाय हा कणा असल्याने शेतीत आमुलाग्र बदल करणे गरजेचे आहे.
२. ग्रामीण विकासात शेती व्यवसायाचे महत्व अनन्यसाधारण आहे.
३. आर्थिक प्राप्ती साठी शेती व्यवसायात प्रगती करणे आवश्यक आहे.

#### संदर्भ सूची :

१. डॉ. प्रभाकर देशमुख — भारताची अर्थव्यवस्था, नागपूर, पिंपळापूरे आणि कंपनी.
२. प्रा. बी. जी. चव्हाण, महाराष्ट्राची अर्थव्यवस्था, इंदापूर, जि. ठाणे, मथूरा प्रकाशन
३. Ruddhar Datta, KRM, Sundharam, Indian Economy, Ramnagar, New Delhi

## कोविड-19 महामारीचे शेती व ग्रामीण विकासावर झालेले परिणाम

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जानेवारी 2020 या महिन्यात कोविड महामारीचा उद्भव चीन मधील 'वुहान' या व्यापारी शहरात झाला. या महामारीचा जागतिक पातळीवर मार्च 2020च्या मध्यावधीला फैलाव सुरू झाला. भारतात पहिल्यांदा केरळ राज्याला या समस्येला सामोरे जावे लागले. हळूहळू संपूर्ण देशभर ही महामारी पसरण्यास सुरुवात झाली. या कारणाने भारताच्या केंद्र सरकारने २४, मार्च, २०२० रोजी २९ दिवसांचे त्यानंतर १४ दिवसांचे लॉकडाउन घोषित केले. या मुळे संपूर्ण अर्थव्यवस्थेवर अतिशय विपरीत परिणाम झाले. आज जवळजवळ या लॉकडाउनला ७० दिवस पूर्ण होत आहेत. या ७० दिवसात ग्रामीण भागाच्या अर्थव्यवस्थेवर कोणकोणते परिणाम झाले याचे विवेचन शोधनिबंधात करण्याचा प्रयत्न केला आहे.

### गोषवारा (Abstract):-

१. जागतिक पातळीवरील कोविड-19 या महामारीची साथ पसरल्या नंतर संपूर्ण जागतिक अर्थव्यवस्थेवर त्याचा अत्यंत विपरीत परिणाम झाला.
२. विशेषतः अमेरिका, इंग्लंडसारख्या आर्थिकदृष्ट्या सक्षम असणाऱ्या अर्थव्यवस्थांसमोर आरोग्याच्या आणि अर्थव्यवस्थेच्या इतर सर्वच क्षेत्रात वाईट परिणाम झाले.
३. भारतीय अर्थव्यवस्थेच्या विविध क्षेत्रावर कोविड-19 महामारीचा अतिशय प्रतिकूल परिणाम झाला. छोट्या उद्योगांच्या अस्तित्वावरच या महामारीने प्रत्यक्षात आघात केला.
४. सेवाक्षेत्र, उद्योगक्षेत्र, शेतीक्षेत्र, दळणवळण, शिक्षण, आरोग्य अशा अर्थव्यवस्थेच्या सर्वच क्षेत्रापुढे समस्येचे वादळ निर्माण झाले.

५. भारतीय अर्थव्यवस्थेचा महत्त्वाचा भाग म्हणजे ग्रामीण अर्थव्यवस्था या अर्थव्यवस्थेवर कोविड-19 या महामारीचा काय परिणाम झाला आहे याचे विवेचन प्रस्तुत शोधनिबंधात करण्याचा प्रयत्न केला आहे.

## २. परिचय (Introduction):-

१. कोविड-19 महामारी ही आरोग्याच्या संदर्भात असलेली समस्या आहे.

२. चीन देशातील 'वुहान' या शहरात या महामारीचा उगम होऊन वेगवेगळ्या देशात प्रवास करणाऱ्या नागरिकांच्या माध्यमातून या महामारीचा प्रसार संपूर्ण जगभर झाला.

३. भारतात पहिला रुग्ण 'केरळ' राज्यात आढळून आला. टप्प्याटप्प्याने या रोगाचा प्रसार संपूर्ण देशभर झाला.

४. ही महामारी श्वसनाच्या संदर्भात अडथळा आणणारी असल्यामुळे रुग्णाच्या श्वसन प्रक्रियेवर परिणाम होतो.

५. या महामारीचा संसर्ग जलद पसरतो, त्यामुळे केंद्र शासनाने संचार बंदी चालू केली.

६. संचारबंदीमुळे संपूर्ण अर्थव्यवस्थेवर अत्यंत विपरीत परिणाम झाले. उत्पादन आणि वितरण व्यवस्थेवर याचा अतिशय विपरीत परिणाम झाला.

## ३. मुख्य उद्दिष्टे (Main Objectives):-

१. कोविड-19 महामारी समस्येच्या प्रभावामुळे ग्रामीण अर्थव्यवस्थेवर झालेल्या परिणामांचा अभ्यास करणे.

२. कोविड-19 महामारीमुळे ग्रामीण विकासाच्या सर्वांगीण प्रक्रियेवर झालेल्या परिणामांचा अभ्यास करणे.

३. कोविड-19 महामारीमुळे ग्रामीण भागातील सामाजिक स्थितीवर झालेल्या परिणामांचा अभ्यास करणे.

४. कोविड-19 महामारी समस्येमुळे ग्रामीण शिक्षण व्यवस्थेवर काय परिणाम झाले, त्याचा अभ्यास करणे

५. कोविड-19 महामारीमुळे ग्रामीण नागरिकांच्या मानसिकतेवर झालेल्या परिणामांचा अभ्यास करणे.

६. कोविड-19 महामारीचे पर्यावरणावर पडलेल्या प्रभावाचा अभ्यास करणे.

## ४. संशोधनप्रश्न (Research Questions)

१. कोविड-19 महामारीच्या समस्येचा उद्भव कसा झाला?

२. कोविड-19 महामारीचे ग्रामीण भागाच्या अर्थव्यवस्थेच्या विविध घटकांवर कोणकोणत्या स्वरूपाचे परिणाम झाले?

३. या समस्येतून मार्ग काढण्यासाठी शासन आणि समाजिक पातळीवर कोणकोणते प्रयत्न होत आहेत?

४. या समस्येच्या वर्तमान आणि भूतकाळातील ग्रामीण अर्थव्यवस्थेचे स्वरूप कसे असेल?

#### ५. तर्क (Rationale):-

१. जागतिक महामारीला ऐतिहासिक, नैसर्गिक संदर्भ आहे.

२. 1897ची 'प्लेगची' साथ, 1920ची 'स्पॅनिश फ्लू', त्यानंतर 90 वर्षांनी 'स्वाइन' फ्लू या रोगाची साथ जगभर पसरली. 'सार्स', 'इबोला' अशा संसर्गजन्य रोगांच्या साथी जागतिक पातळीवर आलेल्या होत्या.

३. कोविड-19 महामारी मानवाच्या स्वसन प्रक्रियेवर परिणाम करते. त्यामुळे मनुष्यबळावर त्याचा आघात होतो.

४. मनुष्यबळावर आघात झाल्यामुळे त्याचा प्रत्यक्ष परिणाम अर्थव्यवस्थेवर होतो. मानवाच्या जगण्याच्या उत्पन्नावर परिणाम होतो. त्यामुळे देशांच्या अर्थव्यवस्था धोक्यात येतात.

#### ६. कोविड-19 महामारीचे ग्रामीण शेतीअर्थव्यवस्थेवर झालेले परिणाम:-

कोविड-19 महामारीचे ग्रामीण अर्थव्यवस्थेवर दुहेरी परिणाम झाले आहेत. याचा सकारात्मक परिणाम आणि नकारात्मक परिणाम अशा स्वरूपाचे परिणाम आहेत. सकारात्मक परिणामांपेक्षा नकारात्मक परिणाम जास्त झाले.

यामुळे संपूर्ण जागतिक अर्थव्यवस्था प्रभावीत झाली आहे. मनुष्याच्या जगण्यासमोर याचा परिणाम झाला आहे. कोविड-19 महामारीच्या ग्रामीण विकासावर झालेल्या परिणामांची स्थिती पुढील प्रमाणे आहे.

#### अ. शेतमाल विक्री व्यवस्था विस्कळीत झाली:-

कोरोना महामारीच्या प्रादूर्भावामुळे संपूर्ण देशातील सर्वच प्रकारच्या बाजारपेठा बंद ठेवण्यात आल्या. त्यामुळे शेतमाल सप्लाय चैनच विस्कळीत झाली. वाहतूक बंद असल्यामुळे मार्केटपर्यंत माल जात नाही. जो माल गेला आहे त्याची उचल पुरेशा प्रमाणात होत नाही. आठवडा बाजार तर पूर्ण पणे बंद ठेवण्यात आले आहेत. त्यामुळे शेतकर्यांनी पिकविलेल्या शेतमालाच्या विक्रीचा प्रश्न निर्माण झाला. त्यामुळे शेतकरी आर्थिक अडचणीत सापडला आहे.

उन्हाळी पीक म्हणून फळे, भाज्या, धान्य पिकातून मिळणाऱ्या उत्पन्नावर त्याचे पुढील काळातील आर्थिक नियोजन अवलंबून होते. पहिल्या लॉकडाऊन मध्ये सर्व व्यवहार बंद केल्यामुळे संत्रा, मोसंबी, खरबूज, कांदे, बटाटे गावातच शेतात पडून राहिले.

कोकणात तर कलिंगड लागवड केलेल्या तरुण युवकांना शेतात तयार झालेली कलिंगडे मातीमोल दराने विकायी लागली. कलिंगड लागवडी साठी केलेल्या खर्चाची सुद्धा उपलब्दी झाली नाही.

#### ब. अन्नसुरक्षा :-

शासनाने ग्रामीण नागरिकांना अन्नधान्यचा पुरवठा सार्वजनिक वितरण व्यवस्थेमार्फत करण्याचा प्रयत्न केला, परंतु हा पुरवठा पुरेसा नव्हता. केवळ तांदूळ किंवा गव्हाचा पुरवठा करण्यात आला. इतर साहित्याचा पुरवठ्या बाबत शासन पातळीवर प्रयत्न झाले नाहीत. घोषणांचा पाऊस मात्र मोठ्या प्रमाणात पडला असे पहावयास मिळते. हा परिणाम जागतिक पातळीवरही झालेला दिसत आहे. आजच्या घडीला जागतिक पातळीवर 820 दशलक्ष लोक उपासमारी समस्येचा सामना करत आहेत. यातील 99३ दशलक्ष लोक भुकबळीच्या उंबरठ्यावर आहेत. कोरोना महामारी चा मोठा फटका अल्पभूधारक शेतकरी, पशुपालन आणि मासेमारी व्यवसायाला बसला आहे.

#### क. खरीपाच्या शेतीसाठी भांडवलाची कमतरता:-

देशाच्या ग्रामीण भागात प्रामुख्याने शेती व्यवसायावर अर्थव्यवस्था उभी आहे.परंतु शेती आणि शेतकरी अनेक स्थित्यंतरातून प्रवास करत आहेत. देशात करण्यात आलेल्या नोटाबंदी, जीएसटीमुळे शेती विषयक निविष्टा खरेदी करताना शेतकऱ्यांवर पडलेला आर्थिक ताण सावरता सावरता लॉकडाऊनमुळे त्यांच्या समोर भांडवला ची मोठी कमतरता निर्माण झाली आहे. त्यामुळे खरीपाच्या हंगामासाठी शेतकऱ्यांना बँका पैसा देतील याची शाश्वती नाही.

#### ड. पोल्ट्री व्यवसायावर आघात:-

मार्च महिन्यात कोरोना महामारीचा संदर्भ पोल्ट्री व्यवसायाशी जोडण्यात आला. त्यामुळे पोल्ट्री व्यवसायिकांना कोंबडी ४० ते ७० रुपये किलो भावाने विक्री करावी लागली. या तनव उद्योजकांनी कोंबडी वाढविण्यासाठी केलेला खर्चही वसूल होऊ शकला नाही. लाखो कोंबडी खाद्याअभावी मरून गेली. पोल्ट्री व्यवसाय मोठ्या आर्थिक धोक्यात सापडला. काही नवतरुन उद्योजक या व्यवसायात उतरले होते, तेतर पूर्णतः तोट्यात गेले. त्यांनी काढलेल्या कर्जाचे हप्ते कसे परतफेड करायचे हा मोठा प्रश्न पोल्ट्री व्यवसायिकांसमोर निर्माण झाला आहे.

#### इ. दुग्ध व्यवसायावरील परिणाम:-

विशेषतः वाहतूक व्यवस्थेवरील बंदीमुळे दुग्ध व्यवसायावर कोरोना महामारीचा अत्यंत वाईट परिणाम झाला. दुग्ध संकलन केंद्रावर एकूण उत्पादित होणाऱ्या दुधापैकी ७५ टक्केच दूध खरेदी केले जात आहे. लिटरला केवळ 20 रुपये दर मिळत आहे. शेतकरी दुग्ध उत्पादनाच्या बाबतीत पूर्ण संकटात सापडला आहे. महाराष्ट्र शासनाने दुधाची पावडर करण्याचा निर्णय घेतला परंतु त्याची अंमलबजावणी योग्य पद्धतीने होणे गरजेचे आहे.

#### फ. फुल शेती पूर्णपणे अडचणीत:-

कोरोना महामारीमुळे सर्वच प्रकारचे कार्यक्रम ठप्प आहेत. सर्व धर्माची प्रार्थना स्थळे बंद आहेत. सर्व धार्मिक उत्सव, सांस्कृतिक उत्सव पूर्णपणे बंद आहेत. याचा फटका फुलशेतीला बसला आहे. फुलांची वाहतूक आणि निर्यातही बंद असल्यामुळे फुलशेती उत्पादकांना मोठा आर्थिक फटका बसला आहे.

#### ७. कोविड महामारीचे ग्रामीण पर्यटन उद्योगावर परिणाम:—

पर्यटन उद्योगात देशात जवळपास चार कोटी लोकांना प्रत्यक्ष काम मिळते. हॉटेलना भाजीपाला पुरवठा करणारे, दूध पुरवणारे, वाहन पुरवणारे छोटेछोटे हजारो व्यवसायिक हॉटेल व पर्यटन उद्योगावर अवलंबून असतात. लॉकडाऊनमुळे पर्यटन उद्योग पूर्णपणे ठप्प आहे. त्यामुळे या उद्योगातील लाखो लोक बेरोजगार झाले आहेत. या उद्योगातून सरकारला महसूल मिळतो आणि देशाला मोठ्या प्रमाणात मिळणारे परकीय चलन मिळण्याचे थांबले आहे. पुढील काही महिने तरी पर्यटन व्यवसायाला या धोक्याला सामोरे जावे लागणार आहे.

#### ८. कामगार वर्गावरील परिणाम:—

कोरोना महामारीमुळे ग्रामीण भागातील स्थानिक कामगार वर्गाला काम उपलब्ध होत नाही. संचारबंदी असल्यामुळे बाहेरगावी अथवा बाहेरच्या जिल्ह्यातही कामाला जाता येत नाही. त्यामुळे मजुरीवर जगणार्या कामगारांवर उपासमारीची वेळ आली आहे. त्यांच्या कुटुंबाचा चरितार्थ कसा चालवायचा ही मोठी समस्या कामगारवर्गासमोर उभी राहिली आहे. ग्रामीण भागातून परिसरातील छोट्याछोट्या उद्योगात काम करणार्या कामगारांना उद्योग बंद असल्यामुळे रोजगार मिळणे दुरापास्त झाले आहे.

#### ९. ग्रामीण उद्योगावरील परिणाम:—

ग्रामीण भागात शेतमाल प्रक्रिया उद्योग उभे राहत आहेत. तसेच शेतीशी संबंधित सेवा, तांत्रिक उद्योगही उभे राहत आहेत. हे सर्व उद्योग सध्या बंद आहेत. शेतमाला वर प्रक्रिया करणारे सर्वच उद्योग बंद आहेत. त्यामुळे हे उद्योजक पुर्नतरु धोक्यात आले आहेत. बँकांच्या कर्जाचे हप्ते आणि प्रक्रिया केलेल्या मालाची विक्री या सर्वात समस्येच्या गर्तेत उद्योजक सापडले आहेत. शेतमाल प्रक्रिया उद्योग बंद असल्यामुळे उद्योगात प्रक्रियेसाठी जाणार्या कच्च्या मालाच्या किंमती कमी झाल्या आहेत. एका बाजूने उद्योजक आणि दुसऱ्या बाजूने उत्पादक शेतकरी अडचणीत सापडले आहेत.

#### १०. ग्रामीण बलुतेदारांवरील परिणाम:—

कोरोना महामारीमुळे ग्रामीण भागातील बलुतेदारवर्गावर आर्थिक आरिष्ट आले आहे. विशेषतः केस कापणारे कारागीर, कपडे धुणारे, ब्युटिशियन महिला कारागीर, कपडे शिवणारे कारागीर यांचे व्यवसाय गेले दोन-अडीच महिने पूर्णतः बंद आहेत.

#### ११. कोविड महामारीचे सकारात्मक परिणाम:—

कोविड महामारीचे ग्रामीण अर्थव्यवस्थेवर जसे नकारात्मक परिणाम झाले आहेत तसेच सकारात्मकही परिणाम झाल्याचेही पहायला मिळत आहे. हे परिणाम पुढील प्रमाणे आहेत.

१. वाहतूक बंद असल्यामुळे धुरामुळे होणारे प्रदूषण कमी झाले. वातावरण पूर्णतः स्वच्छ असल्याचे जाणवते. हवेची गुणवत्ता वाढली आहे.
२. पशुपक्षी निसर्गात मुक्तपणे संचार करताना पाहायला मिळतात.
३. महामारीमुळे कुटुंब काही काळ का होईना एकत्र आल्यामुळे ग्रामीण कुटुंबात माणसामाणसांमध्ये संवादाची प्रक्रिया वाढण्यास मदत झाली. एकमेकांमधील जिद्दाळा सुद्धा वाढवायला मदत झाली.
४. श्रमाची प्रतिष्ठा समजण्यास मदत झाली आहे. प्रत्येक प्रकारच्या श्रमाच्या कामाचे मोल भारतीय मानवाला समजण्यास मदत झाली आहे.
५. कोरोना समस्येमुळे छोट्याछोट्या उद्योगांच्या समोर जी आव्हाने उभी राहिली आहेत. त्यातून भविष्यात सप्लाय चैन विकसित होण्यास खूप मोठी चालना मिळणार आहे. विशेषतः ग्रामीण भागातील प्रक्रिया केलेल्या शेतमालाची विक्री करण्यासाठी सुधारित विक्री तंत्राचा उपयोग मोठ्या प्रमाणात विकसित होऊन शेतकरी वर्गाला याचा मोठा फायदा होण्याची शक्यता नाकारता येत नाही.
६. यावर्षी मार्च ते अद्याप म्हणजे मे अखेरपर्यंत पाण्याची टंचाई जाणवली नाही. कोरोनाच्या समस्येत सर्व नागरिक आपल्या घरात असूनही पाण्याच्या पुरवठ्याची समस्या जाणवली नाही. ही आवर्जून नोंद घेण्यासारखी बाब आहे.
७. मानवाला वाचवण्यासाठी मनुष्यच उपयोगी पडतो. देव, धर्म ह्या संकल्पना मृगजळ आहे. त्याची जाणीव विशेषतः अंधश्रद्धेचा जास्त प्रभाव असलेल्या ग्रामीण भागातील नागरिकांना कळून चुकली आहे. हा एक मोठा सकारात्मक परिणाम झालेला पाहायला मिळत आहे. धार्मिक सलोखा कमालीचा वाढल्याचे पाहायला मिळत आहे.

#### ११. निष्कर्षः—

१. कोविड महामारीमुळे ग्रामीण भागाच्या शेती व एकंदर सर्वांगीण विकासावर नकारात्मक आणि सकारात्मक अशा दोन्ही स्वरूपाचे परिणाम केले आहेत.
२. सकारात्मक परिणामांपेक्षा नकारात्मक परिणामांची संख्या जरी जास्त असली तरी सकारात्मक परिणामांमुळे सांप्रदायिक सद्भाव वाढवण्यास मदत झाली आहे. माणूस माणसाला ओळखायला लागला आहे. आपल्याला माणसातला देवच वाचऊ शकतो ही जाणीव अधिक तीव्र होत आहे. ही कोरोना महामारीची एक महत्त्वाची जमेची बाजू आहे.

३. कोरोना महामारीमुळे ग्रामीण भागाच्या आर्थिकव्यवस्थेवर अत्यंत प्रतिकूल परिणाम झाले आहेत. शेती आणि ग्रामीण रोजगारावर याचा अतिशय विपरीत परिणाम झाला आहे.

४. पर्यटन आणि सेवा उद्योग मोठ्या प्रमाणात प्रभावित झाले आहेत. विशेषतः ग्रामीण कारागिरीच्या व्यवसायावर मोठ्या प्रमाणात परिणाम झाला आहे. बलुतेदारांना गेल्या दोन ते अडीच महिने पूर्णतः बेकार राहण्याची वेळ आली आहे.

वशेषतः केशकर्तन करणार्या कारागिरांना मोठा फटका बसला आहे.

५. कोरोना महामारीचा पर्यावरणावर अतिशय चांगला परिणाम झाला हवा व पाणी प्रदूषण कमी झाले. त्याच बरोबर ग्रामीण भागात यावर्षी पिण्याच्या पाण्याची टंचाई जाणवली नाही.

### १२. समारोपः—

कोरोना जागतिक महामारीने एकंदर जगासमोर आरोग्याचे आणि आर्थिक संकट उभे केले. भारतातील शहरे आणि ग्रामीण भाग त्या मुळे मोठ्या प्रमाणात प्रभावी झाले. शहरे आरोग्य आणि व्यवसायाच्या दृष्टीने जास्त प्रभावी झाली. ग्रामीण भागाच्या शेती, सेवा, प्रक्रिया उद्योग, ग्रामीण पर्यटन व्यवसाय, ग्रामीण बलुतेदारांचे व्यवसाय या सर्वच गोष्टींवर कोरोना महामारीचा अत्यंत विपरीत परिणाम झाल्याचे पाहायला मिळत आहे. विशेषतः ग्रामीण अर्थव्यवस्था पूर्णतः मोडकळीस आल्याची स्थिती निर्माण झाली आहे.

कोरोना महामारीने ग्रामीण भागाची आर्थिक घडी विस्कळीत केली, तसेच ग्रामीण नागरिकांसमोर खूप आव्हाने आणि संधी सुद्धा निर्माण केल्या आहेत. या संधीचा सकारात्मक विचार करून भविष्यात ग्रामीण अर्थव्यवस्था अधिक मजबूत करण्यासाठी ग्रामीण मानवाने पुढे येण्याची आवश्यकता आहे.

कोविड महामारीने जसे आर्थिक प्रश्न निर्माण केले. तसा माणसातला माणूस शोधण्यास भाग पाडले आहे त्यामुळे माणूसच माणसाला वाचवू शकतो. देवधर्म नाही आणि अंधश्रद्धा सुद्धा नाही, याची माणसाला जाणीव व्हायला दिशा मिळाली आहे.

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## “कोविड—१९ चा शेती व ग्रामीण विकासावरील प्रभाव”

प्रा. डॉ. देविदास विक्रम हारगिले

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प्रस्तावना :-

भारतीय ग्रामीण समाजाचा प्रमुख व्यवसाय शेती आहे. शेती ही ग्रामीण लोकांची आर्थिक क्रिया असल्याने ग्रामीण विकासावर या आर्थिक क्रियेचा पूर्ण प्रभाव पडल्याचे दिसून येते. गेल्या कित्येक वर्षांत औद्योगिकीकरण जसे वाढले असले तरी शेतीचे अग्रस्थान भारतीय अर्थव्यवस्थेच्या दृष्टीने आज सुद्धा अढळ आहे. भारतातील अप्रगत शेती व्यवसाय स्वरूप, शेती उत्पादनाचा कनिष्ठ दर्जा उत्पादनाचे वाटप, जमिन वाटपाविषयी विषमता व सांस्कृतिक मागासलेपणा या सर्वांचे मूळ आर्थिक विकासात दिसते. याशिवाय ग्रामीण भागातील चालिरिती, रुढी, निती, कल्पना मोठ्या समजुती त्यासुद्धा येथील शेती पद्धतीलाच परिपक्व आहेत.

जागतिक महामारी म्हणून घोषित केलेल्या कोरोनाचा प्रादुर्भाव अद्यापही वाढतच आहे. या महामारीला आटोक्यात आणण्यासाठी सर्व स्तरातून प्रयत्न सुरु आहेत. कोरोनाला आळा घालण्यासाठी जाहीर केलेल्या लॉकडाऊन पालन व्हावे व या काळात कायदा व सुव्यवस्थेचा प्रश्न निर्माण होऊ नये. तसेच नागरिकांचे संरक्षण व्हावे. यासाठी पोलीस अहोरात्र रस्त्यावर उभे आहेत. यात अनेक पोलिसांचा मृत्यू झाला आहे. कोरोना विरोधात लढणाऱ्या योद्धांसाठी ‘आपत्ती सेवा’ पदक देण्याचा प्रस्तावाला राज्य गृहमंत्रालयाने हिरवा कंदिल दिला आहे.

संशोधनाचे महत्त्व व गरज :-

ग्रामीण भागामध्ये कोरोनाचे शैमान घातले आहे. आजही ग्रामीण भागामध्ये दुसरीकडून आलेल्या लोकांना कोणत्याही प्रकारच्या वैद्यकीय सुविधा उपलब्ध केलेल्या नाहीत. तसेच कोरोनाची चाचणी किंवा तपासणी केल्यानंतर चार ते पाच दिवस तिचा रिपोर्ट यायला लागतो. आज जर ग्रामीण भागाचा विचार केला तर मोठ्या शहरांमधून ग्रामीण भागात लोकांचे लोंढेच्या लोंढे आलेले आहेत. त्यांची तपासणी सुद्धा केली जात नाही.

मोठ्या शहरांमध्ये ज्याप्रमाणे कोरोना तपासणी लॅब आहेत. तशाच लॅब किमान प्रत्येक तालुक्यात असली पाहिजे. लोकांचे तपासणीचे रिपोर्ट लवकर समजले पाहिजेत. त्याचप्रमाणे मुंबई, पुण्यासारख्या शहरांसारख्या वैद्यकीय सुविधा ग्रामीण भागात म्हणजेच किमान प्रत्येक तालुक्याला करून दिल्या पाहिजेत.

### संशोधनाची उद्दिष्ट्ये :-

- १) कोविड-१९ चा शेतीवरील परिणाम समजून घेणे.
- २) कोविड-१९ ची ग्रामीण भागातील परिस्थिती अभ्यासणे.
- ३) लॉकडाऊनमुळे ग्रामीण भागातील शेतकरी व शेतीवर काय परिणाम झाला आहे, त्याचा अभ्यास करणे.
- ४) कोरोनामुळे शेती मालाच्या विक्री व्यवस्थेचा अभ्यास करणे.  
वरील उद्दिष्ट्ये डोळ्यांसमोर ठेवून अध्ययन करण्याचा प्रयत्न केलेला आहे.

### संशोधन पद्धती :-

प्रस्तुत शोध प्रबंधासाठी वर्णनात्मक संशोधन पद्धती निवडण्यात आलेली आहे. वर्णनात्मक संशोधन पद्धतीमध्ये प्राथमिक सामग्री व दुय्यम सामग्रीचा अवलंब करण्यात आलेला आहे. यापैकी आपण दुय्यम सामग्रीच्या सहाय्याने कोविड-१९ चा शेती आणि ग्रामीण विकासावर काय परिणाम झाला याचे अध्ययन केलेले आहे.

### शेती आणि ग्रामीण विकास :-

भारतीय अर्थव्यवस्था 'शेतीप्रधान अर्थव्यवस्था' म्हणून आजही ओळखली जाते. शेती व्यवसाय हा आजही अर्थव्यवस्थेतील महत्त्वाचा आणि मुलभूत असा व्यवसाय आहे. त्यामुळे शेती व्यवसायातील चढउतारांचे प्रतिबिंब संपूर्ण अर्थव्यवस्थेवर लगेच उमटत असते. शेती व्यवसायाचे प्रश्न हे या अर्थाने भारताचे प्रमुख आर्थिक प्रश्न आहेत. शेती व्यवसायाची भरभराट हे भारताच्या भरभराटीचे लक्षण मानले जाते. महात्मा गांधीजींनी असे सांगितले होते की, जर देशाचा आर्थिक विकास करायचा असेल तर अगोदर खेड्यांचा विकास करा. त्यामुळे खेड्यांकडे चला असे महात्मा गांधीजींनी सांगितले होते.

ग्रामीण विकास म्हणजे केवळ कृषि विकास किंवा केवळ आर्थिक विकास आहे असे नाही. तर त्यात शेतीचा विकास, आर्थिक विकास, सामाजिक विकास, राजकीय विकास इत्यादी सर्व बाबींचा समावेश होतो. "ग्रामीण भागातील दुर्बल घटकांना सक्षम करण्याची प्रक्रिया म्हणजे ग्रामीण विकास होय."  
”

**ग्रामीण विकासातील अडचणी :-**

- १) **ग्रामीण विकासाकडे दुर्लक्ष :-** औद्योगिक भर देणाऱ्या या नियोजनांनाही ग्रामीण विकासासाठी पुरेशी आर्थिक तरतूद करण्यात आलेली नाही. राज्यकर्त्यांनी ग्रामीण विकासाकडे पुरेसे लक्ष दिलेले नाही. त्यातच आता कोविड-१९ च्या काळात तर चाकरमान्यांनी गावेच पूर्णपणे लॉकडाऊन झालेली आहेत. त्यामुळे आता तर ग्रामीण भागाकडे कोणाचेच लक्ष नाही. अगोदर मागासलेपणा आणखी त्यात चाकरमान्यांनी भरल्यामुळे आजही ग्रामीण भागात कोणत्याच वैद्यकीय सुविधा उपलब्ध नाहीत.
- २) **दारिद्र्य :-** दारिद्र्य ग्रामीण मागासलेपणाचा परिणाम आहे. आजही ग्रामीण भागातील शेती मालाच्या विपणनाचा प्रश्न गंभीर बनलेला आहे. शेतकऱ्यांकडे माल असूनही विक्री व्यवस्था बसल्याने त्यांना आर्थिक संकटांना तोंड द्यावे लागते. हा पण कोविड-१९ चा परिणाम आहे.
- ३) **निरक्षरता :-** संपूर्ण देशात निरक्षरता मोठ्या प्रमाणात असली तरी ग्रामीण भागात ती सर्वाधिक आहे. साक्षरतेच्या अभावामुळे ग्रामीण विकासाच्या आधुनिक तंत्रज्ञानाचा प्रचार करणे कठीण जाते. त्यामुळे कोविड-१९ वर प्रचार आणि जनजागृती करण्यासाठी निरक्षरता आड येते. आरोग्य यंत्रणेने कितीही सांगितले तरी ग्रामीण भागातील लोक तोंडाला मास्क न लावता फिरतात. तसेच क्वारंटाईन केलेले असले तरी घरी न बसता फिरत असतात.
- ४) **संरचनात्मक सोयींची अनुपलब्धता :-** आजही ग्रामीण भागात वाहतूक व दळणवळणाची साधने, वित्तीय संस्था व कर्जपुरवठा, साठवणूक व विपणन सेवा, शिक्षण व शिक्षणाच्या सोयी, विद्युतीकरण इत्यादी संरचनात्मक सोयी सुविधा अल्प प्रमाणात उपलब्ध आहेत. त्यामुळे त्यांना कोविड-१९ चा सामना करणे कठीण झाले आहे.

**शेतमाल विपणन व्यवस्थेतील दोष दूर करण्यासाठी उपाय :-**

- १) **अॅगमार्क :-** शेतमालाची गुणवत्ता निश्चित करण्यासाठी व शेतमालातील भेसळ रोखण्यासाठी सरकारने कायदा लागू केलेला आहे. त्यानुसार नागपूर येथे प्रयोग शाळा स्थापन करण्यात आलेली आहे. त्यानुसार शेतीतील सर्व उत्पादनांना गुणवत्ता दर्जा देण्यात आलेला आहे. परंतु कोविड-१९ मुळे यावर्षी सर्व विपणन व्यवस्था ठप्प झालेली आहे. आता कुठे शेतमालाची विपणन व्यवस्था सुरु झालेली आहे. त्यामुळे लॉकडाऊनच्या काळात शेतक-यांवर आर्थिक संकट कोसळलेले आहे.

२) **नियंत्रित बाजारपेठ** :- शेती विपणन व्यवस्थेतील दोष दूर करण्यासाठी नियंत्रित बाजारपेठेची स्थापना करण्यात आली. अनियंत्रित बाजारपेठेत शेतकऱ्यांचे होणारे शोषण दूर करण्यासाठी व अनियंत्रित बाजारात होणाऱ्या व्यवहारांना आळा घालण्यासाठी सरकारने नियंत्रित बाजारपेठेची स्थापना केली. परंतु कोविड-१९ मुळे शेतकऱ्यांचा शेतमाल त्यांना विक्री करता आलेला नाही. त्यामुळे त्यांच्यासमोर मोठे आर्थिक संकट उभे राहिले आहे.

#### निष्कर्ष / समारोप :-

ग्रामीण विकासातील घटकांना कोणत्याही प्रकारचे अर्थसहाय्य सरकारकडून देण्यात आलेले नाही आणि जरी दिले गेले असले तरी ते अल्प प्रमाणात होते. शेतकरी, शेतमजूर यांना या कोविड-१९ चा फार मोठा फटका बसलेला आहे. मुंबई, पुणे यासारख्या शहरांमधून मजूरांचे लोंढेच्या लोंढे ग्रामीण भागात दाखल झाले. त्यांना ही कोणत्याही प्रकारची मदत मिळाली नाही. ग्रामीण भागाचा विकास झाल्याशिवाय कोणत्याही देशाचा विकास होत नाही. शेती आणि शेतकरी सुखी व समाधानी असेल तर देश सुखी व समाधानी राहू शकतो. हे कोणीही विसरता कामा नये, त्यासाठी शासनाने मोठ्या शहरांबरोबरच ग्रामीण भागातील शेतकरी, भूमिहीन शेतमजूर यांच्याकडे लक्ष देणे गरजेचे आहे. त्याचबरोबर ग्रामीण भागातही आरोग्य विषयक सोयी-सुविधा पुरविल्या पाहिजेत.

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## A Study on Impact of Covid 19 on Psychological Health of Residents in Maharashtra

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### **Abstract:-**

Psychological health played important role in human life. Psychological or mental health integral to living a healthy and balanced life because our mental health encompasses our psychological, emotional and social well- being.

The COVID 19 pandemic is major health crisis affecting our country, India, with over 207,665 cases and in Maharashtra 72,300 cases and 2,465 deaths. Such widespread outbreaks are associated with psychological health. So it is normal and understandable that people are experiencing fear in the context of the COVID 19 pandemic. Faced with new realities of working from home, the employers are in a difficult situation due to economic adversities related to the lockdown, temporary unemployment, home- schooling of children and lack of physical contact with other family members, friends and colleagues.

But in this overall situation it is important that we look after our mental health. It is important to keep stable psychological health to stay safe from corona virus. This paper focuses on Impact of COVID 19 on psychological health of people and suggest them what should they have to do for stabilise psychological health.

### **This paper concluded:-**

1. Current situation which is created by COVID 19 in big cities of Maharashtra.
2. Main factors that cause mental health of human beings.
3. Impact of COVID 19 on psychological health of people in Maharashtra.

4. Importance of psychological health to fight against corona.
5. Suggestion for stabilise psychological health.

**Key Words:-**

COVID, Psychology, Health, Pandemic, Corona

**Introduction:-**

The novel coronavirus or COVID-19 was first reported from china's Wuhan city, the virus spread to more than 166 countries and territories around the world. The World Health Organisation (WHO) declared the virus as a global pandemic on 11 March 2020.

In India, which is the second most populated country in the world, the maximum number of cases has been reported in the state of Maharashtra. Maharashtra has emerged as the worst-hit state by the global pandemic in the country. Suspected Coronavirus cases have also been reported in multiple cities such as New Delhi, Mumbai, Bengaluru, Hyderabad and Patna. Mumbai, Thane, Pune, Nasik Nagpur, Aurangabad and other big cities are worst affected in Maharashtra.

Corona virus disease (COVID 19) is an infectious disease caused by a newly discovered corona virus. The COVID 19 pandemic in India is part of the worldwide pandemic of corona virus disease 2019. The first case of COVID 19 in India, which originated from China, was reported on 30<sup>th</sup> January 2020. As of 3<sup>rd</sup> June 2020, The Ministry of health and Family Welfare have conformed a total of 207,615 cases 100,303 recoveries and 5,815 deaths in the country. The first case of the COVID 19 pandemic in the Indian state of Maharashtra was conformed on 9<sup>th</sup> March 2020. As of 3<sup>rd</sup> June 2020, a total 72,300 positive patients in the state and 2,465 deaths.

The most common symptoms of COVID 19 are fever, tiredness, dry cough. Some patients may have aches of pains, nasal congestion, runny nose, sore throat or diarrhoea. People can catch COVID 19 from others who have the virus. The disease can spread from person to person through small droplets from the nose or mouth which are spread when a person with COVID 19 coughs or exhales.

On 24<sup>th</sup> March 2020, the Government of India under Prime Minister Narendra Modi ordered a nationwide lockdown for 21 days, limiting movement of the entire 1.3 billion population

of India. As the end of the first lockdown period approached Maharashtra state government advisory committees recommended extending the lockdown.

In Maharashtra, out of 36 districts, six are in green zone, while 14 numbers are in the red zone and 16 are in the orange zone.

The Aim of this paper to study on what is the impact of COVID 19 on psychological health of people in Maharashtra and give suggestion to stabilise their psychological health. The researcher on the basis of online survey and media reports that emerging studies into COVID 19 together with lessons from past outbreaks that the pandemic could have profound and potentially long term impacts on psychological health.

But everyone should realize that such a situation has to be faced by all. If we have to escape from such type of situation or pandemic of corona virus disease we should have endeavour on our individual level. Psychological stabilisation essential for handle such types of crisis.

### **Requirements of Study:-**

Mental health includes our emotional, psychological and social well-being. Its affect how we think, feel and act. It also helps determine how we handle stress relate to others and make choices. Mental health is important at every stage of life, from childhood and adolescence through adulthood.

The impacts of the pandemic already have and will continue to have profound psychological health consequences. Inclusion of mental health and psychological considerations in COVID 19 is essential because it improves quality of programming, enhances coping skills of people during the crisis, and reduces suffering. Psychological stabilisation is most important to fight against corona virus. Hence each person tries to stabilise their mental or psychological health on individual level. Therefore, study is required.

With the help of meditation, yoga and regular exercise ideally at the same time each day we can stabilise our psychological health.

### **Objectives of Study:-**

1. To study current scenario of COVID 19 in Maharashtra.
2. To study on impact of COVID 19 on psychological health of people in Maharashtra.
3. To study the importance of psychological health to fight against corona.
4. To give recommendations for stabilisation of psychological health.

### Literary Survey:-

1. Bilal Ahmod Bhat (2020) Studied “A Study On Impact of COVID 19 Lockdown on  
The aim of this study was to survey the general public in Kashmir to better understand their levels of psychological impact, anxiety, depression and stress along with the economic downfall disturbing the social life of people during the initial stage of the COVID 19 outbreak.
2. Kaushal Shah, Dhvani Kamrai (2020) Studied “Focus on Mental Health During the Coronavirus (COVID 19) Pandemic : Applying Learning from the Past Outbreaks”  
This paper review are to evaluate and study similar outbreaks from the past to understand its adverse impact on mental health, implement adequate steps to tackle and provide a background to physicians and healthcare workers at the time of such outbreaks to apply psychological first aid.
3. Wen Li, Yuan Yang, Yu-tao Xiang (2020) Studied “Progression of Mental Health Services during the COVID -19 Outbreak in China”.  
This paper reviews that Outbreak of coronavirus in China and information about latest development of online mental health services.

### Research Methodology and Analysis:-

Secondary Data: - For present study, Secondary data has been used. The secondary data is crucial in developing a theoretical framework and to get deep knowledge about outbreak of coronavirus (COVID 19) in Maharashtra. Secondary data has been collected from books, journals, research paper and articles on different websites.

Number of Coronavirus (COVID-19) cases across Maharashtra, India as of June 3, 2020

Status	Number of Cases
Confirmed	72,300

Active	38,502
Recovered	31,333
Deceased	2,465

Source: - Statista.com

This table shows Maharashtra's conformed cases about 72 thousand of the coronavirus (COVID-19) as on June 3<sup>rd</sup>, 2020, to 2,465 fatalities and over 31 thousand recoveries.

#### Impact of COVID 19 on residents of Maharashtra:-

The extension of lockdown, strict prohibition, the uncertainty about the immediate future, need for social distancing and isolation and increasing number of COVID patients brought about by the crisis led to an increase psychological distress. This situation seems to have major psychological impact on children, students, employees and migrant workers as well as older people. Suddenly there was a change in lifestyle. This had a major impact on migrant workers who lived in slum area in big cities of Maharashtra. They could not go to their village because all of a sudden it was closed. Migrant workers who have stomachs on their hands were in dire straits. Also, the rising number of Corona patients in the slums has created fear in their mind. Parents who lived in the village and their children lived in city and increasing number of Corona patients in those cities disturb parents mind.

#### Conclusion & Suggestion:-

1. Cause of outbreak of coronavirus and increasing number of patients, creates fear and insecurity in the minds of the people.

For reduction of fear in the mind, each person can avoid repeated viewing of news items on COVID- 19, which are now broadcasted throughout the day. It is also important to have regular interactions with friends and relatives through electronic means telephone, video calls etc.

2. COVID – 19 impacted the psychological well-being of individuals from the entire community including students, labours, migrants, healthcare professionals.

At an individual level, it is important to continue being active and create a routine for ourselves. This means that although one might be at home all day, there need to be clear schedules for pleasure and work. We need to keep our bodies and minds healthy by doing things that we like to do on daily basis and we all must have do yoga and meditation regularly to keep our bodies and minds healthy, We should cultivate our hobbies like reading, gardening, music or whatever activity to keep our spirit high. It will helpful to create positive nature of

every human being. These are particularly important because of the strict lockdown rules in the country.

3. Coronavirus (COVID-19) presence anxiety, the first category includes those with poverty and unemployment. Economic crisis that will get increase in suicide rates. Therefore a family member who has tested positive, who have reported heightened anxiety.

Financial support from government is most important to solve economical problem than any counselling to solve psychological health because poverty and economical problem are main reason behind anxiety.

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