

**Impact of COVID-19 in Economy- Prophylactic and Time for Communicative Leadership: Lesson From the
State of Odisha**

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Abstract

Based on the present observation of global uncertainty or state of emergency, and the data from various sources, this paper analyses the impact of 'COVID-19' in the state of economy, and examines the historical trajectory of epidemic disease in the state of Odisha. The consequences of lockdown stagnant the global trade and commerce, which resulted in huge economic losses, unemployment, poverty, and precariousness. The study discusses the health crisis of 'CoronaVirus' and negative impact on farming communities and marginal classes. Here the paper also tries to understand preventive measures for the epidemic with the lense of colonial administration. The paper concludes by flagging the idea of 'Communicative Leadership' and optimum Communication strategies that the Odisha government learn from disaster management(particularly from Cyclone management) smoothly initiated in addressing the state of uncertainty, upsurging issues, alien queries and economic instability at the end of lockdown 3.0.

Keywords: Marginal Class, Epidemics, COVID-19, Communicative Leadership

1. Introduction

The World Health Organisation (WHO) declared the Novel “CoronaVirus outbreak as a Public Health Emergency in International Concern (PHEIC) and turned into a global pandemic. Since the virus transmission through the human-to-human and respiratory system, till the mid of May 2020, worldwide more than 4 million cases have been confirmed, above 3 lakh people died, and spread across 213 countries and their territories. The pandemic forced states into global ‘Lockdown’, paused international transportation, business, trade, tourism and all international activities. The results of global lockdown affecting the global economy on a large scale, damaged normal livelihoods, economic infrastructure, social variability, and cultural fabric of the society. Every nation in the world is going through a devastating phase; economic prosperity and growth came to a standstill position. The stagnant human activities and international trades outburst into economic imbalance, rise of unemployment, poverty, sufferings, and mass exodus of marginal classes. Globally various countries have failed to address the issues of uncertainty due to failure of ‘Communicative Leadership” in multiple layers, starting from authoritarian regimes to big democracy and from Developed to third world countries. On the purview of WHO and Prominent International research institutions, optimum measures and avenues are implemented in the state jurisdiction to contain this alien virus.

Initially as preparedness measures, International borders are sealed, restriction on trade, identifying zones with high potential of spreading infection and later on declaring those zones as containment zones, increasing the speed of tracing, tracking, testing, treating and isolating both symptomatic and asymptomatic patients are some of the key strategic measures undertaken by the governments to curb this disease. In the top priority basis, medical equipment should be urgently increased, and medical infrastructure is required to be restructured to cope up with this rising medical emergency (Nicola M., Zaid A., 2020). At this grave, the health of the population is paramount, and the top priority of mankind should be saving the lives of people. But still, in this hour of crisis, the economic factors remain central. There is a very urgent need to come up with proper economic regulations and guidelines in order to cope up with the effects of CoronaVirus that are going to create recessions, poverty, deterioration in physical and mental health, which may result in huge numbers of suicides and natural deaths. So in this stage, economic or economic policies remain the central point to think and discuss and, more arguably, at this time of crisis (Michie, J., 2020). The enormous economic impact of Covid-19 pandemic and its consequences are affecting directly or indirectly the financial markets, investors, policymakers, and governments at large that this crisis can damage the economic scenario globally at an unprecedented scale. It is going to affect the cost of capital, capital structures, pension planning, insurances, government policies, etc. So now it is the job of the policymakers and financial experts to chalk out a full proof guidelines to cope up with such pandemic situations (Goodell J., 2020). Businesses and industries came to a standstill position and affected the lives of shareholders, workers, governments, etc. Various industrial sectors such as mining, agriculture, tourism sectors are also being affected in profound ways. In this grave situation, it is clear that the mining sectors must fulfill its role in providing livelihoods and helping to facilitate the low carbon transition (Laing T., 2020). The Kingdom of Saudi Arabia has introduced some decisive measures such as social distancing in the wake of Covid-19 pandemic scenario. Some of the significant decisions have been taken

regarding social distancing, such as suspension and cancellation of all public gatherings ranging from religious events to social events, temporary shutdown of all educational institutions, and imposing strict guidelines on public movement. Only essential commodity supply service is being carried on that to by the government agencies (Yezli S., Khan A., 2020). A vivid description of the SARS-CoV-2, diseases, prevention, treatment, and its social impact on the society. It also analysed the possible medical treatment for the patients suffering from Covid-19 diseases. The medical practitioner may prescribe a combination of hydroxyl-chloroquine and azithromycin for the immediate treatment of patients suffering from the disease. It also suggested the usefulness of Unani therapy in the case of Covid-19 treatment (Imran Ali, A. Omar, 2020). Globally, the Covid-19 pandemic has put an unprecedented strain on the food supply chain. In the short run phase, many countries are trying to work closely in order to keep the supply chain so that panic buying cools down and shifts in consumption habits arise. Governments should strengthen the International food supply monitoring institutions in order to govern the international trade and commerce (Kerr W., 2020). Global disruption in transport and logistic services have been identified as the main reason for the breakdown of agricultural supplies. Intermodal containerized movements of cereals, grains, and pulses have been seen due to the lack of empty containers in different parts of the country. Social distancing measures have increased the demand for retail food pickup services and delivery service. There is an immediate need for continued supply chain monitoring methods to be adopted to track the flow of logistics movements and to ensure the food delivery system (Gray R., 2020).

Due to the spread of Covid-19 pandemically, gradually, the situation getting more adverse, and creating the global threat to mankind has challenged the global research community to act and contain this virus as soon as possible. The only possible chances of containing this virus are through the academic platforms. It is also visioned that the future research nature would be mainly multi-disciplinary and trans-national (Raju V., Deshmukh S.G., javaid M., 2020). Through simulation modelling experts can fight back the mitigating effects of Covid-19. Experts from global organizations such as the World Health Organization, United Nations, etc., are extensively working on the simulation modelling works to reduce the impact of Covid-19 pandemic. Funding is essential right now for the research purposes in order to deal with the virus responses and also for those that occur in the future. At present, there is non availability of sufficient modellers to deal with this global pandemic. Still, it is imperative and vital to work very carefully and share the findings with the globally located researchers via international platforms to get maximum benefits of simulation modelling in order to curb the rise of Covid-19 globally (Curie S.M., Fowler J.,Kotiadis K. (2020). The current study is going to contribute enormously to the economic condition. It proposes suitable disaster management policies to mitigate the impact of Covid-19 in Odisha through the lockdown as preventive measures since the colonial eyes on the prophylactic epidemic.

2. State of Disasters: An Overview of Odisha

Odisha and Bihar are among the poorest states in India. While 33.34 percent of Bihar were poor in 2011-12, the corresponding number for Odisha in the same base year, was 32.59 percent. Odisha is poor because natural calamities such as flood, drought, cyclone, and earthquake are multiple natural disasters making Odisha highly

vulnerable in comparison to other non-coastal states. The demographic Indicators for Odisha and India is present in Table 1. Demographic Indicators for Odisha and India indicates Odisha is a less developed state of India. The main reason behind less development and last rank in many indices is geographically, Odisha is a disaster-prone state. Odisha is situated in the eastern part of India. Every year disaster beats this state in many ways. Apart from severe kinds of natural calamities such as floods, cyclones, lightning, and droughts, every year Odisha is subjected to other natural disasters such as heavy strokes or heat waves, lightning, heavy rain, and whirlwind, etc., due to its unique geo-climatic conditions. The livelihood of agricultural labourers, small and marginal farmers, are negatively affected by the continuous occurrence of these natural calamities, which is making them vulnerable. Odisha has been recognized as a pioneer state all over India for its excellent disaster management techniques that deal with different natural calamities successfully. Odisha is coming under higher vulnerability States of India. The list of cyclones that affected Odisha is reported in table-2. According to the 2011 census, the total population of Odisha and India was at about 42 million and 1210 million, respectively, and Odisha is the 11th most populated states of India. This state (Odisha) has 30 districts; coastal Odisha consists of the districts of Bhadrak, Jagatsinghpur, Ganjam, Baleswar, Kendrapara, Khordha, and Puri. Tropical cyclones from the Bay of Bengal bring severe and widespread destruction to Odisha. Cyclone Fani, recently in April, hit the country's east coast. Odisha being the worst affected by Fani, all sectors of this state are negatively impacted by it.

Table-1: Demographic Indicators of India and Odisha

| Demographic Indicators | | Odisha | India |
|----------------------------|--|----------------|----------------|
| | | 2011 | 2011 |
| 1 | Total Population (In Millions) | 42 | 1210 |
| 2 | % contribution to national population | 3.47 | 100 |
| 3 | Sex Ratio (females per 1000 males) | 978 | 940 |
| 4 | Under 6 sex ratio (females per 1000 males) | 934 | 914 |
| Economic Indicators | | 2009-10 | 2009-10 |
| 5 | Net domestic Product (at factor cost) (Rs crores) (For state) | 97359 | 4493743 |
| | Gross Domestic Product (at factor cost) (Rs crores) (For India) | | |
| 6 | Contribution of Agriculture to NSDP/GDP (%) | 21.05 | 14.62 |
| 7 | Contribution of Industry to NSDP/GDP (%) | 17.28 | 20.16 |
| 8 | Contribution of Services to NSDP/GDP (%) | 61.66 | 65.22 |
| 9 | Per Capita Net State Domestic Product (factor cost) (Rs) (for State) | 24098 | 33731 |
| | Per Capita Net National Product (factor cost) (Rs) (For India) | | |

| | | | |
|--------------------------------------|--|----------------|----------------|
| 10 | NDP Growth rate (%) (for State) | 8.48 | 8 |
| | GDP Growth Rate (%) (For India) | | |
| 11 | Human Development Index Value (HDI) | 0.362 | 0.467 |
| 12 | HDI Rank (out of 23) | 22 | |
| | | 2006 | 2006 |
| 13 | Gender Related Development Index (GDI) | 0.524 | 0.590 |
| 14 | GDI Rank (out of 35) | 32 | 122 |
| 15 | Gender Empowerment Measure (GEM) | 0.393 | 0.497 |
| 16 | GEM Rank (out of 35) | 29 | |
| | Human Development Indicators | 2011 | 2011 |
| 17 | Inequality Adjusted Human Development Index Value (IHDI) | 0.296 | 0.343 |
| 18 | Inequality Adjusted Human Development Index Rank (out of 19) | 17 | |
| 19 | Loss in HDI due to Inequalities (%) | 33.11 | 32 |
| 20 | Literacy Rate (%) | 73.45 | 74.04 |
| 21 | Male Literacy Rate (%) | 82.40 | 82.14 |
| 22 | Female Literacy Rate (%) | 64.36 | 65.46 |
| Poverty and Hunger Indicators | | 2009-10 | 2009-10 |
| 23 | Poverty Headcount Ratio (%) | 37 | 29.8 |
| 24 | Total number of poor (in millions) | 15.32 | 354.68 |
| | | 2005 | 2005 |
| 25 | Multidimensional Poverty Index (MPI) | 0.339 | 0.283 |
| 26 | Multidimensional Poverty Headcount (%) | 63.2 | 53.7 |
| 27 | Number of Multidimensional Poor (in millions) | 26.5 | 612 |
| | | 2007 | 2007 |
| 28 | Global Hunger Index (GHI) | 23.8 | 23.3 |
| 29 | GHI Rank (out of 17) | 12 | |
| | | 2005-06 | 2005-06 |
| 30 | Prevalence of calorie undernourishment (%) | 21.4 | 20 |
| 31 | Prevalence of Underweight Children under 5 years of age(%) | 40.9 | 42.5 |

Source: Census of India 2011, RBI Handbook of Statistics on Indian Economy and Economic Survey of India 2010-11, India Human Development Report 2011, IAMR and Planning Commission 13-16 Gendering Human Development Indices, Gendering Human Development Indices: Recasting the Gender Development Index and

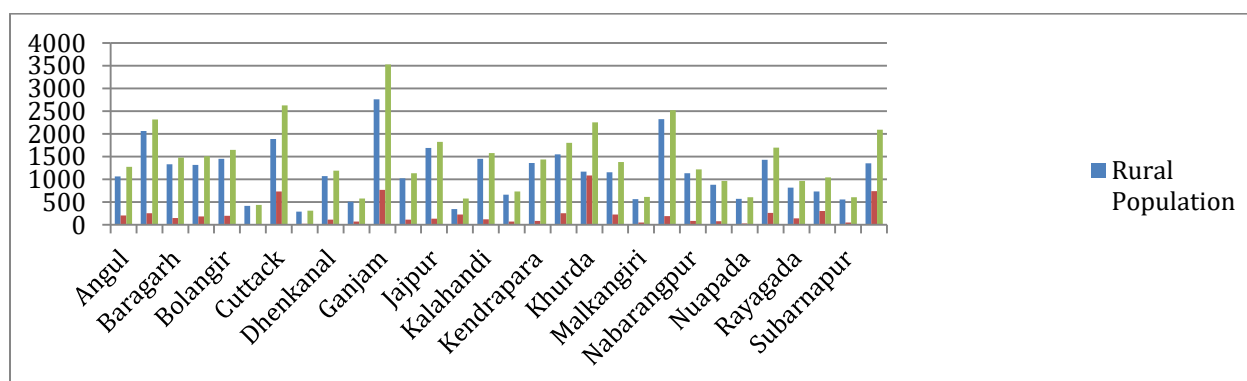
Gender Empowerment Measure for India, Ministry of Women and Child Development, Inequality Adjusted Human Development Index for India's States 2011, UNDP, Tendulkar Committee Report 2009, Planning Commission, MPI data and updates for 2011, OPHI, State Hunger Index 2009, IFPRI

Table-2: List of Cyclone that affected Odisha

| Name | Lowest Pressure (MBAR) | Year | Winds (in km/h) |
|---------------------|------------------------|---------------|-----------------|
| 1999 Odisha cyclone | 912 | 1999 Oct 29th | 276 |
| Phailin | 940 | 2013 | 215 |
| Hudhud | 950 | 2014 | 185 |
| Titli | 978 | 2018 | 110 |
| Fani | 932 | 2019 | 250 |
| Amphan | 956 | 2020 May 19th | 270 |

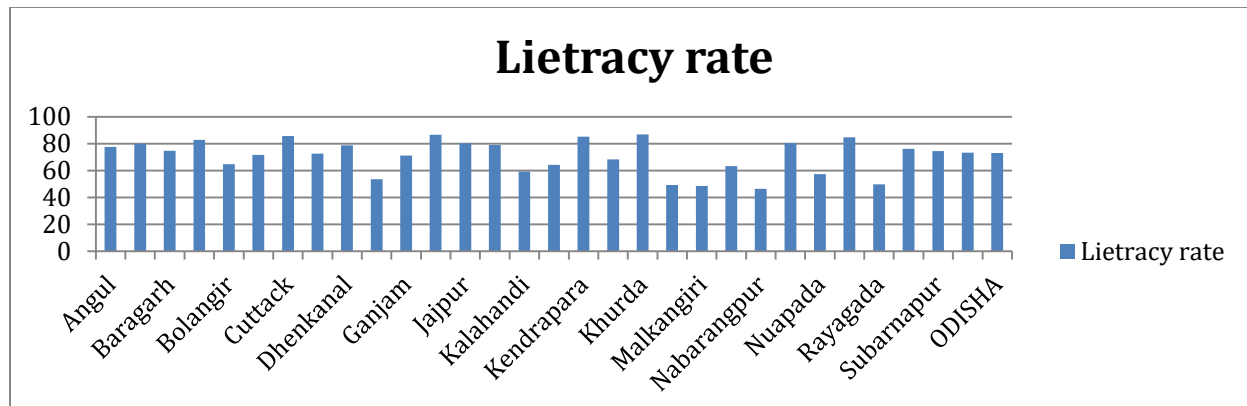
Source: National Cyclone Risk Mitigation Project

Figure-1: Rural and Urban population for all-district



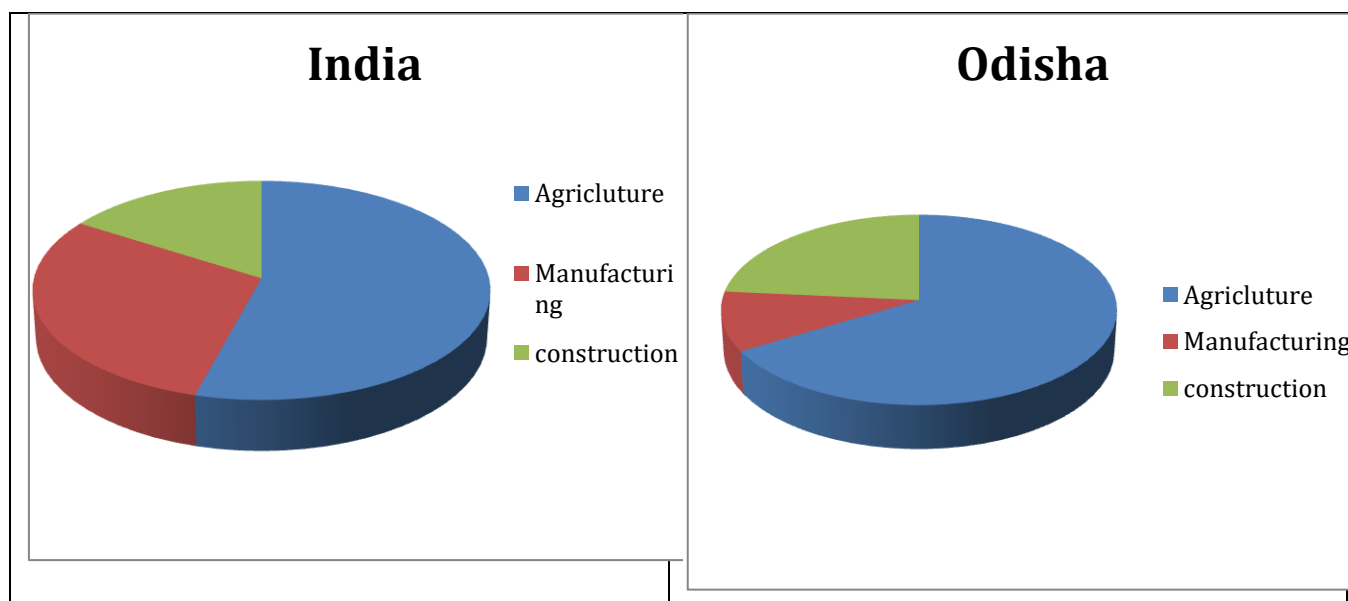
Source: Source: Directorate of Economics & Statistics (DES), Odisha and Central Statistics Office (CSO)

Figure-2: Literacy Rate for all-district



Source: Directorate of Economics & Statistics (DES), Odisha and Central Statistics Office (CSO)

Figure-3: Comparison of the sectoral share of value added by Odisha and India in 2018-19 (in %)



Source: Directorate of Economics & Statistics (DES), Odisha and Central Statistics Office (CSO)

Figure 3 shows the Comparison of sector share of value added by Odisha and India. Odisha's sectoral composition of output is different from that at the national level. Both at the state and national levels, the share of the services sector is the largest, but there is a large difference in this proportion. In 2018-19, the agriculture sector in India contributed 54.2% share to the Gross Value Added(GVA), while Odisha level it contributed only 41.6%.

Table 3 shows Employment indicators (Labour Force Participation Rate, Worker-Population Ratio, and Unemployment Rate) for Odisha and India. Labour force participation rate(LFPR) and the unemployment rate (UR) in Odisha stood at 48.3% and 7.1, respectively, in 2017-18.

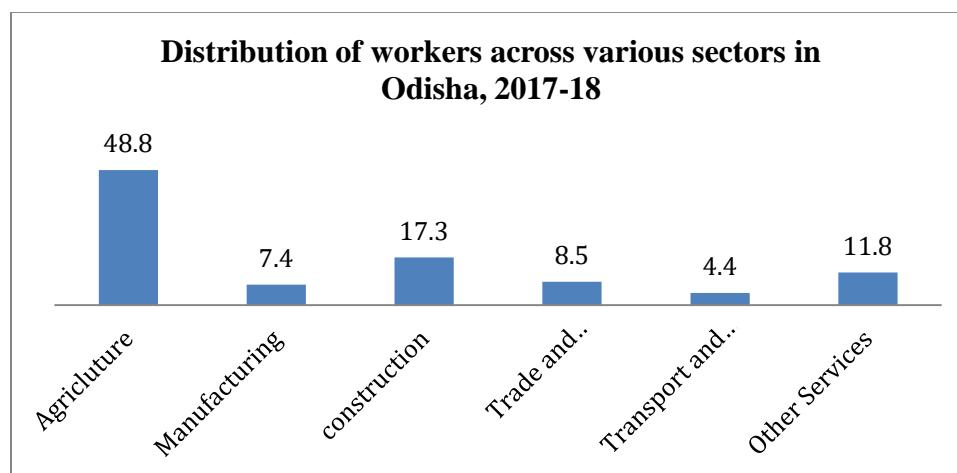
Table-3: Employment indicators (15 years and above) for Odisha vis-a-vis India, 2017-18

| Indicator | Odisha | India |
|---------------------------------|--------|-------|
| Labour Force Participation Rate | 48.3 | 49.8 |
| Worker-Population Ratio | 44.9 | 46.8 |
| Unemployment Rate | 7.1 | 6.1 |

Source: Periodic Labour Force Survey, 2017-18, NSSO

Figure 4 shows the distribution of workers across various sectors in Odisha in 2017-18. The majority of the population in Odisha is concentrated in the agriculture sector with 48.8 percent, followed by construction with 17.3 percent and other services like real estate, public administration, financial services, education, health, etc. that is 11.8 percent of the total working population. The majority of the rural working population are engaged in the agriculture sector that is 56 percent of the entire working population, followed by construction 18 percent and other services 7.8 percent.

Figure-4: Distribution of workers across various sectors in Odisha in 2017-18



Source: Periodic Labour Force Survey-2017-18, NSSO

3. The epidemic from the colonial to COVID-19 Prophylactic

The disease is the part of life; no human being would be disease-free, need to take care of it (Mahatma Gandhi, 2016). To make a healthy, wealthy, and prosperous society, public health should be the most prioritized aspect of the governance of any state, because health is wealth. Most important in the world is life, so we could say health is the wealth of a nation. The economy up and down is common, and it could revive, but the loss of life means it lost nations significant wealth. A life and an experience always related to emotion, with the family and wealth of the nation. Here at this juncture of India, CoronaVirus Disease 2019 (COVID-19) is deteriorating day by day in the case of and even the world as well. the world is categorised into three categories with the condition of COVID-19, first is an advanced stage with Italy and Spain, the second stage is the epidemic spreading fast in the country of the US and India, and in the third stage is under controlled especially South Korea and China in the present scenario of the world. (Arun Kumar, 2020).

The epidemic is the most dangerous to human civilization, and it has had a history since time immemorial. While we look into the modern world and the history of the epidemic is different like the 1720 plague, 1820 Cholera, and 1920 Spanish flu, these all the pandemic worst hit into the world, which all did not spread through person-to-person contact. But in the case of COVID-19, we could say spreads through human-to-human contact. So, this pandemic is highly contagious.

The COVID-19 is the most vulnerable disease in the world, which occurs from China Wuhan city, 31st of December 2019, and gradually Through the COVID-19, toll death devastatingly in the world, the scientists of the different countries of the world, also not able to discover medicine till now. It seems there is no medicine for the cure of it, for the safe life needs to take preventive measures. The precautionary measure for COVID-19 is different from the various other epidemics in the world, even in India. The Government of India has taken Lockdown as a preventive measure, it might be pulling the economy down, but there is no other preventive work here. Here trying to understand the preventive measure from the history of other epidemic diseases like Cholera, Malaria, Smallpox in India and gradually will look into COVID-19 preventive measures in India.

Cholera: Cholera was the most violent and destructive epidemic in history, and particularly in modern India, it occurred in 1817 pandemic under the colonial administration. The European physician explains that cholera is the “most formidable and fatal disease.” The disease was highly political between colonial and Indigenous society. The primary symptom of cholera was to lose more fluid in the body, which used to lead the death of a man. The Madras Medical Board described in august 1818 “the disease is characterized by the suddenness of its attack” and directed to death (David Arnold, 1993).

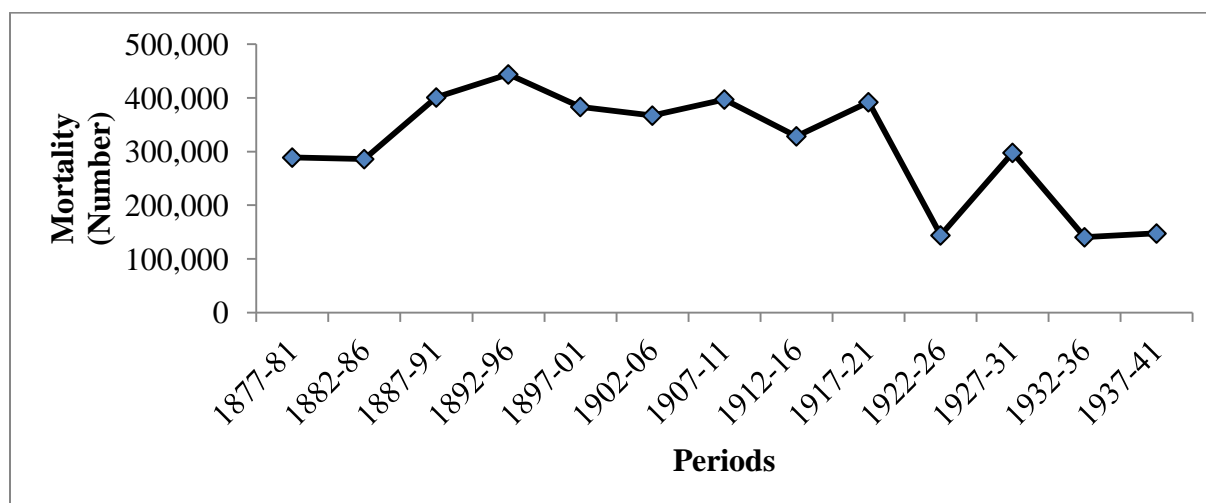
The mortality in British India, excluding Burma, was the average for every five years from 1877-1941 as per the Bhore Committee report.

Table – 4: The mortality in British India, excluding Burma, as the average for every five years

| Period | British India | Period | British India |
|---------|---------------|---------|---------------|
| 1877-81 | 288,949 | 1907-11 | 397,127 |
| 1882-86 | 286,105 | 1912-16 | 328,593 |
| 1887-91 | 400,934 | 1917-21 | 392,070 |
| 1892-96 | 443,890 | 1922-26 | 143,890 |
| 1897-01 | 383,294 | 1927-31 | 297,756 |
| 1902-06 | 367,160 | 1932-36 | 140,440 |
| | | 1937-41 | 147,423 |

Sources: The Bore Committee report.

Figure-5: The mortality in British India, excluding Burma



The mortality in British India, excluding Burma, as the average for every five years is presented in table 4 and shown in figure 5. We need to see the mortality rate of British India on average by cholera in every five years. Here in this part is trying to understand the situation of cholera in Colonial Orissa. From the above table and graph, we could see the mortality rate of cholera in all over India. From the table, it needs to understand that India was tremendously suffering from cholera under Colonial India, which was the most violent destructive epidemic (First Bhore Committee Report, 1946). The annual sanitary report, of Bihar and Orissa, for 1919, the report published in 1920 says about 8 percent of the total mortality during the last 20 years has been due to cholera (Annual Sanitary Report, Bihar and Orissa, 1920). Even in Colonial India at first time, systematic counting of cholera mortality in 1865 (David Arnold, 1993). Which were more devastating diseases; therefore, David Arnold opined that cholera was a highly political disease in British India, which was a tool for the interaction between Colonial state and Indigenous society.

In Colonial Orissa, Cholera means Puri, there were no proper arrangements for the pilgrims like for water-supply, for latrine, accommodation, or the disposal of refuse subsequently the pilgrims used to victims of cholera. During the rainy season, the roadsides were converted into huge sewage drains by the pilgrims, who encamped and swarms under the trees, or wherever they slept, cooked, ate, drank, and attended to the call of nature overtly, randomly which seems awful arrangement before the separate Orissa Province (L.S.S O' Malley, 1929). Cholera was endemic in the coastal district of the province. Cholera prevailed in epidemic form in the coastal regions of Cuttack, Puri, and Balasore and some parts of Ganjam Plains. It prevailed mildly in some areas of the district of Sambalpur. Cholera prevailed in epidemic form in the coastal districts of the Province, viz., Cuttack, Puri, and Balasore (Shri Nrusingha Charan Behuria, 1992). The other parts of the Province which were free from the diseases because there were no proper statistics except for Ganjam plains where sporadic cases were reported. The epidemic gradually came down until only sporadic cases were reported in June. In Orissa, cholera was seasonally occurring which mostly in the rainy season. The people used to scare in this season for cholera (Proceedings, 1920).

“Puri city is a hotbed of the disease.”(W.W.Hunter,1872) It only requires the annually recurring conditions of overcrowding, of filth, of high heat, of dampness, and sudden atmospheric changes, to turn the pilgrim's city into a pest-house. The car festival annually slays its thousands (Proceedings, 1926). It occurs at the most unfavourable and inclement season of the year. Before it's close, the rains are pretty well advanced. The roads were cut up, the rivers are full, the roadside lodging-houses were intimate and steamy, and often the sole shelter for travelers was under trees dripping with rain (L.S.S O' Malley, 1929).” P.T. Mansfield (P.T. Mansfield, 1929), wrote in 1929, “Puri has had the evil reputation of being a focus of cholera, and a center from which the disease spreads to other parts of India.” Almost every year, epidemics like cholera occur in colonial Orissa and prior as well. But in 1939 was sever that mortality led to high till the prior date in the district of Puri. “the chief force of the epidemics was concentrated in the town, but then they spread into the district, especially to the village (Shri Nilachala Senapati).”

Koraput; In south Orissa, especially Koraput Cholera very rarely occurred, but when it visits, it appears many fall victims to it. In 1934 and 1953, this epidemic was severe. There were highest in 1953, 122 attacks, and 68 deaths by

its outbreak. According to T.J. Maltby, cholera was not endemic for the Ganjam District, but it has existed as an imported disease from Puri, the crowd of pilgrims who visit the shrine of Jagannath temple spread the disease throughout India (T.J. Maltby, 1918).

Sambalpur; The district suffered many times with epidemics for lack of knowledge about the cure and prevention of the disease. Cholera was of frequent occurrence and result; villages were being completely depopulated and deserted. The villagers used to consult with witch doctors because they had believed the epidemic occurs by the wrath of goddess Maa Thakurani especially, it was prevailing in western Orissa (Shri Nilamani Senapati, 1971). The epidemic disease was common in these areas, breaking out nearly almost all the hot season.

In the endemic areas, especially in the districts of Cuttack, Puri, and Balasore, however, due to difficulties to manage food situation and migration of people from outside the province in search of food, even in this period of COVID-19 many are getting death due to shortage of food.

Many factors influencing the prevalence of the epidemic viz., lousy state of water-supply, massive monsoon floods were facilities for the spread of the disease from the innumerable meals remaining almost the same, the virulence and high mortality from the disease may be attributed to the general stress that prevailed in the country due to food shortage. This statement may be borne out by the fact that the epidemic of 1943 surpassed even the worst the epidemic year of 1939 when only 11,141 deaths were recorded from this disease. It may be noted in this connection that, in many cases, the preventive measures taken were cases of diarrhea due to inanition. Almost all the health officers reported that many of the deaths which were recorded as due to cholera were cases of inanition due to malnutrition or bad food. This was borne out by the fact that the highest mortality occurred only in areas where a shortage of food was acute (Proceedings, 1914).

Preventive Measure for Cholera: Sufficient quantities of cholera vaccine and cholera phage were kept in the Cuttack General Hospital, and the indents of the Health Officers and Civil Surgeons were supplied promptly. Before 1936 there were various preventive measures for cholera, but it was not that serious about the public health of colonial Orissa. The steps were taken to keep always in stock one lakh ccs. of cholera vaccine and sufficient cholera phage to guard against any interruption. Secondly, government staff at disposal viz, the special Health Inspectors, the publicity Assistant, and the Nutrition Health Inspectors were deputed to the affected areas to supplement the staff of the local bodies as necessary. Third, district leprosy staff and the Compounders of that put-lying hospitals and dispensaries were mobilized for epidemic duty as and when the situation demanded their services. Fourth, the medical officers of the hospitals and dispensaries were employed for the control of epidemics within a radius of 5 miles from the hospitals and dispensaries. Fifthly, given much necessary advice to the staff employed to control the outbreak. Sixthly, the assistant doctor of public health was also deputed to some districts and worked with the Health Officers in badly affected areas where there were difficulty and help was needed, from the headquarters. The implementation of all these was abysmal in the administration of public health (Proceedings, 1919).

4. Impact of the Covid-19 Lockdown on Agriculture Farmer

Odisha is an agrarian state with agriculture sector contributing only 26 percent to Gross State Domestic Product (GSDP) and providing directly or indirectly to more than 70 per cent of total workforce as per 2011 Census. This results in low per capita income in the farm sector. Agriculture Sector plays an important role in the Odisha economy and livelihood of majority of its populace. The national lockdown has severely affected agricultural farmers across rural Odisha. In Odisha, the marginal and small farmers constitute more than 70 percent of the total farmers. Either they own or rent a piece of land for cultivation. Due to widespread poverty, these farmers generally cultivate their crops with little inputs and hence crop production is again low. Both sides of land holding along with endemic poverty create a big problem in agricultural growth of Odisha. As a result, there is a large inequality among the per capita income in the farm sector and the non-farm sector. That's why it is most essential to deal with those issues which impact the income level of farmers. The main crop in Odisha is paddy. But, both Paddy and non- paddy crops like Pulses, Cotton, Oilseeds, vegetables, Sugarcane are preferred to grow in Odisha. The Kharif crop (Paddy) stood ready for harvest in many fields in Odisha, but the COVID-19 lockdown brought everything to a halt. Due to sudden lockdown, farmers are unable to harvest paddy on time and their crops damage due to untimely and heavy rainfall. Watermelon farmers are apprehending massive loss due to lockdown in Odisha. Buyers are not coming forward to buy, and watermelon cannot reach the wholesale markets in time due to restrictions on transportation. The state has exported almost 600 metric tonne mango to other states. Recently, heavy rains have caused massive Mango crop damage in Odisha. If mangoes are not exported, Odisha mango farmers will suffer huge losses. Although the Odisha government relaxed restrictions on farming activities, many farmers are facing deficiency in demand and selling at lower prices in the local market as they are unable to export to other cities. table 5 presents the landholding of different categories of farmers.

Table:5 Land holding

| Category of farmers | No of Holdings(Lakh nos.) | Area (lakh ha.) | Percentage to Total |
|------------------------|---------------------------|-----------------|---------------------|
| Marginal (< 1.0 ha.) | 22.95 | 11.55 | 23 |
| Small (1 – 2 ha.) | 11.14 | 15.44 | 30 |
| Semi-medium (2– 4 ha.) | 5 | 13.44 | 27 |
| Medium (4 – 10 ha.) | 1.45 | 8.17 | 16 |
| Large (> 10 ha.) | 0.13 | 2.21 | 4 |
| Total | 40.67 | 50.81 | |

Source: Odisha Agricultural Statistics, 2014-15

The point is that the Government should help distressed farmers not only for the present crisis but also for next cultivation. Although the Odisha government has taken some measures to safeguard farmers from any adverse impact of the ongoing lockdown, the farm sector is expected to report a negative growth in the just-ended financial year. The main impact of this COVID-19 lockdown under the farming sector is that the present-day lockdown is the

disruption of the activities and supply chain in agriculture. The harvesting and pre-sowing activities are affected due to the non-availability of migrant labours. Because of the transportation issues and breaking the chain between the intermediaries, the supply chains have been suffering heavily.

This creates a huge gap between the prices paid by the final consumers and the amounts received by the farmers. The prices of wheat and rice have gone down drastically, however the final consumers are paying a larger price at the market level, particularly in the towns. The lockdown is coinciding with the time of harvesting as well. And many of the farmer leaders believe that the relief packages announced by the government are hardly of any benefit to the farmers. Once the lockdown is lifted, the prices of the agricultural commodities will crash rapidly, leading to an excessive fall in the farmer's income. To ensure availability of food to poor people, the government distributed an extra one kilogram of pulses per household and 5 kilograms of food grains per person and under PM Garib Kalyan Ann Yojana for the next three months as more than 50 percent of Odisha population are coming under this scheme. Also, the cropping decisions on upcoming Kharif and rabi crops are affected thereby making it difficult for farmers to plan their future investment decisions. All these have indeed proved that this pandemic and its precautionary measures to curb health shocks in the country have posed a threat to the agricultural community at large PM Garib Kalyan Ann Yojana. So, definitely, the price of rice and wheat falls in future months, and farmers' income will decline. A farmer will receive an incentive for purchasing inputs like seeds, fertilizers, pesticides. From two yojana, first, under the Pradhan Mantri Kisan Samman Nidhi Yojana Scheme an income support of 6 thousand per year and Krushak Assistance for Livelihood and Income Augmentation (KALIA) Yojana, the State Government will provide financial assistance of 5 thousand. But these incentives are insufficient for next time cultivation and maintenance of their family.

5. Impact of the Covid-19 Lockdown on Non-salary class and Marginal class people

The Government of Odisha has framed the Odisha COVID-19 regulation (epidemic disease Act, 1897) 2020 for the prevention and containment of CoronaVirus disease. The Government of Odisha has ordered the immediate stoppage of all construction work across the state except work for health administrative facilities and work related to COVID-19. It has extended lockdown till midnight of 17th May 2020. Although several activities of different sectors have been allowed with various conditions and standard operating procedures for social distancing and maintenance of hygiene in the workplaces to prevent the spreading of CoronaVirus. Recognising the cause and effect link among work and poverty, and the essential role the poor working-class play in the performance of the developing economy, the government has taken a suite of measures to alleviate the impact. But the question remains: What percentage of people in our towns, cities, and villages can have enough money to survive more than a few days without work? In the following, an attempt is made to shed some light on the related statistics.

Poor Working Class and the Odisha Economy

About 82 percent of total households in Odisha belonged to rural areas. Almost 42 percent of the total population (4.20 crore population), 1.75 crore people, including 56, 38,934 women of Odisha belong to the labour class. Of

these, 67,39,993 are agricultural labourers, 7,83,080 people are engaged in household industries, 41,03,989 are cultivators, and remaining are in different other fields. Despite the presence of such a large number of the daily labourers, only a few labourers (11.50 lakh) are registered with the Odisha building and other construction workers welfare boards. With reference to total worker force in Odisha, 23 percent of the rural persons of age 18 years and above were registered in Mahatma Gandhi National Rural Employment Guarantee job card in Odisha. As of 2017, Odisha had about 83 percent of rural males, 65 percent of the urban males, 71 percent of urban females, and 65 percent of rural females belonged to the economically active age group of 15-59 years. In Odisha, about 15 percent of the rural females, 61 percent of the rural males, 8 percent of the urban females, and 56 percent of the urban males were in the labour force. Sixty percent of the rural male workers, 48 percent of rural females, 48 percent of urban males, and 28 percent for urban females were self-employed. And, about 6 percent of rural females, 7 percent of rural males, 30 percent urban females and 31 percent urban males were salaried employees. The proportion of casual labour among workers in Odisha was about 7 percent for rural females, 32 percent for rural males, 42 percent for urban females, and 21 percent for urban males (State Report on NSS 68th Round, 2011 - 2012). The table 6 represents minimum wages for Shops & Establishment in Odisha.

Table- 6: Minimum wages for Shops & Establishment in Odisha(Total Per Day)

| Class of Employment | Odisha | Delhi | Mumbai | Kalkata |
|----------------------------|---------------|--------------|---------------|----------------|
| Unskilled | 280.00 | 571 | 420 | 321 |
| Semi-skilled | 320.00 | 629 | 454 | 353 |
| Skilled/Clerical | 370.00 | 692 | 485 | 389 |

Sources: Labour & Esi Department, 2019

Migrants are the worst affected during this COVID-19 pandemic. The extension of lockdown due to CoronaVirus, several migrant workers, have taken refuge under camps and tents. Few have started living under bridges over the Yamuna river as they have no other place to go. They have been staying there for over a week now/hitherto. Hundreds of migrant workers stranded in different parts of the country are left with no money, little food and even left with no accommodation. After prime minister Narendra Modi announced the lockdown, tens of thousands of migrant workers crammed into buses or walked for days to get back to their native villages. But other workers across the nation of 1.3 billion, including hundred of day labourers got stranded when the trains stopped running. Due to more than one week lockdown, many of these migrants are dependent upon free meals, typically provided twice a day by companies or local authorities. With low wages and poor working conditions, the employment

condition grows much worse within the state. Almost 89.2 percent in rural non-agricultural activities in Odisha receive less than minimum wages and fight for subsistence (NCEUS, 2007). People of Odisha for their livelihood mainly depend upon Surat (Gujarat) and Sikakulam (Kerala). During lockdown, the government of Odisha has arranged special trains and buses for migrant workers to back Odisha from Kerala and Gujarat. Many of labourers had used up whatever savings they had. Even though the government has provided ration to them, it is not sufficient for their survival. It will create an unemployment situation in the long-run for Odisha. Although Odisha's government announced they would double the number of jobs offered under the MGNREGA scheme (from 5 lakh a day to 10 lakh at a daily wage), which will be helpful to Odia migrant labour returnees, insufficient to provide jobs to all unemployed labourers.

In view of the COVID-19 lockdown, Odisha government appeals to all house owners to waive off rent for three-month. And also the Government of Odisha appeals to employers for non-termination of employees from job and timely payment of actual salary and wages to the employees instead of reduction of their wage. All Employers shall make payments of wages to employees, including those working on contractual during the lockdown period. But many employers, particularly the transport sector and small companies, are denied to pay wages. As they have to repay the loan installment and take care of their family, So it is not possible to pay salaries to their employees but they agreed to non-termination of their employees from job. So employees from many unorganised sectors are unemployed recently. Think of the hewers of wood and drawers of water, rickshaw pullers in cities coming from distant villages, street vendors and domestic servants, taxi and auto rickshaw drivers, millions of agricultural labourers and poor peasants producing food grains and processed foods for those who have the money to buy them at will, hewers of wood and drawers of water, migrated construction workers from cities in search of work and workers in small hotels and restaurants, delivery workers bracketed under the informal sector status. Although they are the lower layers of the hierarchical Indian economy, their services are uniformly required with the higher layers of the formal economy in many ways. Both the national and state government should think of the livelihood and existential issues faced by this massive group of Odisha. Otherwise, hunger may kill them before CoronaVirus.

6. Communicative Leadership and Epidemic Management

The state Odisha, located on the coast of the Bay of Bengal, shares a coastline of 450 km, covering 4.87% of total geographical areas. It has unique geo-climatic conditions, characterized by high temperature, high humidity, medium to high rainfall, and short, mild winter. Historically the land is very prone to tropical cyclones, severe floods, droughts, landslides, fire, hailstorm, cloudburst, and epidemic diseases, and other manmade disasters throughout the year. Odisha witnessed many natural disasters and numerous epidemic diseases since the century, 1866 Orissa Famine, 1999 Super Cyclone, cholera, Hepatitis-B, Chikungunya (CHIK) fever, Japanese Encephalitis 2019, and many more. Since 2000 the state has faced 17 significant natural calamities, including four major super cyclones such as Phailin, Hudhud, Titli, and recently in 2019 Fani, that witnesses a huge amount of human casualties, economic losses and social unsteadiness. The most intense super cyclone of October 1999 caused 15000 human casualties and loss of economy of 4.4 Billion (USD \$) in the state. In the aftermath of the Super

Cyclone, the state government formed the Orissa State Disaster Mitigation Authority in December, later in 2008, named Orissa State Disaster Management Authority (OSDMA).

The state government has flagged disaster management activities into the village and taluka levels to reach out to the last mile connectivity, which involves multiple phases of government, civil society, and community-based organizations. However, disaster management materializes on collective actions and communicative leadership. Communication connects the participant in a space, creating based on shared values, shared ideals, and shared activities, which helps to exchange dialogues and bridge people together in a position where they come to realize communities. Dutta (2020) says, “communicative leadership anchored in the ideas of communication as a community, communication as both the primordial source of community and communication as a resource in manifesting community.” Flashing on the managerial activities, few scholars collate the discourse is about the management of meaning during the leadership actors’ daily activities or narratives of what they do together (Hamrin, 2016). Globally we are amid Pandemic Covid-19, all of the developed, developing, and third world countries everyone is under the grip of the mysterious disease. However, from authoritarian regimes to big democracy and Federal to Unitarian structure, all of them are investing their capitals in building health infrastructure and reviving the fluctuating economy. In the moment of the global pandemic situation, some of the big democracy witnessed failure in communicative leadership in multiple layers, meanwhile a small state Odisha part of India proved the ability with transparency, care of social justice, and answered people queries.

Communicative leadership and Public Address

The first Covid-19 case reported in India on 30th January 2020, originating from China. However, the government of Odisha issued the first press release on 15th March, although the state identified the first Covid-19 case on 16th March. On the sharing of states’ response to Covid-19, the chief minister Navin Patnaik appears on the television screen on 18th April on different regional television channels, broadcast over multiple platforms. In CM’s two minutes video clips appeal to the people coming to the state from abroad to register themselves at a toll free number or an online portal with the 24 hours of arrival to keep tracking of spread. Also, the government affords all the medical check-up facilities and a fair amount of incentives for the registered peoples. Since the COVID -19 outbreak, the CM often appears on the television screen, and pre-recorded videos uploaded in the government official websites. He briefs to the people fed through a wide range of subjects, avoiding fake news and rumors and public oath to protect first-line workers and paramedical officers against misbehavior and attack. The messages with the behavioral recommendation are very humble and straight forward.

Communicative leadership proved how the state enunciates lockdown prior to Central government obligation and stabilizes mass spread when the country transient through tragic phases of Covid-19. The state government appointed Subroto Bagchi as the Chief Spokesperson on Covid-19. The language used by him is amazingly simple & thus easily understandable for a layman person as well. He is sharing the television screen every day at 4.30 pm, escorted with experts from a different field, communicates information clearly about the number of cases, present progress of the patients, major transitory phases the state delves with, and steps being taken to “flatten the curve.”

The response of people in multiple social networking platforms, presence in front of the television screen at 4.30 pm, and live views on YouTube (an average 40k viewers every day and highest 240k in a single day) indicates inquisitiveness and significance of public address of state spokesperson.

After the completion of Lockdown 3.0 (55 consecutives days), government data witnessed that the Odisha government stabilized the mass spread of Novel CoronaVirus (Press meet, 18 May 2020). In comparison to other states in India, the mortality rate in Odisha is well controlled, that is 0.46, whereas the average mortality rate in India is 3.56. The total number of COVID-19 cases recorded in Odisha till 18th May is 876, only five are dead and 284 cured persons have been discharged from the hospitals. Since the virus is a completely new strain of the Corona family of viruses, there are no vaccines available till date neither is there any proven cure of the disease at the present moment. The only solution is containing or delaying its spread. Odisha government taking care of those who are coming from other states and 28 days of compulsory quarantine in a quarantine centre otherwise known as temporary medical centre. Among 876 cases 754 cases are from the quarantine centre, which shows Odisha till the second stage, community spread yet not commenced. The government declared its fourth lockdown from 18 may 2020 with much flexibility, but economic activities will operate.

Along with extension of the lockdown period, some new rules have been put forward keeping in view the arising situations and social migrations. Initially, most states have made it compulsory for anybody coming out of the home state to self-quarantine for 14 days. Then with the rising cases, and with instances of people avoiding such rules, the law was extended to mandatory quarantine for all people coming from a different state or an infected region for 28 days. Different encouragements are offered in terms of monetary reward of Rs 2000 after the completion of the quarantine periods to provide free food, lodging, and sanitation. To this end, the rural areas use schools as quarantine homes and associated arrangements are done. In some cases, public and private lodging rooms have been converted into quarantine shelter houses. The quarantine measures have been yet relatively successful in containing the spread in Odisha. As faster and accurate testing plays the most crucial part in identifying the infected person and subsequent contact tracing to mark out those who have been exposed to it, the Odisha government has incorporated the private health-care sector into the fold, and this has been later extended for a free testing for all. The testing for COVID-19 is increased to one lakh per day.

7. Conclusion

The COVID-19 is the most vulnerable disease in the world, which occurred from China Wuhan city in December 2019 has now become a global pandemic affecting nearly 4 crore population with a death toll of nearly 3 Lakh people. The national lockdown has severely affected agricultural farmers across rural Odisha. Due to sudden lockdown farmers are unable to harvest paddy on time and their crops damage due to untimely and heavy rainfall. In the horticulture sectors, farmers are facing huge deficiency because proper market accessibility and lockdown abandone to the exports in other states. Migrants are the worst affected during this COVID-19 pandemic. However, in the good managerial skill it termed 'put the right man into the right place is called management' so here in the state chosen skillful person who can smoothly galvanize the wired situation. An appreciable step being taken by the

state for the sake of migrant labours, arranged special trains and buses to bring back to Odisha from other states. Also the government appeals to employers for non-termination of employees from job and timely payment of actual salary and wages to the employees instead of reduction of their wage. The preventive measure for COVID-19 is different from the various other epidemics in the world even in India. When the Central government has taken Lockdown as a preventive measure, it might pull the economy down, but there are no other preventive measures that have been working. However, serving information and changing people's behaviours relies upon strategic communication and sharing of ideas, dialogues and communicative action. So the state relentlessly sends information through open dialogues, amalgamation of different media, public announcements, mobile communication and interpersonal communication at the doorsteps of every citizen, which help people to learn every tenet.

Reference

Ali I., Alharbi O., (2020), COVID-19: Disease, management, treatment, and social impact, *Science of the Total Environment*, Vol.7.

Ali I., Alharbi O., (2020), COVID-19: Disease, management, treatment, and social impact, *Science of the Total Environment*, Vol.7.

Annual Sanitary Report, Bihar and Orissa, (1919). and Triennial Vaccination Report for the years 1917-18 to 1919-20, Government of Bihar and Orissa, Municipal Department, Sanitation Report, 1920 October. Acc No. 33430.

Arnold, David, (1993). Colonizing the Body State Medicine and Epidemic Disease in Nineteenth-Century India, Delhi: Oxford University Press, P.159.

Behuria, Shri Nrusingha Charan, (1992). Orissa District Gazetteers Ganjam, Gazetteers Unit Department Revenue, Government of Orissa,.

Currie S.M. , Fowler J. , Kotiadis K., Monks T., Onggo B., Antuela A. Tako (2020), How simulation modelling can help reduce the impact of COVID-19, *Journal of Simulation*.

Dutta, M. J. (2020, April 4). CARE OPED: COVID19 – The Time For Communicative Leadership: Lessons from Aotearoa. Retrieved from <https://www.massey.ac.nz/~wwcare/research/white-papers/care-covid-19-white-papers/care-oped-covid19-the-time-for-communicative-leadership-lessons-from-aotearoa/>

First Bhore Committee Report, (1946). Report of the Health and Development Committee. Survey, Published by the Manager of Publications, Delhi, Printed by the Manager, Government of India Press, Calcutta.

Gandhi, Mahatma, (2016). Hind Swaraj, Delhi, Rajpal.

Goodell J., (2020), COVID-19 and finance: Agendas for future research, *Finance Research Letters*.

Haleem A., Viashya R., Deshmukh S.G., (2020), Areas of academic research with the impact of COVID-19, *American Journal of Emergency Medicine*.

Hamrin, S. (2016). Communicative leadership and context: Exploring constructions of the context in discourses of leadership practices. *Corporate Communications: An International Journal* , 371-387.

Hunter, W. W. (1872). *Orissa, Or, The Vicissitudes of an Indian Province Under Native and British Rule* (Vol. 2). Smith, Elder.

Kumar, Arun. (2020). Impact of COVID-19 and What Needs to Be Done, April, 4, 2020, Vol. LV No. 14, Economic and Political Weekly (EPW).

Laing T. (2020). The economic impact of the CoronaVirus 2019 (Covid-2019): Implications for the mining industry, *The Extractive Industries and Society*.

M, Alsafi Z, Sohrabi C, Kerwan A, Al-Jabir A, Iosifidis C, Agha M, Agha R, (2020), The Socio-Economic Implications of the CoronaVirus and COVID-19 Pandemic: A Review, *International Journal of Surgery*.

Malley, L.S.S O', (1929). Bihar and Orissa District Gazetteers, Imperial gazetteer of Puri, Paatna, Superintendent, Government Printing, Bihar and Orissa, p.142.

Maltby, T.J. (1918). The Ganjam District Manual, Government Press, Madras. P.161

Mansfield, P.T. (1929) ICS revised Puri imperial Gazetteer, p. 548

Michie J. (2020): The covid-19 crisis – and the future of the economy and economics, *International Review of Applied Economics*.

Norihiko Y. , Yoshio K., Yoshiharu S., (2007), Modeling the Regional Economic Loss of Natural Disasters: The Search for Economic Hotspots, *Economic Systems Research*, Vol. 19:2, pp.163-181.

Okuyama Y., Santos R. (2014), DISASTER IMPACT AND INPUT-OUTPUT ANALYSIS, *Economic Systems Research*, Vol. 26:1, pp. 1-12.

Proceedings of Government of Bihar and Orissa, (1914). Municipal Department, Sanitation, Annual Sanitary Report of Bihar and Orissa for 1914 and Vaccination Return for 1914-15, Acc No. 33271 B and O, Doc.

Proceedings of Government of Bihar and Orissa, (1919). Municipal Department, Sanitation, Annual Sanitary Report, Bihar and Orissa, for 1919, and triennial Vaccination Report for the Years 1917-18 to 1919-20, Acc No.33430.

Proceedings of Government of Bihar and Orissa, (1919). Municipal Department, Sanitation, Annual Sanitary Report for 1918, and Vaccination Report for 1918-19, Acc No-33396 B and O Doc.

Proceedings of Government of Bihar and Orissa, (1926). Local-Self Government Department, Sanitation, Annual Public Health Report for the Year 1925, December, 1926, Acc No-33557, B and O Doc.

Senapati, Shri Nilamani, (1971). Orissa District Gazetteers Sambalpur, Cuttack Printed by the Superintendent Government of Orissa Press, p.481.

Shri Nilachala Senapati, Orissa District Gazetteer Puri, Gazetteer Unit Department of Revenue, Government of Orissa.

Yezli S., Khan A., (2020). COVID-19 social distancing in the Kingdom of Saudi Arabia: Bold measures in the face of political, economic, social and religious challenges, *Travel Medicine and Infectious Disease*.