COVID-19 AND ITS IMPACT ON KERALA'S ECONOMY

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ABSTRACT

Covid-19 is a pandemic disease. It has spread throughout the world. Kerala is a state in the southernmost part of India. Kerala state had started preparing for this new infectious disease as early as the end of January 2020. With the disease spreading further internationally and with increase in the number of persons coming to Kerala from foreign countries and other states of India, Kerala is now one of the most affected states. Kerala has registered the highest recovery rate of 27.17% as against a global rate of 22.2%; thus, successfully tackling the problem. This has bought to light some of the emerging trends of Covid-19 patients in Kerala and its impact. Migration is the main reason for increasing trend of Covid-19 patients in Kerala. The model of Kerala development highlights the remarkable achievements in the field of health and education, infant mortality, social and human development etc. The Covid-19 pandemic disease has highly affected each and every segment of the economy. The infections of the novel corona virus have adversely affected Kerala, as well as posing challenges to the state in the near future.

Key words: Covid-19, MERS, SARS, Disease, Pandemic, Economy, State, Sector, Death, Recovery, Cases, Migrant, Student, Workers, Government, Social distance, Person, Epidemic, Coronavirus.

Introduction

Covid-19 is a pandemic disease. It has spread globally, and is a universal phenomenon. The number of cases varies between regions, countries, states and between rural and urban centres. Today the world economy is facing an unprecedented crisis. This is a new coronavirus that had been identified for the first time in the city of Wuhan, the capital of the Hubei province in mainland China. The who declared as Covid -19 is a pandemic disease. The word " Pandemic is origin from " Greek" " pan" means "all" and "Demos" means "people".it means that literally as the potential to affect all most whole the people own earth.

Historical background

Coronaviruses are a large family of viruses that are common to various species of animals, such as cattle, camels, bats, and cats. They cause diseases ranging from cold to SARS and MERS. They cause a communicable disease which spreads from person to person. The novel coronavirus has been officially named as COVID-19 by the WHO in Feb 12,2020. "CO" stands for "Corona", "VI" for "Virus" and "D" for "Disease", while "19" stands for the year when the outbreak was first identified (on December 31, 2019).

The number of cases has been overwhelming in China, Hong Kong, South Korea, Iran, Italy, Australia, Thailand, France, Spain, Germany, US, and countries in West Asia etc. It has affected a total of over 90 countries. India reported its first case towards the end of January 2020. Worldwide there has been more than 98 lakh cases and more than 6.2 lakh deaths. Some of the markedly affected countries are Brazil, U S, the U.K, Germany, Italy, Japan and Spain.

Covid-19 – Indian Context

The COVID-19 pandemic in India is part of the worldwide pandemic of Coronavirus 2 (SARS- COV2) disease 2019. This causes several acute respiratory syndromes. The first case of Covid-19 in India had originated from China, was reported on 30th January 2020. It was first confirmed in Kerala; the patient was a female student at Wuhan University. As of 27 June 2020, the Ministry of Health and Family Welfare has confirmed a total of 508, 953 cases, 295,880 recoveries (including immigration) and 15685 deaths in the Country. India currently has the largest number of confirmed cases in Asia and has the fourth highest number of confirmed cases in the world. The number of total confirmed cases breached the 100000 mark on 9 May and 200000 mark on 3rd June. India's case fatality rate is relatively lower at 2.80% as against the global level of 6.13%. Major six cities (Mumbai, Delhi, Ahmedabad, Chennai, Pune and Kolkata) account for around half of all reported cases in the country. Though India has done well in the containing the spread of the virus, the vulnerability that India faces is still high. Large population, poor public hygiene, unknown incubation period, biphasic or dual phase infection, super spreader disease, rumours on social media, and migrant workers are the major threats faced by the government of India.

The UNCTAD highlights that the virus outbreak could cost the global economy up to $ 2 trillion this year, and that the pandemic could cause a recession in some countries causing global economic growth to clock in below 2.5%. The Indian government is facing the twin challenge of containing the virus when the economy is already in the slowdown.

Review of Literature

Anant et al (2020), in their study had studied the potential consequences of the Covid-19 pandemic for rural India and its public health care system. The authors suggested the necessary preventive steps to control the spreading disease and its after effects; and suggested India to use this opportunity to strengthen and improve the quality of primary health care system in rural India. Balaji and Sravendra (2020) have suggested the effective strategy to contain the threat of Covid-19 in India.

Rajib and Akash (2020) in their study intended to spatially identify the vulnerable regions in India. They used a vulnerability index. This index aims to help planners and policy makers effectively prioritise regions for resource allocation and adopt risk mitigation strategies for better preparedness and responses to the Covid-19 pandemic. Population and infrastructural characteristics are the basis of vulnerability index in India. Federico et. al (2020) in their paper have called for action to sensitize government and the global community to actively start effective plans to promote and improve MCI management preparedness to deal with the current situation of Covid-19.

Research Problem

Kerala has a conspicuous position among the states of India. The state has attained commendable achievements in the field of health and education, infant mortality, birth and death rate, literacy rate (especially among females), migration and care of elderly. Migration is the key component of population changes over a period of time. However, during this period, migrant workers and students are the real source for the trend of increasing numbers of Covid-19 patients in Kerala.

Importance of the Study

The Kerala model of development is a remarkable achievement in the field of health, education, literacy, infant mortality, demographic factors, socio-economic development, infrastructure development, care of elderly, IT, and service sectors etc. An interesting paradox is that this has lead to well-known story of 'The Ageing of Population'. Aging of the population and Migration are the two issues that have been highlighted after the emergence of Covid-19 in Kerala. Migration has been the single most factor in the development of Kerala since its formation in 1956. In 1971, most Keralites were migrating within India, mostly to emerging cities such as Delhi, Mumbai, Chennai and Bangalore. This is partly due to the demand for skilled/educated persons, which Kerala could contribute due to its high literacy rate. However, with the opening of the Gulf economy to foreign workers in the 1970s in the wake of a spike in oil prices, the tide of migration from Kerala moved decisively from internal to international. Consequently, many of the Keralites who had left Kerala for other parts of the country in the earlier decades, moved now to the Gulf. Till 1999, Kerala had only one international airport. Now, it has four, due to the importance of international migration and remittance to economy and society at large.

Kerala has seen widespread return migration due to external shocks on at least three occasions, such as Gulf war, global economic crisis and Nitaqat policy of Saudi Arabia. In post Covid-19 era, Kerala stares at the prospect of large-scale return migration from the Gulf, once the lockdown is lifted. Kerala will be posed with a new challenge with the expected return of a large section of Keralites from the Middle East. This throws the spotlight on the key aspect of out-migration in Kerala's economy, and its impact on the economy in future.

Objectives

- To analyse the Covid-19 pandemic and its impact on the economy of Kerala.
- To study the nature and trends of Covid-19 patients in Kerala.

Methodology

The study was based on secondary data sources. For the purpose of understanding the impact of Covid-19 pandemic in Kerala, data were sourced from government official records, selected articles, journals, periodicals, newspapers and web sources.

Covid-19 pandemic: Kerala context

Kerala has tackled not only the current health disaster that is ravaging in the world, but also earlier catastrophes including containment of the spread of Nipah Virus, and natural disasters, with deftness. The first case of Covid-19 in India surfaced in Kerala on January 30, 2020, imported from Wuhan. This provoked discussion on the negative spillover effects of international migration, which has been a feature of Kerala's development trajectory in recent years. In early March, Kerala and Maharashtra were the leading states in terms of the positive Covid-19 cases. The number of infected patients started to increase in Kerala from the end of March, as a section of international migrants started to return to the state.

The immediate action of the state government in identifying the possible social contacts and subsequently tracing them started to show results by early April. This onerous task continued for a longer duration as more and more imported cases began to surface in a state, whose economy depends upon a large extent by the opportunities in global labour markets and international tourism. The sustained efforts started to yield results, and by mid- April the state, which was second in total number of infected cases in mid- March, slipped to the 10th position and was well on its way to have a carefully drafted exit policy from the lockdown. This remarkable achievement of Kerala has now attracted international attention much like the famous "Kerala model of Development".

Kerala has had a long history of social sector development, which predates the coinage of the "Kerala model of development" in the 1970s. This model of Kerala has essentially emphasised on the development of health and education, and thus laying a strong foundation for sustained long- run development. The state government had mainly focussed on primary health care, education and private participation in tertiary health care. Post reforms, the period in Kerala had strongly focussed on the development of human resource and capital. Hence, health and education sector indicators continued to improve even after the state embraced policies towards globalisation. In this context, Covid-19 curve now become upward trending due to the effect of migrant persons returning back to Kerala. Before that the spread of Covid-19 curve was flattened. In Kerala, public health and hygiene issues have never taken a back seat even when the focus started drifting towards privatisation and efficiency in the health sector.

Apart from a well-laid health system throughout the state, the general level of awareness is high, especially among women due to high female literacy. Mortality, infant mortality and morbidity rate in Kerala is lowest as compared to other states of India. Female education is also highly encouraged; therefore, the general public health awareness of mothers is very high. In case of the Covid-19 pandemic, with this combination of higher level of public awareness and a well-functioning health sector, Kerala has been able to contain the possible rapid spread swiftly. This assumes significance as the state has a larger share of ageing and migrant population. Eventually, both morbidity and mortality on account of Covid-19 has been much lower than in many developed countries. It is here that the human

development achievements contribute, as the state is endowed with an army of skilled population and a large pool of medics and paramedics, who are integral to a well-functioning health sector. Kerala, as a region, has thus created its own comparative advantages like other developed nations. This model of development experience in Kerala shows a commendable achievement in the field of health and education when compared to the other states of India. However, the 'Kerala Model' offers some key insights such as efficiently dealing with the Covid-19 pandemic and its required larger investment in public health and social sector, public distribution system, social security schemes in all segments, social mobilisation, participation in community kitchen, lifesaving protection of migrant labourers, care of elderly, "break the chain" movement and in social distancing.

As Kerala enters the most crucial phase of Covid-19 containment, it is far ahead compared to all Indian states and even many nations. During the Covid-19 period, the government has announced 20000 special help packages by various social welfare boards.

Table 1: District wise spread of Covid-19 in Kerala (02-07-2020)

District	Contact	Import (other countries, other state)	Total
Thiruvananthapuram	33	194	227
Kollam	35	319	354
Pathanamthitta	8	314	322
Alappuzha	15	309	324
Kottayam	26	207	233
Idukki	22	96	118
Ernakulum	32	238	270
Thrissur	63	364	427
Palakkad	52	510	562
Malappuram	62	499	561
Kozhikode	18	256	274
Wayand	22	77	99
Kannur	79	437	518
Kasaragod	84	382	466
Total	551	4202	4753

Source: Various government reports

Table 1 shows the district wise pattern of Covid-19 pandemic in Kerala. The number of cases shows an increasing trend due to the effect of return of migrants from gulf countries, Middle East, USA, UK, Italy, Wuhan in China, Spain, Australia, Canada, UAE, Singapore etc.; and also due to interstate migration from Delhi, Maharashtra, Tamil
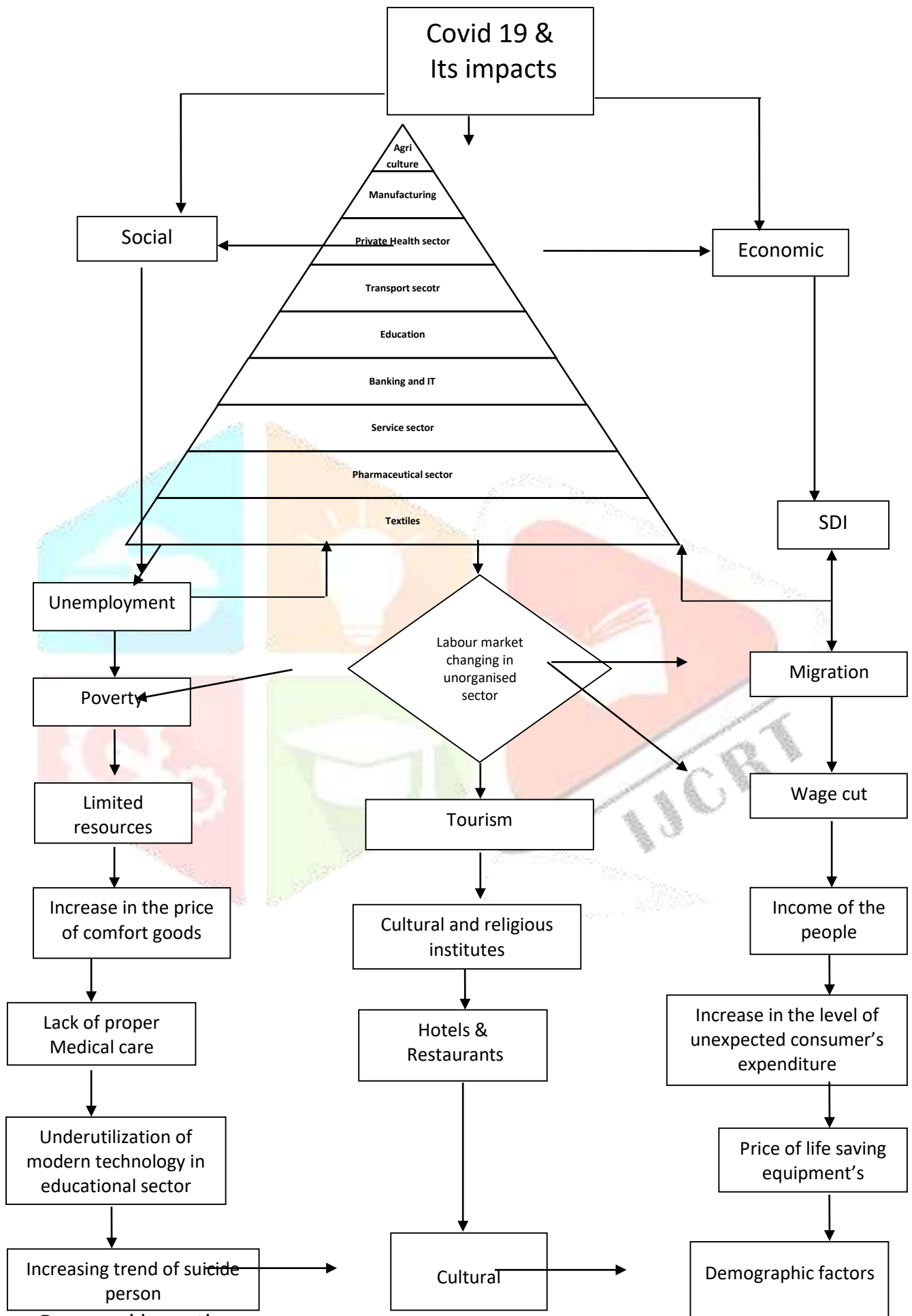
Nadu, Karnataka, U.P, Madhya Pradesh, Assam, Haryana, Gujarat etc. The analysis of this data clearly shows the positive and direct correlation between number of patients in Covid-19 and migrants in Kerala.

Impact of Covid-19 Pandemic in Kerala

Kerala model of development highlights the overall development experience in the state. Now a days Covid-19 is a pandemic disease. It has highly affected each and every segment of the economy. In the sector wise analysis of the agriculture and manufacturing sectors, activities of the agriculture and manufacturing sector activities were fully shut down for the past few months. In unorganized sector employees are found to suffer from job crisis and wage cuts. Production segment has been temporally closed. Dynamics of labour market functions has highly affected the immigrant workers and urban labourers. Workers are also affected in hotels, restaurants, informal sectors, and in tourism industry. Tourism and remittance sectors, which together contributes 10% of the state GDP has completely stopped and has led to thousands of people jobless. In Kerala, Covid-19 pandemic period, a lot of problems are faced by the working people in an economy. The major impacts are identified in the below chart.

Figure 1: Impact & Covid19 – Pandemic in Kerala

Source: Prepared by author

Theoretical frame work: social distancing Explained Using Game Theory

The Covid-19 pandemic is rapidly increasing in Kerala. As on July 4, 2020 the total number of cases is reported at 5024 and total recovered cases are 3048, and further 25 persons were dead. In this case, WHO and ICMR say that people are more likely to go for social distancing. Expert opinion is that, in this time, if most of the people are likely to stay in their home and maintain social distancing, then the coronavirus cannot spread fast. This will also directly affect the total number of Covid-19 patients in Kerala. In this case, let us see how to understand social distancing in a pay-off matrix based on game theory. Pay off matrix is shown in below:

Table -2: Social distancing explained using Game Theory

Others			
Mr. A	**Go Out**	**Go out**	**Don't go out**
		(-12, -12)	(-9,0)
	Don't Go out	(0, -9)	(0,0)

 The pay-off matrix shows that two type of persons are present in our society. Let us assume that these two people are Mr. A and others. They follow   two strategies: "Go Out" and" Don't Go Out". The pay-off matrix shows that Mr. A does not have a more dominant strategy. His optimum decision now depends on what others do. If Mr. A chooses go outside his home, then others will be more susceptible to coronavirus (-12, -12). In top left, if both Mr. A & others go out, then the number of Covid-19 cases will increase. But bottom left, it is seen that if Mr. A doesn't go out, he is still likely to be infected with corona virus because others are coming out of the home; i.e. (0, -9).

The government has taken the necessary steps like asking people to keep social distancing, wear masks in public spaces, use hand sanitizer, and also asking people to strictly follow law and order instructions. As a result, many people stay in their homes and don't go out. The payoff matrix to rights shows, that if Mr. A goes out, but others do not go out, the payoff is (-9,0). In the matrix, bottom right shows that if Mr. A and others don't go out, the payoff is (0.0). In this situation, there is no possibility of spread of coronavirus. In this case Mr. A has no dominant strategy; Mr. A's choice depends upon other's choice; that is the Nash equilibrium.

Conclusion

Kerala is the southernmost part of India. The state of Kerala accounts for about 2.8% of India's population, and its economy contributes nearly 4% of the Indian economy. The evidence is clear that the migrant persons and students are the real source of increasing numbers of Covid-19 patients in Kerala. The analysis has also pointed out that the positive and direct relationship exists between number of patients in Covid-19 and imported persons in Kerala. Due

to the effect of these cases, major factors such as labour market changes, wage cuts for unorganized and informal sector employees, decrease in the PCI and increase in the unexpected consumer's expenditure, job crisis have been directly affected. Production and manufacturing sector have been completely shut down, along with public distribution system. Agricultural workers, industrial and construction workers, pharmaceutical, private health care institutions, education, IT, banking and non-banking institutions, hotel, restaurants, transport and tourism industry workers also have been affected. Each of these factors affect and impact the socio- economic factors of the economy of Kerala.

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