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ARTICLE

Impact of Covid -19 on global economy

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How did a health crisis translate to an economic crisis? Why did the spread of the coronavirus bring the global economy to its knees? The answer lies in two methods by which coronavirus stifled economic activities. First, the spread of the virus encouraged social distancing which led to the shutdown of financial markets, corporate offices, businesses and events. Second, the exponential rate at which the virus was spreading, and the heightened uncertainty about how bad the situation could get, led to flight to safety in consumption and investment among consumers, investors and international trade partners. We focus on the period from the start of 2020 through March when the coronavirus began spreading into other countries and markets. We draw on real- world observations in assessing the restrictive measures, monetary policy measures, fiscal policy measures and the public health measures that were adopted during the period. We empirically examine the impact of social distancing policies on economic activities and stock market indices. The findings reveal that the increasing number of lockdown days, monetary policy decisions and international travel restrictions severely affected the level of economic activities and the closing, opening, lowest and highest stock price of major stock market indices. In contrast, the imposed restriction on internal movement and higher fiscal policy spending had a positive impact on the level of economic activities, although the increasing number of confirmed coronavirus cases did not have a significant effect on the level of economic activities.

Keywords: Covid-19, Coronavirus, pandemic, financial crisis, global recession, public health, impact on agriculture, industries

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INTRODUCTION

The World Health Organisation (WHO) has declared that the new coronavirus outbreak is a public health emergency of international concern, officials announced on Thursday, 30th January, 2020. WHO proposed calling the disease “2019-nCoV acute respiratory disease.” The 2019 novel corona virus (2019- nCoV) originating in

Wuhan, China, has spread to 24 more countries alarming public health authorities across the world. More than 4,900 people have died and over 132,000 have been infected globally, according to the WHO on 13 March, 2020. According to Situation report-48 on Coronavirus disease 2019 (COVID-19) on 08th March 2020. Over 100 countries have now reported

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laboratory-confirmed cases of COVID19. The report stated that globally 105586 confirmed (3656 new) cases have been reported, whereas in China 80 859 confirmed (46 new) 3100 deaths (27 new) and Outside of China 24 727 confirmed (3610 new) 484 deaths (71 new) (WHO Situation Report-48, March 2020). Delhi has reported six positive cases and Uttar Pradesh 10 so far. Karnataka has five coronavirus patients, Maharashtra 11 and Ladakh three. Besides, Rajasthan, Telangana, Tamil Nadu, Jammu and Kashmir, Andhra Pradesh and Punjab have reported one case each. Kerala has recorded 17 cases, including three patients who were discharged last month after they recovered from the contagious infection with flu-like symptoms (Economic times 2020).

OBJECTIVES

- To Identified the highest number of Ovid -19 infected individuals.
- To analyse the Impact of coronavirus (COVID-19) on Indian economy

IMPACT ON COVID-19 ON DIFFERENT SECTORS

The trade impact of the coronavirus 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 Manager's 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 fertilisers 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.

SECTOR-WISE IMPACT ON INDIAN INDUSTRIES:

Chemical Industry: Some chemical plants have been shut down in China. So there will be restrictions on shipments/logistics. It was found that 20% of the production has been impacted due to the disruption in raw material supply. China is a major supplier of Indigo that is required for denim. Business in India is likely to get affected so people securing their supplies. However, it is an opportunity. US and EU will try and diversify their markets.

Auto Industry: Its impact on Indian companies will vary and depend upon the extent of the business with China. China's business no doubt is affected. However, current levels of the inventory seem to be sufficient for the Indian industry. If the shutdown in China continues then it is expected to result in an 8-10% contraction of Indian auto manufacturing in 2020.

Electronics Industry: The major supplier is China in electronics being a final product or raw material used in the electronic industry. India's electronic industry may face supply disruptions, production, reduction impact on product prices due to heavy dependence on electronics component supply directly or indirectly and local manufacturing.

Foreign Trade: China has been India's largest source of imports since 2004-05, shows data from the Centre for Monitoring Indian Economy (CMIE) database. In 2018-19, the latest period for which annual data is available, it had a share of 13.7% in India's total imports. Any major disruption in the Chinese economy can disrupt these imports and hence both production processes and supply of consumer goods in India.

Effect on Poultry: The poultry industry in different parts of the country has been hit hard amid rumours that the novel coronavirus can be transmitted through consumption of chicken, the prices of which have fallen considerably as a result. About two crore people employed in the poultry industry across the country have been impacted. People were avoiding consumption of meat, fish, chicken, and egg etc. Due to the fall in demand, wholesale price of chicken had dropped by as much as 70 per cent.

Spillover to the travel industry

The coronavirus outbreak led the governments of many countries to impose restrictions on non-essential travel to countries affected by COVID-19, indefinitely suspending tourism travel, work visas and immigrant visas. Some countries placed a complete travel ban on all forms of inward or outward travel, shutting down all airports in the country. At the height of the coronavirus pandemic, most airplanes flew almost empty due to mass passenger cancellations. The travel restrictions imposed by governments subsequently led to the reduction in the demand for all forms of travel which forced some airlines to temporarily suspend operations such as Air Baltic, LOT Polish Airlines, La Compagnie, and Scandinavian Airlines. Such travel restrictions cost the tourism industry alone a loss of over \$200 billion globally, excluding other loss of revenue for tourism travel, and were forecast to cost the aviation industry a total loss of \$113 billion according to IATA.⁸ US airlines sought a \$50 billion bailout fund for the US Airline industry alone.⁹ The GTBA reported that the business travel sector would

lose \$820 billion in revenue due to the coronavirus pandemic.

Spillover to the hospitality industry

Restaurant businesses have been affected during the pandemic mainly through the government-announced 'stay-at-home policy' and 'social distancing' movement restriction imposed by the government in many countries. This led to rapid shutdowns in cities and states to control the spread of the coronavirus, which threw many restaurants and hotels across the country into sudden shock. Hotels across the world witnessed booking cancellations worth billions of dollars, and the hotel industry sought a \$150 billion bailout.¹¹ Restaurant executives laid off staff as they shut down their businesses temporarily. Many customers stayed at home, preferring to eat cooked meals at home. Some restaurant executives criticized the government for imposing the stay-at-home and social distancing policy which destroyed many small restaurants and pub businesses in small cities. They argued that governments' announcement of stay-at-home policies or social distancing policies was an indirect way of telling people not to come to the pubs, hotels and restaurants, which was a way of silently destroying the hospitality industry during the pandemic.¹² Multiple hotels in the US, UK and in some European countries announced the temporary suspension of normal operations which puts the estimated loss of jobs to 24.3 million globally, and 3.9 million in the US alone¹³ due to the decline in hotel occupancy during the pandemic period. The economic impact of the pandemic on the hotel industry was more severe than the 9/11 and 2008 recessions combined.

Spillover to financial markets

The most visible outcome of the COVID-19 crisis on financial markets was the effect in the global stock market. Global stock markets lost \$6 trillion in value over six days from 23 to 28 February, according to S&P Dow Jones Indices. Between February 20 and March 19, the S&P 500 index fell by 28% (from 3,373 to 2,409), the FTSE 250 index fell by 41.3% (from

21,866 to 12,830), and the Nikkei fell by 29% (from 23,479 to 16,552). In the same period, large international banks witnessed a plunge in their share price, for example, Citigroup's share price fell by 49% (from US\$78.22 to US\$39.64), JP Morgan Chase's share price fell by 38% (from US\$137.49 to US\$85.30), and Barclays' share price fell by 52% (from £181.32 to £86.45). Although the oil price war, in which Russia and Saudi Arabia were driving down oil price by increasing oil production, played a role in the fall in stock markets indices, the subsequent fall in stock market indices in March was mainly due to investors' flight to safety during the coronavirus pandemic.

Spillover to the education sector

The coronavirus disrupted the \$600 billion higher education industry.²⁰ Educators and students around the world felt the ripple effect of the coronavirus as colleges and universities were instructed to shut down after the coronavirus was declared a public health emergency in many countries. There were school closures of some kind in 44 countries on four continents, including Africa, with hundreds of millions of students around the world facing disruptions. The outbreak had a more severe consequence on schools that did not have an online learning platform. Moody's, a credit rating agency, downgraded the U.S. higher education outlook from 'stable' to 'negative', because 30% of the colleges and universities in the US already had a weak operating performance, and it was difficult for these colleges and universities to adapt with the financial and academic changes required to cope with the coronavirus outbreak. Also, UNESCO reported that the COVID-19 outbreak disrupted the education of at least 290.5 million students worldwide.²¹ Public schools in the US were closed, Australia shut down some schools, while countries like Israel, Nigeria, Egypt, Italy, France, and Spain shut

down all schools, and this created some form of unemployment for teachers. Northern Ireland's government suspended all examinations in its colleges and universities

Global Spillover

Initially, the perception was that the COVID-19 pandemic would be localized in China only. It later spread across the world through the movement of people. The economic pain became severe as people were asked to stay at home, and the severity was felt in various sectors of the economy with travel bans affecting the aviation industry, sporting event cancellations affecting the sports industry, the prohibition of mass gatherings affecting the events and entertainment industries (Horowitz, 2020; Elliot, 2020).

There are parallels between the COVID-19 crisis and the events of 2007-2008: as in 2020, many people in the earlier recession assumed the impacts would largely be localized (in that case based on an assumption that the subprime mortgage crisis would be a relatively minor problem affecting only the US, but ultimately affecting the global financial system) (Elliot, 2020). The sudden economic disruption caused by COVID-19 is not only destructive but also has spillover implications because it created demand and supply shocks in almost every area of human endeavor (El-Erian, 2020)⁷

Spread of COVID-19 (already known as coronavirus)

Real-time data on the spread of the coronavirus (or covid-19 disease) was collected from Worldometer. The data shows that the US had the highest number of infected individuals, followed by China, Italy and Iran as at 23rd of April 2020. The statistics is reported in Table 1.

Table 1: COVID-19 Statistics (as at 23rd April 2020)

Countries	Confirmed cases (Total)	Confirmed Deaths (Total)	Recovered (Total)
Global	2,656,391	185,156	729,815
US	849,092	47,681	84,050
Italy	187,327	25,085	54,543
China	82,798	4,632	77,207
Iran	87,026	5,481	64,477
Spain	213,024	22,157	89,250
Germany	150,729	5,315	103,300
UK	133,495	18,000	-
Canada	40,190	1,974	13,986
France	159,877	21,340	40,657
India	21,797	681	4,376
South Korea	10,702	240	8,411
Turkey	98,674	2,376	16,477
Russia	62,773	555	4,891
Brazil	46,182	2,924	25,318
South Africa	3,635	65	1,055
Nigeria	873	28	197
Tunisia	909	38	190

Source: Worldometer.5 Note that there may be unconfirmed cases which were never reported to the public health authorities.

CONCLUSION

We analysed the coronavirus outbreak and the spillover to the global economy which triggered the global recession in 2020. Policy makers in many countries were under pressure to respond to the coronavirus outbreak. As a result, many governments made fast policy decisions that had far-reaching positive and negative effects on their respective economy – many countries plunged into a recession. Social distancing policies and lockdown restrictions were imposed in many countries, and there have been arguments that such social policies can trigger a recession. Our findings in section 5 showed that a 30-day social distancing policy or lockdown restriction hurts the economy through a reduction in the level of

general economic activities and through its negative effect on stock prices.

Lawmakers in many countries supported an extended social distancing policy, damning the consequences of social distancing on the economy. The recession that followed, which many countries experienced, was a reflection of the difficult choice that policy makers had to make in choosing whether to save the economy before saving the people or to save the people before saving the economy; many countries chose the latter. There were criticisms that the policies were too fast, premature or insufficient, and that the policies contradicted one another in some areas, for instance, the accommodative monetary policy encouraged economic agents to engage in economic activities

while the lockdowns and social-distancing (stay-at-home) policy prevented economic activities from taking place.

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RESEARCH ARTICLE

Effects of Covid--19 pandemic on economic activities

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The study examines the impact of covid-19 on economic growth: opinions and attitudes. The purpose is to ascertain respondents' perception of the effect of the covid-19 pandemic on economic growth. The cross-sectional survey research design was employed and a mixed method was used in collecting the research data. Conduct validity index and face validity served to validate the research instrument while cronbach alpha was used to assure its reliability. The secondary data was analysed using percentage changes while the primary data were analysed using one sample t- test and least square method. Results of the respondents opinion indicated that the covid-19 induced lockdown has significantly contrained economic activities and the circular flow of income. Lastly, the perceived reduction in the circular flow of income in the wake of covid-19 lockdown has negatively impacted on economic growth. The need for policy makers to take drastic measures to curtail the pandemic and forestall a recession that may be consequent upon the pandemic suggests among others.

Keywords: Corona virus covid-19 pandemic, the circular flow of income, economic activity, economic growth

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INTRODUCTION

The emergence and spread of covid-19, caused by the severe acute respiratory syndrome coronavirus 2 (SARS-COV2) has forced countries worldwide to implement non pharmaceutical interventions (NPI) to reduce or minimize the spread of the virus. These NPI, which include among others international travel restrictions, business closures, prohibition of large scale private and public gatherings and mandatory quarantines have been adopted so as to effectively minimize or reduce the rate at which the virus is transmitted. As a result, however, such policies have had large economic repercussions on.

both domestic industrial output as well as international trade, due to diminishing production and reduced demand of some goods. Example model-based estimate showed that the global industry value added tax may have dropped by 25—40% depending on the scale and severity of the implementation of NPI. By quantifying the costs and benefits of various NPI on the economy and global trade becomes necessary to inform effective policy responses and to navigate the trade-off between slowing the pace of the pandemic and limiting economic impacts. however, monitoring the extent, and understanding the underlying causes, of

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the economic disruption on a global scale is hard for three reasons :

- Traditional microeconomic indicators(example trade industry output) are often published at several month of delay
- Their aggregate nature makes it hard to decipher the importance of various impact mechanisms.
- Macroeconomic indicators are primarily available for high and upper-middle –income countries, thereby limiting our ability to understand what is happening in low in low and middle-income countries.

The COVID-19 outbreak (previously 2019 nCoV) was caused by SARS-COV 2 virus. This outbreak was triggered in December 2019 in Wuhan city in Hubei province in China. COVID-19 continues to spread across the world. Initially the epicenter of the outbreak was China with reported cases either in China or being travelers from China. As at now, more epicenters have been identified and these are: Iran, Italy, Japan, and South Korea even though the cases reported from China are expected to have peaked but now falling (WHO 2020), therefore, alternative, higher temporal frequency, proxy data of economic activity with a global extent could help improve our understanding of the unfolding economic disruptions to economies globally. Moreover, one could leverage the cross-country heterogeneity in timing and severity of NPI to examine the economic impacts of individual NPI across countries.

A growing body of literature has used high frequency data (HFD), such as electricity consumption, air pollution, night time light intensity and human mobility, to track the evolution of the pandemic on a country and a global scale. In addition, recent research has used HFD sources to quantify the effect of individual NPI on domestic economic output. For instance, Fezzi and Faghella used daily electricity consumption data for Italy and found that the 3 weeks of severe lockdown the national GDP by almost 30%.

Dep et al, (5) used a variety of HFD to estimate the individual impacts of NPI, showing that workplace closures and a stay-at-home orders had the largest economic costs. However, proxies, such as electricity consumption and human mobility are often hard to relate directly to economic impacts, making it difficult to infer a causal relationship between NPI and economic activity. In addition, these studies often only include countries for which these HFD are available and rarely include countries in global south or island nations, making it hard to generalize the results.

METHODS

Data and trade estimation

We derive estimate of port-level trade flows(imports and exports) for 1153 ports across 166 countries worldwide using the geospatial location and attributes of maritime vessels (from January 2019 ---August 2020). To do this we use automatic identification system(AIS) data, which provide detailed data on the location, speed, direction and vessel characteristics of all trade-carrying vessels with AIS transponder(that sends information to terrestrial or satellite receivers every few seconds—minutes. This data is obtained through a partnership with the UN global platform AIS Task Team Initiative, which aims to develop algorithms and methodologies to AIS data useful for a variety of fields and applications(traffic, economic trade, fisheries , CO2 emissions).

Economic model:

The variation in trade losses across countries are driven by the differences in NPI introduced by countries (interms of timing duration, and severity), supply shortages to domestic supply chains, demand reductions in trade dependent economies and other country dependent specific characteristics(e.g share of tourism, liberalized credit markets). NPI can negatively influence industry output by affecting business operations(e.g workplace closure, mobility restrictions),or positively affects industry output through effectively containing the virus outbreak and thereby allowing industrial production processes and

transportation of goods to continue. To study the implications of NPI on exports (which we use as a proxy of industrial output), we match our daily country-wide, estimate with data from the oxford COVID-19 Government response tracker(OXCGRT). Within OXCGRT, data is collected on the implementation and stringency of NPI across 160 countries. We utilize reduced-form econometric techniques to estimate the effect of different containment policies on exports across a balanced sample of 122 countries (for which data is available). We follow the approach in Lee and McKibbin, (2003) and McKibbin and Sidorenko, (2006). to convert different assumptions about mortality rates and morbidity rates in the country where the disease outbreak occurs (the epicenter country).

RESULTS

Model validation

We find a good fit between the values predicted by our algorithm and the reported trade flows on a port-level (correlation coefficient between 0.52—0.96) and a country—level (correlation coefficient between 0.79—0.98), with a general overestimation for smaller ports, and ports and countries with large trade imbalances (e.g small islands). For the external validation data, we find correlation coefficients of 0.84—0.86 for the aggregated trade data and 0.73---0.78 for the sector—specific trade data (on a country

level). Again, smaller trade flows are harder to predict. The accuracy of the method is also found to be dependent on the coverage of information in the AIS data (some attributes are manually put in), especially information on the vessel draft, which is less frequently reported in developing countries.

Port—level trade flows:In the first eight month of 2020, the number of port calls across all ports reduced by 4.4% compared to the same month in 2019. Fig 1A shows average change in total trade (imports + exports) in terms of volume (in million tones, MT) over the month January –august. The vast majority of ports have experienced a decline in total trade, although a number of ports in brazil, the gulf of mexico region, the middle east, Australia and ports of south korea and the Philippines have seen an increase in trade in 2020 relative to 2019. The top 20 port with the largest changes in volume in terms of total trade, imports and exports are included in table 1. The ports with the largest absolute changes in volume are the ports of Ningbo (china, -68.5MT), Rotterdam (Netherlands, -43.2MT), Shanghai (-32.5MT), Wuhan (china, -21.6MT) And Tubarao (brazil, -20.7MT). the largest changes of imports are found for the ports of Ningbo (china, -43.5MT), Rotterdam (Netherlands, -40.1MT), shanghai (-22.4MT), Zhoushan (china, 22.4 MT) and Amsterdam (Netherlands, -12.2 MT). These ports, and the other ports in the list, function as major gateway ports for a country to import final products.

Rank	Port	Iso3	Change (MT)	Port	Iso3	Change (MT)	Port	Iso3	Change (MT)
1	Ningbo	CHN	-68.5	ningbo	CHN	-43.5	ningbo	CHN	-25.0
2	Rotterdam	NLD	-43.5	Rotterdam	NLD	-40.1	tubarao	BRA	-17.1
3	Shanghai	CHN	-32.5	Shanghai	CHN	-22.4	novorossiysk	RUS	-11.5
4	Wuhan	CHN	-21.6	Zhoushan	CHN	-13.8	wuhan	CHN	-10.9
5	Tubarao	BRA	-20.7	Amsterdam	NLD	-12.2	Beaumont	USA	-10.6
6	Zhoushan	CHN	-18.8	Rizhao	NLD	-11.3	Dampier	AUS	-10.2
7	Amsterdm	NLD	-17.4	Wuhan	CHN	-10.7	Shanghai	CHN	-10.1
8	shekou	CHN	-14.2	Mina Al Ahmadi	CHN	-9.5	Haypoint	AUS	-9.2
9	Hong kong	HKG	-12.3	vliissingen	KWT	-8.5	Lumut	MYS	-7.6
10	vliissingen	NLD	-12.2	Zhanjiang	NLD	-7.6	Shekou	CHN	-7.5
11	Singerpore	SGP	-12.1	Ummsaid	CHN	-7.4	Tianjin	CHN	-7.3
12	Rizhao	CHN	-11.7	Yokohama	QAT	-7.3	Fujairah	ARE	-7.2
13	novorossiysk	RUS	-11.7	Gent	JPN	-7.1	Tangshan	CHN	-6.3
14	lumut	MYS	-11.6	Singapore	BEL	-6.8	Xiamen	CHN	-6.1
15	Dampier	AUS	-10.8	Hong kong	SGP	-6.7	Itaqui	BRA	-5.8
16	Yokohama	JPN	-9.9	shekou	HKG	-6.7	Bohai bay	CHN	-5.7
17	Haypoint	AUS	-9.7	krishnapatnam	CHN	-6.7	Puerto bolivar	COL	-5.7
18	Beaumont	USA	-9.5	Magdalla	IND	-6.6	Hong kong	HKG	-5.6
19	Ghent	BEL	-9.4	Port of le havre	FRA	-6.4	primorsk	RUS	-5.5
20	zhanjiang	CHN	-9.1	Newyork-new jersy	USA	-6.0	Richard bay	ZAF	-5.4

DISCUSSION

We present a near-global analysis of maritime trade indicators based on empirical vessel tracking data, which we use as a high-frequency indicator of economic activity. We illustrate how the implementation of NPI have resulted in large trade losses with a strong geographical and sectoral heterogeneity, with individual NPI affecting the economy in different ways. Our estimate of a 4.4%

reduction in global ports calls for the first eight months of 2020 is lower than the 8.7% predicted by UNCTAD for the first six months. The main reason for this difference is associated with the inclusion of different vessel types. Whereas we include only the main trade-carrying vessels, the UNCTAD analysis also included passengers vessels (66% of total port calls), which have seen the largest drop in port calls (-17% for passenger vessels). Moreover, the sector-level trends

we found are in line with the sector –level impacts (based observed trade data of china, the European union and the united states) for the first quarter(Q1) of 2020 as presented in the UNCTAD analysis, that stated that in particular the automotive industry (-8%), machinery (-8%), office machinery (-8%) and textiles and apparel(-11%) are particularly hit.

CONCLUSION

Overall, all results should be interpreted with caution, as many factors could potentially influence this causal relationships. For instance, temporal increases in maritime transport during some periods of the pandemic could be driven by the large increase in trade of medical supplies (e.g PPE) and mode substitution from air to maritime, irrespective if policies were imposed during these periods. Therefore, testing alternative economic indicators, such as data on mobility, energy consumption and nitrogen emissions, as done in Deb et al.(5), can help support these findings.

In short, our analysis of the economic implications of introducing NPI into society can help evaluate the cost-benefit of the different NPI, which may help government construct effective portfolios of policies as many countries enter a second or third wave of COVID-19 cases (46).

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ARTICLE

Microeconomic impact of COVID-19 pandemic: The need for Epidemic preparedness and economic policy in Africa

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This paper investigates the in-depth analysis of the Microeconomic impacts of the Covid-19 pandemic in Africa and the need for epidemic preparedness and policy implementation to avert the negative impact of the recent COVID-19 pandemic given the recent lockdown and restrictions on travel and movement of goods across African countries. This review shows that many industries, manufacturing companies, and firms' activities were halted with negative input supply across different countries resulting in loss of real GDP. Individual firms and small-scale enterprises which are a crucial part of the economy, have gone to induced large losses with the reduction in local production and distribution of goods causing difficulties to make payments as well as taxes. These calls for the continuous effort of the public and private sector to unanimously contribute to the health sector and more importantly, necessary policies should be adopted in each economy to adjust the interest rate and encourage local investment to target inflation outcomes.

Keywords: Microeconomic, COVID-19, epidemic preparedness, Africa

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INTRODUCTION

The Coronavirus disease (COVID-19) pandemic was firstly reported in Wuhan, China as an infectious upper respiratory illness caused by infection with severe acute respiratory syndrome. The virus later spread across the world making it the foremost dangerous global health issue in history, projecting a high negative impact on socio-economic development. The economic effects are mainly a consequence of the varied preventive measures adopted in several countries to scale back the spread of the deadly virus. The main measures employed by most countries to scale back the spread of the virus aren't

limited to the closure of the Nation's border, the entire lockdown of economic activities among other things such as business and faculty closure.

The impact of the COVID-19 pandemic first wave has plunged economic activities around the world into an emergency recession and inflation of products rising from the closure of borders which prevented international trade and importation of raw materials of some certain products. The economic effect has been a very unpleasant phenomenon in Africa and has put Africa's economic activities into a mess with the fact

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that a lot of economies are already in a weak condition with huge debt before entering the COVID-19 crisis.

However, the adopted preventive measures have resulted in a huge number of setbacks for African economies majorly in terms of productivity and international trade across the Africa continent. According to different studies from scientists and researchers, it's been observed that majority of these preventive measures has greatly affected the income and consumption pattern of many households. Subsequently, both private and public agencies have presented a forecast estimate of economic loss which may result from the implementation of those measures.

For instance, the International air transportation Association (IATA) forecast up to US\$113 billion loss of revenue, and therefore the United Nations Economic Commission for Africa (UNECA) forecast an estimate of about US\$65 billion as loss in revenue among the highest 10 fuel exporting economies in Africa. The United Nation Development Program of Africa's new report: "Analyzing long-term socio-economic impacts of COVID-19 across diverse African contexts" revealed that the effect of the COVID-19 pandemic will equally have an excellent macroeconomic impact on the event of Africa countries by 2030. The study also highlighted the socioeconomic implications of the COVID-19 pandemic across Africa which incorporates independent economic, mortality changes, international financial flows, and economic processes in selected Africa countries.

Covid-19 Pandemic as an Evidence of Rising Food Inflation across Africa Countries

During the 2014 Ebola outbreak in West Africa, there was a dramatic increase in the price of goods. For example, Cassava price experience about 150% increases while rice experienced about 30% increase in price. The outbreak of the pandemic has affected the supply of goods, planting of farm produce, and the production of certain commodities in the

manufacturing sector. These resulted in the hoarding of goods which triggered the prices as a result of demand greater than supply. In addition, the reduction in the importation of basic food and raw materials has further increased inflation and negatively affect businesses, households, and consumers alike.

Microeconomic Impacts of Covid-19 Pandemic on Consumer Behavior

The consumer's behavior in many countries was at some point alarmist with a lot of emergency buying of food and sanitary products. In the private sector, consumer behavior is also changing has difficulties to easy access to consumer goods has forced consumers to change their consumption pattern with more focus to scale on preference. Spash 2020, also argued that the technological use of modern products brought about by rapid innovation and individual consumerism is also likely to affect the linear economy model. This pandemic will also have a positive impact on Research & Development given the high likelihood that recession will cause companies to take short-term views, and cancel long and medium-term

Policy Responses to Minimize the Impact of COVID-19 in Africa

While the threat of potential recession in Africa is vivid mainly through the international trade links, only a few countries have the capacity to implement stimulus packages to cushion their economies from such an impending COVID-19 global recession. Efforts during this regard are recorded within the literature (see Ozili and Arun, 2020) these do cover all the countries that are badly hit by the infections. Most of the adopted measures include reduction of interest rates and also the provision of liquidity assistance to relieve households and firms from the pandemic impact. For countries with better and adequate economic policies, they also need to increase their social protection expenditure to effectively assist the poorest households during the lockdowns.

For instance, African nation has put aside about US\$ 160 million to cushion vulnerable businesses, about US\$ 8.4 billion for the unemployment insurance fund, tax subsidies for a minimum of 75,000 small and medium enterprises with a turnover of but US\$2.7 million, among other relevant fiscal and monetary policies⁶ Senegal has established a Euro 2.1 million response and solidarity fund “Force COVID-19” yet as a Euro 97.6 million contingency conceive to cushion herself from the impacts of COVID-19.⁷ Furthermore, Egypt, Tunisia and Morocco are set to inject US\$6.4 billion, US\$0.9 billion and US\$ 1 billion respectively into their economies as a part of their economic stimulus packages for enhancing liquidity during COVID-19.

CONCLUSION

African countries should re-examine their respective fiscal and economic-policy priorities, to enhance health and social support systems, particularly in countries that have failed to implement critical health related lockdowns due to a lack of social policy safeguards for both rural and urban populations. In the longer-term, Africa will need to build productive capacities to address underlying economic vulnerabilities and enhance continental capabilities to manage crises.

RECOMMENDATION

We see that micro, small, and medium enterprises are becoming the squeeze within the face of COVID-19 and associated business restrictions. It’s recommend that the authorities of Africa countries offer liquidity

interventions to support firms in addressing immediate liquidity challenges, reduce layoffs, and avoid firm closures and bankruptcies so as to release additional cash for businesses, the government can also consider the following: (i) Tax rate reduction (ii) Reducing taxable income(iii) Offering tax credits(iv) Offering tax refunds. (v) In addition, there should be payment of all the outstanding arrears against supplies made to government. Use of technology for access to credit should even be escalated during this crisis. for instance, mobile money and other e-platforms can simplify application processes and reduce turnaround times of MSME loans.

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RESEARCH ARTICLE

Impact of COVID-19 and lockdown on the informal sector in India: The case of handloom industry

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The COVID-19 pandemic and lockdown has caused massive disruption in almost every sector of the economy in India and informal sector has been the worst affected. The handloom industry being the second most employers in the informal sector is important to the economy in terms of employment generation, output and export. But, the industry has been engulfed with manifold problems since its inception and COVID-19 crisis worsened the condition of the handloom workers. In this context, the current study is an attempt to look into the impact of pandemic and lockdown on the handloom industry in the informal sector in India and the key problems faced by the handloom workers in their everyday life. Taking information from both primary and secondary sources, it is observed that the handloom industry in India is severely affected by COVID-19 and lockdown which resulted in loss of income and livelihood to the handloom workers. Ban on non-essential transportation facilities led to unavailability of raw materials, inflated price of yarn and dyes. Closure of markets resulted in unsold clothes piling up in weavers' residents which drastically affected revenue generation in this sector. The weavers are living and working in ill standard houses and suffering from poverty, malnutrition, indebtedness etc. Obsolete technology along with unorganised production systems and lack of government support are making their condition miserable. Specific central government policy along with state support is necessary for the revival of the handloom industry which will help to rebuild the informal economy in India.

Keywords: COVID-19, lockdown, informal sector, handloom industry, income and livelihood loss

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INTRODUCTION

The coronavirus disease (COVID-19) first emerged in December 2019 in the Wuhan city of China, spread across the world at an alarming rate in no time. The World Health Organisation on 11th March 2020 declared COVID-19 a global pandemic owing to its mortality and

morbidity rate (WHO, 2020). In order to contain the spread of the pandemic, countries announced partial or complete lockdown which resulted in a massive disruption in the social and economic life of the people as the world economy came to a grinding halt. The unprecedented nationwide lock down in India

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adversely affected the Indian economy as production, distribution, employment and income was completely shut except some essential commodities and services. Though the pandemic has affected almost every sector of the economy resulting in loss of livelihood across social divide in India, the informal sector workers have been the most affected as they lack employment protection and social security (Sumalatha et al, 2021). India has a vast informal sector, the largest in the world, employing close to 90% of its working population and contributing more than 45% to its overall GDP (Dev & Sengupta, 2020). The informal sector is defined as a business that is not a legal entity owned by households or individuals (ILO, 1993) while informal worker refers to a worker who is not registered nor protected by the legal framework, does not have work contracts, secure work incomes, benefits workers, and social protection (ILO, 2020). In general, both sector and worker is classified in one form of activity, namely informal sector activity. One such activity represents the decentralised handloom industry in India.

Handloom is an ancient industry that constitutes a distinctive feature of the cultural heritage of India. It plays a pivotal role in the economy by contributing to the export sector as 95 per cent of the world's woven fabrics come from India (MoT, 2019). In the informal sector, the handloom industry provides employment on such a large scale that it stands second next only to agriculture. Being the second most employers in the rural nonfarm sector, the handloom industry is important to the Indian economy in terms of employment, output and export. According to Fourth National Handloom Census 2019-20, there are 3.5 million handloom workers in India spread over in 3.1 million weaver households. During 2017-18, production in the handloom sector is reported to be 7,990 million square meters which constitute around 15 per cent of the total cloth production in India (MoT, 2019). The handloom products of India are highly acknowledged all over the world due to its exquisite design and excellent colour combinations.

The industry is capable of providing employment opportunities to large unskilled and semiskilled workforce in the rural and semi-urban areas. But, the handloom weavers hardly get sufficient remuneration for their labour and hence live a miserable life due to negligence to this sector. This poses a serious threat for their survival which needs to be addressed at the earliest. The handloom weavers are already facing problems like inadequate marketing facilities, credit constraints, lack of government support, poor health and education (Meher, 2020) and the COVID-19 lockdown worsened their condition. Unavailability of raw materials, inflated price of yarn and dyes and closure of markets disproportionately affected the weavers. In this context the present study tries to answer the questions (1) what are the key problems faced by the handloom weavers in this industry? (2) How the Corona virus pandemic has impacted the livelihood of the handloom weavers?

LITERATURE REVIEW

Meher (1995) analysed the problems and prospects of handloom industry and the living conditions of weavers in Orissa. He found out that the weavers live in ill-standard houses with inhospitable working conditions. With high working hours, every member of the household has to participate in the weaving work and due to the low level of income; the weavers are indebted to a great extent. Sharma S. (2004) stated that poor designs, sick institutional linkages, technological constraints, low value addition, lack of innovation and entrepreneurship, static weavers' skill and lack of working capital are the major problems faced by the handloom weavers in Pochampally. Supplies of yarn, marketing and sales networks are the major constraints in the way of sustainable development of handloom industry in Jaipur district of Rajasthan (Goswami & Jain, 2014). Nagaraju and Rao (2014) observed that the preference level for weaving as an occupation among the youth is zero. The educational, health and dwelling status of the handloom weavers is very poor but it is worthy to note that most of the handloom weavers have adequate sanitation facilities. Their

economic and social conditions are pathetic as most of the weavers earn below INR 50,000 per annum. Labourers working in the textile firms live in unhygienic and deplorable condition without much provision of social security and coverage of health insurance. According to them, low level of income is a major constraint for the workers and education, working hours and skill training are important factors influencing their earnings. Gender bias is persistent in the determination of wage level (Panda & Komalavalli, 2019).

As an impact of COVID-19 pandemic the MSMEs in Pakistan are mainly facing financial issues, supply chain disruption, decrease in demand, reduction in sales and profit etc. Many firms in order to tackle the current situation and cover cash flow shortages are adopting strategies such as apply for a loan, partially and completely shutting down the businesses, lay off employees and reduce staff salary (Shafi et. al. 2020). Das and Sutradhar (2020) examined the condition of the handloom weavers especially women during lockdown in Sualkuchi cluster of Assam and revealed that the condition of the handloom weavers has already been precarious in the country as well as in Assam and the lockdown worsened it. They found out that looms fell silent due to lockdown and hence it left the workers without any work and payment. The informal sector (IS) workers in Thailand experienced drastic decreases in their monthly income though the reduction in come varied across occupations and geographic regions. Due to income loss, the IS workers used their past savings and increased debt to continue their daily expenses. The income support programme offered by the Thai government reached less than half to the IS workers during shutdown (Komin et. al., 2021). The COVID-19 pandemic and lockdown resulted in massive increase in unemployment, dramatic fall in earnings, large increases in food insecurity, depletion of savings and patchy coverage of relief measures among the informal workers in India (Kesar et. al., 2020).

Research Gap and Objectives

Given this background, it is observed that not many studies have been conducted to analyse the problems and prospects of the informal workers in the handloom industry and study on examining the impact of COVID-19 pandemic on the handloom weavers is very rare. Therefore the present study attempts

- To analyse the manifold problems faced by the handloom weavers in this sector before lockdown
- To investigate the impact of COVID-19 on the lives and livelihood of the handloom weavers in India

DATA AND METHODOLOGY

Both primary and secondary data is used for the current study. Information on different issues being faced by the handloom weavers is taken from the reports of National Handloom Census 2019, Annual Reports of Ministry of Textiles- Government of India, journal articles and web sources. Information on major problems encountered by the weaver households during lockdown was gathered from the print and electronic media and news pieces. A small primary study was conducted to understand and verify the microeconomic impact of COVID-19 on the handloom weavers. The study consisting of 15 handloom weaving households was conducted at a major handloom pocket named as Bijepur in the Bargarh district of Odisha state. Taking into account the COVID situation, the sample households were conveniently and purposively selected and necessary COVID protocol was followed while visiting the households. The field study was conducted in the first week of August 2021 using semi structured questionnaires, interviews and observation method. The data was processed in Ms-Excel and qualitative descriptive statistics were used to analyse the data. Based on both primary and secondary data, inferences were drawn and conclusion was made.

FINDINGS AND DISCUSSION

The major findings of both primary and secondary analysis are discussed in the following sections.

Issues being faced by the Handloom Weavers in this Sector

The report of National Handloom Census 2019 along with some research articles and news piece is followed in this section to observe different issues of the weavers under the following heads.

Dwelling Status

Dwelling need is more for a handloom weaver as the weaving activity is generally carried out at the residence of the weaver along with the assistance of his family members. According to the report of National Handloom Census 2019, most of the handloom weavers' households are staying in Kuccha houses which constitute 60.2 per cent of the total households. 21.2 per cent households are having pucca houses whereas 18.7 per cent live in semi-pucca houses. This shows that the dwelling status of the handloom workers are not improved which indicates their poor living and unproductive working condition.

Income Generation and Acuteness of Poverty

Having a reasonable amount of income is necessary for the survival of the handloom workers. Low level of income results in poverty, hunger, malnutrition and indebtedness and hence decreases productivity of the workers. The Handloom Census Report 2019-20 shows that 67.1 per cent handloom worker households are having income of below INR 5000 per month which means that the households are earning below INR 166 per day. This shows the acute level of poverty prevailing among the handloom workers. As per the report, the average household size of the handloom workers is 3.88 from among which 1.12 persons are workers and the rest are dependents. So, the average wage per person in the household is much lower than the national minimum wage level of INR 178/day (Tradingeconomics.com). This shows that the handloom workers are suffering from poverty, hunger

and malnutrition which are responsible for low level of productivity among them.

Production System and Marketing Strategies

Broadly, there are three systems of production under which all the handloom workers are organised. They are independent weavers, master weavers (MV), and cooperatives. The marketing strategies of the weavers depend on the production system under which they are working. Independent weavers purchase, produce and market the final product on their own. Master weavers supply raw material to other weavers, who, in turn, carry out the production and then deliver the final product to the former. On the other hand, in the case of weavers' cooperative societies (WCS), they supply the input to the weaver-members to carry out production. Finally, cooperatives market the produce (Bhowmik 2019). From among the three systems of production, working under a master weaver is found to be more exploitative in nature (Meher, 1995).

It is observed from the data of Handloom Census 2019-20 that most of the handloom workers (73.2%) are working as independent weavers and the least number (7.4%) are working under different institutions which include WCS, Khadi & Village Industries Commission and State Handloom Development Corporation. A reasonable number of handloom workers are under master weavers which constitute around 19 per cent. Even though most of the workers are independent still their income is not impressive. Most of the handloom worker households in India are producing traditional clothes like Shawls, Mekhla, Chadder, Loi, Stole, Scraf, Muffler in north eastern states followed by Sari in other states. So, this might be a reason for their low level of income.

Technological Development

Technological development among the handloom workers can be measured by looking into the types of the loom being used by them. There are different types of looms being used by the handloom workers in India which include pit loom with Dobby/Jacquard & other

pit looms, frame loom with Dobby/Jacquard & other frame looms, loin looms and others. According to the report of Handloom Census 2019-20, highest numbers (42.2%) of the handloom weavers are working in the pit looms with dobby/jacquard and other pit looms followed by frame looms with dobby/jacquard and other frame looms. Weaving with pit looms is the conventional method, the weavers are still following. This reveals that technological development has not happened till now and hence the weavers are not productive enough to procure handsome profit from weaving work.

Government Assistance

In the current time, one of the major problems faced the handloom workers is the competition from the power loom and mill sector. So, in order to save the handloom industry and the workers, government assistance is necessary. Though the government has been formulating different policies for the handloom workers, the benefits are not reaching to the actual needy. The National Handloom Census report shows that more than 65 per cent of the weaver households are not aware about the existing schemes and training facilities available for them. A very small section of weaver families who are aware of the individual schemes designed for them has been benefited from the same.

The All India Handloom Board (AIHB) was abolished by the central government on 27th July 2020 which is another instance of neglect and reveals partisan favouritism towards big industries and the capitalist lobby rather than the employment generating informal sector. At a time when it should be extending great support to a sector that employs a large section of the population, the government is pampering capital-intensive mega-enterprises at the cost of people-intensive traditional and informal sectors that provide livelihoods to the poorer sections across the country (First Post). This shows the insensitiveness and dire negligence of the government towards the handloom

workers and the industry as a whole which stands as the second most employers in the informal sector.

Impact of COVID-19 and Vulnerability among the Handloom Weavers

Information in this section is presented from both secondary and primary sources to analyse the vulnerability impact of Corona virus pandemic and lockdown in India.

Secondary Evidence

The informal sector was hit by two consecutive shocks in a short span of time, from 2016 to 2019. The first was demonetization in 2016 and the second was the haphazard introduction of GST in 2017 (Dev & Sengupta, 2020) which left the informal handloom workers in complete lurch. Now, the COVID-19 lockdown has hit hard to their livelihoods, many fearing starvations if the situation continues. According to Business Today “coronavirus pandemic has severely affected exports of cotton yarn, fibres and garments in West Bengal. At the same time handloom weavers and artisans have been hit hard by slump in sales due to lockdown restrictions. Weavers and craftsmen are facing wage loss as their businesses, which depend on retail stores for their sales, have come to a standstill. The sales of handloom tant, cotton and silk sarees of West Bengal, which are a source of income for local weavers and artisans, have come to a halt due to suspension of production amid coronavirus outbreak”. As per The Times of India “Many weavers in the Bargarh district depend on the open markets for sale of their handloom products. But they have been unable to sell the fabrics owing to lockdown now. More than 12000 families of this region depend on weaving activities to earn their livelihood which has been impacted badly as the markets are shut”.

The New Indian Express described “since the COVID-19 pandemic and subsequent lockdown, the time has stood still for these weavers and their looms in Gadag district. Over 6,000 skilled workers are hired by the traditional weaving sector in this region. These skilled

workers, who have worked at the looms for generations, have been hit hard by the current circumstances, as they least expected their work to be halted amidst the lockdown. With marriages being put off for the time being, the sector has also been deprived of earning from one of its major sources of revenue”. “Covid-19 lockdown has impacted the weavers as hundreds of looms producing Pochampally Ikkat clothes, went silent in erstwhile Nalgonda for the last two months. In all 10,000 looms, including 6,500 in erstwhile Nalgonda district and 3,500 looms in Warangal district have been dedicated in weaving Pochampally Ikkat sarees and clothes, which have good brand image in international market. Stocks of Ikkat sarees, worth INR 200 cr, accumulated with master weavers due to lack of marketing facility during lockdown.” reported Telengana Today. The New Indian Express wrote up “hit hard by the coronavirus- induced lockdown, 'Himroo' weavers in Maharashtra's Aurangabad district are waiting for return of foreign tourists, prime customers of their products, and full-fledged start of normal activities for revival of their business.”

Primary Evidence

The study area Bijepur is a major handloom cluster in the Odisha state having a total of 9801 handloom weavers and allied workers spread over in 4223 households (MoT, 2019). The study conducted in 15 weaver households shows that all the weaver respondents are male and belong to other backward class (OBC) and majority of them are in the age group of 30 to 61 years. The average size of the household is 4.5 from among which 2 to 3 persons are workers and the rest are dependents. Most of the respondents have education level of primary schooling followed by upper primary. Majority of the households are living in rented houses and having semi pucca dwellings. Weaving was reported as the main work occupation of the sample respondents with average monthly household income of INR 9080. This shows the poor socio economic background of the weaver respondents in the sample handloom cluster in India.

From this study it is observed that the handloom weavers followed proper lockdown measures as handloom weaving is a home based activity but staying in home severely affected their livelihood. Most of the respondents (90%) completely lost their livelihood for an average of six months in different phases of lockdown in India. As the markets were closed the independent weavers were neither able to buy raw materials nor able to sell their finished products. The weavers working under master weaver/ middleman reported to have received less than 30 per cent of their wages and irregularity in work. The cooperative society believed to be helpful for the handloom weavers also could not cope with the lockdown, shutdown measures and could not provide complete protection of employment to the weavers. Closure of markets led to stoppage of raw material procurement and lack of sale of the finished products resulting in fabrics piling up in the stores.

Majority of the handloom weavers reported that the situation has not been normal yet and it will take around six months to become normal. The total income loss of the handloom weavers since March 2020 is reported to be from INR 60,000 to INR 130,000. Due to lack of savings, most of the weavers encountered financial crunch to maintain their daily expenditure leading to high level of mental stress and trauma. As very few of them had past savings and most of them are debt burdened, their family was run by taking loans from village money lender and government mercy. The finance minister of India in March 2020 announced a relief package of INR 1.70 lakh crore under “Pradhan Mantri Garib Kalyan Yojana” for the unorganised sector workers, especially daily wage workers, and urban and rural poor (PIB, 2020). The handloom weavers in the study area mostly received free ration and financial assistance to female Jan Dhan account holders. Some of them also received free cooking gas under Ujjwala scheme. But the sample weavers mentioned that these helps by the

government is very minimal and not enough to maintain the family.

The central government also announced a Corona relief package of INR 3.0 lakh crore in May 2020 to support the MSMEs but there is no specific announcement for the handloom sector. The primary data also reveals that there is no support scheme has been declared either by the state or central government to support the handloom workers in the country. The weavers didn't receive any other kinds of assistance either from fellow villagers or from any NGO/civil society in the locality. Upon asking what kind of assistance will be beneficial for the handloom weavers to resume work in the post lockdown period, they told that financial help in terms of easy loan, work shed and proper implementation of the existing government schemes is very much necessary. This will help them to revive the weaving activities which will generate employment in the informal economy.

SUMMARY AND CONCLUSION

The present study briefly depicts a general picture of the handloom weavers in the country and the multidimensional problems being faced by them. Both the primary and secondary data shows that handloom workers are living in ill standard houses which are responsible for their poor health and unproductive working condition. They are having very low level of income resulting in acute poverty and hence malnutrition among them. The production and marketing techniques of the weavers are found to be unorganised, the technology used by them are out dated. Lack of government support and ignorance towards the handloom industry is making the life of the workers even more pathetic and desperate. Their situation got aggravated due to the sudden onset of COVID-19 pandemic and lockdown. It is observed from the study that COVID-19 and lockdown has hit hard to the handloom industry leaving the informal workers without work, income, food and other basic necessities. A huge income loss has been experienced by the workers and still their situation has not been

improved. The corona relief measures are not adequate and hence there is urgent need for specific policies for the handloom weavers along with proper implementation of existing government schemes.

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RESEARCH ARTICLE



The Impact of Covid-19 on Farmers in Maharashtra

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This paper discusses issues regarding the effect of COVID-19 on the Small Farmers in Maharashtra. The economy falls down rapidly. This impacted on farmers heavily. The COVID-19 is running riot in the state's rural hinterland, where most agricultural activity takes place and more than 75% people depend upon the income generated from these activities. This pandemic impacted on Rabi season as well as Kharif season crops. In Maharashtra Crops like Soyabeans, cottons, vegetable-fruits farming and those who are in diary business, horticulture have been hit badly. Farmers from Vidharbha & Marathwada region impacted from this pandemic & Kokan-Western Maharashtra suffers a lot because with this pandemic they also suffer from 2 cyclones i.e. "NISARGA" "TOKATAY". Due to COVID-19 most of the farmers from Maharashtra are suffering from the problem of poverty. So this paper focuses on how the problems faced by farmers can be resolved, how the agricultural production will increase, what are the schemes started for farmers also think for the future even as the pandemic continues to rage, we have to put safety nets.

Keywords: Covid-19, lockdown, agriculture, farmer, Maharashtra

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INTRODUCTION

The COVID-19 pandemic is a global health crisis that is already having devastating impacts on the world economy. India suffers a lot with that state like Maharashtra where is Agricultural backbone of economy, but due to COVID-19 it is showing negative growth rate.

The economic shock will likely be much more severe for Maharashtra for two reasons. First, pre-COVID-19, the economy was already slowing down, compounding existing problems of unemployment, low incomes, rural distress, malnutrition, and widespread inequality & weather conditions.

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OBJECTIVES

- To study the impact of Covid 19 on agriculture sector in Maharashtra.
- To understand problems faced by farmers.
- To view on What are the solutions to overcome the problems faced by farmers in Maharashtra

IMPACT OF COVID 19 ON MAHARATSHTRA'S ECONOMY

COVID-19 is disrupting some activities in agriculture and supply chains. Preliminary reports show that the non-availability of migrant labor is interrupting some harvesting activities. There are disruptions in supply chains because of transportation problems and market closed due to lockdown. Prices have declined for Jawari, cotton, Soyabin, vegetables, and other crops, yet consumers are often paying more. Media reports show that the closure of Retail shops, consumer service industry during depressing milk sales. Meanwhile, poultry farmers have been badly hit due to misinformation, particularly on social media, that chicken are the carriers of COVID-19. Marathwada & Vidarbha suffered from lack of water and in covid though the inter city transport stopped this problem arises. Also the Green Path of Maharashtra that is "Konkan" suffers from 2 dangerous cyclones i.e. "NISARGA" "TOKATAY". Though the state government of Maharashtra announces the many schemes for farmers and financial fund but it not efficient.

Maharashtra's economy is to grow at (-)8% in 2020-21 compared to 5.0% of the previous fiscal, according to the Economic Survey presented in the Assembly on Financial Budget 2020-21.

The survey said the unemployment rate in January to March 2020 was 5.6% as compared to 5.2% in October to December 2019. A total of 26,586 offences were reported in the State by October 2020, in which women were victims, as compared to 35,501 in 2018 and 37,112 in 2019, the report said. During 2020-21 upto

September the total FDI inflows in the State was Rs 27,143 crore.

Western Maharashtra is food factory of Maharashtra but it suffers lot, Marathwada & Vidharbha's are not able take foodgrains like Jawari-Bajari as well as Soyabin due to covid 19, Rice & Fruits production from Kokan also affected

Though the majority of farmers in Maharashtra have small holdings are facing financial problems, mental problems and the suiciding rate is also increased. Epitome Journal survey stating that 2 farmers are suiciding in 1 hr. Childrens of farmers are also not able to take online education. Farmers are facing overburden of Loans. The "Savkarshahi" is still yet not destroyed which is exploiting the small farmers. The situation is dangerous.

It is very difficult task for government to handle this situation but there are some solutions

- There should be proper implementation of Govt Schemes like Mahatma Jyotirao Shetkari Loan Waiver scheme.
- Take strict action against exploitation of rights of farmer.
- Take step to Eradicate unequality between small farmers & rich farmers
- By following all guidelines of covid-19 all markets should be open where farmer can sell there production
- Frame the policies which can give financial as well as educational support to farmer & family.

CONCLUSION

Covid-19 is pandemic no one can tell when it will be end so everyone should get ready to live with this covid & overcome the situation. The agricultural sector trying to overcome from this crisis now the responsibility of government as well as every citizen of maharashtra is to help the farmers, raise the fund for them, create the market places where they can sell the

product ,make proper changes in MSP Policy.If everyone is aware of their responsibilities, the situation will soon be under control.

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