Food and Scientific Reports
ISSN 2582-5437
foodandscientificreports.com

Indian Seafood Trade and Covid-19: Anticipated Impacts and Economics

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ABSTRACT
Fisheries play a vital role in boosting the economy of our country. The COVID-19 situation has disrupted the seafood trade which has serious implications on the economy and employment. This explorative article deals with the preliminary findings on the impact of corona virus pandemic on seafood trade and copes up plans to foster the sector. The findings realized a significant reduction in seafood export from India which will affect the economy of the country. The policymakers need to focus on the smooth movement of the fish products through International supply chain logistics and also revive the sector by providing economic packages.
Keywords: Covid-19, Impact, Economy, Seafood, Trade.

All it started with the emergence of pneumonia of unknown etiology were identified in Wuhan City, in China on 31st December 2019. The World Health Organization (WHO) termed it as 2019 novel corona virus (COVID-19) and declared corona virus disease as pandemic and called it a public health emergency of international concern, on 30 January 2020 (Bai *et al.*, 2020; WHO, 2020). Corona viruses are a large group of RNA viruses that causes a wide range of diseases in animals and humans as well as belonging to the family Corona viridae and the order Nidovarales (Adhikari *et al.*, 2020). India reported the first COVID-19 case in Kerala on 30 January 2020 and the transmissions gradually increased willy-nilly during March with several people testing positive. To curb the further spread, India's government declared a three-week nationwide lockdown from March 25, 2020. The stringent measures confined millions of citizens in their homes, restricted almost all economic activities and all non-essential businesses and firms, including retail outlets, educational institutes, religious places, public services, and government offices throughout the country remain closed and all means of transportation had stopped. Four lockdowns have been implemented in various phases until 31 May 2020. Further, from 1st June 2020 the country initiated a step by step unlock procedure by easing control measures (Gettleman and Schultz, 2020).

The pandemic has hit hard on most of the advanced countries in the world and the impacts are severely felt and realized in the global economy. The economic growth estimates are one of the macro indicators to study the impacts of COVID-19 situation which has evolved into a global economic crisis and affected the $86.6 trillion global GDP. It shows that a 0.4 percent drop in growth results around a $3.5 trillion loss in economic output. In the initial phase it is assessed that the world trade disrupted due to the COVID-19 outbreak could result in a $50 billion decrease across global value chains (UN Report, 2020; UNCTAD Report, 2020). World trade is projected to fall by 13 to 32 percent in 2020 as the COVID 19 pandemic disrupts normal economic activity and life across the world, according to WTO. The International Monetary Fund (IMF) estimated the global economic contraction of 4.9 percent in 2020 which will be worse than the 2008-09 global financial crises (Gregg, 2020). India is also facing an unprecedented economic crisis, the GDP growth of the country slows to 3.1% in March quarter (Jagannath, 2020) and the World Bank has reduced India's estimated gross domestic growth (GDP) to 1.5-2.8 percent as COVID-19 drags down activities in the already slumping economy (Indivjal, 2020). India's total exports in March, April and May 2020 are estimated as USD 528.45 billion, USD 27.96 billion, and USD 61.57 billion showing negative growth of 1.36, 36.65, and 33.66 percent respectively compared to the same period in the previous year which indicates the significant impact of the pandemic during this period. Similarly, the imports in March, April and May 2020 are estimated as USD 598.61 billion, USD 27.96 billion, and USD 57.19 billion exhibiting a negative growth of 6.33, 47.36, and 48.31 per cent over the same period last year (Trade Report, 2020).

COVID-19 has disrupted the food systems drastically affecting many lives and livelihoods, significant impacts are visible in the fisheries sector too. This is one of the major crises in the fisheries sector has ever witnessed. Fish often plays a key role in global food systems because it provides a cheap source of protein and thus contributes to food security. Driven by technological

development, globalization and liberalization policies have resulted in increased seafood trade crossing national boundaries. Fish and fish products are among the world's most widely traded commodities, with 38% of global fish supply reaching international trade (Sumaila, 2016) and play a key role in the global food chain. The growth of seafood trade is very substantial with global fish exports hitting 67.1 million tonnes, and the value of exports grew from USD 7.8 billion in 2018 to USD 164 billion with an annual growth rate of 8%, while developing countries account for more than 58 percent of all fishing exports in terms of value and 60 percent in terms of quantity, of which India is a major contributor (FAO, 2020). The prolonged lockdown in India posed challenges to the vibrant blue economy and the associated disruptions due to lockdown will impede fisheries activities, keep the dependent stakeholders at stake and effect the economy as the sector significantly contributes towards the GDP of the country. The sector has to deal with the decrease in demand and supply of seafood along with the logistics issues. While it will take a few more months to completely evaluate the overall impact of COVID-19 on Indian seafood trade, early signs need to be evaluated on the potential impacts. This article discusses the possible impact of the corona virus pandemic on trade-in seafood and plans to promote the industry.

Indian Seafood Trade Scenario

The fisheries sector plays a major part as a driver of Indian economic growth and the seafood trade has a significant role in earning foreign exchange and contributing to global food security. Seafood export is one of the leading sectors and has emerged as India's largest agricultural export category. The data retrieved from Marine Products Development Authority and Directorate General of Commercial Intelligence and Statistics (MPEDA, 2020; DGCI&S, 2020) shows that, India exported seafood worth INR 44368.44 crores (USD6.72 billion) with a volume of 13.92 lakh tonnes during the year 2019 which includes fish, crustaceans, molluscs and other aquatic invertebrates. The export pattern has shown an increasing trend with a growth rate of 1.1 per cent quantity-wise and 3.28 per cent value-wise. Frozen shrimp is the major exported item in the seafood trade basket both quantity and value-wise followed by the frozen fish, frozen cuttlefish, frozen squid, dried items, chilled items, live items and others. The major export market for fish trade in quantity-wise is South East Asian countries (32%), USA (20%), China (16%), European Union (12%), Japan (6%), Middle East (4%) and value-wise is USA (35%), South East Asian countries (23%), European Union (13%) out of which Spain, Italy, UK, Belgium, France, Netherlands contributes 11.4%, China (12%), Japan (6%), and the Middle East (4%). A review of India's output in the monthly seafood trade from January to December 2019 (Figure 1.) shows that exports showed a growing pattern over the months and a major share of exports occurred during the period from September to October. At 135120.77 tons worth INR 4886.22 crores, the export touched the highest in both quantity and volume in October.

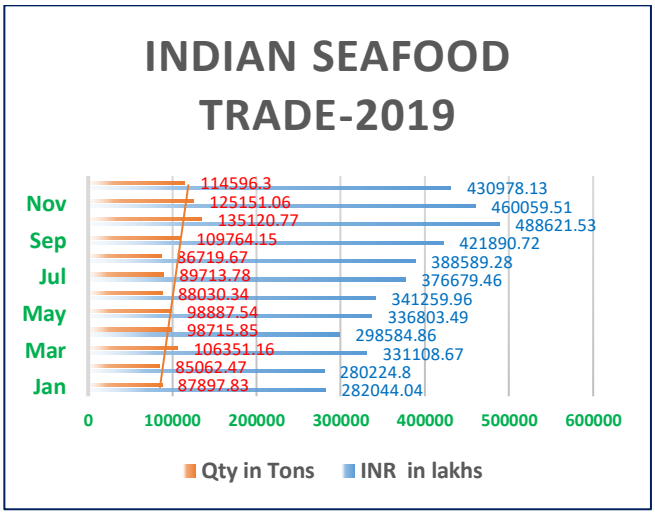

Fig 1. India's seafood trade performance in 2019

Anticipated Impacts and Economic Loss on Indian Seafood Trade

The outbreak has created chaos and has a significant impact on the Indian seafood trade as most of the COVID-19 affected countries like the USA, China, EU and the Middle East were having strong trade links with India which has disrupted due to the pandemic. The aftermath of this includes the reduction in the seafood trade, falls in demand for fish, delay in export which affects the freshness of the seafood products as fish is a highly perishable commodity, etc. The major reason for the decrease in seafood export is due to the prolonged lockdown and associated disruption of demand and supply chains.

Fall in demand for fish and fish products

Due to lock down and the stringent measures adopted to control COVID-19 spread, people have poor access to the markets also the seafood restaurants were the main hub for fish products which are also closed resulted in a decrease in fish consumption patterns. Also due to the false notion that the virus has spread from the

Wuhan seafood market which was not a seafood market exclusively but a wet market where wild animals were being traded. So many people are reluctant to consume seafood assuming it to be a potent source of novel corona virus but COVID-19 has been shown to not affect fish (Bondad-Reantaso, 2020). The bleak demand in International markets has made the products stuck in the factories so the factories reduced the production volumes.

Fish supply and production disruptions

Fishing has banned in the country during the initial stages of the lockdown resulted in the non-availability of raw materials for processing. Fishing and fisheries activities have exempted from the restrictions and remain operational during the later stages of lockdown, but the adverse situations aroused like unavailability of fishing accessories had made the sector difficult to thrive. The processing capacity and output have decreased due to the reduction in the workforce with the exodus of migrant laborers. The primary impact of COVID-19 on seafood trade is felt due to the disruption of the fish supply chain leads to a reduction in the unavailability of seafood products which significantly reduced the seafood export.

Disruptions in trade and distribution

Due to the complex supply chain in the fish processing sector, the products are stuck at the factories due to the bottlenecks in transportation and logistics. The closure of International boundaries had disrupted the seafood trade.

To assess the anticipated loss on fish trade due to COVID-19, previous year export pattern has been analyzed from April to June 2019 and found out that the export during this period was 2856.34 lakh tonne which is 23% of total export in the year 2019 and received INR 9766.48 crores (22% of total value). It is anticipated around a 50% reduction in the export due to the COVID-19 outbreak followed by country lockdown and supply disruptions, then the estimated loss will be INR 4883.24 crores. The data retrieved from National Oceanic and Atmospheric Administration (NOAA, 2020) fisheries statistics (Table.1) to study the trend of export to USA which has severely affected by COVID-19and it is one of the major contributors to Indian seafood trade basket. The data shows a positive growth trend from January till April 2020 and then a sudden decrease in export level by around 60 percent in May 2020. One of the biggest markets for Indian shrimp is the USA which imported 8,600 metric tonnes of shrimp in May 2020 exhibiting a decrease of 61.3% compared to last month. Taking a cue from this, the negative impact of COVID-19 in seafood export to the USA is visible in May exhibiting a decrease in 127.84 lakh tonnes resulting in a loss of 98 million USD as compared to the same period in the last year. The reductions in seafood trade will have a significant impact on the economy, as the fisheries sector contributes a substantial percentage to the Agri-GDP of the country. The COVID-19 pandemic along with other natural disasters and crises like climate change dis-proportionality may have a synergistic effect that leads to glaring malnutrition of unacceptable levels which have a major impact on nutrition and food security. The ramifications will be serious particularly for the poor and vulnerable living in rural areas.

Table 1. Current status of India's seafood export to the USA

Months	Export (quantity)		Difference (qty in LT)	Change (%)	Export (value)		Difference (qty in LT)	Change (%)
	2019 (LT)	2020 (LT)			2019 (Million USD)	2020 (Million USD)		
Jan	234.56	306.30	71.74	30.59	197.18	260.22	63.03	31.97
Feb	176.70	219.94	43.24	24.47	144.32	187.52	43.20	29.93
Mar	208.38	214.75	6.38	3.06	170.40	179.04	8.64	5.07
Apr	189.93	234.38	44.46	23.41	153.65	196.35	42.70	27.79
May	216.71	88.87	(-)127.84	(-)58.99	172.46	74.46	(-)98.00	(-)56.83

***LT: Lakh Tonnes Source: NOAA Fisheries Statistics, 2020**

The anticipated impacts of a decrease in fish export are;

- Processing companies will incur high losses
- Effect the livelihood of fishers and dependents especially the small scale fishery
- Leads to a decrease in employment opportunities in the sector

- Fish farmers, especially the shrimp farmers face economic loss because of the decrease in demand and price
- Young start-ups in the field of fisheries will be in trouble due to the reduction in funds
- Increased transportation and logistics cost will pile up the cost of fish and fish products, which reduce the consumers purchasing power

Thinking with an optimistic perspective, the supply chains are likely to normalize in some time to come and the demand is to get restored in a few months. Due to the pandemic, people are now well aware of the importance of personal hygiene and sanitation which is one of the most critical factors in fish processing. Also the HACCP and SPS measures will be strict and more quality checks will be there so that products with zero contamination will flow to other countries. This will further increase the quality of the fish being processed and will be able to fetch a better price for the product. As the popular proverb 'Necessity is the mother of invention', there is tremendous scope for innovations in this situation that can transform the fisheries sector.

Implications and way forward

The countrywide shutdown has brought an abrupt halt to almost all the economic activities including fisheries. There are no easy answers for this and things will never be the same again. The pandemic has negatively affected the seafood trade and the stakeholders involved in the sector which in turn affects the GDP of the country. One way out from the bleak demand of seafood in the international market is to boost domestic consumption by creating fish and fish product outlets all over the country. Providing timely and accurate data and info on fish and fisheries-related trade measures, supply and stocks, as well as prices in coordination with international organizations and research centers which reduces the uncertainty and allows traders, producers, and consumers to make informed decisions. Fishing has to be restarted on a rotation basis with proper sanitary measures and keeping physical distance to ensure an adequate supply of fish. The post-harvest activities, marketing, cold chains and transport have to be intensified. Maintaining effective transport and logistical services will be crucial to the proper functioning of the fishery supply chain and to ensure that supply chains remain open and connected so that international markets can continue to function in supporting the movement of fish. The recovery would rely to a greater extent on the government policy and the Reserve Bank of India (RBI) responses during the crisis-era with policy packages, monetary policies and liquidity injections. The initial round of actions has been already announced and it is anticipated that the initiatives like self-reliant India (Atmanirbhar Bharat) package of INR 20 lakh crore announced by the Prime Minister to revive the economy may have a positive impact on fisheries trade too. The Government will have to pay more attention to the brewing economic crisis in the fish processing sector by providing grants and subsidies for storage infrastructures. Also talks with trading countries to be initiated to reopen and re-establish the global fish trade by opening global fish markets with strict preventive measures also for the reduction in tariff and trade barriers for fish and fish products. The study has research implications and many aspects can be analyzed once the trade data is released which will make our anticipations more robust and pave way for future corrections.

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