

Novel Corona virus (Covid-19) could cost the shrimp industry half a billion



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The recent outbreak of Covid-19 started at Wuhan in China and has affected 0.11 million people over 97 countries with reported mortality of more than 3800 by March 2020. The speed with which the virus is spreading and the highly infectious nature of this virus has affected almost all sections of international trade including seafood markets.

The raising economic status of the middle class Chinese has led to surge in seafood consumption by 50% in the last decade. Traditionally marine products are the staple items in the Chinese diet with per capita of consumption of 41 kg against 30 kg for the world. Generally Chinese appetite for seafood dictates the prices in global shrimp markets. In addition to local production of 1 million-ton, China imported 0.65 million tons of seafood in 2019 to meet its domestic consumption. Major countries exporting shrimp to China in 2019 were Ecuador (322,636 tons) and India (159,785 tons).

Domestic production of shrimp in China

The domestic production has been hit from 1.2 ton to 0.5 ton due to outbreak of shrimp disease like EMS, RMS, EHP etc. forcing authorities to ease the tariffs to promote import to meet the domestic demand. Furthermore, increased awareness on water pollution, chemicals and antibiotics contaminating groundwater and natural waterbodies are also some of the possible factors contributing to the observed reduction in Chinese shrimp output.

Being major exporter of shrimp to China, Ecuador and India will be facing the brunt of the situation. The timing of the epidemic is the most damaging to the Indian shrimp farmers as the country's export to China has increased in last couple of years. Although shrimp from these countries are exported to several other destinations, exporters depend on Chinese markets which are the ones to be get affected immediately. However, the price fluctuation in the international markets ultimately affects all the export houses. During 2019, India and Ecuador exported 24% and 55 % of their shrimp respectively to China. Conventionally, China imports more than half of its shrimp during the second half of the year to meet the demand for the Chinese New Year. Since the problem of Covid-19 surfaced in the month of January this year, it can be speculated that the demand would pick up by the second half of the year 2020.

Price elasticity of shrimp

According to an estimate, the loss incurred by the shrimp industry could be much higher than originally estimated. We used price elasticity of demand for shrimp in different scenarios to project the change in quantity demanded from China. The second scenario, which assumes 30% drops in price, the shrimp industry of India and Ecuador could suffer losses of up to US \$242 million and US \$526 million in 2020 alone. In Scenario 3, the industry could suffer a loss of 28,761 and 62,648 tons in the current year, worth US\$403 and 877 million in India and Ecuador respectively based on the assumption of 50% price reduction in shrimp.

Table 1: Demand projection with different scenarios

	Reduction in price (%)	Change in quantity and value exported to China			
		India Quantity (tons)	India Value (US \$ Million)	Ecuador Quantity (tons)	Ecuador Value (US \$ Million)
Scenario 1	10	-5,752	-81	-12,529	-175
Scenario 2	30	-17,256	-242	-37,589	-526
Scenario 3	50	-28,761	-403	-62,648	-877

India

Scenario 1:	Scenario 2:	Scenario 3:
10% reduction in price	30% reduction in price	50% reduction in price
\$ 81M	\$ 242 M	\$ 403 M

Ecuador

Scenario 1:	Scenario 2:	Scenario 3:
10% reduction in price	30% reduction in price	50% reduction in price
\$ 175M	\$ 526 M	\$ 877 M

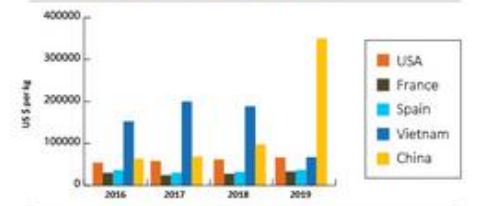
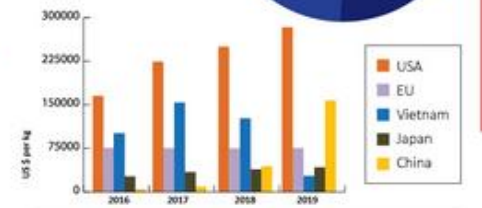
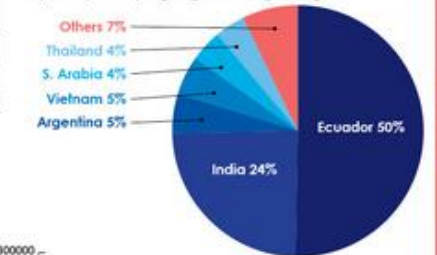
Massive shutdown of major cities in Chinese province Wuhan and Hubei, has resulted in stagnation in the movement of seafood across the country. Reduction in the seafood consumption has led to reduced demand affecting the exports especially from Ecuador and India causing glut in the global market. This might affect the price of seafood in the international market necessitating suitable strategies to circumvent possible economic fallout. The effect of reduced consumption is expected to be felt throughout the supply chain up to the farm gate.

After the recovery from Covid-19, it is expected that domestic consumption will pick up while production would take longer leading to demand for imports. However, FAO has reported lower consumption of shrimp during the current New Year 2020 and the market is expected to be low. It is also possible that the Chinese importers might have large inventories holding up leading to reduced import demand during the second half of 2020.

Since the current focus of Indian processing houses is on alternate markets like US, EU, UK, Japan, Canada and other South East Asian countries, shrimp farmers are hopeful of the demand for their produce. However, competition from Ecuador which exports double the volume of India to China will also be aiming for same market destinations. This competition is expected to push the shrimp price in the international markets further down. Entry of produce from Vietnam and Thailand which was destined to China, will further be expected to create the pressure on already stressed market. Furthermore, shrimp production worldwide has been hit with several diseases in recent years and emergence of EHP in major shrimp producing countries has forced the farmers to harvest low size shrimp which had the attractive market in China.

As the many European countries are also come under the attack

of the virus, shrimp export to these countries also is bound to be affected further in addition to the counting losses. The impact of drastic reduction in tourism especially in Italy is going to be long lasting.



The loss of incomes to cities locked up means reduced spending. Incomes have to rise first before restoring the purchasing power to witness the increase in demand for seafood. As the number of new cases has reduced in last few days, there is optimism in the air.

It may not be wise to compare the present impact with previous experience of SARS as China has become an integral part of global market more so in the recent past. Moreover, the Chinese economy is linked to economies of several countries now, since many countries are dependent on China for the raw materials for the manufacture of finished products destined to export elsewhere in the world. Slow growth in China will mean slow growth for the world economy.

If the epidemic is controlled in a couple of months and the disease is confined to the province of Wuhan, the demand for shrimp is expected to return to its normal levels. Major challenges to the shrimp producing countries in the next six months would be to find alternate markets, targeting the harvest size and timing of stocking and harvesting in addition to improving domestic consumption.