

Impact of COVID-2019 on Indian Meat Industry: National Scenario and Way Forward

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ABSTRACT

COVID-2019 pandemic has affected meat industry across the world and India is no exception. Meat industry plays important role in nutritional security, employment generation and livelihood support and hence it needs to be supported at both technical and policy level. To discuss this important issue a Cloud meeting was organized by Indian Meat Science Association on 26th April 2020 on Zoom platform. The meeting was an attempt to put experts and stakeholders on common platform to discuss impact of the pandemic on different component of meat industry. This document gives the crisp information of the presentations made and the issues discussed to get a national picture of the latest developments consequent to Corona pandemic.

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COVID-19 PANDEMIC

Corona Virus Disease-2019 (COVID-19) is a highly contagious respiratory disease caused by Novel Corona Virus (nCoV) which belongs to Coronaviridae family. Coronaviridae are enveloped non segmented, single-stranded, positive-sense RNA viruses named after their corona or crown-like surface projections seen on electron microscopy that correspond to large surface spike proteins (Sarah, 2012). nCoV was officially named as Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) by International Virus Classification Commission on 11th February 2020 (Yue and Silu, 2020). As per the present knowledge, COVID-19 originated from wet market in Wuhan, China wherein about 27 pneumonia patients were reported in December 2019. Quickly it spread to other parts of China and to other countries. The incubation period for the virus is generally 1 - 14 days. The clinical manifestations of the cases including fever, hard breathing, and lungs infiltrative lesions on chest radiograph (Cowling et al. 2020). The virus spreads by direct contact and indirectly through the droplets that are produced by coughing and sneezing by the affected person. Virus in the droplets can survive on the surfaces for many days. Zhou et al. (2020) carried out whole genome sequencing of the SARS-CoV-2 virus by isolating it from the samples derived from five patients at Wuhan, China. The sequences were almost identical and shared 79.6% sequence identity to SARS-CoV. Furthermore, 2019-nCoV is 96% identical at the whole genome level to a bat coronavirus. This report indicated that the virus might have its origin in bats which has jumped to humans in the wet market of China.

World Health Organization declared COVID-2019 as pandemic on 30th January 2020. As on, 16th May 2020, the disease spread to about 216 countries, affecting about 4.4 million and killing about 0.3 million people (WHO, 2020). This quick spread is the testimony to the contagious nature of SARS-CoV-2 virus. The first case of COVID-2019 was reported in India on 31st January 2020. By 16th May 2020, India reported about 85,000 cases. Highly

contagious nature of the SARS-CoV-2 prompted countries across the world to implement lockdown to prevent the spread of COVID-2019. In India, lockdown was implemented from 24th April 2020 and extended till 31st May with several relaxations. While the country continues to battle the disease, economic losses are immeasurable. Every sector of the economy was affected and the meat industry was no exception. With the businesses shutting down, incomes reducing and hospitality industry crashing, meat sector felt the heat and an attempt has been made to capture the national scenario in this article.

OVERVIEW

Meat sector is an important component of Indian economy as it contributed Rs 2,51,384 Crore to GDP in 2017-18 which is about 24.0% of total livestock GDP and 1% of National GDP (BAHFS-2020). The sector contributed significantly to foreign exchange by export of about 1.24 million tones of buffalo meat worth 3,608 Million US \$ in the year 2018-19 (APEDA, 2020). Further, meat sector contributes immensely to nutritional security of the country.

COVID-2019 has come as a jolt to the meat sector and the sector is passing through a difficult phase. Poultry industry is affected the most wherein rumours linking COVID-19 with poultry products has brought in slump even before the reports of COVID in India. Meat export sector is also hugely hit as most of the export abattoirs have stopped functioning. Small ruminant sector was affected mainly due to livestock transportation issues and restrictions on operation of abattoirs and retail stalls by local bodies. Although, the pork prices were not affected, their marketability reduced due to restrictions on road transport of pigs. Difficulty in transportation of livestock and meat, closing down of restaurants, adverse public opinion related to meat consumption due to unjustified rumours and decreasing disposable income among consumers are the major reasons affecting meat consumption and demand in India. As most of the personnel involved in meat production and processing activities are from lower economic strata, keeping the meat business thriving will help in supporting the livelihood of impoverished and ensuring the nutritional security of the vast population.

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IMPACTS OF COVID-2019 ON MEAT TRADE

Rumors linking meat with COVID-19

As the news spread that the COVID-2019 started from wet market in China, fake news started spreading in social media that Corona virus spreads by consumption of poultry products. Consequently, demand fell sharply harming lakhs of poultry farmers. It also affected mutton and chevon consumption. Spreading unjustified rumours on social media is a national problem which is affecting the nation in various ways. Government finally intervened and initiated legal action on social media rumour mongers which appears to have instilled sense of responsibility among its users.

Restrictions on transportation

Most of the meat animals are transported long distance, sometimes from far away states before being utilized for meat production. Further, meat produced is transported over long distances to reach retailers and consumers. Lockdown has severely affected the logistics, causing collapse of supply chain. Although, rules permit movement of agricultural and livestock products, there are implementation issues which severely affected procurement and supply channels constraining the meat production and marketing.

Broken supply chain

Meat animals are transported, harvested at abattoirs, taken to retail outlets or processed and marketed to consumers. Several players are involved in this supply chain. This supply chain disruption due to lockdown has caused immense trouble to stakeholders.

Restrictions on gatherings

Public gathering like marriage ceremonies, festivals, celebrations etc create huge demand for meat and meat products. Prohibition on such gatherings has significantly brought down the bulk orders received by meat producers and retailers.

Difficulty in movement of labour

Meat production and processing activities are labour intensive. Restriction on all modes of movement across the country has halted production, processing and marketing operations which affected the livelihood of the manpower involved in the sector.

Suspension of tourist activities

Tourism and associated activities are major demand creators for meat and meat products which has come to a grinding halt due to pandemic and subsequent lockdown. Tourist activities may take many more months before it gets back to its vibrant mode.

Restrictions on meat production and retailing

Several local bodies have imposed restrictions on chicken and mutton retail shops. Disruption of retail activities lead to drop in the demand for meat animals which ultimately affected farmers involved with livestock production.

Reduced/uncertain family income

Meat consumption is directly related to availability of surplus family income. Job losses and salary cuts across all sectors have reduced the expenditure incurred by families on meat and meat products. Further, as cloud of uncertainty is hovering over

business activities consumers are expected to become more cautious on expenditure towards purchase of meat.

Reduction in demand for meat in International market

Countries across the world including South East Asian countries and Gulf countries have imposed lock down which has lowered the demand for meat and meat products. Further, International Monetary Fund has predicted economic depression similar to the one experienced during great depression in 1930 which has put question mark on demand for Indian meats in the coming months. This will severely affect export earnings from buffalo meat in the financial year 2020-21.

Restricted operation of restaurants

Restaurants, Quick Service Restaurants, Food outlets are the major consumers of meat and play major role in taking the products to the consumers. Closure of bars and all types of food outlets deprived meat sector of bulk and consistent orders. Parcel services are permitted but that is a limited component of the food service business. Food aggregators like Zomato, Swiggy etc functioned initially but in some cities they were also stopped after few incidents, wherein delivery personnel tested positive for Corona. However, in most of the district places online food orders did function and contributed for keeping the meat sector thriving.

POULTRY INDUSTRY

One of the hardest hit sector due to COVID-19 pandemic is poultry sector. Demand for poultry products has reduced as much as 50% and prices fell by up to 70% even before lockdown due to baseless rumours. Price of chicken came down steeply which lead to huge loss to the poultry sector. As per All India Poultry Breeders Association (AIPBA) poultry sector lost as much as Rs. 22,500 crore. Price improved slightly in April 2020 but the demand is hugely hit due to closing down of food outlets, suspension of tourist activities and reduction/ uncertainties in disposable income. About 90 % of broiler sales in India are being done at traditional retail shops. Restrictions on retailing by local bodies have affected the livelihood of retailers and the poultry farmers. Meat product processing plants have either closed down or functioning at 30 % capacity due to sluggish demand and limited cold storage capacity. Slowing down of poultry sector will obviously affect associated industries producing inputs like poultry feed, medicines, vaccine manufacturers and equipment providers. However, with the advent of April 2020, situation slightly improved and the prices of chicken and eggs have increased. This is due to continuous effort of industry and governments to allay the apprehensions about consumption of poultry products and creating a positive image by appealing that the poultry products help in boosting immunity of the consumers.

EXPORT BUFFALO MEAT SECTOR

In the year 2018-19, India exported 1.24 MMT of buffalo meat worth Rs 25,168 Crore. With the outbreak of Corona in different countries, demand for buffalo meat in International market

started nose diving. With the announcement of lockdown of India w.e.f. 24th March 2020, all the export abattoirs have stopped functioning. Officially there is no restriction on agricultural commodities including meat production. But the plants are closed due to problems in transportation of livestock carrying vehicles especially at Interstate borders consequent to sealing down and restriction on movement of labour working in the abattoirs. In the year 2019-20 (April to December) India exported 0.89 MMT of meat worth Rs 17,748 Crore (APEDA, 2020). But the export in the first quarter of 2020 fall much below the expected values.

Financial year 2020-21 appears to be even more challenging period for the meat exports. The lockdown is already extended till the end of May 2020 with wide range of relaxation. Even with relaxation it will not be business as usual because easing of lockdown will be gradual. Also, economic environment across the globe is bearish with IMF predicting financial depression. Hence, demand for meat both in domestic and International market is expected to be low. One month lockdown is can reduce meat export by 0.1 MT worth about Rs 2,000 Crore. Seeing the present International environment, it is expected that the buffalo meat export may reduce by about 20 %. In value terms export of buffalo meat may reduce by about Rs 5000 Crore and may stand well below Rs 20,000 Crore in the year 2020-21.

On the other hand, dairy farmers rearing buffaloes are in great distress with milk prices plunging, feed prices raising and abattoirs closing down. Reduction in exports will mainly affect farmers as more than 90% of the buffalo meat in India produced mainly from culled spent unproductive buffaloes. Providing an environment for functioning of export abattoirs is imperative for the sustainability of dairy production and protecting the economic viability of dairy farms.

MUTTON AND CHEVON

Unlike chicken there was minimal negative public opinion about consumption of mutton and chevon. Lack of demand for chicken marginally raised the prices of mutton and chevon. But with the lockdown, large scale municipal abattoirs have stopped functioning. Interstate movement of sheep and goats came down drastically. Further, closing down of restaurants reduced the demand for the sheep and goat meat. Although there was no impact on the price, small ruminant meat sector is affected due to sluggish demand and problems in interstate movement of animals. With the implementation of lockdown, movement of meat handlers and retailers has also come down due to which the sector is seriously affected. After 20th April 2020, mutton sales picked up due to easing restrictions and Ramzan.

PORK

Pork is consumed mostly in coastal, hilly areas, north eastern region of the country and in cosmopolitan metro cities. Kerala and north eastern states are the major consumers of pork and pork products. Pigs are transported to Kerala from south Indian states and North Eastern Region (NER) by train and trucks. While states like UP, Bihar and Punjab transport huge number of pigs to NER. With the lockdown and suspension of rail transport and restrictions on movement by road, transportation of pigs is seriously affected. In addition, closing down of food outlets

have affected the major source of feed to pigs i.e. hotel food waste, especially in metro cities. This has forced farmers to raise the pigs only on concentrate feeds. There is no major change in price of pigs/ pork but due to rising feeding cost, restrictions on movement of pig farmers and closing down of food outlets has affected the prospects of pork business. Consequently, farmers are left with large number of pigs with high body weight putting them into financial distress. Many local bodies have also asked farmers not to undertake pig farming in their localities. This has put several pig farmers under stress which is risking their livelihoods. Outbreak of African Swine Fever in parts of NER and prohibition on production of pork in Assam which came into effect from last week of April 2020 has further added to the woes of pig farmers. Restrictions on bringing pigs from outside to Nagaland has also deprived pig farmers of biggest pig market in India (Dhimapur in Nagaland).

GLOBAL SCENARIO

Situation is no different in other countries. In Brazil, consumers started consuming more meat during the period of pandemic. All animal protein products showed good sales during February and March, 2020. But with increasing cases of Corona, processing plants started closing down. China witnessed huge piling up of meat containers at port due to transport disruption and labour shortages. Meat sector in USA severely affected as meat processing plants closed operation after several staff members tested positive. As per National Cattlemen's Beef Association (NCBA) cattle industry losses due to COVID-19 pandemic is expected to be US \$ 13.8 Billion. Demand for beef nosedived in Europe due to lockdown and closing down of restaurants. But consumers are reported to buying more chicken breasts and eggs to eat at home.

RESPONSE OF GOVERNMENT AND LOCAL BODIES

Several municipalities went onto close retail meat stalls as they generally failed to maintain the social distance in their stalls. In April 2020 prices of chicken and mutton raised in Bangalore city. Astonishingly, Bangalore Municipal Corporation went on to fix the maximum price for chicken and mutton, without bothering about the plight of poultry farmers in the previous months. Some local bodies in Karnataka took ill informed decision of closing down pig farms which was rightfully challenged by the stakeholders. In Andhra Pradesh, order by a District Commissioner to close retail meat stalls was withdrawn after resistance of the stakeholders and consumers. Telangana Government organized Chicken and Egg mela to boost confidence of the consumers and allay the fear of transmission of Corona through poultry products. Different Government agencies like Animal Husbandry Departments, Greater Hyderabad Municipal Corporation released a press note stating that there is no proof to show that Corona is transmitted through poultry products. Karnataka Government also released newspapers advertisement to convey that meat and meat products can be consumed without fear of Corona. Different organizations like ICAR - Indian Veterinary Research Institute, Izatnagar and ICAR - National Research Centre on Meat, Hyderabad have released guidelines to prevent Corona transmission in the meat production and processing plants. Food Safety and Standards Authority of India (FSSAI) is also in the process of releasing guidelines for

operations in the wake of COVID-2019 pandemic.

WAY FORWARD

Transportation of livestock

Latest livestock transport regulations combined with travel restrictions due to lockdown have severely dented the business prospects of meat sector which is ultimately affecting the uptake of meat animals from farmers and their income and livelihood. Stringent livestock transport rule requiring transport of livestock in vehicles with special facilities, implemented by few states needs to be put on hold. Seamless interstate movement of livestock must be allowed to keep the livelihood of farmers, livestock traders and meat handlers. It is necessary to bring awareness among policy makers to bring meat and meat products including eggs under essential products so that their transportation is not affected. Providing hassle free transportation to livestock and livestock products will enhance marketability of meat animals and will add to the income of dairy farmers.

Retailing of meat

Most of the retail stalls function under minimal facilities by retailer from lower economic strata. Retailing activities need to be protected and promoted with maintenance of required social distancing. Further, mobile meat stalls and door delivery of meat to consumers need to be promoted. We need to urge local bodies to take informed decision rather than taking knee jerk reaction of closing the retail shops. Meat shops need to be supplied with dressed carcasses from refrigerated vans.

Creating positive image

It must be made clear to consumers that the wet markets of China are much different from that of India. Also, there are no reports linking Corona spread with consumption of meat. Officials from Department of Livestock and Animal Husbandry Departments have released official letters to this effect. But audio visual approaches needs to be promoted to bring change in opinion of consumers. All associations/institutes should release newspaper articles, deliver radio talks and develop audio visual programs to create positive public opinion. Public celebrities to be requested for giving messages with truthful information.

Encourage online trade

The online trading is advantageous in the present situation since social distancing is not a constraint in its operation. There is a need to develop and propagate social distancing friendly marketing methodologies.

Enhance cold storage capacity

To store meat and meat products during the period of slump cold storage capacity must be enhanced. Marketing of packaged and chilled/ frozen meat is the only way the social distance can be maintained during retailing. The surplus situation need to be assessed and sent to cold stores. Use of frozen poultry need to be encouraged even in normal times as it would be an appropriate

alternative to meet price fluctuations happening quite often. Development of solar refrigerator (mobile and stationary), should be encouraged.

Contingency plan & financial support

There is a need to develop contingency plan to face similar emergencies in future in consultation with all the stakeholders in terms of compensation, restructuring of loans and interest subvention to wade off the financial burden faced by the industry. This has to be prepared involving discussions with stakeholders, experts and development departments etc. This would be a handy document for timely interventions in such emergencies and unexpected situations.

With the return of migrant workers in their native village, they need to be encouraged to take up entrepreneurship in the meat sector e.g. male buffalo calves rearing programmes, meat animal production, diversified processed meat products etc.

Diversification of processing operations

Most of the meat in India is sold as fresh meat. Industry must shift from selling fresh meat and diversify into production and marketing of processed meat products. They are much easier to store in freezer rooms and can cushion against fall in prices and unexpected slumps caused by disease outbreaks and pandemics.

Shifting from wet market

Meat retail units selling fresh meat are common place in Indian streets. Such practices are unscientific, generally unhygienic and often compromise public health. There is a need to propagate marketing of chilled/ frozen and packaged meat. This will help in convenience in marketing while maintaining social distance. It will also help to create provisions for online marketing and door delivery services. It should be insisted with FSSAI regulations to have refrigerator in all the wet market processing units and exclusive units to sell chilled or frozen chicken need to be encouraged with issuing of licenses by the local bodies. No new license to be issued for wet market processing units.

Shelf stable meat products

Techniques like retort processing and sun/oven drying help in production of shelf stable meat products. Development and use of solar driers (mobile and stationary), should be encouraged. These products can be stored at room temperature over long time which can help them to wade over the difficult times like COVID-2019 pandemic faced now. A massive effort with support from poultry industry and MFPI is required for taking up R & D activities to develop feasible products and strategy including popularization. This would greatly help in all unexpected emergencies such as Covid-19 created surplus situation due to lack of demand.

Fund generation by industry

Industry need to generate financial support for timely action to

meet the challenges of unexpected emergencies. For this purpose a fund provision would be of great help.

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