Animal Food Export: Challenges and Opportunities in India

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Abstract
Agriculture and allied sector largely affects the socio-economic life of majority of Indian population. The product output, domestic consumption and export of agri-products, including animal products, largely affects the nation's economy. This review provides an overview of the current status of animal food production in India and its domestic usage. We have primarily focused on India's competitive edge in global dairy and meat production and its potential for international trade. We have also tried to examine the opportunities and challenges in the export of animal food product.

Keywords: Dairy; Meat; Indian dairy exports; Indian meat export; Global market

Livestock Production
Livestock production is important for Indian economy as it plays a vital role in income, employment and earning of foreign exchange. According to last livestock census of 2012, India has total of 512.05 million livestock population which includes 190 million cattle (13% of world cattle population) and 108.7 million buffalo (56% of world buffalo population), pigs, sheep, goat and other animals. There has been a decline of 3.3% in total livestock population from 2007 to 2012 [2]. This is despite the numerous initiatives taken by Indian government like, vaccination to control of animal disease, scientific management, upgradation of genetic resources, improving availability of nutritious feed & fodder and supporting the processing, marketing and profitability through various subsidies. This decline in livestock population is possibly because of the shifting interest of young population towards the working sector.

Milk Production
Regardless of decline in bovine population, India continues to be largest producer and consumer of milk and milk products [3]. This is possibly because of increased productivity of livestock and selection of high yielding varieties such as crossbreds and exotic bovine variety which produce more milk as compared to indigenous variety. The productivity of milk has significantly increased from 102.6 million tons in 2006-07 to 176.3 million tons in 2017-18, showing the annual growth rate of 6.62% [2]. This production volume surpasses the next highest producers with wide margin, US (89 million tons) and China (43 million tons) [3]. Currently the export from Indian dairy sector accounts for just 345.71 million USD during the year 2018-19, which is negligible as compared to its production volume.
The low export value and volume is because of:

a. High domestic consumption, India being largest consumer of the dairy product.

b. Dominance of small player with 2-3 animals and limited productivity. 80% milk comes from farmers having less than 5 animals [4]. There is need of co-operative model to link poor fragmented farmers to market and ensure economics of scale [5].

c. Poor quality of products which fails to meet the standards of developed country. The top five export destination being Turkey, United Arab Emirates, Egypt, Bangladesh and Bhutan [6] which are all developing Asian and African countries. There is need for trained human resource and proper infrastructure facility to ensure standard quality. Currently milk is handled by poor illiterate farmers, collected at the village level and then pooled together to reach the processing plants where it is checked for quality. Here assurance of quality and traceability becomes difficult.

d. India major export in dairy sector includes milk powder and milk fat, accounting for more than 90% of export value [3]. They are low yield and low profit product, thus keeping the export values down. India needs to invest in manufacturing and export of high value added products such as yogurt, cheese and traditional dairy sweets.

e. Additionally, higher rates of government subsidy in the area of dairy foods also reduce the export value. As subsidized production often results in over production which in turn leads to dumping of excess product in foreign market at compromised rates [3].

Meat Production

In India, bovine animals are primarily kept for the milk production and secondarily used for the meat production when they retire after the productive age. The country is majorly governed by traditional, cultural and religious beliefs associated with the domesticated animals. Thus even after surpassing the productive age of food animals, many the people don’t sell off their animals to the slaughterhouses. However, recent times have demonstrated a steady change in this practice that is overlappingly depicted by continuously changing trends of meat production. The recent trends of meat production have shown over threefold increase in productivity over the last one decade with a rise from 2.3 million tons in 2006-07 to 7.7 million tons in 2017-18 [2]. Contradictory to dairy sector, the meat production in India is large while the domestic consumption is considerably low. Thereby putting India at 5th largest meat exporting country in the world and as first largest exporter of buffalo meat (carabœuf) [7]. It is worthwhile to note that India doesn’t allow slaughter of cow (beef) yet is leading global exporter of meat. Furthermore, in the meat sector, large volumes of meat are being handled by big Export Oriented Units and only small volume is left with the small local players which cook or process shortly after slaughter, thereby reflecting in huge export figures as compared to dairy industry.

Currently India is exporting meat to more than 64 countries with revenue of about 3608.70 million USD and not a single outbreak of food borne infections has been reported from the Indian consignments [8]. The major destinations for Indian meat export have been Vietnam (1,711.70 million USD), Malaysia (369.56 million USD), Indonesia (324.45 million USD), Iraq, Myanmar, Philippines, Egypt and Saudi Arab amongst others [9]. The closely located export destination of South East Asia provides the strategic advantage. Although the buffalo meat is texturally tough and considered inferior to cow meat (beef) which is soft and tender, yet the Indian meat industry is flourishing due to exports of the former.

The plausible reasons are due to the following advantages:

a. The domestic consumption for bovine meat is minimal, Indian population majorly prefer poultry meat and eggs. The annual production of 729.2 million poultry birds and 95.2 billion of eggs [2] help to satisfy the nutritional need of India's population.

b. Livestock in India are reared on green pasture or agriculture residue.

c. Minimal use of growth hormones.

d. Indian livestock is free from mad cow disease, rinderpest disease and CBPP as certified by OIE.

e. Indian meat is free from radiations and GMOs.

f. Meats are slaughtered in accordance to Halal regulations which make it suitable for export to gulf and other Muslim countries.

In spite of huge livestock resource India could never realize its full potential in meat industry because of its cultural perception and religious beliefs. Meat production has never received adequate attention from entrepreneurs, policy makers, scientists and innovators. Now it’s the high time to tap this underutilized sector and simultaneously developing the interlinked sector like leather and pet food industries in order to utilize the waste of growing meat industry.

Conclusion

Both dairy and meat industries have come a long way and are doing significantly well. However, there is a huge scope for improvement and higher growth. The lack of proper infrastructure and trained human resource happens to be the key concerns. An integral approach is needed for development of enhanced cold chain facility for storages and transportation. Additionally, India needs to focus more on value added products with enhanced shelf life and better packaging in order to compete in international trade market.

Instead of exporting frozen meat which fetches lower returns and are emerging food safety threats, processed canned meat can be exported to attract the better value. Policies need to be framed for promotion of Indian brands and local stake holders in the dairy and meat sector so as to capture the ever growing international market. It also needs to develop and train its human resources along with advancements and improvisations in infrastructure to meet stringent global quality standards.
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