

BOOM IN INDIAN MEAT INDUSTRY AND THE CHALLENGES BEFORE US

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The developed nations have recently witnessed a crisis in their Meat Industry on account of Bovine Spongiform Encephalopathy, Foot & Mouth Disease, Avian Influenza, E. Coli, Swine Fever and many other emerging diseases among their livestock population. Though these developed nations, who had the giant share of the global meat market, are trying their level best to control such diseases among their livestock population by adopting drastic destruction of millions of animals, they find it extremely difficult to contain such outbreaks. Sporadic outbreaks are reported from new locations, indicating that the diseases are likely to spread to many other areas. Safety wholesome meat and products are in great demand and steps to achieve the required quality depends on providing scientific infrastructure of abattoirs and meat processing plants coupled with implementation of HACCP and ISO series.

While the developed nations are facing this crisis, there had been an unprecedented boom for the Indian Meat Industry. Many of the export houses are facing a challenge to cope up with the demand for Indian meat. It is likely that this trend will continue if we rise up to this occasion and develop our meat industry qualitatively and quantitatively. However, we are sitting on a volcano, with problems of unhygienic production of meat, contamination, poor infrastructure of abattoirs, unscientific processing, absence of cold chain, and poor packaging. We must realise that the Indian economy and its socio-economic development are substantially influenced by the livestock sector, which contributes to about ten percent of its GDP. India is blessed with a major share of the global population of livestock comprising of 218 million cattle, 93 million buffaloes, 57 million sheep, 123 million goats, 16 million pigs and 402 million poultry (FAO Live Animal Database 2000). Livestock sector serves as the exclusive source for animal protein, provides employment to over 300 million rural people, and contributes enormous amount of draught power and biomass, which enrich the agricultural fields. Expansion of population, decrease in land holdings, shrinking agricultural lands and the increasing demand

for food are major problems to be tackled in the present context in our country. The animal protein consumption in our country is only 9.5 gm/head/day compared to a world average of 25 gm/head/day. It is estimated that the share of developing countries in the total world meat consumption will increase from the present 47% to 63% by the year 2020. Per capita consumption of meat in developing countries is expected to increase to about 29 kg/annum compared to 110 kg/annum in the industrialised world.

The economic liberalization has opened great prospects for export of livestock products in the international market. The livestock presently slaughtered in India include 1.93 million cattle, 10.5 million buffaloes, 17.7 million sheep, 40.5 million goats and 4.19 million pigs per annum. India tops the world in production of milk with a total of 80 million tonnes. According to APEDA, there is an increase in export output of meat and meat products of 32% amounting to Rs. 8.25 billion in the year 2002.

There is a very good potential and scope for further development of the meat industry in India in order to export our meat and products in various countries. The demand for Indian meat is increasing and in turn more and more countries are now importing meat from India.

The price structure of meat in the international market is very favourable to our country. The costliest meat in the international market is beef followed by mutton & chevon, pork and then chicken. The cheapest meat in India is the beef. However, beef as such is banned from export but buffalo beef is permitted to be exported.

Another advantage for our meat is the low fat and cholesterol content in our beef and buffalo beef. The absence of Mad Cow Disease (Bovine spongiform encephalopathy) among our cattle and buffaloes is a very favourable condition for promoting export of buffalo meat to other countries in the wake of reports of outbreaks of the disease among European cattle. As such there

The export statistics of meat & products for 2000 - 2001 (APEDA)				
Sl. No.	Commodity	Quantity (MT)	Value (lakhs)	Major markets
1	Buffalo meat	288027.838	137504.13	Malaysia, Egypt
2	Sheep/goat meat	11902.846	7816.16	UAE, Iran, Jordan
3	Poultry products	15836.116	8617.95	Saudi Arabia, Oman, Kuwait, Qatar
4	Dairy products	11068.863	8389.64	Bangladesh, Germany, Seychelles, Congo
5	Processed meat	130.691	158.30	Thailand, Yemen, Japan

are several advantages for our meat industry to prosper. Therefore it is the most appropriate time for identifying the most suited breeds of animals for meat production.

The residues of pesticides, antibiotics, and hormones in meat are of great concern to the safety. Though the information on the residues in Indian meat is sparse, the research in this direction has thrown a favourable indication of very low levels of residues in our meat. However, we cannot be complacent about this indication and it is essential to take appropriate steps to control such residues in meat.

Apart from the export market, the domestic demand for meat is huge and the Indian domestic market is one of the biggest in the world. Therefore, the scope and potential for establishment of modern meat plants and abattoirs is very bright. Among the states in India, Kerala is the most ideally suited one for the development of meat sector. Over 95% of Keralites are meat consumers having no taboos or sentiments regarding the type of meat they consume. The high literacy rate, improved socio-economic status and increased awareness about the nutritional requirements for healthy living, are some of the reasons for increased consumption of meat and meat products in Kerala. The per capita consumption of meat is the highest in Kerala.

Slaughter data of animals in Kerala State

Sr. No.	Species of animal	Number slaughtered (In lakh)
1	Cattle	15
2	Sheep & Goats	40
3	Pigs	3
4	Poultry	250

The figures given above are actually the number of animals brought from neighbouring states to Kerala through the various check posts. However, the actual number of slaughters that take place in Kerala is definitely much higher than the number of animals that are brought to the state through various check posts. The domestic demand for meat and products is increasing in our state during the past several years.

In spite of all the advantages, there are several handicaps for our meat industry. The quality of our meat is poor. The infrastructure facilities available for production of wholesome meat are scarce. The slaughter techniques adopted by our butchers are primitive, unscientific and unhygienic.

Meat is an important livestock product, which is highly nutritious containing an average of 18-20% protein in addition to fat, carbohydrates, vitamins and minerals. Though meat has a very high biological value, its production and processing has always been the subject of social prejudice.

The traditional form of meat production is characterized by unorganised sector in the hands of butcher-workers with very

little knowledge of personnel hygiene. Majority of the slaughter houses does not have the basic facilities for hygienic production of meat. The unhygienic practices of the butchers coupled with unscientific and poor infrastructure, result in production of poor quality and unwholesome meat. They are also exposed to a wide variety of micro-organisms and disease agents during the production process, which in turn results in the rapid multiplication of micro-organisms and spoilage of meat.

The absence of meat inspection by qualified veterinarians is yet another factor that cause concern regarding the safety of meat that is sold in the Indian meat market. In many cases, diseased animals are slaughtered and the meat derived from such animals is sold in the market. The increased incidence of zoonotic diseases and its impact on the health of the consumers are of major concern for the public health authorities. The consumers in general prefer quality meat that is inspected and certified as wholesome by veterinarians.

Unlike other industries where sale of their product depends on several factors like demand, price structure, consumer preferences, advertisement, availability of the products etc, meat industry has the unique feature of increasing demand from the consumers. At present, there is acute shortage of quality meat and products in the domestic market. As such, there is a need for establishment of modern abattoirs and meat processing plants which would cater to the growing demand for quality, wholesome meat and meat products. Value added, convenience meat products are really scarce in the market and there is a growing demand for such products in the wake of changing socio-economic status of the society. It is also essential to reorganise the meat trade in such a way that wholesome products are sold through hygienic meat stalls. Fast food culture is picking up in urban areas and there is a trend for families to "eat outside homes" at least during the weekends.

With all the above-mentioned advantages, it is imperative that we should strive hard to scientifically reorganise the meat sector in order to face the challenges before us. The adoption of Quality Management in our production, processing and marketing needs priority. Processing techniques have to be altogether modernised by adopting scientific inputs, technology reformation and infrastructure development. The state governments and local self-governments should strictly Implement Veterinary Meat Inspection in all the slaughter houses, abattoirs and meat processing plants. State level and National level Meat Boards should be established to co-ordinate and reorganise the meat sector. State governments and Central government may be encouraged to provide financial assistance for modernisation of slaughter houses, abattoirs and for establishment of modern meat processing plants.

