

Present Status of Indian Meat Industry - A Review

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Review Article

Present Status of Indian Meat Industry – A Review

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ABSTRACT

India has the largest livestock population throughout the country. It has 512.0 million of animal population excluding poultry. India is the largest exporter of buffalo meat and third largest exporter of meat after Brazil & Australia. It accounts for about 58% of the world buffalo population and 14.7% of cattle population. There are about 300 million bovines, 65.07million sheep, 135.2 million goats and about 10.3million pigs and 729.2 million poultry in the country as per 19th Livestock Census. There are many constraints for the slow growth of the Indian meat industry, including lack of scientific approach to rearing of meat animals, unorganized nature of meat production and marketing, socio-economic taboo and inadequate infrastructure facilities and poor harvest management. Meat exports from India commenced in 1969. For over four decades, it has built an enviable reputation of being a reliable exporter of risk-free, lean, nutritious and competitively priced meat. This has led to consistent, high compound growth rate in the export volumes. Among the important buyers of Indian bovine and other meat are Vietnam, Malaysia, Thailand, Australia, UAE, Saudi Arabia and Egypt. India exports both frozen and fresh chilled meat. Among Indian states, Uttar Pradesh (UP) has emerged as the major exporter of buffalo meat, followed by Punjab and Maharashtra. Besides having the country's largest buffalo population, U P also has the highest number of abattoirs cum meat processing export units.

Keywords

Livestock, Poultry,
Meat, Export

Introduction

Meat is animal flesh and worldwide eaten as a food (Lawrie *et al.*, 2006). Meat consumption varies worldwide, depending on cultural or religious preferences, as well as economic conditions. The livestock sector is floating for revolution in developing countries where the major increase in meat and milk production is anticipated in next few decades. Livestock production is a vital activity in rural areas, which provide employment, livelihood and income for farmers, rural poorer and weaker sections of

society. Meat sector plays an important role in India as it not only provides meat and by-products for human consumption but also contributes towards sustainable livestock development and livelihood security for millions of men and women from weaker sections. Vegetarians choose not to eat meat because of ethical, economic, environmental, and religious or health concerns that are associated with meat production and consumption. Animal food is considered as good source of quality

nutrients viz. fat, protein, carbohydrates and minerals. Digestibility of animal source protein is 90-97% while vegetable origin proteins have 75-99%. However, proteins of animal origin are more completely digested and nutritionally superior than those of plant

support the healthy and organized development of meat sector for clean and wholesome meat production. NMPPB formulates uniform and effective meat quality testing systems and looks for reduction of environmental pollution due to

Transportation of fresh frozen meat in refrigerated trucks/ containers from the point of production to the port for export to various countries.

Processing of raw hides and skins for leather goods industries.

Production of meat-cum-bone meal and tallow in the rendering plants from offals and bones

Casings production from the intestines of large and small ruminants.

Processing of animal body fat for making of tallow.

Marketing and processing of hooves and horns.

Production of pet foods.

Raw material availability

Livestock sector is an important sub-sector of the agriculture of Indian economy. It forms an important livelihood activity for most of the farmers, supporting agriculture in the form of critical inputs, contributing to the health and nutrition of the household, supplementing incomes, offering employment opportunities.

It acts as a supplementary and complementary enterprise. India has vast resource of livestock and poultry, which pay a vital role in improving the socio-economic conditions of rural masses. There are about 300.00 million bovines, 65.07 million sheep, 135.2 million goats, about 10.3 million pigs and 729.2 million poultry as per 19th Livestock Census in the country. The species wise population of meat producing animals and Poultry during the last three Censuses is given in Table 1.

The factors favoring meat sector development

Low cost of production of meat type of animals to a desired age of 2 years.

Leanness of Indian meat: contains less fat and the present international trend is favorable for low fat meat.

Green fodder feeding, absence of animal protein (carcass meal; meat and bone meal) in the ration are favorable factors for Indian meat industry.

Price structure of various meats in international market. Beef price is the highest followed by pork, mutton, and chicken.

The absence of hormones, antibiotics and growth promoters' in the feed, the Indian meat is considered not only lean but also clean and organic.

There is no incidence of Bovine Spongiform Encephalopathy (BSE) in India.

Close proximity to promising Middle East market.

Constraints of Indian Meat Industry

There are many reasons for slow growth rate of meat industry in India:

Myths about meat consumption and half-truths in the media against meat consumption.

Celebrity-led campaigns – often run in conjunction with NGOs such as PETA (People for the Ethical Treatment of Animals) - have been a key factor in encouraging consumers to switch to a low meat or meat-free diet.

The reduction in meat consumption is offering unprecedented opportunities for manufacturers of a variety of meat substitutes, vegetarian packaged foods, nuts and pulses, vitamins and dietary supplements and other meat-free products.

corresponding growth rate (%) per year of the country from 2005-06 to 2016-17 is shown in the Graph 1.

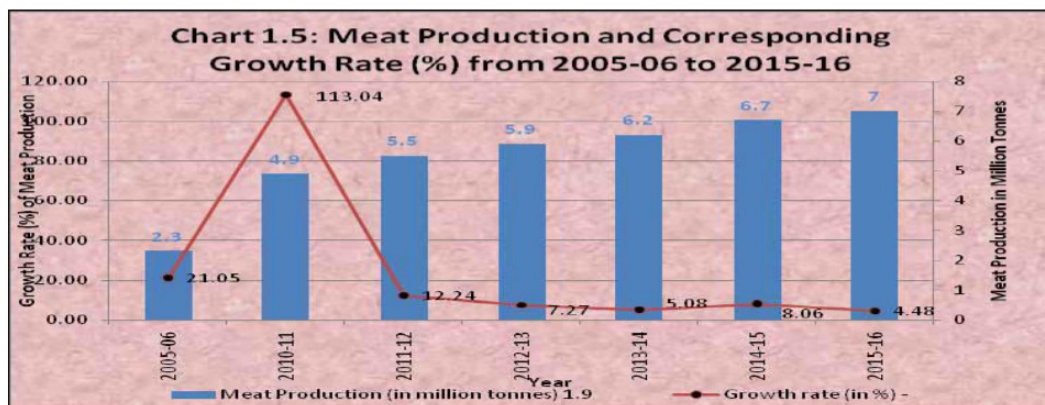
The healthy disease free animals are procured from the livestock

Table.1 Growth rate of Meat producing animal and Poultry in India

Sl. No.	Species	Livestock Census 2003 (no.in million)	Livestock Census 2007 (no.in million)	Livestock Census 2012 (no.in million)	Growth rate (%) 2007-12
1	Cattle	185.2	199.1	190.9	-4.10
2	Buffalo	97.9	105.3	108.7	3.19
3	Sheep	61.5	71.6	65.07	-9.07
4	Goat	124.4	140.5	135.2	-3.82
5	Pigs	13.5	11.1	10.3	-7.54
6	Poultry	489	648.8	729.2	12.39

Sources: Annual report 2016-17, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture & Farmers Welfare, Government of India.

Graph.1 Meat production and corresponding growth rate (%) from 2005-06 to 2015-16



Sources: Annual report 2016-17, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture & Farmers Welfare, Government of India.

Processing of Meat



A picture of raw meat and processed meat products

Poultry meat is mostly sold by slaughtering the live birds in the presence of the consumers. However, there are a few modern processing plants where poultry is slaughtered; chilled and frozen birds are sold in big cities. The export of poultry meat

support of the industrialists and government. India's international trade in livestock and livestock products is mainly in live animals (17%), meat and meat products (82%), dairy products and eggs (1%). At the global level, India's exports and imports account for only

Food safety at all stages of production, processing, packing, storage and marketing of meat and meat products, maintenance of standards such as SPS, HACCP certification and others which are prescribed by the importing countries.

Consumer awareness: Priorities must be given to address the myths prevalent among the public regarding meat consumption and diseases (Meat consumption and risk of cancer, Meat consumption associated to increased risk of coronary heart disease due to its fat and cholesterol content) with proper extension programmes.

Meat processing and value addition are key for the prosperity of meat industry. The awareness regarding the processed meats and the convenience to the consumers and households should be improved.

Packaging of meat and meat products: Most of meat is sold in India is in unpacked form. Meat is packed only in some organized meat factories and in bacon factories. For safe delivery of the meat and various value added meat products through the various stages of processing, storage, transport, distribution and marketing packaging is of utmost importance.

Breeding strategies: Meat scientists and animal geneticists should collaborate their research for developing a potential cross bred buffalo for meat purpose. Meat production potential under extensive and intensive system should be adequately exploited through cross breeding of selected local breeds/ nondescript breeds with specific exotic and improved breeds.

At present buffalo meat is obtained as a byproduct of buffalo milk production. There is vast scope for increasing carabeef export consequent to cattle slaughter ban act,

availability of male buffalo calves and the steady demand for the same from the importing countries. It is high time to consider growing/fattening of male buffalo calves for veal production. Sufficient nutrition and improved levels of hygiene and sanitation at meat handling will enable India a quantum jump in meat production by utilizing the surplus male calves.

Meat sector plays an important role in India as it not only provides meat and by-products for human consumption but also contributes towards sustainable livestock development, employment, developed secondary industries and livelihood security for millions of men and women from weaker sections. Major portion of meat from sheep, goat, pig and poultry is primarily used for domestic consumption in the form of fresh meat. Certain portion of meat from buffaloes, cattle and sheep is exported in frozen and chilled form. Meat production and supply of meat for local consumption is the most neglected sector in the country. Meat is sold in open premises leading to contamination from dirt, dust, flies and other pollutants.

The traditional production systems and the unorganized practices have ruined and flawed the image of the Indian meat industry. Indian meat industry on scientific and mechanized lines is need for benefiting livestock producers, processors and finally consumers. Indian meat contains less fat and the present international trend is favourable for low fat meat.

Average fat content of Indian meat (buffalo/poultry) is around 4% compared to 15-20% in most of the developed countries. Moreover, meat is free from growth promoters of other therapeutic residues and mad cow disease, which favours Indian meat in international trading.

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