

FAQs

1. What is livestock and its role in Indian agriculture?

Livestock refers to the population of meat producing animals. Livestock is an important segment in the Indian agriculture with its significant contribution to the Gross National Product (GNP). It has high impact on the employment potential in rural areas. As per National Sample Survey Organization (NSSO), Government of India livestock activities are preferred by over 90 % of small cultivators and wage - earning farmhand (non - cultivators) households, as a source of supplementary income. About 40 million people are engaged in livestock sector. Organization and development of livestock sector in rural land help meet the local needs, urban requirements and export demand. Thus, livestock sector will boost up the socio - economic status of the country.

2. What are the main features of Indian meat industry?

Main features of the Indian meat industry are:

- Live animals, viz, Sheep, Goats, Buffaloes, Pigs, Bullocks and Poultry are traded in livestock market for meat production.
- Livestock in India is reared on green pastures and agricultural crop residues, and thus raised on green livestock production system.
- Indian livestock is free from mad cow disease (Bovine Spongiform Encephalopathy).
- Animals are slaughtered generally according to Halal method.
- Buffalo meat is low in fat and cholesterol.
- Slaughtering (killing) the animals is done in municipal abattoirs for retail domestic market.
- Slaughtering is done in integrated mechanized abattoirs for export.
- Fresh frozen meat is transported in refrigerated containers from production point to ports of export.
- Raw hides / skins are treated and marketed for leather goods.
- Bones are sold for further processing into collagen, gelatin and calcium phosphate.
- Casings are produced from intestines.
- Blood from mechanized abattoirs is sent for the production of pharmaceuticals.
- Souvenirs are made from horns and hooves.
- Blood meal – cum - bone meal and tallow are produced in the rendering plants from offals and bones.
- Pet foods are produced from byproducts.

3. Write a brief account of poultry industry in India.

Poultry industry is well organized in India. There has been an increase in poultry production in the past three decades. India is the fifth largest egg producer in the world. The annual egg production is 3.9 million tons and poultry meat production is 2.4 million tons. The annual growth rate of production of eggs and poultry meat is 4.8 % and 10.0 %, respectively. Eggs and poultry meat are the well - accepted sources of animal protein. Almost 75 % of eggs and chicken meat are consumed in urban and semi - urban areas. Bulk of the commercial poultry farms is located in cities, urban and semi - urban areas. The national per capita availability of eggs is 35 and in urban areas and it is as high as 90 - 100 in metro cities, while in rural areas it is barely 10 - 12. Poultry meat is high in protein, low in fat, low in cholesterol and provides vitamins and trace elements. Per capita availability of poultry meat is around 500 g.

4. What are the major meat producing animals in India for the consumption in India and for export?

Sheep, goat and poultry birds are sacrificed for the production of meat mainly for the consumption in India. Largest quantity of meat produced in India is from buffaloes and is primarily for export. However, some quantity of meat is also produced in India from pigs and rabbit for internal consumption.

5. Give a brief account of government policies and scope of meat industry in India.

About 70% of Indians are meat eaters and additional 3% are egg consumers. New economic policies of Government of India created ample enterprise opportunities for business community and challenges for the researchers in meat and poultry sector in India in recent years. Certain multinational companies of repute are actively engaged in meat and poultry business in India and they are channelizing their marketing outlets to international markets. The scope for small and medium entrepreneurs is equally good to cater to the needs of people in domestic market.

6. Why there is a need for modern abattoirs in India?

The quality of meat produced in the existing traditional slaughterhouses in India is far from satisfactory, unhygienic and carries high levels of microbial contamination. Though Indian way of cooking kills many of the microorganisms in meat, cross contamination of the products eventually occurs under the prevailing conditions of meat handling. Recovery of byproducts is poor in the existing slaughterhouses. Enormous quantities of byproducts are wasted. It is therefore necessary to improve the conditions in the slaughter houses or to establish small sized or medium sized modern or semi - modern abattoirs in metro cities, urban, semi - urban and rural areas. This improves meat handling practices, recovery and effective utilization of byproducts and waste treatments for pollution control.

7. Give a brief account of convenience meat foods produced in India.

These are ready – to - cook, ready – to – eat and ready – to - serve or the products that require less time for preparation. They provide convenience to the consumers. Only about 3% meat produced in India is processed for production of ready – to - eat products. The trend for

consumption of processed meat products is increasing in domestic market. Export of processed meat products is also increasing. The processed products include sausages, ham, bacon and canned products. Traditional products such as tandoori chicken, kabab, tikka, meat fry, meat curry, kheema, biriyani, meatballs, kurma and pickles are consumed in large quantities in the country. Recently developed egg based convenience products from CFTRI, Mysuru are Egg wafers, Egg chips, Egg albumen cubes and Egg yolk cubes. The process for the manufacture of Egg wafers is released to many entrepreneurs in India. Recently fast food restaurants are mushrooming in urban and metro cities in India. The outlets for domestic market are fast food restaurants, cafeterias, hotels, airline, star hotels and railways. Cost is the main constraint for popularization of processed and convenience products. This can be solved by using cheaper meats, tough meat, trimmings, vegetables and cereals for product development.

8. Write a note on byproducts and wastes generated in slaughter houses.

Animals are slaughtered mainly for meat. Byproducts generated in the slaughter house constitute to an extent of 45 - 55 % of animal slaughter. The byproducts are blood, head, legs, hides / skins, intestines, stomachs, horn and hoof, glands, lungs, liver, heart, oesophagus, tongue, trachea, kidneys, testes and ovaries. Poultry slaughter also generates enormous quantity of byproducts including feathers. Effective recovery and utilization of byproducts is the lifeline of the industry. This would not only reduce the cost of production and give better economic returns to the producers but also reduce the problems of pollution and health hazards.

9. How meat is traditionally sold in Indian market?

Most of the meat sold in India is in fresh unpacked form. Meat is packed only in some organized meat factories, in Bacon factories and in export houses. There is an urgent need to bring awareness among meat seller and butchery community on the importance of packaging. Consumer forums should insist on the sale of packed meat. Meat packaging plays a vital role in marketing and preservation of meat and meat products. The main purpose of packaging is to protect the meat products from microbial contamination, light, oxygen and any physical damage. A good packaging makes the products more appealing to the consumer and provides longer shelf life to the product. Simple packaging systems (such as low density polyethylene film or shrink package) might be quite useful for domestic market. Modern packaging systems like vacuum packaging, modified atmosphere packaging will boost up the export market.

10. Suggest appropriate methods for marketing of meat.

There is no well integrated marketing system for meat and meat products in India. The main reasons are monopoly of meat trade, lack of coordination between production of meat and demand, too many middlemen in the trade and inefficient management of slaughterhouses by

municipalities. Establishment of meat corporations improves the marketing system so that the consumers get the quality meat and meat products at reasonable prices. The improvements should center on (i) organization of selling live animals, (ii) primary, secondary and tertiary processing, (iii) transport, (iv) storage and (v) retail sale.

11. What are machinery and equipment required for the hygienic processing of meat in modern abattoir?

The machinery play vital role in the production of hygienic meat. The equipment needs for small sized units are minimal. There is a need for organized machinery set up for capacities of 100 large animals and 1000 sheep / goats per shift per day. There is a great deal of mechanization in slaughterhouses worldwide. The auxiliary machinery *e.g.* power hoist conveyor system, effluent treatment plant, pump, chilling, blast freezer, frozen storage are indigenously available. A few machineries *e.g.* power splitting pneumatic skinning knives and brisket saw are to be imported. The sophisticated equipment can also be manufactured in the country to meet the forthcoming demand.

12. What India needs for the production of safe and hygienic meat?

Authorized modern slaughter houses, awareness to animal owners and slaughter workers, trained manpower, proper facilities for collection, storage and transportation and setting up of byproducts - based industries are the current needs in India for the production of safe and wholesome meat to meet the demands of consumers.

13. What is the export potential of livestock products of India?

Frozen buffalo meat is a major export item. The major importing countries are Malaysia, UAE, Oman, Kuwait, Saudi and Bahrain. A limited quantity of sheep and goat meat is also exported to these countries. The country also exports animal casings to Netherlands, Spain, Japan, Portugal and Germany. Bones, skins, hides and leather are also exported. According to Ministry of Commerce, the potential for export of buffalo meat will be of the order of Rs 100 billion. Construction of export oriented modern abattoirs with quality assurance systems is essential for production of hygienic meat to meet international specifications.

14. What are the factors responsible for the maintaining the hygienic quality of meat and meat products?

Improved methods of production, processing, packaging and preservation, HACCP (Hazard Analysis and Critical Control Points) concept, GMP (Good Manufacturing Practices), Chilling, Freezing, IQF (Individual Quick Freezing), Irradiation, Modern processing techniques, Emulsion

technology, High pressure technology, Fermentation, Hurdle technology and MAP (Modified Atmospheric Packaging) are gaining importance in improving quality, safety and value addition to meat and poultry.

15. What are the advantages of scientific utilization of byproducts?

The advantages are:

- Extra income to farmers and processors – improve plant economy
- Additional employment potential
- Improved quality products
- Increase export revenue and
- Eco friendly - reduce environmental pollution