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## Meat

India has a livestock population of 470 million, which includes 205 million cattle and 90 million buffaloes. India's livestock population is largest in the world with 50% of world's buffaloes, 20% of cattle and one-sixth of total production, but only 1% of total meat production is converted to value added products. The country produces about 450 million broilers and 30 billion eggs annually. Animals, which are generally used for production of meat, are cattle, buffaloes, sheep and goat, pigs and poultry. Methuen is also slaughtered for meat in North East and Sikkim. Rabbit meat is also used as a specialty in Kerala and some other states.

The world's largest cattle population grazes in Indian pastures. Today India's free ranging, steroid and fat-free meat is winning worldwide acceptance. 40,000 Veterinary centres and numerous research stations ensure that India's meat & poultry products meet the most stringent quality checks worldwide. Which is why they are a favorite in *Malaysia, UAE, Philippines, Iran and Oman.*

**Major products :** Frozen and packed meat & poultry mainly in fresh form and egg powder.

### Meat Processing

The production of meat and meat products has shown an impressive growth. The details of production of meat and meat products from 1994 to 1998 given in **Annexure 12.**

*The total meat production in the country is 4 million tonnes.*

*The current level of exports of meat and meat products from India is US\$ 190 million, the major destinations being the countries in the Middle East and South East Asia.*

The total meat production in the country is 4 million tonnes, which includes beef, buffalo meat, mutton, goat meat, pork and poultry meat. However, only about 1% of the total meat is converted into value added products like sausages, ham becon, luncheon meat, kababs, meatballs etc. The total meat export during 1999-2000 was worth Rs. 845.00 crores consisting mostly of mutton and buffalo meat out of which 70% was contributed by export of buffalo meat.

Buffalo meat is surplus in India. There is a vast scope to set up modern slaughter facilities and cold store chains in meat and poultry processing sector. India's current level of meat and meat-based exports is around Rs. 8,000 million. In the last six years foreign investment in this segment stood at Rs. 5,000 million which is more than 50 percent of the total investment made in this sector.

The current level of exports of meat and meat products from India is US\$ 190 million, the major destinations being the countries in the **Middle East and South East Asia**. Meat processing sector has attracted a total investment of US\$ 471.1 million in the last six years i.e., since the initiation of the liberalisation process including Foreign Investment of US\$ 116.1 million.

### **Major markets**

Buffalo Meat	Malaysia, Philippines, UAE, Iran, Jordan
Sheep/goat Meat	Saudi Arabia, UAE, Oman, Bahrain, Kuwait
Animal Products	Portugual, France, UK, Spain, Netherlands
Processed Meat	Seychelles, Germany, Oman, Congo, Sri Lanka

## Production

**(A) Livestock Population :** India is rich in its livestock wealth. It accounts for nearly 16% of the world cattle population, more than half of world buffalo population and about 17% of world's goat population. A comparative study of the livestock population in the world and in India given in **Annexure 13**.

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### **(B) Production of Meat**

As per FAO data, the world production of various kinds of meat is 216.25 million-MT of which India's share is 4.42 million - MT accounting for about 2% of world meat production. World vs India's production of meat is given in **Annexure 14**.

### **(C) Slaughter Rate in India**

	Population (Million no.)	Slaughtering (Million no.)	% Slaughter
Cattle	209	13.38	6.4
Buffalo	91	10.16	11.1
*Sheep	56	16.9	33.10
*Goat	120	45.8	38.1

(Source : FAO Production Year Book '98)

\*The Slaughter rate of goats and sheep is high largely to meet the domestic requirement.

### **(D) Meat Production Centres**

The major meat production centres for exports are as under:

*Schemes were formulated by APEDA, Deptt. of Animal Husbandry and Dairying, Ministry of Agriculture and Ministry of Food Processing Industries to improve exports.*

- Aurangabad, Nanded, Bombay and Satara in Maharashtra
- Goa
- Medak Dist. In Andhara Pradesh.
- Derabassi in Punjab
- Aligarh, Unnao and Ghaziabad in UP
- Cochin in Kerala

In addition, the exporters source their meat requirement from various Municipal Slaughter Houses through out the country. Some of the slaughter houses from where the exporters source their requirement are Deonar abattoir, Mumbai, Meerut, Jaipur, Saharanpur, Bareilly, Hapur, Muradabad, Khurja, Gangoh, Hyderabad, Aligarh, Muzzaffar Nagar, Buland Sahar and Meerut slaughter houses.

#### **(E) Slaughter Houses in India**

There are nearly 3600 Municipal Slaughter houses in the country. These slaughter houses are primarily catering to the domestic market. However, exporters have been also procuring the meat from some of these Municipal Slaughter houses. Most of these slaughter houses are very old and have out-lived their utility. They lack essential amenities such as water, light, drainage, lairage, holding pens, etc. The Government felt the need to improve and modernize the conditions of slaughter houses catering to exports. In view of above, schemes were formulated by APEDA, Deptt. of Animal Husbandry and Dairying, Ministry of Agriculture and Ministry of Food Processing Industries. Under the

schemes, financial assistance is provided for upgrading the abattoir and meat processing plants.

## Consumption

Indian Council of Medical Research (ICMR) has recommended daily allowance of meat as 34 grams per day, whereas in India the per capita meat consumption is as low as 14 grams per day.

According to Anthropological Survey of India study, more than 80% of Indian population are non-vegetarian. A large proportion of non-vegetarians has no religious or social taboo for consumption of Sheep, Goat and Poultry meat. Consumption of beef, buffalo meat and pork has religious taboos.

## Surplus for Export

As mentioned above, the slaughter rate in case of bovine animals is very low, whereas the slaughter rate is high in case of Sheep and Goat (as high as 38% in goats). The demand for meat of bovine animals in domestic market is negligible as the domestic consumers have a preference for Sheep, Goat and Poultry meat. We have therefore, enough potential for production of buffalo meat for export.

## Infrastructure facilities

- i) India has several integrated mechanized slaughter-house-cum meat processing plants and has facilities for slaughtering, processing, freezing packing and cold storage of meat. Refer containers are easily available

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for factory stuffing of frozen meat. Some of the exporters have started backward integration for rearing of animals wherein they provide veterinary health coverage and concentrated feed in the catchment area. Skilled and technical manpower for slaughtering, processing, packaging etc. of meat is adequately available in the country.

- ii) The Govt. of India has notified three agencies namely State Directorates of Animal Husbandry, EIA and DMI for inspection of meat prior to export. However, the inspection of meat is mainly done by the State Animal Husbandry Departments. The State Govt. laboratories are not equipped adequately and do not have skilled staff to conduct various examinations of meat. These laboratories need to be further strengthened in terms of modern testing facilities and skilled manpower.
- iii) We also need to have semi-modern and modern abattoirs to produce quality meat of international standards. Transportation of refer containers through railway needs further strengthening.

### **Export**

- (a) Products for exports : Frozen buffalo meat, sheep and goat meat, animal casings (wet salted and dried). In processed meat products corned buffaloe meat is also exported from India in small quantities.
- (b) Major Destinations : The major markets for export of meat and meat products are as under :

Buffalo Meat	Malaysia (32%), UAE (22%), Philippines (20%), Iran (5%)
Sheep & Goat Meat	UAE (46%), Saudi Arabia (40%), Oman (8%)
Animal Casings:	Portugal (48%), France (15%), Spain (14%), Switzerland (5%)
Comed Meat	Zaire (32%), Seychelles (20%), UAE (19%)

- (c) **Future Market:** India can predominantly play a major role in South East Asia, Africa and East Europe.

## International Scenario

The major exporters of bovine meat are USA, Europe, Oceania (Australia and New Zealand), Brazil, Argentina and Canada. In case of Sheep and Goat Meat, Oceania accounts for 70% of the world sheep meat exports followed by Europe which accounts for about 23% the world sheep meat exports.

The world Markets and Trade in meat as reported by USDA is as under:

United States : Beef exports rose by about 9% during 1999. The rise reflects strong markets in Mexico, Korea and Taiwan, reduced competition from Australia and New Zealand and food aid to Russia. U.S. beef imports increased by 6% in 1999. As US beef supplies tighten and prices increase, Canada and Australia are expected to increase exports to the United States.

Mexico : Beef imports are expected to rise 13% in 1999 to 228,000 tonnes due to lower domestic production and higher

*Future Market: India can predominantly play a major role in South East Asia, Africa and East Europe.*

consumption. About 93% of Mexican imports are supplied by the United States.

Argentina : Argentina beef exports increased by 17% during 1999 to 340,000 tonnes. The major markets are Germany and USA.

Brazil : Brazilian beef exports have grown sharply in 1999 to 485,000 tonnes. Brazil is under taking an FMD eradication programme aimed at having Brazil FMD free by 2004. Two FMD out-breaks reported to have occurred during early 1999.

European Union : Beef consumption in the EU continues to remain low following the 1996 BSE scare. Intervention stock of EU beef stood at about 510,000 tonnes at the beginning of 1999, of which Germany had the largest share, followed by UK, France and Ireland. Many importing countries refuse to purchase intervention beef due to it's lack of traceability and length of time in storage, despite it's low price. EU beef exports suffered a decline in 1998 as a result of crisis in Russia which is EU's top export market.

Russian Federation : Russian beef production continues to fall sharply reflecting the reduced inventories as well as low slaughter weights due to feed grain shortage. Import of beef was 500,000 tonnes during 1999, of which 195,000 tonnes is to be supplied by EU and USA under food aid programme.

China : China's beef imports were negligible at 6,000 tonnes in 1998. Australia is the major supplier to Chinese Market.

New Zealand : Beef exports declined in 1999 as New Zealand is concentrating on rebuilding it's cattle herd which declined



sharply after 1997–98 drought. Beef exports are mainly to USA, Japan, Hong Kong and Singapore.

Australia : Although overall beef exports are expected to decline but higher prices in the United States are encouraging, increased Australian exports to the United States.

## Potential for Value Added Products

Till date India has targeted the bulk customers in the export of buffalo meat. A small quantity as branded product in consumer packs have shown their presence in the super markets. Except corned beef, we are not exporting any other product of processed meat category. Whereas there is a demand for ethnic Indian meat product like Kabab, Gushtaba, Akhani, Korma etc., still there is a great potential for European processed meat products like Sausages, Ham, Salami, Burger, Smoked meat etc. If we are able to produce processed meat products, it would add value and help in earning more foreign exchange.

## Investment Opportunities

There is a large potential for setting up of modern slaughter facilities and development of cold chains in meat and poultry processing sector. The market has not been tapped fully for ready-to-eat and semi-processed meat products in the domestic market as well as for exports to neighboring countries especially to the Middle East. Buffalo meat is surplus in the country and has good export potential. Poultry production and egg processing industries have come up in the country in a big way and we are exporting egg powder,

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frozen egg yolk, albumin powder to Europe, Japan and some other countries. Meat products have a growth rate of 10% whereas the growth rate of eggs and broilers is 16% and 20% respectively.

Most of the production of meat and meat products continues to be in the unorganised sector. However, some branded products have also come up in the domestic market. At present, poultry export from India is mostly to Maldives and Oman. Some other markets can be explored for export of poultry meat products like Japan, Malaysia, Indonesia and Singapore.

### Steps Initiated By APEDA

Standards have been laid down for export of raw chilled and frozen meat as well as for processed meat products. These include standards for abattoirs, processing plants and for various meat products.

Registration of abattoirs and meat processing plants and animal casings processing plants for export is regularly undertaken by APEDA. The plants are periodically inspected by a committee consisting of officials of various Govt. Deptt. and Trade. The plants conforming to the laid down standards are registered with APEDA.

Steps have been initiated to grade the plants on the basis of adoption of international quality systems such as HACCP. The plants implementing these quality systems will be graded as Grade A, while others will be graded as grade B. A list of Grade A plants will be sent to all importing countries. A committee has been constituted by APEDA for this purpose.

Training programmes are being organised to create awareness among meat workers, supervisors and Managers for sanitation and hygiene.

Efforts are being made to upgrade the Municipal Slaughter Houses which largely cater to the requirement of meat exporters.

Efforts are also necessary for the modernisation of quality control laboratories of the State Animal Husbandry Deptt. under plan schemes.

## Recommendations

- Identification of FMD free areas particularly where export oriented abattoirs are located and notification of these Disease Free Zones by OIE.
- Identification and upgradation of municipal slaughter houses for export purpose.
- Need for modernising the Quality Control laboratories of the State Govt.
- Need for strict laboratory inspection of meat and meat products.
- Training programmes for meat workers regarding hygiene and sanitation need to be organized regularly.
- Rearing of Male Buffalo Calves on scientific lines so as to fatten them quickly.