

**Livestock sector in India**  
(05 January, 2022)

### Introduction to Livestock Sector In India

- Livestock plays an important role in the Indian economy. **The Livestock sector in India contributes 4.11% GDP and 25.6% of total Agriculture GDP.**
- About **20.5 million people** depend upon livestock for their livelihood.
- **Livestock contributed 16% to the income of small farm households** as against an average of 14% for all rural households.
- Livestock provides livelihood to two-third of the rural communities.
- It also provides **employment to about 8.8 % of the population** in India. India has vast livestock resources.

### Livestock resources

India is-

- **World's highest livestock owner** at about 535.78 million
- **First in the total buffalo** population in the world - 109.85 million buffaloes
- **Second** in the population of **goats** - 148.88 million goats
- Second largest **poultry** market in the world
- Second largest producer of **fish** and also second largest **aquaculture** nation in the world
- **Third** in the population of **sheep** (74.26 million)

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- **Fifth** in the population of **ducks and chickens** (851.81 million)
- **Tenth** in **camel** population in the world - 2.5 lakhs

**Source: 20th Livestock Census**

## Contribution of livestock to people

The livestock provides food and non-food items to the people.

1. **Food:** The livestock provides food items such as Milk, Meat, and Eggs for human consumption. **India is the number one milk producer in the world.** It is producing about 176.34 million tonnes of milk in a year (2017-18). Similarly, it is producing about 95.22 billion eggs, 7.70 million tonnes of meat in a year.
2. **Fiber and skins:** The livestock also contributes to the production of **wool, hair, hides, and pelts.** **Leather** is the most important product which has **very high export potential.** India is producing about 41.5 million Kg of wool per annum during 2017-18.
3. **Draft: Bullocks** are the backbone of Indian agriculture. Despite a lot of advancements in the use of mechanical power in Indian agricultural operations, the Indian farmer especially in rural areas still depends upon bullocks for various agricultural operations. The bullocks are saving a lot on fuel which is a necessary imp for using mechanical power like tractors, combine harvesters, etc. **Pack animals like camels, horses, donkeys, ponies, mules,** etc are being extensively used to transport goods in different parts of the country in addition to bullocks. **In situations like hilly terrains, mules and ponies** serve as the only alternative to transport goods. Similarly, the army has to depend upon these animals to transport various items in high areas of high altitude.
4. **Dung and other animal waste materials:** Dung and other animal wastes serve as **very good farmyard manure** and value of it is worth several crores of rupees. In addition, it is also **used as fuel (biogas, dung cakes), and for construction as poor man's cement (dung).**
5. **Storage:** Livestocks are considered as '**moving banks**' because of their potentiality to dispose off during emergencies. They serve as capital and in cases of **landless agricultural laborers** many times, it is the only capital resource they possess. Livestock serves as an asset and in case of emergencies, they serve as a guarantee for availing loans from the local sources such as money lenders in the villages.
6. **Weed control:** Livestock is also used as Biological control of brush, plants, and weeds.
7. **Cultural:** Livestock offers security to the owners and also adds to their self-

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esteem especially when they are owning prized animals such as pedigreed bulls, dogs and high yielding cows/ buffaloes, etc.

8. **Sports/recreation:** People also use the animals like cocks, rams, bulls, etc for competition and sports. Despite a ban on these animal competitions the cockfights, ram fights, and bullfights (jalli kattu) are quite common during festive seasons.
9. **Companion animals:** Dogs are known for their faithfulness and are being used as companions since time immemorial. When the nuclear families are increasing in number and the old parents are forced to lead solitary life the dogs, cats are providing the needed company to the latter thus making them lead a comfortable life.

## Role of livestock in farmers' economy

The livestock plays an important role in the economy of farmers. The farmers in India maintain a mixed farming system i.e. a combination of crop and livestock where the output of one enterprise becomes the input of another enterprise thereby realize resource efficiency. The livestock serves the farmers in different ways.

- **Income:** Livestock is a source of subsidiary income for many families in India especially the resource-poor who maintain few heads of animals. Cows and buffaloes if in milk will provide regular income to the livestock farmers through the sale of milk.
  - i. Animals like sheep and goats serve as sources of income during emergencies to meet exigencies like marriages, treatment of sick persons. children education. repair of houses. etc.
  - ii. The animals also serve as moving banks and assets which provide economic security to the owners.
- **Employment:** A large number of people in India being less literate and unskilled depend upon agriculture for their livelihoods.
  - i. But agriculture being seasonal in nature could provide employment for a maximum of 180 days in a year.
  - ii. The landless and fewer land people depend upon livestock for utilizing their labor during the lean agricultural season.
- **Food:** The livestock products such as milk, meat, and eggs are an important source of animal protein to the members of the livestock owners. The per capita availability of milk is around 375 g / day; eggs is 74 / annum during 2017-18.
- **Social security:** The animals offer social security to the owners in terms of their status in society.
  - i. The families especially the landless who own animals are better placed than those who do not.
  - ii. The gifting of animals during marriages is a very common phenomenon

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in different parts of the country. The rearing of animals is a part of the Indian culture. Animals are used for various socio-religious functions.

iii. Cows for house warming ceremonies; rams, bucks, and chicken for sacrifice during festive seasons; Bulls and Cows are worshipped during various religious functions. Many owners develop attachments to their animals.

- **Draft:** The bullocks are the backbone of Indian agriculture. The farmers especially the marginal and small depend upon bullocks for plowing, carting, and transport of both inputs and outputs.
- **Dung:** In rural areas dung is used for several purposes which include fuel (dung cakes), fertilizer (farmyard manure), and plastering material (poor man's cement).

## Challenges faced by the Livestock sector in India

- Improving the productivity of farm animals is one of the major challenges. The average annual milk yield of Indian cattle is 1172 kg which is only about 50 percent of the global average.
- The frequent outbreaks of diseases like Foot and Mouth Diseases, Black Quarter infections; Influenza, etc. continue to affect Livestock health and lowers productivity.
- India's huge population of ruminants contributes to greenhouse gases emission. Reducing greenhouse gases through mitigation and adaptation strategies will be a major challenge.
- Crossbreeding of indigenous species with exotic stocks to enhance the genetic potential of different species has been successful only to a limited extent. Limited Artificial Insemination services owing to a deficiency in quality germplasm, infrastructure, and technical manpower coupled with poor conception rate following artificial insemination have been the major impediments. After more than three decades of crossbreeding, the crossbred population is only 16.6 percent in cattle, 21.5 percent in pigs, and 5.2 percent in sheep.
- The sector will also come under significant adjustment pressure to the emerging market forces. Though globalization will create avenues for increased participation in international trade, stringent food safety, and quality norms would be required.
- The livestock sector in India did not receive the policy and financial attention it deserved.
- The sector received only about 12 percent of the total public expenditure on agriculture and allied sectors, which is disproportionately lesser than its contribution to agricultural GDP.
- The sector has been neglected by financial institutions. The share of livestock in the total agricultural credit has hardly ever exceeded 4% in the total (short-

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term, medium-term, and long-term).

- The institutional mechanisms to protect animals against risk are not strong enough. Currently, only 6 percent of the animal heads (excluding poultry) are provided insurance cover. Livestock extension has remained grossly neglected in the past.
- Only about 5 percent of the farm households in India access information on livestock technology. These indicate a sub-optimal outreach of the financial and information delivery systems.
- Livestock derives a major part of its energy requirement from agricultural by-products and residues. Hardly 5 percent of the cropped area is utilized to grow fodder. India is a deficit in dry fodder by 11 percent, green fodder by 35 percent, and concentrates feed by 28 percent. The common grazing lands have been deteriorating quantitatively and qualitatively.
- Access to markets is critical to speed up the commercialization of livestock production. Lack of access to markets may act as a disincentive to farmers to adopt improved technologies and quality inputs.
- Except for poultry products and to some extent for milk, markets for livestock and livestock products are underdeveloped, irregular, uncertain, and lack transparency. Further, these are often dominated by informal market intermediaries who exploit the producers.
- Likewise, slaughtering facilities are inadequate. About half of the total meat production comes from un-registered, make-shift slaughterhouses. Marketing and transaction costs of livestock products are high taking 15-20 percent of the sale price.
- Other major challenges faced by the sector are inadequate availability of credit, poor access to organized markets, limited availability of quality breeding bulls, water sources depletion, deficiency of vaccines and vaccination set-up, diversion of feed and fodder ingredients for industrial use.

## Way Forward

- A sustained rise in per capita income and urbanization is fuelling rapid growth in demand for animal food products.
- Demand for animal food products is income elastic and low-income households with a rise in their income will spend more on them.
- Though urbanization would continue to be the main driver of demand growth, rural areas will not lag. Besides, the world trade in livestock products has also been increasing fast, involving opportunities for increasing exports.
- Livestock production has been growing faster than crop production and the momentum is likely to continue. The demand-driven growth in livestock production will enable millions of poor to escape the poverty trap, as the distribution of livestock is more equitable as compared to land.
- The poor have sufficient labor of low opportunity cost and are capable of producing at a lower cost. A growing livestock sector in India will also

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contribute towards women's empowerment.

- Market opportunities due to the anticipated rise in demand for livestock products will provide an avenue for resource-poor farmers to increase production, improve their livelihoods, reduce malnutrition and thereby, contribute to the goal of overall poverty alleviation. However, there is a need to provide an enabling environment in which small producers can take advantage of the opportunities, overcome the challenges and meet the threats.

## Need of linkage between production and market for Livestock

- Public spending in the livestock sector as a proportion of the value of the sector's output has fallen considerably over the last two decades.
- This needs to be increased to re-energize the sector. Markets for live animals and their products are under-developed and dominated by informal traders who often exploit producers.
- The strengthening of linkages between production and markets through institutions such as co-operatives, producers' associations, and contract farming is the need of the hour. Institutional support in terms of credit and insurance is meager and needs to be strengthened.
- Further, governments and industries should prepare producers for quality-driven competition in the domestic as well as global market.

## Eradication of Infectious diseases in Livestock

- Infectious diseases are a major burden on the farmers' economy. The recently launched National Animal Disease Control Programme (NADCP), aims at eradicating Foot and Mouth Disease (FMD) and brucellosis in livestock.
- The program aims to vaccinate over 500 million livestock heads, including cattle, buffalo, sheep, goats, and pigs, against FMD, and some 36 million female bovine calves annually against brucellosis.
- The program has received 100 percent funding from the Centre, amounting to Rs 12.652 crore for five years until 2024. the release said.
- The NADCP aims to control these two diseases by 2025 and to eradicate them by 2030.
- The program relies heavily on the Information Network system for Animal Productivity & Health (INAPH), a Desktop / Android Tablet based field IT application that facilitates the capturing of real-time reliable data on Breeding, Nutrition, and Health Services delivered at farmer's doorstep. The system is developed by NDDDB.

## AI and Automation Systems

- A lot of progress has been made in artificial intelligence and automation

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systems.

- The livestock farm automation system is the opportunity to tailor operations to the needs of each animal.
- This saves time, requires less labor, and improves product quality, increases production, efficiency, accuracy, and safety. As automation demands high installation and repair costs; hence is more suitable for commercial & institutional farms.
- But with increased usage, the prices will be driven down. With the automation of farms, livestock management is shifting from being an art to an application on a mobile device.

## Conclusion:

- Policymakers in India are finally acknowledging a structural shift in the agriculture sector they have been noticing for a decade.
- Livestock now controls a quarter of the agriculture gross domestic product (GDP).
- The livestock sector in India is performing well in the manner of production, value addition, and export of dairy, fishery, wool, poultry, and other products.
- Apart from its performance, some threats also exist; we need to overcome them to grab the global market opportunities.

Click here to read the [20<sup>th</sup> Livestock Census of India](#).

Click here to read [Special Livestock Sector Package](#) approved by CCEA.



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