



## Refocusing on Sustainable Livestock Sector

This editorial is based on [“Refocusing our lens to view wildlife health holistically”](#) which was published in Hindustan Times on 04/10/2022. It talks about the current state of Animal health in India and related issues.

**For Prelims:** Nutritional Security, Lumpy Skin disease, Gender equality, Economic Survey-2021, Gross Value Added, African Swine Fever, Veterinary services, Genetic Surveillance.

**For Mains:** Contribution of Livestock in the Indian Economy, Current Challenges Related to Livestock in India, One Health Approach.

**Animal Husbandry** is an important sub-sector of the Indian agricultural economy. India is blessed with a huge [livestock population](#) reared under diverse production systems and [agroclimatic conditions](#).

Livestock sector plays a **multi-faceted role in providing livelihood support** to more than **60% of the rural population** in India and is significant for [nutritional security of India](#).

However, this live asset is facing a number of challenges, including [scarcity of feed and fodder](#), **disease outbreaks** ([lumpy skin disease](#)), **poor livestock extension** and the **unorganised markets for livestock products** that demands serious attention to refocus our lens to view livestock health and productivity holistically.

### What is the Contribution of Livestock in the Indian Economy?

- As per the [Economic Survey-2021](#), the contribution of Livestock in total agriculture and allied sector [Gross Value Added \(at Constant Prices\)](#) has increased from **24.32% (2014-15) to 28.63% (2018-19)**.
- **Employment and Gender Equality:** Besides their monetary benefit and providing a steady stream of food and revenues for households, livestock provide employment to the rural family, act as insurance during crop failures and the **number of livestock owned by a farmer determines the social status** among the community.
  - [Dairy](#) is the **single-largest agri commodity in India**. It contributes **5% to the national economy** and employs 80 million dairy farmers directly.
  - It also contributes to [gender equality](#) by generating opportunities for women.
- **Enhance Soil Fertility:** It generates [in situ fertilisers](#) for enhancing the soil fertility, and also recycles waste products and residues from cropping or agro-industries.

### What are the Current Challenges Related to Livestock in India?

- **Rising Animal Diseases:** There has been an increase in communicable diseases among animals. Most recent is the **outbreak of lumpy skin disease (LSD)** in cattle across various states of

India.

- In **Rajasthan**, more than **1 million cattle** have been diagnosed with lumpy skin disease. Down south, [African swine fever](#) was reported in Kerala.
- **Shortage of Feed and Fodder: Due to rapid urbanisation and shrinking land sizes (partition of land, generation after generation due to inheritance setup of India)** the livestock sector is facing severe feed and fodder shortage.
  - Also, India has only **5%** of its **cultivable land under fodder production**. Whereas, area under [permanent pastures](#) and grazing lands comprises a mere **3.30% of the total area**, and has been declining steadily.
  - According to a report of [ICAR-Indian Grassland and Fodder Research Institute \(IGFRI\)](#), there is a deficit of **23.40%** in the availability of **dry fodder**, **11.24%** in **green fodder**.
- **Inadequate Financial Attention:** The livestock sector does not **receive the policy and financial attention it deserves**. The sector receives only about **12% of the total public expenditure on agriculture and allied sectors**, which is disproportionately lesser than its contribution to agricultural GDP.
- **Underdeveloped Product Market:** Indian livestock product markets are mostly underdeveloped, uncertain, **lack transparency** and often **dominated by informal market intermediaries**.
  - Lack of access to markets act as a **disincentive to farmers to adopt improved technologies** and quality inputs, while **dairy** is the only product to see uniform changes, **other products are far behind**.
- **Issues Related to Cross-Breeding:** Although, [crossbred dairy cattle](#) exhibit strengths of the breeds from which they descend, it does **multiply their capacity of production but also adds vulnerability to several diseases**, nutritional deficiencies, and environment adaptations.
- **Impact of Climate Change on Livestock:** Warm and humid conditions cause heat stress, which **affects behaviour and metabolic variations on livestock** or even mortality.
  - The **changing monsoon season** **disrupts their meeting season** and in times of calamities like floods, **animals suffer the same horrendous effects as people:** injury, starvation, thirst, displacement, illness, and stress. Yet, since they are voiceless, **they stand behind in the rescue line**.
- **Lack of Adequate Extension Services:** Livestock extension service includes **appropriate veterinary services (Vaccination, prevention and control of disease)**, livestock awareness and deworming.
  - While the role of extension services in enhancing crop production and productivity is widely recognized, **livestock extension never got the attention it deserves, and this has been one of the reasons for low productivity** of India's livestock sector.

## What Should be the Way Forward?

- **Fodder Security:** Along with Food Security for the citizens, **there is need to give equal attention to fodder security** maintaining the accessibility, availability and sustainability parameters.
  - According to the [Ministry of New and Renewable Energy \(MNRE\)](#) report, India generates on an average **500 million tons of crop residue** per year out of which **92 million tons is burned each year**, which can be potentially used for animal fodder.
    - There are already proven **high yielding varieties of fodder and technologies** that can be utilised such as **silage making, hay making and urea-molasses treatment for crop residue**.
- **Genetic Surveillance:** [Genetic Surveillance](#) especially of viruses needs to be strengthened for livestock in India. As the **lumpy skin disease outbreak continues to spread rapidly** with high mortality, there is a need to **scrutinise its genetic structure and analyse its behaviour** to tackle this issue effectively.
- **Unified Livestock Market:** It is important to **strengthen Industry-Farmer linkages** in a variety of livestock products, **as in case of dairy (Amul)**, to increase **commercialization of livestock production and provide farmers with additional income security**, so that they will also pay more attention to their livestock health.
- **Indigenous Breed Gene Banks:** It is important to preserve the indigenous breed due to its **ability to adapt to diseases, fragile climatic conditions, and the nutritional value of its milk**.

- Gene banks can be created that will **assist various research institutions in conducting research** as well as help in conserving indigenous breeds.
- **Veterinary Ambulance Service and Compulsory Livestock Vaccination:** In order to provide immediate primary treatment for injured animals, **ambulance services should be expanded in veterinary hospitals.**
  - In addition, [livestock primary vaccination](#) should be made mandatory, and regular **veterinary surveillance** should be conducted in a time-bound manner.
- **Towards One-Health Approach:** There is a need to **recognize [One Health Approach](#) and understand the interconnection between people, animals, plants, and their shared environment and** encourage collaborations in research and sharing of knowledge at multiple levels across various disciplines like human health, animal health, plants, soil, environmental and ecosystem that can help in **health sustainability and tackling [zoonotic diseases](#) as well.**

### ***Drishti Mains Question***

Highlight the major challenges related to the Livestock sector in India in light of recent lumpy skin disease outbreak.

## **UPSC Civil Services Examination, Previous Year Question (PYQ)**

### ***Prelims***

**Q.1 Consider the following crops of India: (2012)**

1. Cowpea
2. Green gram
3. Pigeon pea

**Which of the above is/are used as pulse, fodder and green manure?**

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

**Ans: (a)**

**Q.2 Which of the following is the chief characteristic of 'mixed farming'? (2012)**

- (a) Cultivation of both cash crops and food crops
- (b) Cultivation of two or more crops in the same field
- (c) Rearing of animals and cultivation of crops together
- (d) None of the above

**Ans: (c)**