



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)