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Livestock and Agriculture: A Pillar of Rural Livelihood and Economic Stability in India

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The livestock sector in India is crucial for improving farmer livelihoods and economic stability, especially when combined with traditional agriculture. It provides income generation, poverty alleviation, and employment for approximately 18 million people, with a significant proportion being women. Livestock contributes to agriculture through dung production and the use of draft animals for plowing and transport. The increasing demand for meat and eggs reflects rising incomes and urbanization trends. Women's substantial involvement in dairy production underscores the sector's importance in gender inclusion and economic development. Overall, the livestock sector is vital for increasing farmer incomes, supporting agricultural practices, and providing diverse socio-economic benefits.

Keywords: Employment, Income, Manure, Nutrition, Poverty alleviation, Women's engagement

Introduction

Livestock offers substantial advantages in terms of nutrition, livelihood, socioeconomic status, and agricultural productivity. These benefits are particularly pronounced in India, where livestock farming has been a tradition for centuries. Nutritionally, livestock products such as meat, milk, and eggs provide essential proteins, vitamins, and minerals that are crucial for a balanced diet and overall health. Economically, livestock serves as a reliable source of income for many rural families, contributing to their financial stability through the sale of meat, milk, and other animal products. This source of income also plays a significant role in improving the socioeconomic status of farmers, offering a means of wealth accumulation and financial security. Additionally, livestock supports agriculture by providing organic manure that enhances soil fertility, aids in crop residue management, and offers draft power for plowing fields, thus promoting sustainable farming practices and improving crop yields. Overall, the integration of livestock into agricultural systems fosters a more resilient and productive rural economy. Most of the households will continue to live in poverty if agriculture is their only source of income. Therefore, raising animals in addition to farming can increase the income and standard of living of farmers (Chand et al.,2011).

Income generation for farmers

The livestock business is regarded as one of the most advantageous industries for lifting farmers' earnings. Livestock revenue at the district level varies significantly among regions and states because numerous pockets/clusters in the country largely depend on this sector for their income; as a result, different alternative plans are needed for each state (Saxena et al., 2017).

The dairy industry in India contributes significantly to poverty mitigation and unemployment. The cattle sector employs 18 million people, over 70 % of whom are female (Ramesh et al., 2018). Furthermore, for some 27.6 million people, the dairy industry serves as their primary source of income. This group consists of landless laborers and 65–70% small and marginal farmers (Satish and Soumyakant, 2016).

Manure as fertilizer: India's livestock produces almost 2600 million tonnes of excrement per year (Kaur et al., 2017). This can be used as a source of farmyard manure (FYM), for vermicompost, and in biogas plants to generate electricity. Penning sheep and other livestock produce a consistent supply of dung, which is utilized for manure, fuel, and building material (Portillo et al., 2015).

Draft power for plowing and transport: In regions such as Orissa, cattle and buffaloes are essential for plowing and transport, as crop production relies heavily on animal power. The use of animal power also provides substantial economic benefits, saving significant amounts of petroleum and avoiding the high costs of mechanization (Kurup, 2003; Ramaswamy, 2007).

Nutritional security: From a functional perspective, eggs are particularly relevant since they offer a low-cost, high-quality protein supply, moderate calorie content (around 150 kcal/100 g), and exceptional culinary flexibility (Carrillo et al, 2012), making eggs accessible to most people. For people of all ages and stages of life, eggs are a useful addition to the diet because they are also relatively rich in fat-soluble elements. Thus, poultry farming contributes significantly to individual nutritional balance. 50% of households keep goats. Goats are known as the 'cow of the poor' because individuals who cannot afford to keep cows and buffaloes for milk production prefer to raise goats. Globalization, urbanization, and rising per capita income are increasing demand for expensive items like beef (Birthal and Joshi, 2006). It has high levels of protein, vitamins, iron, zinc, and potassium.

Women engagement in livestock care and management: Women play an essential and pivotal role in animal management, as they make up a remarkable 93% of the workforce involved in dairy production across India. They are deeply involved in dairy and animal husbandry activities, balancing these responsibilities with household chores (Belurkar et al., 2003).

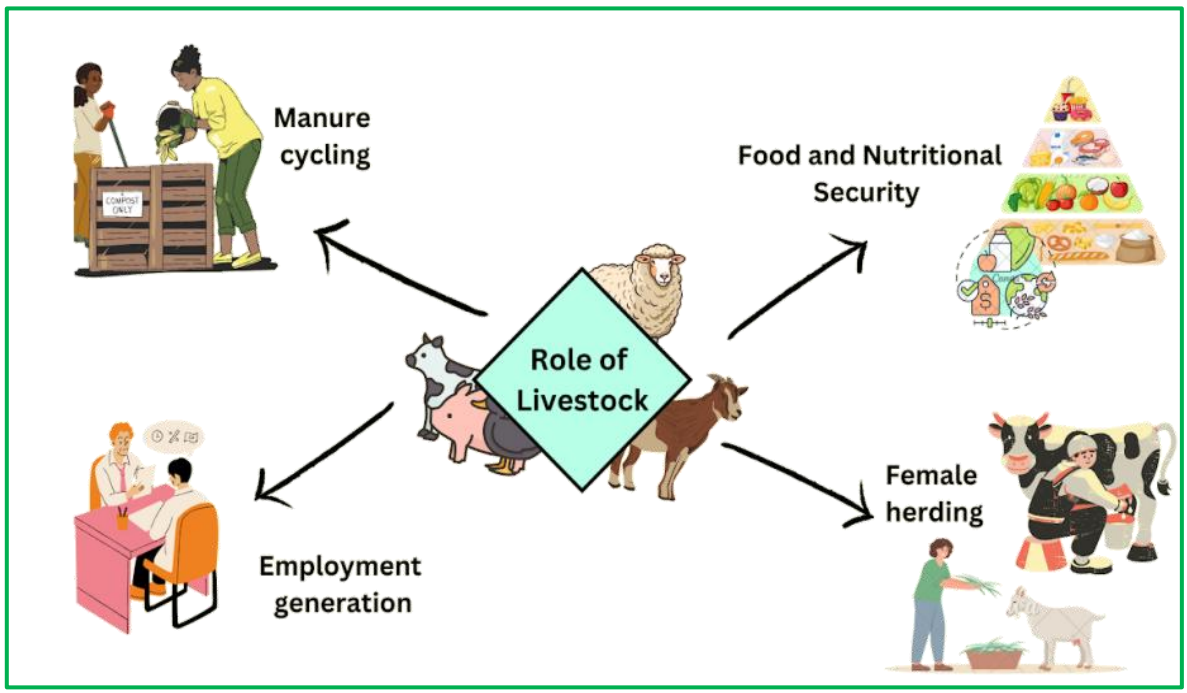

Fig 1. Livestock and Their Crucial Agricultural Role

Conclusion

The livestock sector in India significantly contributes to the agricultural and economic landscape by enhancing farmer incomes, reducing poverty, creating employment opportunities, especially for women, and promoting gender equity and economic participation. The sector's role in dairy production, utilization of livestock manure, and use of draft animals for agricultural productivity further underlines its importance in rural economies. Ongoing support and development for the livestock sector are crucial to fully realize its benefits for farmers, the economy, and society as a whole.

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