

Potentiality in Animal Husbandry, Fisheries and Dairy Sector in Bihar

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Abstract

Agriculture and allied sectors play a crucial role in the process of economic development of a state like Bihar where the mainstay of large proportion of population is agriculture. More than 80 percent of the population of the state reside in rural areas. Achieving high and sustainable growth in the agriculture and allied sectors is essential to create employment opportunities and improve rural incomes, specially for the poor. The sector has tremendous potentialities which need to be unleashed. There is a dire need to adapt the mindset of an agripreneur. In fact, Agripreneurship is not only a prospect but also a prerequisite for improving the creation and profitability in agriculture and allied sectors. Animal Husbandry, Fisheries and Dairy Sector have better avenues for agripreneurs along with their farm activities.

Key words: *Agripreneurship, Dairy Sector, Economy of Bihar, Fisheries, Livestock.*

Introduction

Animal husbandry and fisheries form an important part of Bihar's rural economy because of the benefit it brings to livelihood, food security and income of the rural population. In fact, livestock and fisheries are the fastest growing sub-sectors within the primary sector, growing at a rate of 10 percent and 7 percent, respectively. Also, their share in agricultural GSVAs has been averaging around 30 per cent and 8 percent, respectively during the last five years (2016-17 to 2020-21). Given the climatic vagaries and limited availability of land resources in the state, animal husbandry and fisheries provide a risk reduction strategy for income of rural households, especially for small and marginal farmers. In recent years, the demand for the production of fisheries and meat products is increasing because of changes in dietary and consumption habits of the people.

Production of Livestock, Fisheries, and Dairy Products

The production trends of livestock and fish products from 2016-17 to 2020-21 are presented in Table 1. A substantial increase in production of eggs is evident from its growth

rate of 32.4 percent during the period. In 2020-21, egg production stood at 301.32 crores in Bihar. Meat output in the state climbed from 3,26 lakh tonnes in 2016-17 to 3.85 lakh tonnes in 2020-21, indicating an annual growth rate of 4.5 percent. The State Government is presently focusing on increasing the capacity for milk production, through specific programmes like artificial insemination of breedable animals, immunization for prevention of infection, and providing balanced animal feed.

Table 1: Livestock and Fish Production in Bihar (2016-17 to 2020-21)

Year	Milk (lakh tonnes)	Egg (crore)	Wool (lakh kgs)	Meat (lakh tonnes)	Fish (lakh tonnes)
2016-17	87.10	111.17	2.81	3.26	5.09
2017-18	92.41	121.85	2.98	3.43	5.87
2018-19	98.18	176.33	3.12	3.64	6.02
2019-20	104.83	274.08	3.10	3.83	6.41
2020-21	115.01	301.32	1.70	3.85	6.83
CAGR (%)	7.1	32.4	-9.2	4.5	7.0

Note: CAGR (%) is calculated for the last 5 years (2016-17 to 2020-21)

Source: Department of Animal Husbandry, Fisheries and Dairy, GoB

Livestock Wealth

Table 2 presents the details of different species of animal population as per the last three Livestock Census. The latest Livestock Census of 2019 reveals that the total livestock population in Bihar has increased from 301.7 lakh in 2007 to 365.4 lakh in 2019, registering a growth rate of 21 percent. The cattle population accounted for nearly 42.1 percent (154.01 lakh) of the total livestock population, followed by goat at 35.1 percent (128.2 lakh) and buffaloes at 2.1 percent (77.2 lakh). In case of poultry, the population registered an increase from 114.2 lakh in 2007 to 165.3 lakh in 2019.

Table 2: Livestock Wealth (2007, 2012 and 2019)

Livestock and Poultry	2007	2012	2019
Cattle	12.41	12.23	15.40
Males over 3 years	2.74	1.92	1.35
Females over 3 years	4.92	5.98	7.15

Young stock	4.75	4.33	6.90
Buffalo	6.69	7.57	7.72
Males over 3 years	0.33	0.30	0.46
Females over 3 years	3.55	4.02	3.67
Young stock	2.82	3.25	3.59
Sheep	0.22	0.23	0.21
Goat	10.17	12.15	12.82
Pigs	0.63	0.65	0.34
Horses and Ponies	0.05	0.05	0.03
Others	0.00	0.06	0.01
Total Livestock	30.17	32.94	36.54
Total Poultry	11.42	12.75	16.53

Source: Department of Animal Husbandry, Fisheries and Dairy, GoB

Livestock Services

Adequate animal health services for disease control and treatment can go a long way in achieving higher productivity of livestock sector. The progress of livestock services over the period 2016-17 to 2020-21 has been presented in Table 3. In 2020-21, around 40.24 lakh animals were treated and about 49.96 lakh animals were immunized in Bihar. The coverage of artificial insemination stood at 36.29 lakh animals in 2020-21. The district-wise achievement of livestock services reveals that the immunization of animals was the highest in the districts of East Champaran (3.31 lakh), West Champaran (2.62 lakh), and Muzaffarpur (2.62 lakh) in 2020-21. The number of animals treated was the highest in Gaya (2.24 lakh), Patna (2.2 lakh), and Samastipur (1.98 lakh) in 2020-21.

To reduce the mortality among livestock animals, the State Government is investing in improving veterinary services and making provisions for vaccination against highly infectious diseases. As part of the interventions to make technology accessible to women and marginalised farmers, animal health services are being provided through the 'Pashu Sakhi' delivery mode. The 2011 Bihar Animal Breeding Policy prioritizes animal breed development to increase milk output in the state. Recently, the Bihar Livestock Master Plan (2018-19 to 2022-23) has been developed to achieve higher quality animal and livestock products by increasing investments in input supply, technology, value addition, and marketing. This will

also lead to higher employment and income for rural households in the state. For the next four years (2021-22 to 2024-25), a sum of Rs. 56.00 crore will be spent towards setting up of 7000 milk cooperative societies across all the villages of the state. The State Government has earmarked subsidies for the establishment of different capacities of goat breeding farms, broiler farms, and Layer Farms with feed meal. The details of these schemes have been given in Table 4.

Table 3: Livestock Services in Bihar (2016-17 to 2020-21)

Year	Animals Treated (lakh)	Immunization (lakh)	Artificial Insemination (lakh)
2016-17	41.03	296.45	26.2
2017-18	44.67	526.72	28.23
2018-19	44.08	555.66	31.01
2019-20	45.47	615.77	36.76
2020-21	40.24	49.96	36.29
CAGR (%)	-0.21	-28.86	9.59

Note: CAGR (%) is calculated for the last 5 years (2016-17 to 2020-21)

Source: Department of Animal Husbandry, Fisheries and Dairy, GoB

Table 4: Details on Physical and Financial Achievement for Livestock Sector (2018-19 to 2020-21)

Year	Name of scheme	Physical (Number)	Financial (Rs. Lakh)
		Achievement	Achievement
2018-19	Subsidy for the establishment of 3,000 capacity Broiler Farm	106	259.46
	Subsidy for the establishment of different capacity of Goat Breeding Farms (100 Goat+05 Buck, 40 Goat +02 Buck & 20 Goat+01 Buck	802	165.38
	Distribution of 3 breedable goats to BPL families through Jeevika	3849	461.81

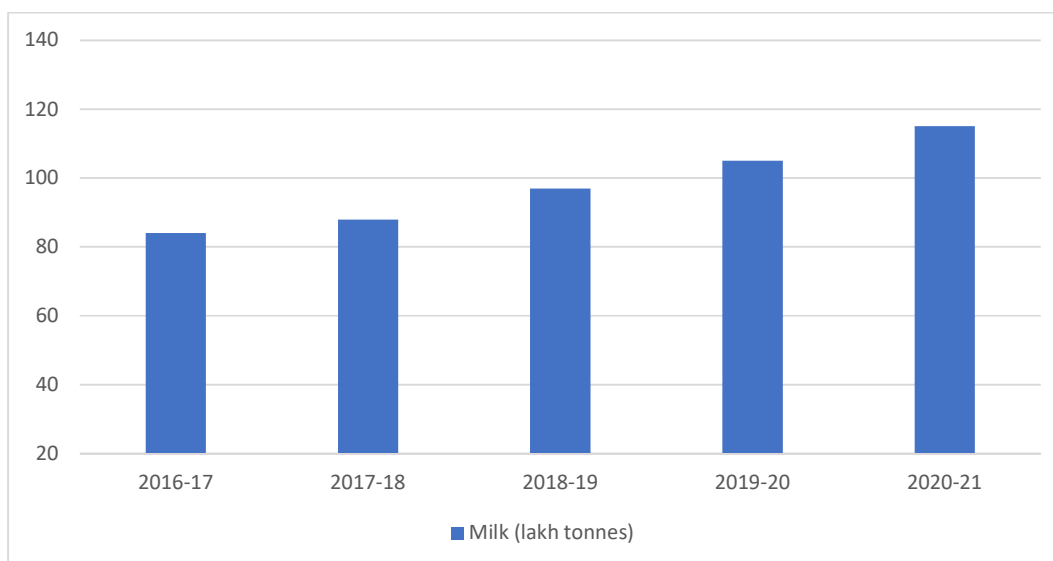
2019-20	Subsidy for the establishment of 5,000 and 10,000 capacity of Layer Farm with feed meal	27	275.24
	Subsidy for the establishment of different capacity of Goat Breeding Farm (100 Goat+05 Buck, 40 Goat + 02 Buck & 20 Goat + 01 Buck)	688	420.56
	Distribution of 3 breedable Goat to BPL family through Jeevika	12883	1455.56
2020-21	Subsidy for the establishment of different capacity of Goat Breeding Farm (100 Goat + 05 Buck, 40 Goat + 02 Buck & 20 Goat + 01 Buck)	81	18.184

Source: Department of Animal Husbandry, Fisheries and Dairy, GoB

Dairy Sector

Dairy farming is a key sector in Bihar because of its potential for livelihood, particularly for small and marginal farmers. Dairy cooperatives have emerged as key players in Bihar's milk production, processing, and distribution. (Chart 1). The trends in milk production in Bihar during 2016-17 to 2020-21 are presented in Table 1. During 2016-17 to 2020-21, Bihar's milk output increased from 87.10 lakh tonnes in 2016-17 to 115.01 lakh tonnes in 2020-21, registering an annual growth rate of 7.1 percent.

Chart 1: Trends in Milk Production in Bihar (2016-17 to 2020-21)



Source: Department of Animal Husbandry, Fisheries and Dairy, GoB

. The major sources of milk production in the state are cows (62.6 percent of the total milk production), followed by buffaloes (35.2 percent) and goat (2.2 percent). The districts of Samastipur, Begusarai and Patna together contributed to 18.2 percent of the total milk production from cows. The buffaloes are also an important source of milk production in the State. The major source of buffalo milk is Madhubani, Sitamarhi and East Champaran, which together contributed to 16.1 percent of the milk production in 2020-21. Under the state scheme of Samagra Gavya Vikas Yojana, a total of Rs. 73.45 crore has been approved in 2020-21 to provide subsidy for the establishment of dairy units of 2 and 4 milch cattle towards creation of self-employment and limiting the expenditure against the sanctioned amount to Rs. 50.00 crore among farmers/ livestock farmers/ unemployed youths of all classes of the state. The dairy development initiatives are implemented by the Directorate of Dairy Development and COMFED. In recent years, Bihar has registered a significant increase in dairy farming, as evident from the steady increase in milk production. The State Government is planning to set up new milk booths in all un-covered blocks and municipal areas, for which a total amount of Rs. 30.10 crore has been allotted.

Poultry

The performance of poultry sector in the state has been commendable. The total egg production increased from 111.17 crores in 2016-17 to 301.32 crores in 2020-21, registering a growth rate of 32.4 percent (Table 1). Subsidies are being offered for large-scale distribution of poultry birds, as well as establishment of 5000/10,000 capacity layer poultry farms and 3000 capacity of Broiler poultry farms in the private sector, to enhance the availability of poultry eggs and meat. Support for growth of desi chickens and low-input poultry species is also being provided by the State Government.

Fisheries

Fisheries are important for socio-economic development of the state for their role in generating employment opportunities and augmenting incomes for the rural poor. For a vast number of the state's landless labourers and land-poor farmers, fishing is a valuable source of income. Fish production in the state steadily increased from 5.09 lakh tonnes in 2016-17 to 6.83 lakh tonnes in 2020-21, indicating a growth rate of 7.0 percent in last five years (Table 1). The leading districts in terms of production of fish are Madhubani (0.77 lakh tonnes), Darbhanga (0.64 lakh tonnes), and East Champaran (0.63 lakh tonnes), together contributing to 29.9 percent of the total fish production in the state during 2020-21. Farmers are receiving input subsidies for the procurement of fish feed in order to boost fish output in the state.

Promotional Schemes of the Department of Animal Husbandry and Fisheries

- ❖ **Chief Minister Integrated Chaur Development Scheme (Proposed scheme for 2021-22 and 2022-23):** The main objective of the scheme is to develop all available 'chaur' areas in the state into fisheries-based integrated aquaculture system. The 'chaur' lands will be developed through construction of ponds for fish production, along with integration of agriculture, horticulture, and agro-forestry. With the inclusion of modern technology, the fish farmers will be provided with new opportunities which can generate more employment opportunities and increase income.
- ❖ **River Ranching Programme:** The main objectives of the scheme are as follows:
 - (i) Collection of fish breeder from identified rivers and artificial breeding of collected breeders through modern technology.
 - (ii) Development of artificially bred spawn into fry and fry into fingerling.
 - (iii) Stocking of fish fingerlings into identified rivers through river ranching programme.
 - (iv) Restoration of pure germplasm in the identified rivers of the state.
- ❖ **Prime Minister Matsya Sampada Yojna:** For the Prime Minister's Matsya Sampada Yojana, a total sum of Rs. 40.76 crore has been approved for 2021-22. The Central share for this scheme is Rs. 24.46 crore, and the State share is Rs. 16.30 crore. Its main objective are as follows:
 - (i) Harnessing the potential of fisheries in a sustainable, responsible, inclusive and equitable manner.
 - (ii) Increase in production and productivity of fish by expansion of water resources, and diversification.
 - (iii) Modernization and strengthening of value chain, through investment in post-Harvest management and quality improvement.
 - (iv) Doubling the income and employment for fishermen and fish farmers.
- ❖ **Fish Crop Insurance Scheme:** Fish production and other fishery-related activities are risky as the various stages of fish production are subjected to natural calamities. Therefore, the main objective of this scheme is to provide financial support to farmers in the event of a failure of fishing, as a result of natural calamities diseases, environmental imbalance, poisoning, pollution etc. This scheme will provide insurance protection to the farmers, and involve financial institutions for funding in fisheries sector.

Summing-up

Agriculture and allied sectors play a vital role in a developing economy like India in reducing poverty, unemployment, inequality, ensuring food security and achieving inclusive growth. Despite a decline in the share of agriculture in gross value added, employment generation and foreign exchange earnings, it still remains the single largest employment provider sector and primary source of livelihood to a large proportion of population. To improve production and productivity of agriculture, adoption of quality inputs including high yield variety seeds, agricultural machinery and efficient use of chemical fertilisers and pesticides is critical. To attract unemployed educated youth into agribusiness and agripreneurship, special impetus on creating scientific temper and fostering innovative spirit among the rural youth is also required. An appropriate policy coupled with a strong strategy to strengthen the rural non-farm sector deserves to be the top priority of government and policy makers.

Agriculture offers several opportunities for Entrepreneurship. There are many new prospects in the agribusiness sector. The perspectives are changing as a result of increased micro-financing, relax government regulations, access to cutting-edge technology, guidance and workshops on agri and related fields. As a result, people are choosing to work for themselves in agriculture, which is boosting the outlook for agripreneurship in Bihar, in areas such as dairying, sericulture, animal husbandry, floriculture, fish farming, vegetable cultivation, nursery raising, and farm forestry. Potentialities are tremendous, only need of the hour is to unlock them.

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