

Trends of Business Oriented Farming with Modern Technique: An Empirical Study of Poultry Farming in Darjeeling District of West Bengal

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Abstract:Animal husbandry is an important part of the Indian Rural economy. It provides large employment opportunities to landless, small and marginal farmers and contribute a significant food basket with full of nutrient values to millions of peoples. There are four major types of animal husbandry present in India say Dairy farming, poultry farming, fish farming and bee farming. The poultry farming industry has evolved in the 21st century from small farms to industry to relatively few large vertically integrated companies. It has shown phenomenal growth averaging about 10 per cent in egg production and 15-20 per cent in broiler production annually. Poultry farming egg and meat, in recent years, have become important and popular food for the 68 per cent of the non-vegetarian population of the country. Consequently their consumption is increasing from day to day. Poultry farming in India has transformed from a mere tool of supplementary income and nutritious food for the family to the major commercial activity generating the required revenue.

Keywords: Commercial farming, Poultry farming, Animal husbandry

I. INTRODUCTION

Animal husbandry is an important part of the Indian Rural economy. It provides large employment opportunities to landless, small and marginal farmers and contribute a significant food basket with full of nutrient values to millions of peoples. However the percentage contribution to overall Gross Value Added is relatively small (around-4%), its contribution in terms of providing livelihood opportunities to the rural poor is significant. There are four major types of animal husbandry present in India say Dairy farming, poultry farming, fish farming and bee farming. In this study we are talking about poultry farming. Poultry farming occupies a unique position in the livestock economy of India. With a vibrant indigenous industry compared to other developing countries, it is the world's fastest-growing poultry farming industry and one of the fast-growing agriculture business activities in India. The poultry farming industry has evolved in the 21st century from small farms to industry to relatively few large vertically integrated companies. The aim of this paper is to find out a trend that small and marginal farmers are very much eager to transform their traditional farming practice to commercial farming specially poultry farming. We have tried to find out the relationship between land holding and trends of poultry farming, impact of education on poultry farming. Cost of farming as well as social cost of poultry farming has also discussed in this study. To fulfil this study we have surveyed forty household with structured questionnaires in Nakshalbari Block of Darjeeling district of West Bengal who are consistently engaged with poultry farming. We also used secondary data from different sources to support our study. To get logistic result we used table, chart and diagram and simple statistical tools.

II. CURRENT STATUS OF ANIMAL HUSBANDRY

The poultry farming industry has grown rapidly in India in the last 20 years from a backyard farming activity to modern and highly scientific industry. It has shown phenomenal growth averaging about 10 per cent in egg production and 15-20 per cent in broiler production annually. Poultry farming egg and meat, in recent years, have become important and popular food for the 68 per cent of the non-vegetarian population of the country. Consequently their consumption is increasing from day to day. Poultry farming in India has transformed from a mere tool of supplementary income and nutritious food for the family to the major commercial activity generating the required revenue.

Among the Indian livestock based vocations, poultry farming occupies a pivotal position due to its enormous potential to bring about rapid economic growth with low investment. Poultry farming sector is dubbed as the one having highest employability per unit of investment. The Indian poultry farming sector with 7.3 per cent growth in poultry farming population, has witnessed one of the fastest annual growth of about 6 per cent in eggs and 10 per cent in meat production over the last decade amongst all animal based sectors. The high growth has placed India at 3rd position after China and United States with a production of 83 billion eggs and 5th with a production of 4.5 million metric tonnes of chicken meat during 2020-21 according to FAOSTAT. Poultry farming rearing in India during the last three decades transformed itself from backyard stage into commercial enterprises. This transformation has involved sizeable investments in breeding, hatching, rearing and processing. The growth of the poultry farming sector in India is also marked by an increase in the size of the poultry farming farm. Despite such progress, the average per capital availability is still merely 86 eggs and 3.1 kg of poultry farming meat against the recommended levels of 180 eggs and 17kg meat per annum. Ironically, India's 75 per cent of poultry farming produce is consumed by the 25 per cent population living in urban and semi-urban areas. It has been estimated that under moderate growth scenario of 6 per cent per annum in the Country's GDP, by 2030, the demand for meat and eggs is likely to shoot up to 5.9 and 9.5 million metric tonnes, respectively. The organised sector of Indian poultry farming industry contributes nearly 70 per cent of the total output whereas the rest emanates from the unorganized sector. In 2021-22 economic survey showed that CAGR of livestock sector was 8.15 from 2014-15 to 2019-20*.

III. TRANSFORMATION OF FARMING IN STUDY AREA

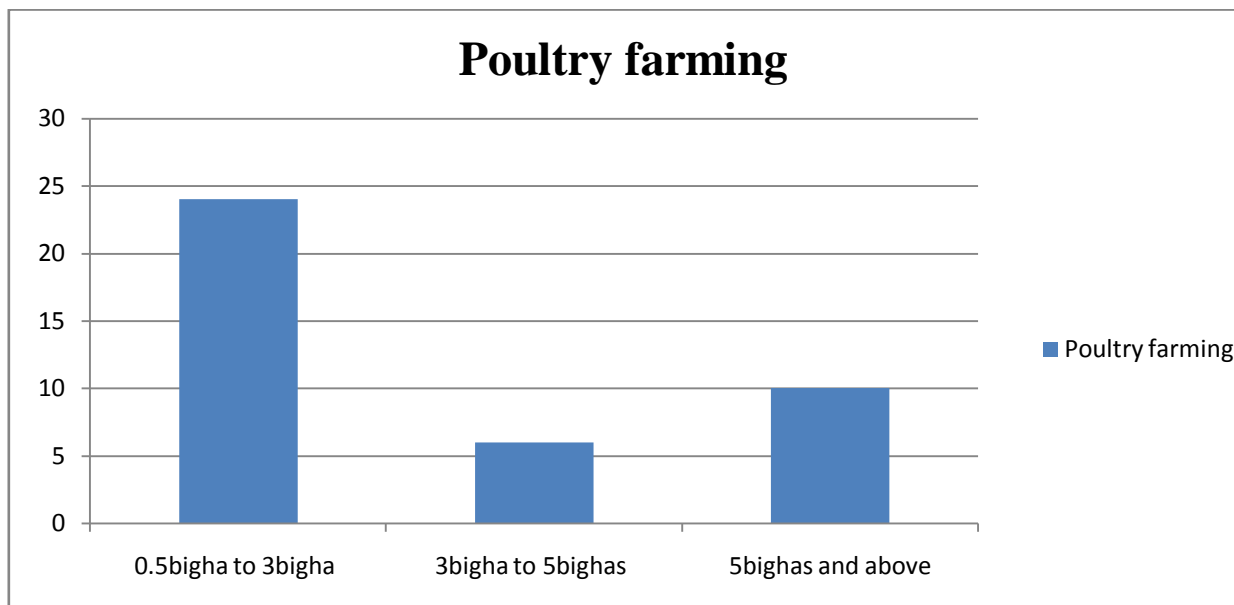
Here we are trying to show the relationship between land holding and trends of poultry farming. Land holding is one of the important factors of Indian agriculture. Modern Tool and technique of farming is very much associated with landholding. Modern machineries are successfully applicable only in large scale farming. As a result the concept of cooperative farming introduced in farming practice. It reduce the cost of cultivation as many farm machineries such as tractor, combine harvester, planter etc. has been used which reduced the labour engagement and labour cost.

Farmers who have small and marginal land they can't take benefits of this effective farming. As a result they transform their land into another allied sector of farming say poultry farming, dairy farming, fish farming etc. To see the relation between holding size and poultry farming intensity we have classified land in three categories say, below 3 bigha, 3 bigha to 5 bigha, above 5 bigha. We can see total 24 household out of total 40 household having less than 3 bigha land doing poultry farming. Total 6 household having 3 to 5 bigha land engaged with poultry farming and 10 household with above 5 bigha land doing this farming effectively.

Land holding /Farming	Poultry farming
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Below 3 bigha	24
3bigha to 5bighas	6
Above 5 bigha	10

Field Survey



So this study shows that micro and small farmers transformed their cropping patterns from crop production to poultry farming. It is a rational decision because they told "if we have land holding less than 1bigha or up to 3bigha we can't earn big amount by cultivating the crop. For e.g.; they said if we work hard we can produce a maximum of 10mon(1mon=40kg) of paddy and when we sell this at the market price we get a maximum of Rs. 6000 (Rs. 600 per mon) and for which we have to wait for at least 3month. So when we analyze cost-benefit then we realize that we incurred a loss. But at the same time if we engage ourselves in poultry farming then we earn much higher than crop production in the same duration". They said poultry farming is homely business to them and they can engage themselves in other work such as daily labourer in non-farm sector.

Other factor which causes the transformation from crop production to animal husbandry is education. However collected data does not prove any relation between education and trends of poultry farming but personal interaction with the household in field survey shows that current generation is very much interested to do poultry farming compared to crop production in their small land holding. Modern generation accepted poultry farming as one types of business but cropping works in their land is very embarrassing for them.

Education level of farmer /Occupation	Poultry farming

Primary education	12
Secondary education	16
Higher education	12

Field survey

Another objective of this is to see social cost of poultry farming. It has noticed that many household practicing poultry farming has given up this occupation. One of the main reasons is a social cost that every farmer have to suffer that is negative externality i.e. water pollution, housefly, etc. which hampers their health. Other reasons for refusing to continue poultry farming is uncertainty in business. In many time unknown diseases damage poultries and farmers faced huge loss. Sudden rumour against of chicken consumption forced the poultry farmer to sell their poultries at very low price.

IV. ECONOMIC IMPACT

In this sector, we focused on how peoples make money in the poultry industry and how it leads to economic development. People engaged with poultry farming do farming in two ways. Firstly, they provide themselves all investment from the beginning and grow poultry and sell to traders but for all this, they need huge investment for e.g. if they grow 1000 chicks it needs an investment of 2.5lac to 3lac. But we know poultry farming is mostly done by people who do not have such a huge capital and mostly they are small land holders. Secondly, they take help from a company who provides all investment on the farmer's like providing chicks, feeding, medicines, etc. and fixed the standard cost to grow 1kg of poultry at the cost Rs. 80 to Rs. 85 which is provided by companies. If farmers produce poultry in that range they remunerated by company at Rs7.50 to Rs8.00 for per kg poultry. And if the farmer crosses that standard cost then half of the exceeded amount deducts from the farmer per kg poultry income which is Rs7.50 to Rs 8.00 and if the farmer produces poultry less than the standard cost then they give a bonus. The range of standard rate and farmers' margin is different for a different companies but it lies between that ranges which we mentioned above. Before doing these entire thing companies make a proper contract with the farmer and proper documentation and few companies where we have done primary survey is Roy Company, Power Company, etc. So this is a good way of self-employment by only doing initial investment of farm construction and earns a good amount of money which is far better than crop cultivation. But sometimes farmers earn nothing because if the cost of production of per kg poultry exceeds the standard fixed cost provided by the companies. So farmers have to complete their farming process at the cost which has decided by the companies. At the end companies sell their product in the market at Rs.130 to Rs.140 per kg. In this way both farmers and companies can earn profit in their business

V. CONCLUSIONS

From our study it is evident that the poultry farming industry has evolved in the 21st century from small farms to industry to relatively few large vertically integrated companies. The poultry farming industry is the fastest-growing animal agriculture industry around the world in the past five decades. Our current study shows that animal husbandry grows every year. They help the farmer in multiples ways to improve their standard of living and also lead to economic development. In the economic impact section, we mentioned how it helps the farmer to make money. However it creates multiple externalities in which few are positive and few are negative but everything has two aspects that are positive

and negative. No doubt this new idea farming in small and marginal holding is very effective. Most of the farmers belong to this landholdings discovered new path of living.

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