

CHAPTER - IV

Livestock Wealth and its Contribution to Indian Economy

**LIVELIHOOD SUSTAINABILITY OF RURAL WOMEN THROUGH
LIVESTOCK ENTERPRISES - AN ANALYTICAL STUDY IN
GOALPARA DISTRICT OF ASSAM**

CHAPTER- IV

LIVESTOCK WEALTH AND ITS CONTRIBUTION TO INDIAN ECONOMY

4.1. LIVESTOCK WEALTH, PRODUCTS AND CONTRIBUTION IN INDIA

An Animal Husbandry and Dairy Development sector play an important role in the national economy and the socio-economic development of the country. These sectors play a significant role in supplementing family income and generating gainful employment in the rural sector, particularly among the landless labourers, small and marginal farmers and women, besides providing cheap nutritional food to millions of people.

India has vast livestock biodiversity with 18 recognized cattle breeds, 6 buffalo breeds, 14 sheep breeds, and 17 goat breeds. These breeds evolved over a period in commensuration of the needs of the society. Presently the very survival of these breeds is posing, threat to the rich biodiversity of the country due to several factors like fast changing socio-economic condition of the farmers, mechanization, change in the nature of farming, shrinkage in the grazing area, emphasis in cross breeding, farmers preference, difficulties in management of animals etc. (*Source: Course AEM 205 of 2013, study materials, MANAGE, Hyderabad*).

The livestock wealth of our country is one of the highest in the world. India has about 16 percent of cattle, 57 percent of buffaloes, 17 percent of goat and 5 percent of sheep of the world. The total livestock wealth in the country is 512.05 million nos. and poultry population is 729.20 million nos. where duck and chicken ranks 5th in the world. India ranks first in respect buffaloes population (108.70 million nos.), second in cattle (190.90 million nos.) and goat (135.20 million nos.) and sheep population is 65.20 million numbers and pig population is 10.29 million numbers. (*Source : 19th Livestock census 2012, Govt. of India.*).

The total livestock population is 53.78 million in the current 20th livestock census 2019 in the country showing an increase of 4.6 percent over the livestock census 2012. There are 192.49 million cattle where Exotic/Crossbred and Indigenous/Non-descript

cattle are 50.42 million and 142.11 million respectively, 109.85 million buffaloes, 74.26 million sheep, 148.88 million goat, 9.06 million pigs, 85.81 million poultry in the country as per the 20th livestock census (2019). The latest census records 317.07million Backyard poultry and 534.74 million commercial poultry in the country. In the current census female cattle is 145.12 million increased by 18.0 percent over the previous census 2012. Similarly, Indigenous/Non-Descript female cattle and Exotic/Crossbred have also jumped over by 10 percent and 26.90 percent compared to the livestock census of 2012. Total milch animals of cows and buffaloes in the 20th livestock census are 125.34 million, showing an increase of 6.0 percent over the previous census. 1.0 percent increase of buffaloes is also recorded in the latest census. Sheep and goat population in the current livestock census in the country have also quantum increased by 14.10 percent and 10.10 percent respectively. However, pig population in the latest census has declined by 12.03 percent over the previous census. In the latest census, poultry population has also jumped over by 16.80 percent with respect to the 19th livestock census 2012. Total backward poultry and commercial poultry have also increased by 45.80 percent and 4.50 percent respectively over the 19th livestock census conducted in the year 2012 (*Source : 20th Livestock census 2019, Govt. of India*).

In the last few decades, livestock sector has experienced significant growth in terms of its contribution to national economy. Though the contribution of agriculture and allied sectors to the Gross domestic products has declined in the last few decades 55percent in early 1950s to 39.5 percent in the 1981-82 to 23.9 percent in 2001-02, the share of livestock sectors to agricultural GDP has increased consistently from 18.1 percent in 1980-81 to 19.5 percent in 1990-91 to 25.5 percent in 2001-02 (*Sharma, 2004 Livestock International Vol. issue-I*). Between 1981-06 livestock sector grew at a rate of 3.9 percent annually much faster than growth in crop sector which grew by only 2.8percent. In 2007-08, livestock contributed 26.5 percent to agriculture GDP, an increase from 14percent in 1980-81. During 2009-10, contribution of livestock sector to agriculture Gross Domestic Product (GDP) was 29.64 percent (*Govt. of India, 2010*). Livestock sector contributed 16 percent of the income of small farm households as against average of 14 percent households. This sector contributes 4.11 percent of GDP and 25.6percent of total agricultural GDP. (*Source: Annual Report 2018-19, Department of animal husbandry dairying and Fisheries, Govt. of India*).

According to estimate of the central statistics office (CSO), the Gross value added from livestock sector at current prices was about Rs. 4, 06,035 core during 2013-14 which is about 21.58 percent of the Gross value added from total agriculture, forestry and fishing sector at current prices and 22.75 percent at constant prices (2011-12). *(Source: Annual Report 2014-15, AH, Dairying and Fishery Govt. of India)*

Livestock sector which recorded a Growth Value output about 4.8 percent per annum in the 11th Five-year plan has excellent potential for higher growth in the 12th Five-year plan. The increase demand for protein foods in the country is the main driven force for such growth, which also more inclusive since small holders and landless farmers account for major shares in ownership of livestock. *(Source: Annual report 2014-15, AH, Dairying and Fishery Govt. of India)*. This sector contributed 31.25 percent of the value of output from agriculture and allied sector and amounted to Rs. 9,17,910 corers at current prices during 2016-17 and considering the value of output from agriculture and allied sector, the value of output from livestock sector was 31.11 percent at constant prices during 2016-17. *(Source Annual report 2018-19, Department of animal husbandry dairying and Fisheries, Govt. of India)*.

Major livestock products which provides food items are milk, meat and eggs. In the year India has attained top position among the milk producing countries in the world with the total annual yield of 176.34 million tons (2017-18). The per capita availability of milk in the country in the year 2017-18 was 370 gm against 280 gm per adult person a day as per recommendation of the Indian Council of Medical Research (ICMR). The total annual meat production in India is 7.70 million tones and the per capita availability of meat is 2.8 kg/annum against the recommended level of 11 kg/annum per person. So far egg production is concerned. India ranks third in the world with its annual production of 95.22 billion nos. the per capita availability of egg in India is 74 nos./year per person against the recommendation of 180 nos. per year per person as per ICMR. *(Source: Animal report 2018-19, dept. AH, Draying and Fisheries, ministry of agriculture Govt. of India)*

4.2. LIVESTOCK SECTOR, ITS VARIOUS COMPONENTS AND LIVESTOCK PRODUCTS IN ASSAM

The economy of our country as well as Assam is agrarian in nature. As per economic *Census (2011)*, approximately 52 percent of the total labor force are engaged

in agriculture and allied activities. But due to various factors like small land holding size (average size of land holding is 1.15 ha – India and 1.10 ha – Assam), insufficient capital and investment incentives, limited farm infrastructure and stagnant prices of agricultural products, this primary sector of the economy is facing a lot of challenges which have limited is potential for generating job opportunities in rural areas.

Agro climatic condition of Assam favours the rearing and management of livestock resources for increasing the production and its productivity in commercial venture. The objective of the AH & Vety Department of Assam is to increase the Gross Domestic Product in the state.

The total cattle population in the state as per *19th Livestock Census (2012)* is 10.307 million, that of buffalo is 4.35 lakhs, sheep 5.18 lakh, goat 61.69 lakh and pig 16.36 lakh. The total poultry population in the state as per the said census is 27.216 crore.

As per the *20th Livestock Census (2019)*, the total livestock population in the state is 1,80,40,283 nos. There are 1,01,40,290 Indigenous cattle, 7,12,974 Exotic/Crossbred cattle, 4,21,715 buffaloes, 6,809 Exotic/Crossbred sheep, 3,25,291 Indigenous sheep and 43,15,173 goats in the state Assam. Pig population in the Assam is the highest among the other states of India. Assam ranks 7th in poultry and 8th in cattle population in the country. In the current census, pig population in Assam stands at 2.10 million showing an increase of over 28 percent compared to the figure of the previous census of 2012. In the *20th livestock census* pig population in the state are 4,58,240 nos. Exotic/Crossbred, while 16,40,760 are of Indigenous variety. In the current census, poultry population stands at 46.70 million jumped over by 71.00 percent as against the figure reported in the year 2012. In the latest census (2019), 4,59,93612 backyard poultry, including 3,31,05,572 fowls, 1,20,18,729 ducks, 1,43,958 turkeys, 5,12,630 quails and 2,12,723, other poultry birds. Cattle population in the state is also reported to increase over by 5 per cent in the current census while comparing the census of 2012.

The total annual meat production in the year 2013-14 state is 38.30 thousand tons making the per capita availability of 5.4 kg per annum against the recommended level of

11 kg per annum per person. On the other hand, total annual milk production is 814.52 thousand ton making the per capita availability of 69 gm against the recommended level of 280 gm as per ICMR. Annual egg production is 4717.34 lakh nos. which makes only 15 no. of eggs available per person per annum against a recommended level of 180 nos. per annum per person. *(Source: AH & Vety dept. Govt. of Assam)*

In Assam the main components of livestock sector are cattle, buffalo, goat, sheep and pig. Poultry which is integral part of this sector comprises of duck and fowl. Out of the total cattle population, majority belongs to indigenous cattle which constitute 54.3percent of the total milk production. The indigenous breed (local cattle) is small in size and on an average 1,1 l/day. As per cattle breeding policy this indigenous breed is crossed with Jersey cattle. The contribution of crossbred cattle is 31percent to the total milk production and both local and crossbred cattle together produce 85percent of the total milk produced in the state, the rest 15 percent is shared by buffalo and goat milk. *(Source: Integrated Sample Survey Report 2016-17, AH & Vety. Dept., Govt. of Assam)*

The indigenous cattle constitute about 95.00percent (*Livestock census 2012*) of the total cattle population. On the other hand, goat reared in Assam mostly belongs to Assam hill goat which are reared mainly for meat production. Local sheep are reared in some part of the state exclusively for mutton production. In respect of pig, there are two breeds – one is Dum breed and other is Assam local pig. Besides these two, other improved breeds like Hampshire, Ghungroo, Large Black, Duroc and Tameworth are also reared in small number. Buffaloes reared in the state are swam buffaloes mostly used for milk and draught purpose. *(Source: Integrated Sample Survey Report 2013-14, AH & Vety. Dept, Govt. of Assam)*

As per sample survey report 2016-17 of the Govt. of Assam less than 32 percent of the total milk produced in the state is consumed as fluid milk by the household and out of the remaining amount, sale of fluid milk constitutes 46 percent and milk used for milk products constitutes 22 percent.

The crossbred cattle are mostly fed in stalls in any of the three seasons while the buffaloes in milk are focused more towards grazed or mixture to both grazing and stall-

fed rather than stall fed alone. About 70 percent of the buffalo in milk are practiced to grazing while 22 per cent are practiced to the mixture of both grazing and stall feeding. On the other hand, 12-14 percent of the indigenous cattle in milk are stall fed in three seasons, while 26-50 percent in milk are grazed seasonally. But about 50 percent of the indigenous cattle in milk are practiced to both stalls fed and grazed annually. A total of 15625 thousand of dung is produced in the state out of which 80 percent are as manure, 9 percent as dung cakes and 11 percent are used otherwise or are lost. *(Source: Integrated Sample Survey Report 2016-17, AH & Vety Dept., Govt. of Assam)*

Egg production is mainly contributed by fowl and duck. The layer population of fowl and duck for the year 2013-14 was estimated at 3987 and 1265 thousand numbers respectively. Further desi layer fowl population is estimated to have constituted 97 percent of the total layer fowl population. Out of the total egg produced in the state is estimated at 4770.73 lakh nos. The total meat production during 2017-18 was estimated to be 148.27 tons which comes from cattle, buffalo, goat, sheep, pig, fowl and duck. *(Integrated Sample Survey Report 2016-17.)* The growth rate of milk, egg and meat in the year 2016-17 was 2 percent, 0.6 percent and 5 percent respectively.

In the year 2015-16, the growth rate of milk production was 1.75 percent, egg was marginally 0.24 percent and meat was 5 percent over the year 2013-14. Similarly, in the year 2014-15 the growth rate of above commodities was 3 percent, 3 percent and 11 percent over the previous year, 2013-14.

From the above it is evident that there is a wide gap between the production level of livestock products in the state and its demand to feed the total human population. This goes to imply that there is urgent need to augment both production and productivity. The livestock entrepreneurs should avail this opportunity and explore avenues of production in different subsectors of livestock and thereby they can gain meaningful employment on the one hand and boost up the economy of the state on the other. It is needless to mention that a huge amount of state exchequer is going out for import of livestock products from outside the state. By uplifting the production level of livestock products, this outflow of money can be checked.

4.3. CONTRIBUTION FROM LIVESTOCK SECTOR IN GOALPARA DISTRICT

Animal Husbandry is potentially one of the most important sectors for rapid socio-economic development, especially in the rural sector in Goalpara district. In urban areas also educated unemployed youth are adopting livestock farming as their livelihood. Livestock and poultry farming are basically component of production system and is contributing to sustainable production system. The sector has a significant impact on employment generation. In the district of Goalpara, various development programs have been implemented for creation of gainful employment and income opportunities and also has enhanced the income of livestock products and has both the socio-economic condition of the people of the districts.

In Goalpara district, employment opportunities are being created through NABARD sponsored schemes, KCC (Kisan Credit Card) scheme, SGSY (Swarna Jayanti Gramin Swarajgar Yojana) scheme, ATMA (Agriculture Technology Management Agency) scheme, APART (Assam Agribusiness and Rural Transformation Project), RKVY (Rastriya Krishi Vikas Yojana), NLM (National Livestock Mission) NRLM (National Rural Livelihood Mission) and also training program and capacity building through Institutional support, service and sectoral supports with other developmental departments, banks and financial institutions and other agencies. Rabha Hasong (RHAC) Autonomous Council have taken initiative in imparting training in different areas of animal husbandry practices and also providing financial supports, especially for the women beneficiaries. In the district Department of Animal husbandry and Veterinary besides imparting training and capacity buildings have also taken steps for establishment of dairy, piggery and poultry farms. Bank and financial institutions, Zilla Parishads, District Rural Development Agency, Agriculture and also Fishery departments have taken collaborative approach and intersectional coordination's for extending animal husbandry practices in the district. The Krishi Vigyan Kendra, the only research based institution located at Dudhnoi, i.e. at the Rabha Hasong Autonomous council area have also identified priority areas and time to time organizing trainings in modern scientific rearing and management practices of livestock and poultry. many

women groups with the technical guidance of the scientist of the KVK have already greatly benefited and self-employed through generation of income.

In this district, animal husbandry and veterinary activities are important part of farming system and women in rural areas of this area actively participated and undertake in all operations like rearing, management, health coverage and also marketing of food of animal origins. They provide economic support to the farmers for generation of income to earn their livelihood.

Considering the livestock and poultry resources, institutional facilities and other available resources in the district, participation of rural women in livestock enterprises, a proper study with the available resources to tap those are the need of the hour.

Dairy farming provides economic security the farmers by acting a as a hedge against crop failure and is considered as one of the major subsidiary activities of the people of the district. It provides additional income to the farm families by sale of milk, milk produced, sale of calves, draft power of bullocks and manure etc.

Commercialization of poultry yet to take shape in the district due to the problems on the input front as well as high level of uncertainty compared hybrid chickens, indigenous desi backyard poultry and duck rearing has made good progress due to the favorable environmental available in the district.

While goat and pig rearing are common in the district. For majority of farmers being small and marginal, their activities are able to provide then supplementary income. These activities are thriving in the district due to the excellent demand for sheep and goat meat and also for pork. The crossbreeding in piggery has resulted the share of crossbred (Pigs going upto 29 percent. KVK, Goalpara has identified a village in the district for piggery up gradation and more production. Given the large tribal population in the district, there good scope for setting up of a pork processing plant.

In this district as per the census report (2019) the total cattle population stands at 2,88,494 nos. where Indigenous/Non-Descript 2,84,374 nos. crossbred cows 4,120 nos, goats 98,524 nos. buffalos 8,516 nos., Sheep 22,265 nos. and pigs 48,804 nos. and total number of poultry are not available. While Indigenous (Backyard) poultry are 6,32,384

nos. and hybrid (commercial) are 2,91,869 nos. as per the 19th livestock census of 2012 are available.

From the available sources of AH & Vetty Deptt. Govt of Assam, Goalpara District production profile in respect of milk, meat and egg are the increasing trend which is observed to be satisfactory for protein nutritional support to the people of the district and also having the scope for extending market potential for Livestock products.

In the district, the estimated production of milk, meat and eggs in the year 2017-18, were 194.2 lakh liter, 1484.83 tone and 175.68 lakh nos respectively. The growth rate of egg production in the year 2017-18 was in the increasing trend and similarly in the same year the growth rate of meat production was also estimated increasing marginally over the previous year 2016-17 while the growth rate of milk production in the year was observed to be marginally decreasing over the previous year may be due to high cost of management of milch cows and lack of proper marketing facilities. However, in the district huge potentialities are lying increase the production of the above commodities if the available resources are appropriately tapped.

From the above picture, it is assumed that with the available resources of different species of farm animals and poultry, infrastructure facilities and techno-economic supports to the farming community of the district, huge potentialities are observed to be laying in raising the farm economy of the state. Increase in production, reproduction and marketing of livestock product within and outside the district and also may be outside the state are expected to provide economic security, particularly for the under privileged families of the district.