CHAPTER 4

PROSPECT OF POULTRY ENTERPRISE IN ASSAM

Topic: A study on the economic viability of poultry enterprise of Assam—with a special reference to Kamrup district.
It was not in the very distant past that poultry was considered fit by only backyard farming, to be looked after by unskilled persons in the villages. Poultry farming in Assam, during last three decades, transformed itself from backyard stage into a commercial enterprise. Awareness of the local farmers is one of the reasons for this. Besides, Assam offers almost all the physical and non-physical facilities for the development of poultry farming. In this chapter an attempt has been made to analyse the prospects and various incentives made by different poultry farming organisations for improvement of poultry sector in the state.

4.1. Demand

The main sources of meat in Assam are broiler, culled birds, indigenous chicken, duck, goat, pig and cattle etc. Of these, broiler meat accounts for the largest share over meat-production scenario of the state. Meat consumers are becoming aware of the superior nutritive value of the broiler meat over others and so the demand for meat is equally increasing with its production. The National Institute of Nutrition has recommended a per capita consumption of 180 eggs and 10.8 kg meat per annum. On the other hand, the per capita availability of poultry meat is too low, it is only 197 g per annum in Assam (1997).

In 1997, the state produced only a total of about 15.30 thousand tonnes meat against the minimum requirement of 250.01 thousand tonnes (estimated). Assam brings frozen dressed birds and processed poultry
products from Pune. Similarly, to meet the high demand for eggs in Assam, a large number of eggs are brought daily from far flung areas of the country, taking 7 to 15 days to reach Assam, thereby decreasing the quality of eggs by the time they reach consumers’ table. A market survey (Ganeshguri area, Guwahati, Feb. 1998 to April, 1998) revealed that 9 out of 10 eggs reach Guwahati daily from outside the state.

Again, Central Government also undertakes a centrally sponsored mid-day meal scheme for school children, with the inclusion of egg in the diet. It is unfortunate that millions of our population live below the poverty line, which implies that they can not afford 2,600 calories daily to their family members, which results a devastating effect on our future citizens. "One of every three children is born underweight due to under nourishment of the mother. One in seven children dies before the age of five years due to malnutrition. Each year, more than 40,000 children lose their eye sight because of nutritional deficiencies. It is also estimated that more than 30 percent of our population consume less than three fourths the needed calories". The inclusion of eggs in mid-day meal scheme will benefit lakhs of children.

Besides, a large project has already been undertaken by Assam Livestock and Poultry Corporation Limited (ALPCO) to establish a large meat processing plant at Khanapara, Guwahati. The project also include a poultry meat processing plant with a capacity to process 3000 to 6000

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chickens daily. Further, in collaboration with the Ministry of Food Processing Industries, Government of India, it proposes to establish a huge poultry development project, which includes a large poultry meat processing plant with a capacity to process 4000 to 5000 chickens daily near Kaliabor in Nowgaon district of Assam. So, in near future, these processing plants will need a large quantity of raw material for processing daily, about 10,000 chickens. The corporation also provided 74 deep freezes for the private parities. Now to feed these storage plants, the state requires a large number of broiler as well as egg producers.

A broiler is virtually a "meat machine" growing from about 35 g to 1500g live weight yielding about 1150 g meat in 45 days. Besides, chicken is much cheaper than mutton and with grazing lands for goat and sheep getting scarce, the availability of their meat is bound to diminish day by day.

Unlike other parts of the country, almost all the people (90%) of Assam are non-vegetarian. The demand for broiler meat and egg is increasing day by day in the state. Peculiarity here is that meat and egg consumption increased during festivals viz. Bihu, Durga puja, Idd, Christmas etc. Now, to achieve the recommended target, our poultry sector has to grow at least 6 times in broiler sector and 8 times in egg sector.

4.2 Economic Importance

It is already mentioned that to establish a poultry farm, a relatively small amount of investment is required compared to other livestock farms. The income begins to flow within 6 to 8 weeks for broilers, 22-24 weeks for layer farming.
Besides, eggs and meat, poultry produces a good amount of organic manure, which improves the soil texture and humus. Moreover, the manure is rich sources of bio-gas which can provide renewable low-cost energy (electricity heating) in rural areas before being used as manure as well. Poultry manure (litter) gets good prices in the local market. It is used as high quality fertilizer. From Guwahati and nearby places, this is taken out to Meghalaya which is mainly used for cultivation of potatoes. Present market rate of poultry litter is Rs. 20-25/ bag which implies that poultry farming increases the income level of a farmer within a very short time.

A few cases have been presented below which will give the farm economy of some farmers of Kamrup district.

**Mr. Dileshwar Das**

A promising poultry farmer of Batarhat (30Km from Guwahati) is an arts graduate and practising poultry farming since 1980. He has got 3 kathas of land of which 1430 sq. ft. area is used as poultry shed.

He is trained at Rani Training Centre and Birubari Poultry Farm under Government sponsored training programme. He took loan of Rs. 12,000/- in 1986 from United Bank of India and returned the same in 1988. In 1988 he got another loan of Rs. 57,000/- and significantly returned on 1990.

Habard and Vencob broilers are reared in his farm and within 40 days, they are ready for market with a body weight of about 1.6Kg. He is producing about 6000 birds (1.6kg. each) annually with a slight variation from year to year. During 1997, he received a total return of Rs. 4,03,000
against an investment of about 3,52,000/- . That is, he obtained a profit of Rs. 51,000/- . He despatches his birds through commission agent at the rate of Rs. 45 per kg.

Mr. A. Banerjee

Mr. Banerjee, one of the renowned poultry farmer of Assam started his poultry farm (Ceeba Poultry farm) at 10th Miles, Guwahati with a land area of 6.5 bighas. He is a renowned poultry farmer with Master degree and got both layer and broiler farming. He is also supplying poultry feed and both husband and wife are getting full time employment to look after their farm. B.V.300 , Tetra SL and Hubard are reared by intensive system in his farm. Regarding eggs, he is producing about 6,32,700 nos. of eggs per batch (2400 birds each batch) along with about 2970 kg of culled meat. Besides, an amount of 1282.5 kg meat is produced from his broiler batch. The financial position of Mr. Banerjee is sound , besides offering full time employment to 6 people in his farm.

4.3. Employment opportunities

Poultry farming has emerged as an important supplementary occupation of farming community in the country. It gives a good number of jobsper annum in rural areas and absorb surplus family labour of the farmer, thus help in earning extra income round the year. For raising per capita consumption just by one egg, we need to produce 23 million extra eggs per year by raising a poultry population of over 82 thousand birds which will generate job opportunities of around 90 thousand man day in production
input industries, excluding distribution and marketing etc. Similarly, raising broiler production to augment per capita consumption also in turn, will generate sizeable employment opportunities. Statistics show 4 (four) agriculture job can be generated at an investment of just Rs. 25,000/- while in industry, one job costs between 2 lakhs to 10 lakhs. Poultry farming has also reversed the trend of migration from village to urban areas and introduced an important primary production activity in many undeveloped region.

Assam is predominantly an agriculture oriented state, where most of the population live in villages. The primary sector alone constitutes more than 73 per cent of the total workers. Of this livestock sector constitutes more than 10 per cent of workers. It is already mentioned that besides Government farm, there are about 3000 numbers of small, medium, and large farms presently running in the state, which are generally run by unemployed youths. Besides, under-employed surplus woman labour in the rural households can be utilized for rearing of poultry. Thus poultry farming offered immense scope to the woman section, for contributing to the family income.

It is natural that along with broiler and layer farming, some other associate enterprises like hatcheries, poultry feed units, marketing network will grow, which will result in diversified business prospects and employment generation especially among the weaker section of the population.

From the above, one can imagine the tremendous prospect of large poultry farming in Assam. The poultry sector has been gradually achieving
the momentum with scientific knowledge and infrastructure available in the state, with the help of Government and private initiative through Five-years plans and growing awareness and confidence of the poultry farmers. But even then, the local production of chicken meat and eggs accounts for only a very small share of the total requirement. We have already discussed the constraints (bottlenecks) affecting the production of poultry products like high price of feeds, chicks, electricity tariff etc. But these constraints will not remain for too long.

4.4 Present incentives to develop poultry farming in Assam

For the development of poultry sector, Government and other concerned organisations provide incentives in different forms viz. supply of chicks, feed, financial assistance, technical guidance and training etc. to the poultry farmers in Assam.

i) Supply of chicks

It has already been mentioned, that a few hatcheries are operating their function in Assam. Non-availability of quality chick (day-old) is a major constraint in poultry production. So, breeding of improved birds is highly necessary for developing poultry enterprise in the state.

The pure-breed viz. Rhode Island Red (RIR), White Leghorn (WL) and Australorp are maintained at the Co-ordinated Poultry Breeding Programme at Khanapara, Central Chick Rearing farm, Khanapara, and Central State Duck Breeding farm at Kaliabor. From these farms, selected male birds are distributed for improving local birds and flocks. Presently, the two Government farms viz. Co-ordinated Poultry Breeding Programme.
and Central Chick Rearing Farm distribute monthly an average of 400 and 700 chicks (layer), respectively to the farmers of different areas. The price rates of chicks (layer) at different age groups available in these farms and by private agencies are as follows:

Table No. 4.1
PRICE OF LAYER CHICKS IN ASSAM.
(April - August, 1998)

<table>
<thead>
<tr>
<th>Age of chick</th>
<th>Govt. rate (per bird)</th>
<th>Rate by private agencies (per bird)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. day old</td>
<td>Rs. 4.00</td>
<td>Rs. 17.00</td>
</tr>
<tr>
<td>2. 1 day - 1 month</td>
<td>Rs. 7.50</td>
<td>-</td>
</tr>
<tr>
<td>3. 1 month-2months</td>
<td>Rs. 12.50</td>
<td>Rs. 65.00</td>
</tr>
<tr>
<td>4. 2 months - 3 months</td>
<td>Rs. 19.00</td>
<td>-</td>
</tr>
<tr>
<td>5. 3 months - 4 months</td>
<td>Rs. 30.00</td>
<td>-</td>
</tr>
<tr>
<td>6. 4 months - 5 months</td>
<td>Rs. 44.00</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Office of the Government Poultry Farms, Khanapara and private farms of Assam

Presently, due to financial crisis, no Government farm of Assam hatches out broiler chick, though all the 16 farms of Government of Assam have the facility of incubators to hatch out eggs. On the other hand, it is quite enthusiastic that one private hatchery viz. Arambagh Hatchery Ltd. contributes at least 30,000 chicks (broiler) monthly to the farmers of whole North-East Region. Besides, a good number of other private agencies supply
the chicks in the state by collecting them from Meghalaya (Premier hatchery) Siliguri, Calcutta etc. It is observed that broiler chick market is completely captured by the private hatcheries and agencies viz. Spring field Products, Metro Modern Palate, Ekta Feed, Ellora etc. as the production of broiler chick practically nil at the Government farms. Day-old chicks (broiler) are available in the market at the rate of Rs.14.00 to Rs. 17.00 per chick. The state gets about 40,000 -45,000 day-old-chicks per week from outside the state. The demand of layer chick is found to be highest during April-June.

ii) **Supply of Poultry Feed**

 Altogether 7 Feed mills at Khanapara, Tezpur, Jorhat, Dibrugarh, Ghungoor, Diphu and Kokrajhar were established by Government of Assam. Besides, there are some private feed manufacturing farms viz. Assam Feed Manufacturing Farm (Tinsukia), Manas Feed Manufacturing Farm (Guwahati), Ceeba Feed Manufacturing Farm (Guwahati), Delux Feed Manufacturing Farm (Guwahati), Eastern Manufacturing Company at Guwahati. In our survey, it is found that private agencies also supply the different feed products manufactured by agencies outside the state, like Megastar (Manufactured by Royal Feed Products, Siliguri), Godrej (Godrej Agrovate Ltd. Kharagpur), Amrit Pellet Feed etc.

 To provide a nutritionally well balanced poultry feed for both layer and broiler according to their age-group, feed are now available in the market of Assam in the following form:
Table No. 4.2

PRICE LIST OF POULTRY FEED.

<table>
<thead>
<tr>
<th>Type of feed</th>
<th>Age-group(weeks)</th>
<th>Price rate (Rs) for 75 kg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Layer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Chick mash</td>
<td>0-8</td>
<td>720.00</td>
</tr>
<tr>
<td>2. Grower mash</td>
<td>9-20</td>
<td>730.00</td>
</tr>
<tr>
<td>3. Layer mash</td>
<td>21-72</td>
<td>746.00</td>
</tr>
<tr>
<td>B. Broiler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Starter mash</td>
<td>0-4</td>
<td>815.00</td>
</tr>
<tr>
<td>2. Finisher mash</td>
<td>5-7</td>
<td>746.00</td>
</tr>
</tbody>
</table>

Feed : (Megastar Poultry Feeds, April, 98)

Most of the local feed manufacturing farms follow the Indian Standard Institute (ISI) standard of proportion of nutrients in their feed as shown below:
Table No. 4.3
NUTRITIONAL COMPOSITION OF POULTRY FEED ACCORDING TO ISI STANDARD.

<table>
<thead>
<tr>
<th>Nutrition</th>
<th>Chick mash</th>
<th>Grower mash</th>
<th>Layer mash</th>
<th>Broiler starter mash</th>
<th>Broiler finisher mash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture (%)</td>
<td>11.00</td>
<td>11.00</td>
<td>11.00</td>
<td>11.00</td>
<td>11.00</td>
</tr>
<tr>
<td>(Maximum)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude protein</td>
<td>22.00</td>
<td>16.00</td>
<td>18.00</td>
<td>22.00</td>
<td>19.00</td>
</tr>
<tr>
<td>(Minimum)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude fat (%)</td>
<td>3.50</td>
<td>3.50</td>
<td>3.50</td>
<td>3.50</td>
<td>3.50</td>
</tr>
<tr>
<td>(Minimum)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude fibre (%)</td>
<td>7.00</td>
<td>8.00</td>
<td>8.00</td>
<td>7.00</td>
<td>7.50</td>
</tr>
<tr>
<td>(Maximum)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sand silica (%)</td>
<td>3.50</td>
<td>4.00</td>
<td>4.00</td>
<td>3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>(Minimum)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ME (Kcal/kg)</td>
<td>27.00</td>
<td>26.00</td>
<td>27.00</td>
<td>29.00</td>
<td>32.00</td>
</tr>
<tr>
<td>(Minimum)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

III.) **Health care**

The major poultry diseases are Fowl typhoid, Fowl cholera, Coryza, Chronic respiratory disease, Ranikhet, Gumboro, coccidiosis, Newcastle
disease, Fowl Pox, Marek's disease and viral arthritis etc. Veterinary services are handled by both the Central and State Government. The Central Government develops the programs and defines the policies through the Department of Animal Husbandry and the Department of Agricultural Research and Education. At present 29 nos. Veterinary Hospitals and 274 nos. of State Veterinary Dispensaries, 365 First Aid Centres are offering their services to the farmers of Assam. The State Animal Husbandry and Veterinary Departments provide animal health services down to the village level. Both public and private sectors are extensively involved in poultry biologicals development and production in Assam. Public and private research has contributed to the domestic development and production of vaccines, antiserums, chemotherapeutic agents, diagnostics and diagnostic methodologies against Ranikhet disease, Fowl Pox, Marek's disease etc.

iv) Financial assistance

For a poor and backward state like Assam, finance is one of the most important factors affecting the development of poultry farming. The Central and State Government today provide financial assistance in the form of subsidy and loan in easy terms and condition to the poultry farmers (mainly to unemployed youths for establishment of poultry farms).
For poultry development among the tribal and scheduled cast people, the Government of Assam has distributed poultry units under Tribal Sub-Plans and Schedule Caste Component Plan.

Poultry farming for weaker section is undertaken through a number of Central and State sector schemes. Notable among them are the Integrated Rural Development Programme (IRDP), Special Livestock Production Programme (SLPP) and Special Component Plans (SCP) under Central sector as well as a number of schemes viz. Intensive Poultry Development Programme, Pilot Poultry Project of the State Government.

Poverty alleviation program IRDP is implemented to channel financial assistance to the poor to undertake productive activities such as livestock raising. For families earning less than Rs. 6,000 a year, the IRDP provides a subsidy of up to Rs.3000 for project with total cost of less than Rs. 10,000. The funds, which are channelled through commercial banks, co-operative banks and regional rural banks serve as margin money for getting loan (at subsidized interest rate). Commercial banks and Regional rural banks disbursed about Rs. 29 lakhs to poultry farming under IRDP during 1996-97. Subsidized insurance coverage and training are also provided.

The pattern of financial assistance under SLPP is a mixture of subsidy and loan. The rate of subsidy being 25 per cent for small farmers 33.3 per cent for marginal farmers or agricultural labourers and 50 per cent in case of tribal participants. The remaining cost of unit is met out of bank loan.
The Special Component Plan has a higher rate of 50 per cent subsidy, while the self employment scheme for educated unemployed youth provides financial assistance up to Rs. 25,000 with a subsidy component of Rs. 6250\(^1\).

The National Bank for Agriculture and Rural Development (NABARD) is the apex development institution for the rural credit system. Its primary function is refinancing of agricultural development loans of the co-operatives, commercial and regional rural banks. Refinancing is available for veterinary clinic construction, livestock production activities and veterinary drug production etc. Investments are subjected to NABARD standards on enterprise size and cost.

v) National Credit Fund for Women

The National credit fund for woman provides another source of credit for livestock activities. It provides credit to poor woman through voluntary associations and self help groups to support income-generating activities. The fund is managed by the Department of Woman and Child development. The ceiling for short term loan is Rs. 2500 to be paid within 15 months and Rs. 5000 for medium term loan to be repaid within 3-5 years. The interest is charged to the voluntary association at 8 per cent per annum with a ceiling of 12 per cent per annum for the ultimate borrowers.

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The World Bank, working with the Central Government has provided financial assistance for the strengthening of livestock extension services in Assam under National Agricultural Extension Project (NAEP) III.

Ministry of Food Processing Industries, Government of India has also been extending financial assistance for the following programme relating to marketing and increased production of eggs and meat, e.g.

1. A 50 per cent assistance is extended for 45 deep freeze cabinets.
2. Twelve training courses for poultry and pork management and meat processing (100 per cent grant).
3. Training of Veterinary assistant surgeon at Hyderabad and Mysore (50 per cent grant etc).

vi) Livestock Insurance

The general Insurance Company, provides insurance to livestock producers. Insurance schemes for poultry include comprehensive coverage for poultry farms, epidemic poultry insurance schemes for hatcheries and poultry insurance schemes for parent stock. The comprehensives schemes program covers broilers to the age of 8 weeks and layer to the age of 72 weeks. The premium charged under IRDP is Rs. 0.25 per bird per batch or Rs.1.00 per bird per annum, others pay Rs. 1.20 per bird per annum. For layers, the premium charged under IRDP scheme is Rs. 0.80 per bird per annum and 4.5% of the value for non IRDP participants.
vii) Technical guidance and training

Besides, 16 numbers of Government poultry farms in Assam, the State Government had started 3 training Centres at Khanapara, Jorhat and Diphu for giving training to the poultry farmers on poultry farming. The institute of farm management, Rani was established in 1980-81 for providing training on composite farm. Here farmers are getting training on mixed farming viz. Dairy farming, Poultry Farming, Fishery and Horticulture. The duration of the training is six months. Besides, these regular training programme, Government organises short time training programme for the extension of the scientific culture.

To popularise the scientific culture of poultry farming, the Animal Husbandry and Veterinary Department, Assam organises publicity programmes through such media as books and pamphlets, TV and Radio broadcasting, exhibition etc.

The State Institute of Rural Development (SIRD) has been organising training programme on scientific management of poultry with the help of College of Veterinary Science, Khanapara. The SIRD has also been provided post training technical guidance to those youths in the actual field situation. A cluster of poultry units has already developed in Dharapur area of Kamrup district by the trained youths of this Institution.

viii) Role of Assam Livestock and Poultry Corporation Ltd. (ALPCO), Guwahati.

Necessary infrastructure like hatcheries, feed mixing plants, good parental stock, feed storage, disease diagnostic laboratories, local
production of concentrated feeds in whatever possible way should be developed to revolutionise the poultry production in the state. However, all these can not be possible by individuals or are not feasible for small farmers. Therefore, formation of poultry co-operative societies is of great importance.

In the North-East Region, Assam Livestock and Poultry Corporation Ltd. (ALPCO), is the only organisation to work for the development of poultry sector in the region. It is a public undertaking of the Government of Assam which started functioning from 1984. The main objectives of the corporation is to undertake the development of livestock and poultry trade in the state through primary co-operative societies and individual farms. Besides, the corporation helps to improve the socio-economic condition of backward classes particularly, belonging to schedule caste and tribes and to generate employment opportunities for the unemployed educated young man and woman in the state.

So far, the ALPCO has organised about 90 training courses, workshops and seminars on poultry and piggery management etc. involving more than 5335 persons. At present, the corporation has its command area of 25,000 layers with a daily production of 20,000 eggs and 1000 broiler farms producing 25,000 kg meat daily. It is also reported that the production of eggs and broiler has increased in both co-operatives and individual farms with assistance and loan from the corporation. About 39 co-operative societies and 60 individuals are benefited by getting loan of Rs.14,32,950/- and Rs. 10,26,802/-, respectively for poultry farming.
ix) Roles of Assam Agricultural University (AAU) in poultry Education

Today, 2 Veterinary Colleges at Guwahati and North Lakhimpur (Azad) and one School of Veterinary Science at Gungoor (under AAU) are functioning to educate the students in Veterinary and Animal Husbandry Science. Moreover, teachers, of these colleges are also conducting researches in this field. The extension wing of the faculty has been engaged for demonstration and training of farmers in the villages as well as in the college farms.

The Extension Education Department of the University has since 1991 conducted not less than 26 numbers of training programmes on poultry and allied subjects and has so far trained up a total of 326 farmers till August 1998. These training programmes were sponsored by different agencies like AAU, Government of Assam, Government of India, ALPCO etc.

The scope to meet the demand for poultry products is very limited through traditional rearing as rate of production is very low. So, development of scientific rearing is a must to meet the future demand. We are fortunate that the State Government and other organisation forwards their helping hands in aforesaid lines and poultry farmers may increase the poultry production in the state. Poultry rearing on scientific line is a lucrative enterprise, should be expanded widely. In the next chapter we will discuss what are the advantages and requisites of a scientific farm.