CHAPTER - V

PROBLEMS AND PROSPECTS OF PIG FARMING
IN ASSAM
5.0 Introduction:

Constraints or problems are always there in any kind of work, and piggery in Assam is not at all exceptional to it. Piggery on large scale on commercial line is a new concept in Assam and it is yet to gather momentum by overcoming all kinds of problems. The problems associated with pig farming and the prospects of pig farming in Assam have been discussed in this chapter.

5.1 Problems:

5.1.1 Feeds: Feed plays an important role in successful pig production. The quality of the rations determines the rate of growth of young pigs to a great extent. Pigs are the most rapidly growing livestock but in comparison to other ruminants, it suffers more from nutritional deficiencies. A complete diet for pigs, as for other livestocks, includes proteins, carbohydrates, fats, minerals, vitamins and ample good water. (Mangso -Utpadanar Babe Gahari Palan, Govt. of Assam1998, p10).

Pig is an omnivorous animal and can utilize feeds of both animal and vegetable sources. Pig, being a mono-gastric animal requires all nutrients including good quality proteins and vitamins in proper amounts and proper proportions. The fibre content of pig feed should be in between 5 per cent to 6 per cent.
The feed cost constitutes as much as 70 to 80 per cent cost of pork production. Therefore, a carefully planned feeding programme is important for a successful swine production. It is obvious that pig feeding must be as economical and efficient as possible. (Singh 2005, p25).

Tapioca chips, tapioca flour, thippi or tapioca waste, rubber seed cake, tobacco seed cake, mango seed kernel, molasses, fallow, hatchery waste etc, along with various agro-industrial products can be incorporated in pig rations. Garbage, such as kitchen waste and other vegetable waste can also be useful feeds if properly cooked and fed. In large cities garbage is available in large quantities which can be well processed and fed to pigs. To prevent spreading of diseases, sterilization or cooking of garbage is a legal requirement in all the states of the country.

There is no single swine ration that is best suitable for all times. Good rations vary in composition according to the market prices of feed staffs. Minimum advantages should be taken of the farm byproducts, which would otherwise go waste or would have to be disposed of at a very low price.

Feed is the most important aspect in pork production but this has been sadly neglected in our country. Pig producers are almost entirely dependent on their own resources of feed. Availability of compound feed is also limited in the government breeding farms. Pigs, in our country, are mostly reared on kitchen and human waste. In our survey we have found
that farmers use waste of shops i.e. waste of mixed food corn, waste of military canteen and 'Gera', the residue found in the production of local wine made by the tribal people as feed. Sometimes wild bananas are also cooked and provided to the Pigs as additional feed.

Balanced feed at reasonable price is a must for pig production programme. There is a need to design starter diet which can easily be digested by the young and growing pigs. In the developed country milk powder and partially cooked cereals are fed to young pigs. Such diets promote good performance, but they are expensive. The lower cost diet for young pigs should be formulated with appropriate level of protein and energy. Cereal and oil seed cakes are essential in the diet formulation which can supply energy and protein necessary for production. Certainly the use of cereal can also be reduced by proper utilization of agro-industrial byproducts to make the feed economical. (Piggery Year Book Govt. of India 1989)
### Table 5.1

**SUGGESTED RATION FOR PIGS IN VARIOUS AGE GROUPS**

<table>
<thead>
<tr>
<th>Composition or Ingredients</th>
<th>Starter ration (%)</th>
<th>Grower ration (%) (20-40 kg)</th>
<th>Finisher ration (%) (40-90 kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maize Powder</td>
<td>60.0</td>
<td>50.0</td>
<td>40.0</td>
</tr>
<tr>
<td>2. Wheat Bran</td>
<td>9.5</td>
<td>22.5</td>
<td>32.5</td>
</tr>
<tr>
<td>3. Groundnut Oil Cake</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
</tr>
<tr>
<td>4. Dried Fish Power</td>
<td>8.0</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>5. Mineral</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>6. Salt</td>
<td>.5</td>
<td>.5</td>
<td>.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100 kg</td>
<td>100 kg</td>
<td>100 kg</td>
</tr>
</tbody>
</table>

**Source:** *Mangso Utpadonor Babe Gahari Palon, p9.*

**FEEDING THE LACTATING SOWS:**

A sow, when fed properly, may yield 2.5 to 3.5 litres of milk per day. For small litter 2 to 2.5 litres of milk is sufficient. However, sows which are nursing 10-12 piglets must produce maximum milk to meet the requirement of the piglets. To maintain the ration, an allowance of 100gm-200 gm ration per piglet per day may be fed to the mother. Thus a sow
nursing 10-12 piglets will require about 5 kg of ration daily.

Whenever a sow dies due to some complication, their orphan piglets have to be given proper care and attention. These piglets can be raised by hand feeding with cow’s milk or buffalo’s milk or any other suitable milk replacer. One of the factors to be noted is that cow’s milk is deficient in iron and copper, so small amount of these elements must be added to milk. The milk should be fed at about body temperature to the piglets of up to 2 weeks of age. After 2 weeks the formula given in Table 4.2 should be adopted to feed the piglets.
Table – 5.2

FEEDING FORMULA FOR ORPHAN PIGLETS AFTER 2 WEEKS OF AGE

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Content per 100 kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Barley flour</td>
<td>25kg</td>
</tr>
<tr>
<td>2. Wheat / Rice flour</td>
<td>20kg</td>
</tr>
<tr>
<td>3. Ragi flour</td>
<td>10kg</td>
</tr>
<tr>
<td>4. Maize flour</td>
<td>20kg</td>
</tr>
<tr>
<td>5. Soya Milk/Coconut milk extractor</td>
<td>10kg</td>
</tr>
<tr>
<td>6. Fish meal or meat meal</td>
<td>3kg</td>
</tr>
<tr>
<td>7. Molasses</td>
<td>5kg</td>
</tr>
<tr>
<td>8. Fat</td>
<td>5kg</td>
</tr>
<tr>
<td>9. Calcium Carbonate</td>
<td>1.3Kg</td>
</tr>
<tr>
<td>10. Dicalcium Phosphate</td>
<td>0.1kg</td>
</tr>
<tr>
<td>11. Mineral Mixture</td>
<td>0.3kg</td>
</tr>
<tr>
<td>12. Salt</td>
<td>0.3kg</td>
</tr>
<tr>
<td>Total</td>
<td>100kg</td>
</tr>
</tbody>
</table>


One of the burning problems being faced by our pig farmers is the high cost of feed. Except maize, wheat bran, rice polish and mustered oil cake, all the other feed ingredients come from outside the state. The cost of transportation thereby raises the cost of feed.
5.1.2 Good Quality Piglet:

Another problem faced by the pig farmers is the lack of easy availability of good quality piglets. Depending on the source of production, piglets may be divided into two categories, viz. crossbreed and pure breed i.e. Hampshire. The collection of pure breed is better because it is more profitable and suitable for the climatic conditions of Assam. The breeding farms established in the state could see the problem and provide quality piglets.

In reality, the government breeding farms fail to supply the required number of quality piglets to the farmers. So the farmers have to buy piglets from the local markets at a high cost. Thus the shortage in supply of piglets is made up by the private farms through import from the neighbouring states like Meghalaya, Nagaland etc.

5.1.3 Marketing:

Marketing may be defined as the sum total of economic activities which are undertaken to help the movement of the product from the point of production to the point of consumption. But in between there are some middlemen who play a significant role.

According to Mishra and Sastry (1985) the development of animal industry depends on four basic factors, viz. breeding, feeding, management and health coverage to which a fifth factor i.e., marketing may be added in
view of the fact that the fate of the modern animal industry depends on a sound system of marketing of the animals as well as their products.

The marketing channel is the route through which the product moves from the producer to the consumer. Marketing channels affect the marketing efficiency to a great extent. There are two types of marketing channels:

i) Organized

ii) Unorganized

Organized channel involves participation of Govt. institution or Cooperative federation. The basic motive of the organization is to see that the consumer price doesn’t fluctuate violently. The unorganized channel means participation of private traders who have profit making motives.

In Assam, the farmers i.e. the primary producers market their animals when need arises. To make easy money they sell their animals to the local consumers or traders. The local traders sell these animals directly either in the weekly primary market or dispatch them to distant places to be marketed in the secondary markets for making a reasonably handsome profit.

Primary livestock market, commonly termed as “weekly bazar”, and towns of Assam. These markets are generally operated by “Mahaldars” who take them on a lease from the state govt. for one year or one to three years. The sellers themselves bring the animals to market on foot, and sales are
normally finalized through “dalals”. Sometimes, the seller himself directly negotiates the price with the buyer and thus he is relieved from paying commission to the dalals, i.e. brokers.

Secondary livestock markets are generally operated in places amidst the production areas. These markets are also owned by marketing authorities, taken on a lease from the state govt. for one year only. In addition to the producers, traders and agents also bring animals to the market for sale. Sales are normally finalized through “dalals”. Sellers / traders bear the costs of transportation, feed, labour and other charges. The sellers of both primary and secondary markets pay the marketing charges, sales taxes and commission charges for their animals at the rate fixed by the marketing authorities. (Gogoi-1997, pp242to243).

Marketing of pork and pork products may be classified as:

i) Marketing of live pigs.

ii) Marketing of pork & pork products.

Flow charts of marketing channel for piggery (Sarmah – 2002):

A. Large Scale Marketing:

Farmers/Producers → Middlemen → Village Market → Middlemen

District level market → Pork Producing plan → Pork products

B. Small Scale Marketing:

Producers / Farmers → Middlemen → Market
Butchers’ Shops:

People of Assam and the north eastern states mostly prefer fresh meat. Hence butchers’ shops are the major sources of supplying meat to the consumers. The butchers procure live animals from the neighbouring villages or from the middlemen. As there is no monitoring system in selling of meat in small towns or rural areas so the butchers are virtually not accountable to any authority and hence, they run their business according to their own will. Most of the butchers sell meat in temporary sheds constructed above the ground with bamboo mat and with or without any sidewall. There is no glass or net in their shop.

Guwahati is the prime city in the north eastern region. Due to the lack of a modern slaughter house in the city area, the vast meat eating community has to depend on those butchers’ shops scattered throughout the city. The whole meat trade of the city is handled and controlled by a group of people who have been in the business traditionally and the whole process of production, marketing, fixing of price etc. are done by themselves. More than 70% of the butchers’ shops are operating without valid license for which the Guwahati Municipal Corporation is losing a considerable amount of revenue per annum. The hygienic condition of these shops is also below the satisfactory level. As there is no proper system to utilize the valuable animal byproducts, so it not only causes environmental pollution but also incurs substantial economic loss. The butchers have no knowledge or
training to produce quality meat, nor do they have any sense of hygiene. 
(Sarmah-2002, p33)

Problems of Pig Marketing In Assam:

The problems of pig marketing in Assam are numerous and complex. There is a total lack of amenities in providing shelter, water troughs and light for the animals. Marketing of animals are also not standardized. There is no provision for maintaining the breeding and production records of animals. Excessive market charges paid by the buyers and sellers result in un-remunerative prices received by the producers. Livestock market of Assam has not been regulated till now. The production units are often small and poorly adjusted to the market requirements. Poor and inadequate transportation network also affects marketing organizations to a great extent. For financial assistance farmers still depend upon the professional money lenders and pay high interest. As there are no modern and quick transportation facilities and the road communication at some vital points of rural and urban areas is also poor, so the plight of the farmers and sellers further aggravate. In Assam there is no provision for market intelligence services till now.

Pork marketing in Assam, mostly run by the tribal people, is fully unorganized. Due to non-availability of modern slaughter houses, people in this region slaughter the live pigs in the traditional method, which is not
conducive for wholesome meat production. In reality, the production, processing and marketing of pork is running in a chaotic way. Only a few pork selling centers have permanent infrastructure and are running smoothly. Many pork selling centers have no permanent structure and run occasionally, or once in a week in open space. So infestation of meat by flies is a common feature usually observed in these pork selling shops. These are mostly located in the vicinity of towns or cities in Assam. (Sarmah-2002, pp35&36)

Slaughter House:

Slaughter house or abattoir is a place or a building or premise, licensed by appropriate authority, where animals are killed under hygienic condition for human consumption. The slaughter house plays a vital role for supplying quality and wholesome meat to the consumers. So the slaughter house should have adequate facilities of potable water, electricity, drainage and affluent disposal system, cold storage, quality control laboratory, space for antemortem and postmortem inspection, byproduct utilization system etc. There should be qualified veterinary doctors in the slaughter houses for conducting ante mortem and post mortem examination to the animals. The butchers available in the towns should slaughter the required number of live animals only in the slaughter houses. For utilizing service of slaughter house they should pay a fee to the concerned authority.
In Assam slaughter house is available only at Dibrugarh, Jorhat and Tezpur. There is no slaughter house in Tinsukia, Sivasagar, Lakhimpur, Bongaigaon, Nagaon and Silchar towns. The butchers in these towns slaughter the live animals in their respective houses or shops. So what type of animals they slaughter, what kind of slaughtering procedure they adopt are not known to the concerned authority. Therefore, in absence of slaughter house and for poor monitoring system people are consuming poor quality meat. (Sarmah -2002, pp37&38)

Marketing of Frozen Meat:

Besides fresh meat and processed meat there is another type of meat, called frozen meat. For production of this meat pig is slaughtered in slaughter house and cut into pieces. Then it is packed in polythene packet and preserved in deep freeze. The main problem of frozen meat marketing is that it requires deep freezing system for preservation and insulated van for transportation.

5.1.4 Financial Problems

Finance has the key role to play for development of piggery. A pig farm should always be equipped with necessary equipments, nutritious food, medicines and chemicals. A pig farmer must be able to bear the labour cost and he/she must be able to make necessary investment in infrastructure.
Hence, the farmers need a good amount of quality production which will yield satisfactory income. In Assam majority of the population live hand to mouth and do not have sufficient money for investment in other financial activities like pig farming. So, most of the prospective farmers have to depend on either institutional agencies or private agencies for required finance. (The Piggery Year Book, The Govt. of India 1989, p185)

To get a bank loan, land properties have to be mortgaged. Many farmers are landless. Those who have land property are reluctant mortgage land for fear of losing it in case they are unable to repay bank loan. So, most of the farmers in rural areas go to the lenders, like Mahajan or Dalai and pay higher interest which ultimately minimize their amount of profit. However, this financial problem can be avoided through the implementation of “Self Help Group” Scheme launched by the Government. Now a days, the Govt. Institutions like the State Institute of Rural Development (SIRD) and the Science Society of Veterinary Department of Govt. of Assam use to render sufficient help to the farmers by offering high quality piglets and financial help. Moreover, the National Bank for Agriculture and Rural Development (NABARD) has come forward to provide loans at a low rate of interest to the interested pig farmers through some commercial as well as rural banks. The Integrated Tribal Development Project (ITDP), Assam Plain Tribes Development Corporation (APTDC), Scheduled Caste Development Authority and other Government Organizations like District Rural
Development Agency (DRDA) are also providing financial help by way of share capital of loan under various schemes.

5.1.5 Disease Control:

Like other domestic animals pigs are also prone to diseases. The common bacterial diseases of pigs are swine plague, swine erysipelas, anthrax and infectious abortions. The diseases of viral origin are swine fever, rind pest, foot and mouth disease, viral pneumonia and swine pox. Pigs also suffer from internal and external parasitism. (Hussain and Nagaraja, 1992, p2)

Successful pig production generally rests on the efficient disease control. Surprisingly pigs are clean animals by nature and cannot grow in a bad environment. They require good, clean, well ventilated surroundings. Unfortunately most of the farmers neglect diseases and parasite infestation at the early stage which result in serious problems eventually leading to serious losses in the productivity and profitability. It has been proved that adoption of treatment after outbreak of diseases is more expensive.

In intensive rearing, pigs find them closer one another and the chances of spreading diseases from one to the other increases much more. Therefore, attention should be given to certain infectious diseases that seem mild in the beginning but can create problems later. Pig farmers should be made aware of the fact that no one can make profit out of sick animals.
Prevention is better than cure and the better the sanitation in pigsty, the less is the chance of incidence of diseases. It is neither difficult nor costly to practice a suitable sanitation programme in pig farming. Periodical removal of pig manure and wet litter along with good facility of drainage helps to maintain normal health of the animals. Before introducing a new stock in the pig sty, the sty should be thoroughly cleaned and disinfected with phenyl or caustic soda. The sty should be kept unoccupied for ten days after it has been cleaned and disinfected. For disease control, it is essential to restrict the entry of visitors. Important visitors should put on outer clothing and boots and step through disinfecting foot path kept at the entrance.

It is obvious that the methods of disease control are based on a very high standard of hygiene followed by efficient vaccination programme. There are no effective vaccines against several pig diseases. It is essential to develop vaccines against the major pig diseases. Big farms, having a huge number of pigs, require greater prevention and disease control measure. Hence, the farmers should rear their own fattening breed or should buy high quality disease free breed.

In distant past, piggery was considered fit by only backyard farming, which was looked after by unskilled persons in the village. Pig farming in Assam, during the last three decades, transformed itself from backyard stage into a commercial enterprise. Awareness of the local farmers is one of the reasons for this. Moreover, Assam offers almost all the
physical and non-physical facilities for the development of pig farming.

5.1.6 Managerial Problems:

The first and the foremost task of farm management is proper planning and selection of a suitable site. It needs enough foresight and imagination on the part of the farmer as the entire prospect depends upon the primary foundation. Right from the stage of planning to marketing, the management has to take care in every stage to minimize the expenditure so that a healthy profit could be made. For this a trained manager is required to look after all the aspects right from the starting to the end so that all the resources could be effectively utilized.

In our state a good organizer or a good manager has to face the following problems in pig farming:

Non-availability of Piglets:

Procurement of piglets and breeds is an important hurdle in pig farming. Suitable climatic condition for the breeds and the factors for quick growing are to be considered primarily for healthy farming.

Good quality piglets are not abundant in our state. So, the manager has to take sufficient care in selecting proper breed. As the breed has to be collected from the neighboring states and the cost of these piglets is very high so it becomes a big problem for the entrepreneurs as well as the
Another serious problem faced by the farmer is the high cost of nutritious food which is essential for pig and piglets. Quality food and timely feeding improve the growth & development of pig and this is a must in pig farming. Water hyacinth which is abundantly available in Assam is a rich food for the pigs. It can reduce the cost of pig production significantly. So for providing healthy food at a lower cost, the managers always look for water hyacinth. It is seen that due to high cost of some food ingredients, the farmers and the food producers often use such content at a lower rate which affect the feed quality and consequently the profitability of the farm. (Mangso Utpadanor Babe Gahari Palan, Govt. of Assam 1998, p10)

The management should also remain alert about the market trend of the locality, especially while purchasing piglets and the feed. The quality of piglets and feed should be checked properly as the farmers are often misled by the market intermediaries.

Infrastructure facilities such as scientifically equipped vehicles for transportation of piglets and marketing pig meat are highly desirable. In Assam, such facilities are yet to be adequately developed. In other words the marketing network is inadequate. As pigs have to be transported long distances over poor roads, it involves higher transportation cost. The stress factor, coupled with overloading and hot weather can cause loss of about 2 to 5 per cent of the pigs. During transportation in cold weather, trucks
carrying pigs should be covered with tarpaulin or building paper over and along the sides. In hot weather water should be thrown frequently over the hogs to reduce en-route hazards. The best time for pig transportation is early morning or evening, when it is coolest. (Piggery Year Book 1989, p92)

Pigs that are going to be slaughtered should be kept on fasting for at least 12 hours. During this period plenty of water should be provided which is often not done. Hence the manager should be well aware of all these. (Piggery Year Book 1989, p95)

The management has to face another problem of proper storage facility. Meat is a perishable item. So to protect it from being damaged; deep freeze should be used by the farmers. As there is hardly any pork selling centre in Assam so the farm managers have to face another challenge. This is another factor of loss in pig farming.

5.1.7 Technical Problem:

With the introduction of modern technology, the pig industry has been developed to a significant extent. In the present juncture pig farming plays an important role in almost all the states. In our state there are very few literate or trained people at the management level. Most of the farms are also situated in rural unhygienic areas where the use of unsterilized equipment and unhygienic food are very common. The farmers do not know how to select piglets of high quality and how to regulate temperature control
equipment to adjust the variable weather condition of Assam. (Mangso Utpadanar Babe Gahari Palan, Govt. of Assam-1998).

5.2 Prospects

5.2.1 Demand:

Protein malnutrition is a cause of great concern in most of the developing countries. Medical science tells us that deficiency of protein causes loss of bodyweight, and makes greater susceptible to infection. Protein is very much essential for human body during growth period and for maintenance of good health. The Indian council of Medical Research has recommended that the minimum requirement of animal protein in human diet should be 15g per day. (Saikia Borah-2001, p2)

The main sources of meat in Assam are broiler, culled birds, indigenous chicken, duck, goat, pig and cattle. Of these, pig meat (pork) accounts for the largest share over meat production scenario of the state. Meat consumers are becoming aware of the present scientific nutritive value of pork and so the demand for pork is equally increasing with its production.

As already stated, in 2008 the state produced only about 29.9thousand tones meat against the minimum requirement of 287.39thousand tones. (Directorate of animal husbandry and Statistical Govt. of Assam)
To meet the ever increasing demand of the consumers a large project of meat processing plant has already been undertaken by Assam Livestock and Poultry Corporation Limited (ALPCO) at Khanapara, Guwahati. Further, in collaboration with the Ministry of Food Processing Industries, Government of India proposes to establish a huge piggery development project.

Unlike other parts of the country almost all the people (90%) of Assam are non-vegetarian. In comparison to earlier days the demand for pork is also increasing day by day. During the festivals, e.g. Bihu, Durga Puja, Christmas, Bathow Puja, Kherai Puja, New year’s day etc, the demand increases by many times. To achieve the recommended target, piggery sector has to grow at least 7 times more. Thus the prospect of development of pig farming in Assam is very bright.

5.2.2 Economic Importance:

In our field survey we have found that by investing a small amount, a pig farm can be started. Some new entrepreneurs have started their farms even with only two piglets. Income begins to flow just after eight months rearing. Besides piglets and porks, a pig farmer can produce a organic manure, which improves soil texture and hummus.

During our field survey we have met a few enthusiastic youths engaged in pig farm. Their farm is named as M/S NKBG farm situated at
Gopalpur near Rangia having a land area measuring six kathas. They are all educated unemployed youths. Their group leader Mr. Mridul Bhuyan is an M.A. Mr. Paresh Das is an arts graduate, Gautom Bhuyan has passed H.S Examination and another one is a matriculate. Though the farmers initially aimed at production of meat only but later on, they reared pure breeds (Hampshire) in a scientific way in their farm and started to supply piglets to nearby farms. With the help of the Govt. of Assam, they got training in SIRD, Assam, and in Bangalore and Hariyana. They took a loan amounting Rs. 2,50,000.00 in March 2005 from "Jivan Jyoti scheme" and liquidated the loan in October 2007. The loan interest was 9% p.a. with a subsidy of 15% on the loan amount. At the first phase they collected only 14 (fourteen) numbers piglets from SIRD and ran the farm successfully. In the first year they earned a return amounting Rs. 70,000.00 which encouraged them to go ahead with the farm business.

Mr. Prasanta Bharali, a promising pig farmer of Patarkuchi of Sonapur area, 1.3 km away from N. H. 37 and nearly 35 km away Guwahati is a science graduate who has been keeping himself engaged in pig farming since 1995. He has got 15 acre of land out of which 4000 sq ft. area is used for pig sty. He collected cross bread piglets from Khanapara, Kritomkoli and Udalguri. His farm capacity is 150. He is keeping three full time labourers and two part time labourers. Both the husband and the wife supervise the farm. As he has got some other business in Guwahati so he has
to stay in Guwahati but regularly visits his farm. He uses to dispatch his piglets and pigs through commissioned agent at the rate of Rs. 80 per kg.

5.2.3 Employment Opportunities:

Pig farming has emerged as an important supplementary occupation of farming community in India. It gives a good number of jobs per annum in rural areas and absorbs surplus family labourers of the farmers which ultimately help in earning extra income round the year.

Assam is predominantly an agrarian state, where most of the people live in villages. Besides the government farms there are about 262 numbers of small, medium and large farms presently running in the Kamrup district. These are run by unemployed youths. The unemployed woman labourers of the rural households can also be utilized in pig rearing. Thus pig farming offers more scope to jobless sections for contributing family income.

It is quite natural that along with pig farming some other associated enterprises like fisheries, pig feed units, marketing network will grow which will result in diversified business prospect and employment generation, especially among the weaker sections of the society.

From these one can guess the tremendous prospect of large pig farming in Assam. The piggery sector has been gradually achieving the momentum with the available scientific knowledge and whatever infrastructure available in the state and with the help of government and
private initiative through the Five-Year Plans. It helps in growing awareness and confidence among the pig farmers. But even then, the local production of pig meat accounts for only a very small share of the total requirement. We have already discussed the constraints (bottlenecks) affecting production of pig products such as high price of feeds, non-availability of quality piglets, insufficient infrastructure etc. However, it is expected that these constrains will not remain for long.

5.2.4 Present Incentives To Develop Pig Farming In Assam

For development of piggery sector, Government and other concerned organizations provide incentives by supplying piglets, providing financial assistance and technical guidance and training etc. to the pig farmers in Assam.

i) Supply of Piglets

It has already been mentioned that only a few pig breeding farms are operating in Assam. Non-availability of quality piglets is a major constrain in pig production. So breeding of quality piglets is highly necessary for developing pig enterprise in the state.

The pure breeds viz. Hampshire, Landrace Saddleback and Yorkshire are maintained at the base pig farm at Khanapara and pig farm of Assam Agriculture University. From these some piglets are distributed
among the farmers. But presently due to financial crisis, no farm of Assam Government rears piglets, though all the 12 government farms have the facility of pig rearing and pig breeding. It is quite enthusiastic that some private breeding farms such as NKBG farm of Gopalpur, Rangia as mentioned above have started rearing and breeding piglets which are being supplied to farmers of the other regions too.

Besides these, a good number of other private agencies are supplying piglets in the state. These agencies do not rear or breed piglets; they collect them from Meghalaya, Arunachal Pradesh, and Nagaland etc. It has been observed that the piglet market in Assam is completely captured by these private agencies as there is practically no production at the Government farms. It is also seen that one month old piglets are available in the market at the rate of Rs. 400/- to Rs. 500/- per piglet. The demand for piglets grows more in the months of September and October.

ii) Supply of Pig Feed:

Seven feed mills have been established by the government of Assam at Khanapara, Tezpur, Jorhat, Dibrugarh, Ghungoag, Diphu, and Kokrajhar. Besides these there are some private feed manufacturing farms. ICAR Khanapara (Panjabari) is also taking interest in organizing information programme & feed related matters. (Statistical Hand Book Govt. of Assam, 2008)
iii) Health Care:

The major pig diseases are swine fever, swine pox, pig influenza, anthrax, tuberculosis foot and mouth disease, gastroenteritis, brucellosis, ascariasis, long worm infection, skin diseases, screw worms and nutritional diseases etc. Veterinary services are handled by both the Central and the State Governments. The Central Government develops the programmes and defines the policies through the Department of Animal Husbandry (Pig Disease and Control, Livestock and Poultry Enterprise).

iv) Financial Assistance:

For a poor and backward state like Assam, finance is one of the most important factors affecting the development of pig farming. The Central and the State Governments provide financial assistance in the form of subsidy and loan in easy terms and condition to the pig farmers and to the unemployed youths for establishing pig farms.

Pig farming for weaker section is undertaken through a number of Central and State sector programmes. Notable among them are the Special Livestock Production Programme (SLPP), Special Component Plans (SCP) and State Government’s Intensive Pig Development Programme, etc.

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's standard on enterprise size and cost.

v) Insurance Coverage:

Pig insurance is an important input for encouraging the farmers to invest in high quality Crossbreed animals for augmenting meat production. The General Insurance Corporation of India (GIC) and the four subsidiary companies have extended the insurance facility for pigs. A master policy has been introduced in consultation with the banks for automatic coverage of all financed animals, right from the period of purchase. In order to provide effective thrust for the development of pig insurance business, the insurance companies spread their network. (Piggery Year Book 1989, p201)

vi) 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 which has to be repaid
within 3-5 years. The voluntary association is charged 8 per cent interest per annum with a ceiling of 12 per cent per annum. (Saikia Borah, 2001, p119).

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

vii) Technical Guidance and Training:

There are many Government institutions to organize training programs at various places to impart technical knowledge. The well organized institutions of these are situated at Khanapara, Jorhat, Diphu and Rani. The Institute of Farm Management at Rani was established in 1980-81 for providing training on composite farm. In this institute farmers get training on mixed farming viz. Dairy farming, Poultry Farming, Pig Farming, Fishery and Horticulture. The duration of the training is six months. Besides these regular training programmes, Government organizes short time training programmes for the extension of the scientific culture.

To popularize the scientific culture of pig farming, the Animal Husbandry and Veterinary Department, Assam organizes publicity programmes through different media such as books and pamphlets, TV and Radio broadcasting, exhibition etc.

The State Institute of Rural Development (SIRD) has been organizing training programmes on scientific management of pig with the
help of College of Veterinary Science, Khanapara. The SIRD is also providing post training technical guidance in the actual field situation to run the farms successfully from all sides.

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

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

In the North-East Region, Assam Livestock and Poultry Corporation (ALPCO) Ltd. is the only organization to work for the development of pig sector in this region. It is a public undertaking of the Government of Assam which started functioning from 1984. The main objectives of the corporation are to undertake the development of livestock and pig 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 the people belonging to schedule castes and schedule tribes and to generate employment opportunities for the unemployed educated young men and women in the state.
Role of Assam Agricultural University (AAU) in Piggery Education:

Along with other agricultural activities, Assam Agricultural University (AAU) has been trying its best to develop the piggery sector with research and extension activities since early seventies. At present two Veterinary Colleges one at Guwahati and one at North Lakhimpur and one School of Veterinary Science at Ghungoor (under AAU) are functioning to educate the students in Veterinary and Animal Husbandry. Moreover, teachers of these colleges are also conducting research 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.

Since 1991, the Extension Education Department of the AAU has been conducting training programmes on piggery and allied subjects. These training projects have been sponsored by different agencies like AAU, Government of Assam, Government of India, ALPCO etc.

The scope to meet the demand of piggery products is very limited through traditional rearing system as in this system the rate of production is very low. So, development of scientific rearing is a must to meet the future demand. It is encouraging that the State Government and other organizations have come forward in this respect. As piggery reared on scientific line is a lucrative enterprise and so it should be expanded widely. The next chapter is devoted to an elaborate discussion on advantages and requisites of a scientific farm.
REFERENCES


