



Poultry farming: Needs more focus

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The population of the world especially in Asian countries is growing at an alarming rate. According to 2011 census, the population of India is 121.1 crores. Although there are large numbers of projects for agricultural development, there is no surety of filling the number of empty stomachs of the people of our country in the years to come. Searching the other area of food production can solve this problem. Poultry farming is one of the most fertile areas to ease out the pressure of population on crop cultivation. The majority of the poors has limited capital assets and usually depends heavily on earnings from supplying unskilled wage labour to other farm or non-farm enterprises for their livelihoods. The development of the poultry sector is unlikely to generate a large number of full time jobs along the supply chain,

not only because of economics of scale in both input and output markets, but more fundamentally because of the low unitary value of poultry birds, which makes upstream and downstream support services financially profitable only if carried out on a relatively large scale. In countryside majority of people spend



their life under poverty line and do not get employment round the year. Moreover, protein deficiency is common phenomenon in the diets of rural people. To ensure their survivability and protein supplementation in their diet they have to venture into poultry farming.

Benefits of poultry farming :

- It does not require high capital for starting.
- Poultry birds are not costly enough to start raising.
- Poultry farming does not require a big space unless you are going to start commercially.
- Commercial poultry farming business also ensure high return of investment within a very short period.
- Poultry farm structures do not require high

maintenance.

- No need of license. Because almost all types of poultry birds are domestic.
- Poultry provides fresh and nutritious food and has a huge global demand.
- Marketing of poultry products is very easy.
- Poultry farming creates income and employment opportunities of the people.
- All most all banks approve loans for this business venture.
- Sustainable enterprise -this is such a business in India that can never dry up.
- Highly productive local and foreign breeds are available for commercial production.
- Numerous farms are available and you can easily

learn about poultry farming from those established farmers.

- It ensures availability of egg and meat even in remote rural areas.

- It is considered as a tool for overall rural development, outmost need of an hour.

Nutritive value of poultry products :

Egg :

- Egg contains almost all the nutrients required by the human beings.
- It has about 12 per cent protein which is almost completely available to human body as it is of very high quality, having 96 per cent biological value.
- A whole egg has about 10-11 per cent shell, 60 per cent albumen and 30 per cent yolk (17g).
- Two eggs per day supply about 13.2 g proteins which are about 26.6 per cent of Recommended Daily Allowance (RDA) of an average active adult.
- Eggs are excellent sources of all the vitamins except vitamin C.
- Eggs are also excellent sources of all the minerals,

rich in iron and also in phosphorus.

- Eggs are good sources of choline which has been linked to memory.
- They also have lutein and zeaxanthin which protect against vision loss.

Meat :

- Similar to eggs, poultry meat also is a low calorie but highly nutritious food.
- The calorific value of broiler, roaster and hen meat is 151, 200, 302 calories per 100g, respectively.
- The protein quality of poultry meat is better than other meats and its biological value varies from 65-85.
- The poultry meat contains higher proportion of unsaturated fatty acids than the fats from other meats.
- The cholesterol content of poultry meat is quite low.
- Chicken meat is an excellent source of minerals and vitamins.
- The liver meat is an excellent source of iron, vitamin A, vitamin B₂ and niacin.

Methods of poultry farming : Layer poultry farming- The poultry birds which are raised for egg production are called layer poultry. The common and most popular layer poultry farming methods are-

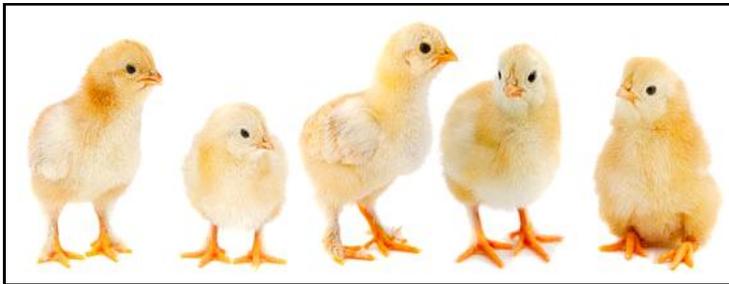
- **Free range farming :** Free range poultry farming means providing freely roaming facilities to the poultry birds for a certain period of day. Although they are kept inside the house at night to keep them free from predators and adverse weather.
- **Organic method :** Organic layer poultry rearing method is also one type of free range farming system, but here a small numbers of poultry birds are raised.
- **Yarding method :** Yarding poultry farming method is such a method in which cows and chickens are raised together.
- **Battery cage method :** In this system usually small sized metal cages are used. Every cages can accommodate about 3 to 8 hens. The walls of the cages are generally made of mesh or solid metal and the floor is made of sloped wire mesh which allows the faeces to drop down.
- **Furnished cage method :** This method is a developed version of battery cage method. In this system the hens get more spaces and facilities than battery cage

method.

Broiler poultry farming methods : The poultry birds which are raised for commercial meat production are called broiler poultry. The common raising systems which are mostly used for commercial broiler poultry farming are the followings :

- **Indoor raising method :** In this method broilers are kept inside a house.
- **Free range method :** Broilers are kept like the free-range layers.
- **Organic farming methods :** It is almost the same as free-range farming systems. Here birds are not allowed for randomly using of in-feed or in-water medications, other food additives and synthetic amino acids. This system is very suitable for the poultry breeds which are reaching slowly slaughter weight.

Steps in starting commercial poultry farming business : Starting commercial poultry farming is not too easy. You have to go through some step by step process.



Choosing suitable location : The main and most important thing for poultry farming in India is selecting a suitable land and it is the most expensive part of this business. For setting up commercial

poultry production, it would be better if you have the land of your own. The area of the land depends on the number of birds you want to raise. Following are the considerations for choosing suitable location :

- Try to set up the farm in rural areas that is slightly far from the city. Because land and labour are relatively cheaper in rural areas.
- Select a chaos and noise free calm and quiet place.
- The area of the land depends on the number of birds and farming system. Free range farming system requires more land than intensive system.
- The chosen area must have to have fresh and pollution free environment.
- Never set up the farm in rented land. Because, in rented land the land owner can force you to leave this land at any time. So, it would be better if you are the owner of the land.
- While selecting land, ensure a great source of sufficient amount of fresh and clean water.
- The selected area must have to be free from all types of harmful animals and predators.

- Suitable transportation system is a must.
- Presence of a suitable market near the farm will be effective. You will be able to buy necessary commodities and sell your products easily in the market.

Farming system : For commercial poultry farming, three systems are suitable according to the condition. These are the following- (a) Intensive system (b) Semi-intensive system (c) Extensive system

Selecting breeds : Selecting high quality productive breeds is very important for successful poultry farming. There are numerous local and foreign high quality poultry breeds available. Choose proper breeds according to your desired production. If you want to start producing eggs commercially, select highly productive layer poultry breeds. For commercial meat production business, go with highly meat productive broiler poultry breeds. Contact with your nearest expert poultry producer to learn more about highly productive breeds. Common and mostly raised poultry breeds are of three types.

– **Broilers :** The poultry breeds that is suitable for commercial meat production.

– **Cockerels :** Cockerels are other types of meat producing poultry breeds.

– **Layers :** Various types of layer poultry are very popular for commercial eggs production.

Housing/Cage : Making a suitable poultry housing is another important factor for commercial production. But it is not too expensive like buying land. There are numerous ways for making a good house for the poultry birds. Always be sure that, the house or cage is sufficient and spacious enough to accommodate the birds with necessary space and facilities. In free range farming system, ensure sufficient amount of space for running and moving. The design of house depends on the breeds and production types. However, while making a poultry house, consider the following things carefully :

- Make a proper ventilation system in the house.
- Ensure flow of sufficient amount of fresh air and light inside the house.
- Try to make south faced house. This will help to entrance sufficient amount of clean and fresh air.
- Distance between two houses will be at least 40 feet.



- Always keep the house clean and fresh.
- Clean the house perfectly before bringing the chicks into the farm.
- Prevent all types of harmful animals and predators.
- Make good facilities so that rain water and cold wind can't enter inside the house.
- Make a suitable drainage system inside the house. It will help you to clean the house easily.
- Keep all equipment in proper distance inside the house and always clean the house and equipment in a regular basis.

Feeding : Feeding good quality and nutritious food keeps the poultry birds healthy and productive. So, good and high quality nutritious food is a must for commercial poultry production. There are numerous poultry feed producing companies available in India. If you want to prepare the feed at your home, then you must have to know the

necessary nutrient elements in their feed.

Care and management : Always try to take good care of your birds and good management ensure proper growth and production. The main threat of poultry farming is diseases. So, always take good care of your birds and provide them nutritious food and clean water. Never try to mix contaminated or polluted

food with their regular food. Vaccinate them timely and make storage of some common and necessary medicines.

Marketing : The main benefit of poultry farming is easy marketing. You can easily sell your products in your nearest local market. So, you don't have to worry about marketing your products. If the local market located so far from your farm then transports the products very carefully.

Point to be noted : If you are new in this business and want to start poultry farming, then first of all try to visit some farms practically and start raising in small scale. After gaining sufficient knowledge about poultry farming raising go for large scale commercial production.

Diseases of poultry birds : Several diseases of poultry birds are seen due to deficiency of vitamins, minerals and infestation of organisms. Among the several diseases of poultry birds, Ranikhet disease is most harmful. This disease causes severe loss in poultry farming business.

Therefore, the poultry farmers must have knowledge about this disease to save their business from drastic loss. This disease is caused by a diverse group of viruses. Chickens are particularly susceptible and may experience morbidity and mortality, rates upto 100 per cent. The general symptoms are- affected birds may be weak, with partial paralysis or paralysis of one or both legs and/or wings, in co-ordination, tremors, and/or drooping of the head. Sick or dead birds can be found in the same nest as apparently normal nest mates. Sudden death, lack of energy and appetite, swelling of head, eyelids, comb, wattles and legs, purple discolouration of the wattles and combs, nasal discharge, coughing and sneezing along with diarrhea. Among the measures, vaccination in proper time will prevent the disease in a large extent.

Antibiotic use in poultry farming : Antibiotics are used by the poultry industry to enhance the health and productivity of flocks, also often lead to harmful residual effects. It produces potential threat to direct toxicity in human and low levels of antibiotic exposures of poultry birds cause disease and the possible development of resistant strains in human body which cause failure of antibiotic therapy in clinical situations. Therefore, indiscriminate use of antibiotics in poultry farming must be restricted concerning human health.

Causes of high failure rate in poultry business:

- Lack of technical know-how.
- Management problem
- Diseased breeds
- Hygiene deficiency
- Poor feeding condition and wastage of feed
- Security
- Housing
- Inability to prevent, detect and control disease
- Marketing
- Ignoring the role of livestock consultants

An estimation of profit : As a small starter, it is better to start with day old chicks than with older chicks. It is advisable for a beginner to start with about 500 day-old chicks if he is interested in the production of eggs and selling of the layers when they are old. It takes about 18-20 weeks (5 months) to feed and nurture the birds before they start laying eggs. On the average, 100 birds will produce a minimum of 80 eggs daily. So if an entrepreneur starts with 500 birds and all the 500 survive, he will be getting a minimum of 400 eggs daily, which is good output. Once the birds start laying, they will do so for 74 weeks, after which they become due for disposal. However, the

birds could still lay after 74 weeks, if properly fed.

Good potential for employment : Poultry farming created a good potential for employment and hundreds and thousands of people in the villages got their regular income. Indirectly these operations paved the way for agricultural produce such as maize and soya to be grown in large scale. In this way agricultural activities also expanded, extending indirect employment. We have enormous potential for growth in the poultry sector. Present volume of poultry industry is about to grow at 12 per cent per annum. The present consumption of 1.9 kg per person per year is estimated to rise to 3.5 kg per person per year in the coming years.

Future prospects : The outlook for poultry production in India looks bright. The growth of layer business is estimated at six per cent and broilers at 12 per cent annually. Government policies to augment domestic grain production and ensure the availability to the poultry sector without exporting the grains directly will encourage the industry to grow. India may not be an exporting country for eggs and chicken but the industry can assure feeding the more than one billion human population with quality eggs and chicken at cheaper prices than anywhere else in the world. Second most important concern after food security in our country is nutritional security. Progress of poultry sector is obviously a strong step towards nutritional security.

Conclusion : By adopting the rural poultry production, one can prevent the high incidence of protein hunger in the rural population particularly in pregnant and feeding women and growing kids. Protein deficiency is a common trend in the diet of rural people as their diets are predominantly based on cereals which contain high energy and low protein. Never ending demand of poultry meats and eggs has made this enterprise viable and sustainable. To provide nutrition over 1 billion population of our country, the enterprise is now integral part of farming. The sector has huge potentiality to provide employment to unemployed youths, farmers (especially landless, marginal and small farmers) and other professionals. Initial low investment and higher profit level attracts the entrepreneurs in a great extent. Therefore, the public extension agencies and private extension agencies should give more focus on this enterprise by disseminating the technology properly in rural areas and it obviously will be a solid step towards nutritional security.