

## Problems and Prospects of Poultry Industry in Bangladesh

MUHAMMAD MAHBOOB ALI\*  
MD. MOULUDE HOSSAIN\*\*

**Abstract** *The poultry industry is how growing successfully and becoming a leading industry of Bangladesh. The primary objective of the study is to identify various aspects of the growth and sustainability of poultry industry in Bangladesh. Authors argue that strategic management in poultry sector should complement government efforts to achieve the Vision 21 objective. This industry can provide various opportunities to increase GDP growth rate plus equitable distribution through arranging food security as well as ensuring self employment, creating purchasing power and reducing poverty at a large scale. One importance should be given to the country's poultry industry in order to ensure its continued development as well as to save the small and medium farmers. Authors observe that for importing poultry related products huge amount of valuable foreign exchange is spent. They propose for providing subsidy to the local industry to safeguard the interest local entrepreneurs Vaccine, vaccinations services, alternative to vaccine services, antibiotic feed additives and other inputs and services of the poultry sector should be developed locally as suggested by the authors.*

**Keywords:** *Poultry, GDP, Poverty, Bangladesh*

### Introduction

Bangladesh is one of the high density countries of the world with a population of 150 million people within the area of 143,000 km<sup>2</sup>. About 80 percent people of

\* The first author is Professor and Head, M.H. School of Business, Presidency University.

\*\* The second author is lecturer, School of Business, Institute of Science and Technology under national University.

this country still live in villages and are extremely poor. Both the government and a variety of non-governmental organisations (NGO's) are actively promoting poultry development at all levels. The Bangladesh Rural Advancement Committee (BRAC) shows in its' annual report that more than 70% of rural households are involved in poultry keeping. But they face serious constraints, as the mortality rate of poultry is said to be as high as 25%, due to a combination of improper feeding practices, ignorance of management needs and poor distribution of vaccines. Poultry sector will create job opportunity for 10 million people as claimed by poultry leaders in a round table titled "Present Crisis and Prospects of Poultry Industry in Bangladesh "(Source: Financial Express, Bangladesh 23 July, 2010).

Small-scale poultry production has developed in a large number of developing countries around the world as an important source of earning for the rural poor. In the last few years, the recognition of small-scale commercial poultry production helped to accelerate the pace of poverty reduction riding in new height in Bangladesh. The poultry industry has been successfully becoming a leading industry of the country. The sector started farming during mid sixties and has growth rapidly an annual rates of around 20 per cent during the last two decades. This industry has immense potentialities from the point of view of the country's economic growth of the country as well as fulfillment of basic needs and to keep the price at a minimum level and ensure food especially animal protein for the people. The current farming structures of poultry in the country are of two types one in the conventional countryside backyard or scavenging/semi-scavenging system while the other is a business-related farming system. Conventional poultry production is an essential part of rural farm household activities; a few birds are reared with little or no feed complement to generate eggs and meat for home consumption and any excess is sold. Business related poultry farms raising birds of high yielding breeds as a profitable business exercises. But the recent declining trend in the poultry industry has been creating a problem for the country.

This industry holds immense promise for the country. It can change livelihood and food habit, ii) reduce dependence on cow and goat meat positively. Contributes to the country's GDP growth.

The poultry industry has been making progress despite: i) Avian Influenza/bird flu outbreak; ii) price rises of raw materials in the international market; iii) Lack of infrastructural support

This research study seeks to assess the impact of the poultry industry on the people of the country.

### **Literature Review**

Gopalkrishnan and Mohanlal (1994) argue that food costs represent 65 to 75 per cent of total cost of commercial poultry production, depending mainly in the relative costs of feed constituents, labour, housing, miscellaneous items of costs in a particular situation. Therefore it becomes imperative that economic as well as nutritionally balanced diets are provided during all phases of productive life-in eggers, chickens, grower and layer stages and in broiler, starter and finishing stages. The economics of poultry feeding depends to large extent on the local situation of food availability and competition for the same foodstuff for use by human beings.

Hunton (2001) in a study says that there is no doubt that exciting times lie ahead for the Bangladesh poultry industry. The combination of basic low input-low output, subsistence level growers, and all combinations up to and including large scale commercial production, present a daunting and stimulating prospect to a government preoccupied with poverty and malnutrition. Nevertheless, the poultry industry represents one way of accomplishing several national goals under a single banner. Employment, poverty alleviation and improved nutrition are all potential benefits from continued support and encouragement of poultry development.

Islam(2003) comments that the poultry sub-sector is crucially important in the context of agricultural growth and improvement of diets of people in Bangladesh. The sub-sector is particularly important in that it is a significant source of the supply of protein and nutrition in a household's nutritional intake. It is an attractive economic activity as well, especially to women and poor population.

Banerjee(2004) observes that in comparison to other livestock, poultry requires less investment to start the farming. Persons from low income group may also start the business on a small scale. Poultry farming offer opportunities for full or part-time employment particularly women, children or elderly person on the farm. Khan, Miah, Bhuiyan, Begum, Hussain and Khanum (2006) observe that Local chickens dominate poultry production in Bangladesh. In Sylhet mainly poor families, who have arrived from outside and are landless rear poultry. Most of the households (58.33%) had 0-15 chicken. Most of the families (75%) reared their chicken combined with duck. Materials used were similar to other parts of the country. Mainly female members were involved in poultry rearing. About fifty percent farmers got on an average less than 70 eggs per year per bird. A few farmers (5.56%) informed that they had collected more than 130 eggs from a bird in a year. In most of the cases (47.22%) the length of clutch was less than 20.

Interval between two clutches was found in the highest percentage of farmers (42.22%). Highest egg production was observed in winter season (52.78%) followed by summer, spring and late autumn. Maximum (60%) farmer had vaccinated their birds and 55% farmers got service from Department of Livestock Services.

Jabbar et al. (access on 31 December, 2007) comments that since the early 1990s, contract farming as a market institution in the poultry industry in Bangladesh has evolved along with the expansion of commercial poultry farming. Apart from classical contract farming within vertically integrated enterprises, there are also formal and informal contract arrangements in input marketing and output marketing. A high drop-out rate among commercial poultry producers is observed. Results of a survey conducted among farmers who dropped out of the poultry business in recent years are presented, highlighting the causes of dropping out and the possible role of contract farming in addressing them.

Akter and Uddin (2009) argue that as an important sub-sector of livestock production, the poultry industry in Bangladesh plays a vital role in economic growth and simultaneously creates numerous employment opportunities. The poultry industry, as a fundamental part of animal production, is committed to supply the nation with a cheap source of good quality nutritious animal protein in terms of meat and eggs.

Aho (2010) predicts that the output poultry meat may fall before that of eggs in the world production. The factors that influence the production of poultry meat and eggs, he said, are real income per capita, the distribution of income, the cost of grain and the size of the human population. "Poultry will do well despite higher grain costs," said Dr Aho. This is because, at around 2:1, feed efficiency is better for poultry meat than pork (3:1) or beef (4:1), largely thanks to the tremendous progress made by broiler genetics companies over the last 50 years or so. Another important factor is the difference in water requirement: 3,000 litres for chicken compared to 6,000 litres for pork and 16,000 litres for beef.

Bangladesh Food Security Investment Forum Report (May 2010) states that the vibrant fisheries sector in Bangladesh accounts for roughly 20 percent of the agricultural GDP while the growing livestock sector comprises around 12 percent. More than 10 million Bangladeshis directly depend on these sectors for their livelihood. A large proportion of these people are smallholders whose production of milk, meat, and eggs increased significantly between 2002 and 2008 primarily because of improved breed, feed, and fodder; available veterinary health services; and investments led by the private sector. The growth rate in the fisheries sector

has also improved—from 2.33 percent in 2002?03 to 4.11 percent in 2007?08. This growth is largely from intensive technological management practices in agriculture. Pond aquaculture has also been improving and now produces about 866,049 metric tons (mt) per year, representing 41.92 percent of total inland fish production (2,839 kilograms/ hectare).

Shamsuddoha (2010) observes that sustainable development of environment friendly commercial poultry industry in Bangladesh seems to have attracted little attention.

According to <http://www.thepoultrysite.com/articles/943/antibiotic-feed-additives-politics-and-science> Cervantes commented that contrary to public perception, the continued use of antibiotic feed additives is beneficial for both, animal and human health (accessed on 5<sup>th</sup> November,2011).He said that there are numerous scientifically documented benefits derived directly from their use, such as the prevention and control of enteric diseases, enhanced food safety, improved animal welfare, preservation and less contamination of the environment, improved efficiency of production and lower cost of production resulting in lower prices for the consumers who can continue to enjoy an abundant supply of safe and nutritious food products of animal origin at an affordable price.

According to [http://www.fao.org/ag/againfo/themes/en/ infpd/econf\\_bang.html](http://www.fao.org/ag/againfo/themes/en/ infpd/econf_bang.html) (accessed on 5<sup>th</sup> November, 2011) small poultry enterprises with adequate institutional support targeting the poorest rural women and their families can help them take the first step out of poverty. However, for the concept to work as a poverty breaking tool (i) the beneficiaries must come from the poorest segments of the village, (ii) the cost of producing an egg must be lower than in the commercial sector, (iii) an enabling environment must be established to keep a small flock of hens, inter alia, access in the village to feed, vaccine, vaccinations services, micro-finance, marketing and other inputs and services, and (iv) the enabling environment must contain institutional and political space to provide the people involved the possibilities and opportunities to take the next step out of poverty.

### **Objectives of the Study**

The primary objective of the study is to identify the various aspects relating to the growth and sustainability of poultry industry in Bangladesh. Secondary objectives of the study as follows:

- To identify the market structure various stakeholders and market players in the poultry industry of Bangladesh.

- To identify the factors that affect competitive advantage, profitability and growth potential poultry production.
- To determine the impact of the poultry industry on the food supply chain of Bangladesh.
- To address risks associated with the poultry industry and recommend meansres to mitigate those risks for the sustainable growth and development of the industry.

### **Making Vision 2021 a Reality: Prospects of Poultry Industry**

*According to OUTLINE PERSPECTIVE PLAN OF BANGLADESH, 2010-2021: MAKING VISION 2021 A REALITY*, poor nutrition presents a major health problem. It is evident that a substantial majority of the population suffer from varying degrees of malnutrition, including protein-energy malnutrition, micro-nutrient deficiencies (such as vitamin A deficiencies, calcium deficiency disorders), iodine deficiency disorder, iron deficiency and iron deficiency anaemia, and vitamin deficiencies. Poultry sector in this regard has been playing a significant role in providing protein at a lower cost. Most probably it is the only sector that can grow vertically and produce maximum amount of egg and chicken using the minimum land.

### **Poultry Industry: contribution to rural & national economy**

- Livestock plays an important role in the national economy, contributing significantly to agriculture and the gross national product.
- 44% of human daily intake of animal protein comes from livestock products.
- Furthermore, it plays a pivotal role in the rural socio economic system as maximum households are directly involved in livestock.
- Investment in poultry sector should be doubled within the next decade and it will enhance the growth of this sector and contribute to the GDP and creates employment opportunity.
- In the nineties total investment in this sector was only Tk 15 hundred crores, but now it is more than Tk 15 thousand crores
- It has created job opportunity for more than 60 lakh people.
- The poultry industry has been suppling quality protein to the Bangladesh population at the lowest price in the world.

Present situation of the Poultry industry has been shown in Table- 1.

**Table 1:**

	June 2010	December 2010	March 2011
Production of Bird (Million Kg./day)	1.95	1.70	1.6
Egg production (Million /day)	27.5	26	23.5
Number of Poultry farms	1,14,000	98,000	75,000

*Source: Chowdhury, 2011*

From the aforesaid table: 2, we are seeing that declining trend of production is prevailing in the poultry industry of Bangladesh.

Moreover, of the price poultry feed has also been rising Continuously. Poultry industry is not treated as an SME. Commercial banks are not interested to finance this sector as they think it as a risky sector.

#### **Poultry Industry: Supply of Animal Protein, Food Security**

- Rising population, moderate growth of per capita income and higher income elasticity of demand for poultry products are likely to bring a further increase in the demand for these products.
- The demand for milk and eggs has increased by 6, 5.2, per cent, respectively, which is well above the national average.
- Bangladesh is a densely populated country. Agricultural land is shrinking and is reducing at a rate of 1 percent per annum. As such scarcity of production of agricultural product will be felt.
- Fish and cattle production are decreasing. These also require longer time to produce. But poultry production is relatively easier if both public and private sector initiatives go side by side.
- Poor nutrition creates a major health problem. It is evident that a substantial majority of the population suffer from varying degrees of malnutrition, including protein-energy malnutrition, micro-nutrient deficiencies, iodine deficiency disorder, Iron deficiency and iron deficiency anaemia, and vitamin deficiencies.
- Poultry sector in this regard has been playing a significant role in providing protein at a lower cost. Most probably it is the only sector that can grow vertically and produce maximum amount of egg and chicken using minimum land.

- A report titled ‘Climate Change as a Security Risk’ said that the probable loss of arable and residential lands through flooding in this part of the world (Bangladesh and its neighbourhood) would result in increase of internal and external environmental migration and strained relations between countries. A solution to the issue of farmland depletion could be the formulation of a sensible and realistic land-use policy.
- Moreover, from the poultry sector biogas plant and organic fertilizer can be prepared.

### **State of protein deficiency and contribution of Poultry Industry**

- According to FAO each person should take
- 56 Kg. meat and 365 eggs per annum. But in Bangladesh per head use of meat is only 14.57 kg per annum while the use of egg is an 31 per head per annum.
- The a results is malnutrition and the rise in disparity between poorer and richer section of the society.
- Currently as per UNICEF report total population is 16.40 crore. If rises at the rate of 1.40 % per annum, protein deficiency will aggravats which can be mitigated by the poultry sector.
- The milk, which is a traditional protein food for growing children and other vulnerable population, is getting costlier and there is every chance of adultering in it.
- In future, one can visualize the egg and poultry meat not only as a supplementary protein food but also as a substitute of other meat products and even milk for a healthy purpose.

### **Poultry Industry: Creating Huge Job Opportunity**

The sector can gereate huge job opportunity.

Poultry farming offers opportunities for full-time or part–time employment, particularly for women, children or elderly persons.

### **Major Challenges Facing Poultry Industry**

“Yesterday who was a solvent farmer has become a poor guy today”- this is basically true to the poultry farmers. The farmers are severely suffering from security of their farms and investment. Every year thousands of farms are collapsing due to bird flu outbreak and many for their inability to buy high priced poultry ingredients and absorb losses from the fall in market price. However, the poultry industry of Bangladesh currently faces the following challenges against its growth potentials.



### **General Challenges**

- In the country the epidemic of some types coupled with the increase in feed cost emerge to be the most significant hindrance to this industry.
- Recently NBR is trying to impose new taxes on maize import. This has created problem as maize is the key ingredient to prepare poultry feed.
- The price of poultry raw materials has rise sharply in the international market, Which has resulted in the rise in production costs.
- The banks, interest rate in this sector is very high which is on average 12-14% per annum and real effective interest rate is around 18-20% per annum. Moreover, lot of hidden charges and costs by this sector to avail loans from the banking sector. Actually bank interest rate should be 10%. Moreover, NGOs and also Grameen bank should play more active role to lower the interest rate for poultry sector under their social business program.
- Both cost push inflation and demand pull inflation are presently prevailing in the country. As a result purchasing powers of the people are declining.
- This sector faces the problem of load shedding.

### **Avian Influenza outbreak: A threat for poultry growth**

- The country is often affected by Avian Influenza which causes huge losses for the producers but they seldom get any sort of financial help to mitigate their losses
- As per FAO report (20 April, 2011), Bangladesh and five other countries, India, China, Egypt, Indonesia and Vietnam are suffering from the H5N1 virus. This is due largely to 'weak producer and service associations' to support farmers. In these countries avian flu is still endemic due to poor veterinary and livestock production services. Due to bird flu we can not export chicken Nepal and also Middle East countries.
- In this context, expansion of veterinary services including vaccination is essential.
- Long-term planning and its effective implementation is needed to feed the population of the country as well as export abroad.

### **Currently eggs and chickens are distributed through middlemen, As a result:**

- The farmers are not getting actual price. Producers huge losses, as the production cost is high but they have to sell to the middlemen at low prices.
- The actual producers do not get any benefit of the high price as they are oppressed by the middle men who suck the profit.

- Lack of modern management of poultry farming is also creating negative impact.
- Moreover, the end users i.e. customers have to pay higher price.

### **Conclusion and Recommendations**

Strategic management in poultry sector requires complementing government effort to active the vision-21 objectives. biscuits or detergent powders faced serious problem during early nineties. As such, special measures are required by the government to present the sector. Price of meat of chicken and egg should be stable so that lower income group and middle income group of people can afford.

Acceptance of the most recent technology in poultry sector especially to control environment and process of automation are being required. Capacity building will add creation of value. Efficiency in production should be achieved through cost-cutting technique and reducing heavy dependence on high-cost imported raw materials for this sector. Alternative arrangement should be developed domestically for cheap feeding cost as well as air cleaning mechanism. Local craftsmen could be trained to produce tiny equipment, like feeders, drinkers, etc. Vaccine, vaccinations programs, and other inputs and programs of the poultry sector should be available for which research and development program may be taken and local pharmaceuticals should also develop vaccines and other related medicine to keep poultry sector disinfected. Environment of the farm area must be cleaned to protect them.

Arrangement for training through lives stock agencies, NGOs and private agencies are necessary for farmers and labours associated in this sector as well as extension level which may include: sickness management, accommodation and tools and promotional activities. Essential information in precise kind of poultry grounding and composition are also vital. Accommodation and organization might be enhanced through arranging suitable farmer guidance to run the farm smoothly. If Bird flu can be removed we can be able to export meat and eggs in foreign countries for which special strategy will required.

Considering the importance of the country's poultry industry in the context of agricultural growth and improvement of diets of people in the country, the development of poultry industry would surely help government to mitigate the problems of food crisis of the country. Price of chicken and egg should be kept stable and problem of middlemen should be should through arranging effective and efficient supply chain management by government. as well as Private sector, keeping in mind about the issues of customers' protection and reducing economic

disparity. Bangladesh Food Security Investment Forum Report (May 2010) should be considered as an important factor to develop the poultry industry and people enable to get access to protein related food.

Following recommendations may be considered to sustain the poultry industry of the country:

- To mitigate food deficit especially protein related food, the poultry sector needs special attention for which public and private collaboration is essential.
- To fulfill the dream of the government Vision 2021, poultry sector can act as an auxiliary force by arranging food at cheaper rate. As such, tax exemption can be extended for the period of 2025.
- Imposition of tax on import of maize ought to be withdrawn provide relief to producers of the poultry sector specially small farmers. The industry should be considered as a thrust sector.
- Bank loan in the poultry sector should be arranged at a 5-7% simple interest rate, considering it a thrust sector. Conditions of loan should be eased. Moreover, Bank should come forward so that new entrepreneurs as well as NRBs can come forward to invest in this sector through opening special window in each bank arranging not only bank loan but also offering special services starting from pure line farms and Hatcheries to Consumers. Banks who are not interested to invest in the poultry sector may be penalized by the Bangladesh Bank. This industry should also be brought under SME sector.
- Livestock department should be more effective and efficient. Proper human resource management and staffing as well as extension of the livestock office is required. They should play a proactive role. Livestock institutes at Sylhet and Gaibandha should be effective and regional research centers should be more active.
- Supply chain management should be improved so that the poultry farmers can directly supply to the retail shops and middle men can not suck the profit.
- Avian Influenza affected farms should get subsidy immediately after culling.
- A special fund may be created by the government to help actual producers.
- Poultry Insurance should be introduced immediately. Insurance companies should come forward with such policies.
- Electricity arrangement is required for the poultry farms. The government may come forward to produce bio-electricity or support the poultry farmers to produce it.
- Govt. Hatcheries should be reactivated and play due role so that they can meet the huge deficit of protein related food.

- Transportation costs and facilities for eggs and chicken and chicken related products should be kept minimal so that consumers can purchase at a reasonable price.
- Govt. should come forward to deal with the problem of Avian Influenza as FAO reported that Bangladesh is one of the Sixth worst victim nations. To raise export of chicken related products abroad we need to come out from this disease.
- The farmers are laudable and that could export poultry products to foreign markets if a capacity building as well as strategic alliance among private sector, govt., Bangladeshi embassies and NRB were developed.
- Poultry industry needs special attention from the government. as this sector will not only mitigate huge deficit of protein related food at a cheaper cost but also can create employment of 1 crore people in this sector by the year 2021 as projected by this researcher, which will complement governments Commitment to create employment.
- Government needs prior planning and preparation for preventing bird flu and should arrange appropriate steps so that farmers can maintain bio-security and keep healthy environment inside and outside the farms.
- Department of Livestock should come forward with a holistic approach for developing the poultry sector. Organogram of Livestock may be restructured and it should set up office at the union level. Efficient and dynamic personalities should be appointed. They must not fix maximum price of one-day chick as it is unjustified.
- To mitigate deficiency of veterinary doctors, four year diploma courses after SSC level may be introduced. Courses may also be introduced so that technicians can be available to mitigate immediate shortage of nursing of the poultry industry.
- AIT on maize import should be withdrawn and tax imposed on pelleted feed production.
- Strong measures should be taken so that the guideline of the World Organization of Animal Health (OIE) is followed strictly while importing One-day old chick, hen or egg.
- The import of products from outside the country costs huge amount of valuable foreign exchange. As such subsidy should be given to the local industry and to safeguard the interest of local entrepreneurs. Vaccine, vaccinations services, alternative to vaccine services, antibiotic feed additives and other inputs and services of the poultry sector should be developed locally.

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