



OVERVIEW OF POULTRY PRODUCTION AND MARKETING SYSTEM IN BANGLADESH

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Abstract

The economy of Bangladesh is mostly dependent on agriculture. Livestock is an important subsector of agriculture and poultry is an important part of livestock subsector. Poultry farming is a growing sector to the small holder farmers with remarkable contribution to the gross domestic product and economic growth of Bangladesh. The performance of this sector has an overwhelming impact on major macroeconomic objectives like employment generation, poverty alleviation, human resources development and food security.

Key words: Livestock, Poultry, employment generation, poverty alleviation, human resources development food security, Bangladesh.

1.1 Introduction

Bangladesh is a developing country with huge population. The economy of the country is mostly dependent on agriculture. The contribution of agriculture sector to the gross domestic production of Bangladesh is 15.51% (BBS, 2015). About 45.10 percent of total labour force of the country is dependent on the sector (LFS, 2013). In Bangladesh, there are four major subsectors under agriculture sector and livestock farming is one of them. In the financial year 2014-15, about 2.07 percent of total GDP comes from the livestock farming sub-sector (BBS, 2015). Poultry farming is an important part of the overall livestock farming which is practiced commercially in Bangladesh. As an important subsector of livestock production, poultry plays a vital role in the economy of Bangladesh by generating employment opportunity, increasing income of households and improving the nutritional status of the people (Chowdhury et al. 2015).

In Bangladesh, poultry production is an important part of agriculture farming. Apart from depending on poultry for food, farmers depend on poultry farming as an additional occupation to increase their income level. Poultry farming plays an important role at improving the livelihood, food security and poverty reduction at rural and semi urban communities in the country. Commercial poultry farming, nowadays, has become a promising and dynamic industry with enormous potential and serves as a tool for poverty reduction through self-employment and income generation of unemployed family members (Raha, 2007). Chickens are mostly of short life cycle (Rahaman et al. 2006). Most of the commercial broilers bred for meat reach slaughter weight at between 5 to 7 weeks of age, although slower growing strains reach slaughter weight at approximately 14 weeks of age (Tiwari et al. 2013). Because of this young age, much of their behavior and physiology is that of an immature bird. Poultry and egg laying hen are the same species and share many characteristics (Ahmed et al. 2014). Due to short life cycle, low capital investment and quick return, it may be a good source of income to rural farmers throughout the year (Bhende, 2006).

1.2 Objectives of the study:

The Specific objectives of this study are:

1. To know the present scenario of poultry production in Bangladesh.
2. To know the contribution of livestock sector as well as the contribution of poultry industry to national economy in Bangladesh.
3. To know the poultry production system in Bangladesh.
4. To know the marketing system of poultry production in Bangladesh.

1.3 Techniques of Data Collection

Data are collected from various authentic sources such as Bangladesh Bureau of Statistics (BBS), Bangladesh Economic Review (BER), Ministry of Agriculture (MoA), Bangladesh Poultry Association (BPA), Department of Livestock Services (DLS), Poultry Khamar Bichitra (PKB), Labour Force Survey (LFS), Jatio Tothyo Batayon (MoI) etc. Data have also been collected from books, journals and reports related to the study.

1.4 Poultry Production in Bangladesh

Commercial poultry production has been growing rapidly in Bangladesh since early 1990 by the use of improved genetics, manufactured feeds and management (Raha, 2013). This dramatic growth of poultry farms throughout the country is taken place without judging feasibility of the farm in the area. This improvement is done mainly in the private sector as a device for additional source of income and employment opportunities particularly in rural area. The share of commercial poultry production by the private sector is expanding rapidly in Bangladesh, and now it accounts for 50 percent of egg production



and 60 percent of meat production (Bhuiyan, 2011). This process of improvement is influenced by the programs of different NGOs and the public sector.

1.4.1 Trend of Poultry Production in Bangladesh

Livestock plays a crucial role in the agriculture sector of Bangladesh and poultry is an important livestock product. The total poultry production is increasing over the years. The increasing trend of poultry production is shown in Table 1.1.

Table 1.1: Poultry Production in Bangladesh

Year	Number of Poultry (Million)		
	Chicken	Duck	Total
2007-08	2124.70	398.40	2523.10
2008-09	2213.94	412.34	2626.28
2009-10	2280.34	426.77	2707.11
2010-11	2346.86	441.20	2788.06
2011-12	2428.66	457.00	2885.66
2012-13	2490.10	472.53	2962.63
2013-14	2553.11	488.61	3041.72
2014-15	2617.70	505.22	3122.93

Source: GoB, 2015

Table 1.1 shows that the total poultry production increased over time in Bangladesh. The total poultry production is 3122.93million in 2014-15 which was 2523.10million in 2007-08. However, chicken production is 2617.70million in 2014-15 which was 2124.70 million in 2007-08. On the other hand, duck production was 398.40 million in 2007-08 where as increased to 505.22million in 2014-15.

1.4.2 Poultry Production and Its Demand in Bangladesh

The poultry industry in Bangladesh has achieved self-sufficiency in meeting local demand for meat and eggs, but the local farmers are facing losses due to the lack of coordination between the demand and supply (Moazzem, 2014). Since the poultry production increased over time, the demand for poultry products also increased over time in Bangladesh. But the increasing rate of demand for poultry products is lower than the rate of poultry production. A comparative picture of the production of and demand for poultry is given in Table 1.2.

Table 1.2: Demand for Poultry Products and Production of Poultry in Bangladesh

Particular products	Production	Demand	Excess production
Poultry meat (tons/day)	1500	1400	100
Eggs (crore/day)	1.6	1.5	0.1
Chicken (lakh piece/week)	95	85	10

Source: Adopted from Moazzem, (2014)

Table 1.2 shows that the amount of the production of poultry meat is 1,500 tons per day against the demand for 1,400 tons per day. Similarly, the production of eggs and chicken is 1.6 crore per day and 95 lakh pieces per week, respectively, against the demand for 1.5 crore and 85 lakh, respectively.

It is very important to note that although two-thirds of poultry farms are closed the total production has increased rapidly (Raha, 2007). This could be due to the increase of large poultry farms. Raha (2007) also reported that the foreign entrepreneurs have doubled their farm production while the demand has not increased rapidly. Thus, it creates a situation of excess supply of poultry products as compared to demand in the market.

1.5 Contribution of Livestock to the Gross Domestic Product (GDP) of Bangladesh

Livestock is an important sub-sector of agriculture in Bangladesh. Through agriculture sector, livestock plays significant contribution to the gross domestic product (GDP) of Bangladesh. However, the contribution of this subsector is decreasing over the years. This decreasing trend is shown in Table 1.3.



Table 1.3 shows that the contribution of agriculture sector and its subsectors to the GDP of Bangladeshis continuously decreasing over the years. Livestock subsector accounted for 2.41% of GDP in 2008-09 and the contribution gradually decreased to 2.07% in 2014-15.

Year	Subsectors				
	Livestock (%)	Crops and horticulture (%)	Fisheries (%)	Forestry (%)	Total (%)
2008-09	2.41	10.69	4.58	1.63	18.17
2009-10	2.37	10.85	4.49	1.57	18.15
2010-11	2.32	10.57	3.28	1.54	17.71
2011-12	2.30	10.10	3.19	1.50	17.09
2012-13	2.22	9.36	3.24	1.45	16.28
2013-14	2.16	9.21	3.30	1.44	16.11
2014-15	2.07	8.73	3.29	1.42	15.51

Source: BBS, 2015 (Base Year: 2005-06)

Table 1.3 further reveals that the total contribution of agriculture to GDP also decreases from 18.17% in 2008-09 to 15.51% in 2014-15. Although it seems very low contribution of livestock subsector to the GDP of Bangladesh, it has a great importance on it in terms of total value of production people employed in it.

1.6 Contribution of Poultry Industry to National Economy in Bangladesh

Livestock is playing an important role in the national economy of Bangladesh, contributing significantly to the agriculture sector and the GDP. According to FAO each person should take 56 kg meats and 365 eggs per annum. However, in Bangladesh per head consumption of meat is only 14.57 kg per annum and egg is 31 per annum. Moreover, UNICEF reported that if the population growth rate in Bangladesh rises at the rate of 1.40% per year, then protein deficiency will rise, which can be mitigated from the poultry sector as this sector has immense potentialities (Islam et al. 2014). About 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 directly involved in livestock (Ali and Hossain, 2012). So, investment in poultry sector should be doubled within the next decade which will enhance the growth of this sector and also will increase the contribution to the GDP, employment creation and income generation. In the nineties, total investment in this sector was only BDT 15 hundred crores, but now it is more than BDT 15 thousand crores (Islam et al. 2014).

1.7 Poultry Production System in Bangladesh

In Bangladesh, poultry is produced commercially in all over the country. As a result different production techniques are found in different. The current poultry production system in Bangladesh can be divided into four main categories which are traditional rural backyard scavenging system, semi-scavenging system, commercial farming system and contract farming or integrated system (Dolberg, 2008).

1.7.1 Traditional Rural Backyard Scavenging System

Rural poultry production has a great importance in the socioeconomic development of Bangladesh. Almost 90% of all rural families keep at least a small number of indigenous chickens and ducks under traditional free range scavenging systems (Khan et al. 2008). This system is characterized by low input of veterinary services, minimal level of bio-security, high off-take rates and high levels of mortality. As such it does not involve investments beyond the cost of the foundation stock, a few handfuls of local grains and possibly simple night shades (Fitsum and Aliy, 2014).

1.7.2 Semi-Scavenging Farming System

A semi-scavenging poultry model was developed in Bangladesh in the late 1970s in collaboration with the Department of Livestock Services (DLS) and the NGO, Bangladesh Rural Advancement Committee (BRAC) with support from the World Food Program (Dolberg, 2008). The exotic pure breeds and their crosses are used in the system with a support of supplementary feeding, rearing techniques and health care. The semi-scavenging system usually provides all the nutrients require through feed (Khan et al. 2008).

1.7.3 Commercial Farming System

Commercial poultry farms are patronized mostly by the private sector in Bangladesh. It is a highly intensive production system with a medium to high bio-security level and the poultry are produced under a controlled environment.



Small, medium and large sized farms are prevailed in this system under complete confinement with a higher production performance based on the individual owner’s management capability (Khan et al. 2008). It is also characterized by higher level of productivity where poultry production is entirely market oriented to meet the large poultry demand in this country (Fitsum and Aliy, 2014). This type of farming achieved a higher annual growth of 15-20 percentages in the last five years.

1.7.4 Contract Farming or Integrated System

Contract farming system is an important pattern of farming system for the rapid growth of poultry industry. It offers several potential advantages over independent farming. Contract farming is proposed as one of the important avenue for private farms to take over the role previously served by the state in the provision of information, inputs and credit (World Bank, 2001). Contract poultry rearing may be of two types in case of broiler production: a) Contract to buy at a guaranteed; b) Contract to raise for the company on either per head or per kilo basis. On layer raising there may be pullet raisers on contract with hatcheries or the agents to raise layer chicks up to 16-18 weeks until they are delivered to the egg producers (Khan et al. 2008).

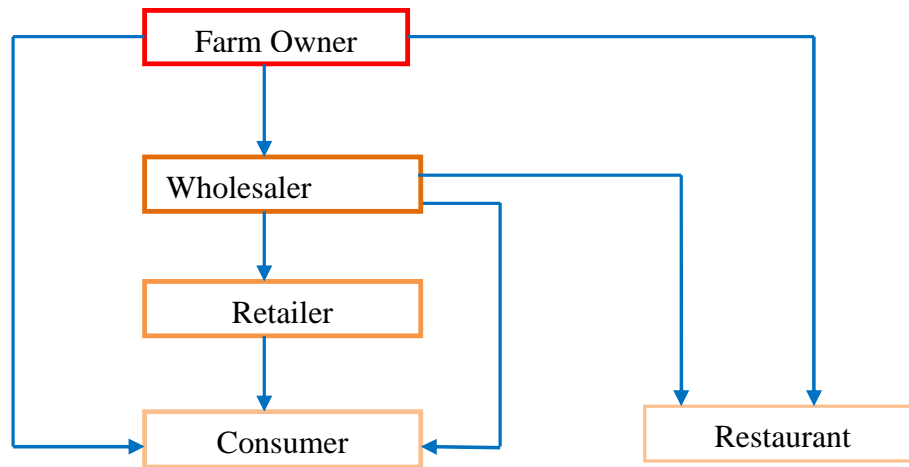
1.8 Marketing System of Poultry in Bangladesh

Marketing systems includes all activities involved in the flow of goods from the point of initial producers to the ultimate consumers (Sarker, 2002). Sometimes it is referred to as "the marketing machinery" or "the distribution system". Poultry marketing system is composed of marketing channels, market participants (traders) and marketing functions. The marketing system of poultry found in Bangladesh is discussed briefly in the following sections.

1.8.1 Marketing Channel of Poultry

Different products follow different routes to flow from producers to consumers. Market intermediaries do this function that move products from producers to consumers. And marketing channel is known as the chain of intermediaries or middlemen through which the transaction of goods takes place between producer and consumer (Sarker, 2002). Length of marketing channel is determined by the numbers of intermediaries involved in the chain. Poultry marketing has also some channels in indifferent length. Such a channel is shown by the following flow chart.

Flow Chart 1.1: Marketing Channel of Poultry



Source: Adopted from Khan, 2013

From the Flow chart 1.1 the following channels can be identified. Through one channel the farm owner sell their poultry to the wholesaler who further sell it to the retailer and finally they sell it to the consumer. In another channel farm owner sell their poultry to the wholesaler and they sell it to the consumer directly. Again, sometimes farm owner directly sell their poultry to the consumer. On the other hand, farm owner sell their poultry to the wholesaler who sell it to restaurant. It also shows that restaurant purchase poultry directly from farm owner. So, we can summarize the channel as:

1. Farm Owner → Wholesaler → Retailer → Consumer
2. Farm Owner → Wholesaler → Consumer
3. Farm Owner → Consumer
4. Farm Owner → Wholesaler → Restaurant
5. Farm Owner → Restaurant



1.8.2 Market Participants of Poultry

Various market participants are involved in poultry marketing from the point of farmers to the consumers. The market participants who are involved in poultry marketing are farm owner, wholesaler and retailer.

In Bangladesh, farmer brings up and raises indigenous poultry in their households and broiler in their farms throughout the year. It is the first link in the chain of poultry marketing (Sarker, 2002). After a specific time period they sell their broiler to the intermediaries and local consumers as well as directly to the wholesalers, retailers and local consumers.

Wholesalers are the professional poultry traders in the channels of poultry marketing (Sarker, 2002). They have permanent establishment in the market place with adequate storage facilities. The marketing functions of wholesaler are to help the retailers, consumers and farmers. They perform both wholesaling and retailing activities of poultry. They also purchase a large number of poultry directly from the farmers at farm places and sell them to retailers and consumers (Khan, 2013).

Retailers are the last link in the channel of poultry marketing system (Sarker, 2002). The retailers are the professional traders who operate in the local market every day. In the market most of the retailers have permanent shops. Most of them purchase live poultry from the farmers and sometimes from the wholesalers (Khan, 2013). They also buy poultry from the farm owners and sell them to the consumers.

1.8.3 Marketing Functions of Poultry

The marketing functions, involved in the movements of goods from the producer to the ultimate consumer, vary from commodity to commodity and market to market. Any single activity performed in carrying a product from the point of its production to the ultimate consumers may be termed as a marketing function (Janifa et al. 2014). Neither the producers nor the consumers of the farm products are located at one place. They spread all over the country. For this reason, some marketing functions are needed to make products available to consumers. It creates time, place, form and possession utilities (Asogwa et al. 2012). However, it is important to see as to when and where these functions start. The marketing process of poultry can be divided into various functions such as buying, selling, pricing, storage, grading, transportation, financing and market information (Khan, 2013).

Transportation is one of the most important marketing functions at every stage. The transportation function is primarily concerned with making goods available at the proper places and creates place utility (Janifa et al. 2014). Most of the farmers sell their poultry to wholesaler or retailer from the farm gate and also they purchase day-old-chick from farm gate (Khan, 2013). Usually truck, van and pickup are used for transporting poultry in desire places.

Storage is a necessary part of marketing system. It is concerned with making goods available at desired time and also creates time utility (Asogwa et al. 2012). A kind of cage, locally known as Khacha, is used for the transportation, handling or temporary storage of poultry by the traders (Sarker, 2002). Khacha is a cage generally made of bamboo, strips or iron. The traders usually need to store poultry birds for a maximum of two days and they use this khacha for this purpose (Sarker, 2002).

Grading is the basic function of sales transaction and is defined as the classification of products according to some standards or measures (Janifa et al. 2014). Grading means the sorting of goods into different groups and quality specifications. However, in most of the cases it is not followed at farm level by the farmers though it is found in marketing system (Khan, 2013).

Market information may be broadly defined as a communication or reception of knowledge or intelligence. It includes all facts, estimates, opinions and other information used in marketing decisions that affect the marketing of goods. Market information is necessary to be used for smooth operation of marketing activities (Sarker, 2002). It also helps the buyers and sellers to take their proper decision about their business. Farm owners and traders collect information about poultry marketing by observing market condition and personal contact with the market functionaries (Khan, 2013).

Pricing is the important marketing function for producers and traders. The prices of the products basically depend on the supply of and demand for the poultry products at the market. All producers and traders who are involved in buying and selling of poultry follow the individual negotiation for setting the price of their products (Sarker, 2002).

The market intelligence function is the job of collecting, interpreting and disseminating the large variety of data necessary to the smooth operation of the marketing process (Khan, 2013). An effective pricing mechanism is dependent on well-informed buyer and sellers. Because, farm owner and traders of poultry farm needs accurate and adequate market information to take selling and buying decisions.



1.9 Conclusion

Although, farmers try to produce poultry in commercial way, most of them are still producing it in traditional scavenging and semi-scavenging system. However, the production of poultry has increased over the years. Moreover, poultry has achieved self-sufficiency in meeting local demand for meat and eggs and also has excess supply. But the contribution of livestock to the GDP has declined to 2.07% in 2014-15 from 2.41% in 2008-09. On the other hand, poultry marketing system is not well organized. There are still intermediaries in the marketing system and that's why farmers do not get fair price of their product.

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