



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

## POULTRY INDUSTRY IN BANGLADESH: IS IT GROWING?

S.K. Raha

### ABSTRACT

Although government introduced improved breeds of poultry in government poultry farms for multiplication and distribution to village people in 1935, but commercial poultry production has been started from 1980s in Bangladesh. The growth of poultry industry over the years in Bangladesh is examined in this article. The expansion of poultry farming leads to the development of many allied industries such as breeder farms, hatcheries, feed mills, equipment factories, processing plants and pharmaceutical companies. The upward trend of growth rate of livestock sector is attributed to growth of poultry farms. Over the years the contribution of agricultural sector to GDP is declined but the share of livestock to agriculture sector increased. Per capita consumption of egg increased from 21 in 1995 to 59 in 2004 - 2005. The numbers of all allied industries have been increasing. The growth of population, change in income and food habit, and a bit awareness of the consumers about health indicates a bright prospect for the poultry industry in Bangladesh. Government policy for the development of poultry industry in the country is essential.

### 1. BACKGROUND

In Bangladesh, poultry is the most widely held livestock species by rural people particularly poor and landless households. Although reliable data on poultry sector is not available but it is assumed that about 90 % of rural households rear poultry under scavenging condition. Scavenging poultry contributes 30 to 40 % of eggs and 50 % of poultry meat in the country.

In 1935 government introduced improved breeds of poultry in government poultry farms for multiplication and distribution to village people. Six poultry farms were established by the government in 1947 for supplying eggs and chicks to rural people. Several small poultry farms were set under the village aid programme for rural development in late 1950s. In 1962-63, the Directorate of Livestock Services started about 91 small units in 91 Thanas with the objective of supplying improved types of birds to the village people.

Scavenging sector could not meet the increasing demand for meat and eggs, which rose due to growth of population, income and the urbanization. Considering the market potential commercial poultry production has been started from 1980s. In Bangladesh semi-scavenging Poultry Model has been recognized globally as an excellent tool for income generation among resource poor people and for stimulation of poultry enterprise development (Raha 2003). The model is designed as an integrated system to provide necessary supplies and services to

ensure right environment for the chicken for optimum production in every sphere and marketing of the farm produce. The system encompasses seven components, which are independent but intertwined for their success (Ahamed 2002).

The expansion of poultry farming has led to the establishment of many allied industries which include hatcheries, breeder farms, feed mills, equipment manufacturing factories and processing plants. It has also created a good market for pharmaceutical companies and also establishment of GP farm in the country.

But the conditions of the rural poultry farm owners are different than that of the service providers. The various studies revealed that farm owners encountered problems in three sectors namely input sector, farming sector and finally marketing of farm produce. The most common problems are high price of DOC and feed, poor quality of DOC and feed, lack of training on poultry rearing and shortage of capital. They also faced problems in selling farm produce such as low demand at local market, low product price, concentration of demand at urban area and price fluctuation (Jabbar *et al.* 2007, Raha, 2007, Raha 2008 and PKB 2009).

In this paper effort is made to examine the growth of poultry industry over the years in Bangladesh. Poultry refers to commercial poultry birds i.e. layer and broiler. A few growth parameters / indicators are used to explain the growth of poultry industry in the country.

## II. DATA SOURCE

This paper is mainly based on secondary data. Data were collected from various documents of Bangladesh Bureau of Statistics (BBS), Ministry of Finance, Bangladesh Poultry Industry Association (BPIA), Bangladesh Rural Advancement Committee (BRAC), and Department of Livestock Services (DLS). Theses, magazines, and other published and unpublished materials related to poultry were also used.

To examine and explain the growth of poultry industry in the country a few growth parameters / indicators are used. Those indicators include growth rate of GDP and livestock, contribution to GDP, change in consumption of meat and egg, number of hatcheries, Grand Parent Stock farms, Parent Stock farms and production of DOCs, number of feed mills, number of pharmaceutical companies, number of equipment companies, environment of poultry industry, and training/ technical know how.

## III. RESULTS AND DISCUSSION

### Growth rate of GDP and Livestock

The growth rate of livestock sector shows an upward trend over the reference period, which was above the growth rates of other sub-sectors of agriculture. This high growth attributed to significant growth in poultry farm (BER, 2006).

In base year the growth rate of GDP was 4.62% and that of livestock was 2.51 % but the rates of GDP and livestock increased to 6.51% and 5.85 % respectively in 2006 - 07 which reflects remarkable difference in growth rate in livestock than that of GDP (Table 1).

**Table 1: Growth rate of GDP, livestock and other sub-sectors of agriculture at constant prices**  
(Base year 1995-96)

Year	(In percent)					
	GDP	Agriculture	Crop	Livestock	Forestry	Fishery
1995-96 <sup>a</sup>	4.62	2.03	1.74	2.51	3.46	7.39
1996-97	5.39	5.57	6.44	2.58	4.03	7.60
1997-98	5.23	1.63	1.05	2.64	4.51	8.98
1998-99	4.87	3.24	3.11	2.69	5.16	9.96
1999-00	5.94	6.92	8.10	2.74	4.94	8.87
2000-01	5.27	5.53	6.18	2.81	4.85	-4.53
2001-02	4.42	-0.62	-2.39	4.70	4.91	2.22
2002-03	5.26	3.29	2.88	4.51	4.43	2.33
2003-04	6.27	4.38	4.27	4.98	4.18	3.09
2004-05	5.96	1.80	0.15	7.23	5.09	3.65
2005-06 <sup>b</sup>	6.63	5.23	5.03	6.15	5.18	3.91
2006-07 (Prov)	6.51	2.95	1.92	5.85	5.25	3.99

Source: Bangladesh Economic Review 2006<sup>a</sup> pp.228-229  
Bangladesh Economic Review 2007<sup>b</sup> p.205

**Contribution to GDP**

The contribution of agriculture to GDP in percentage has been declining from 20.81 in 1994-95 to 16.38 in 2006-07 but the share of livestock to agriculture showed an increasing trend from 16.45% in 1994-95 to 17.69% in 2006-07 (Table 2). The share of livestock to GDP could not keep pace with the growth of GDP as it declined from 3.42% in 1994-95 to 2.90% in 2006-07.

**Table 2: Share of agriculture and fisheries in GDP (Base year 1995-96)**  
(In percent)

Year	Agriculture	Crop	Livestock	Forestry	Fishery
1994-95 <sup>a</sup>	20.81	15.43(74.17)	3.42(16.45)	1.95(9.38)	5.21
1995-96	20.32	15.03(73.96)	3.36(16.53)	1.93(9.51)	5.36
1996-97	20.39	15.21(74.57)	3.27(16.06)	1.91(9.37)	5.48
1997-98	19.67	14.59(74.15)	3.19(16.22)	1.89(9.63)	5.67
1998-99	19.35	14.33(74.06)	3.12(16.13)	1.90(9.81)	5.93
1999-00	19.49	14.59(74.87)	3.02(15.50)	1.88(9.63)	6.09
2000-01	19.51	14.70(75.37)	2.95(15.10)	1.87(9.53)	5.51
2001-02	18.58	13.75(74.00)	2.96(15.90)	1.88(10.10)	5.40
2002-03	18.22	13.43(73.69)	2.93(16.09)	1.86(10.22)	5.25
2003-04	17.97	13.23(73.63)	2.91(16.19)	1.83(10.18)	5.11
2004-05 <sup>b</sup>	17.27	12.51(72.40)	2.95(17.07)	1.82(10.53)	5.00
2005-06 <sup>c</sup>	16.98	12.19(72.28)	2.93(17.20)	1.79(10.51)	4.86
2006-07 (Prov)	16.38	11.72(71.56)	2.90(17.69)	1.76(10.75)	4.73

Source: <sup>a</sup>Bangladesh Economic Review 2005, p.72

<sup>b</sup> Bangladesh Economic Review 2006, p.81

<sup>c</sup> Bangladesh Economic Review 2007, p.204

Note: Figures in parentheses indicate share (%) of sub-sector in agriculture

### Change in consumption

The consumption level of eggs and meat over the years are seen in Table 3. Per capita consumption of meat in Table 3 includes both poultry and livestock. Although data could not be disaggregated but the contribution of poultry should be considerable. The findings of previous studies revealed that the poultry meat contribute to 37% of the total meat consumption ( Ahmed *et.al* 1990, Haque 1992). However, the rapid growth of poultry farming over the years might increase the share of its contribution now.

Consumption of egg over the years increased from 21 in 1995-96 to about 59 in 2004-05. Similarly, the amount of meat consumption has been more than doubled in 2004-2005 compared to base year, 1995-96.

**Table 3: Per capita consumption of egg and meat**

Year	Egg (No.)	Meat (Kg)
1995-96	21.0	3.7
1996-97	27.0	5.0
1997-98	29.0	5.1
1998-99	31.0	5.1
1999-00	32.0	5.2
2000-01	34.0	5.3
2001-02	33.8	6.6
2002-03	52.0	6.9
2003-04	58.7	7.4
2004-05	58.6	8.5

Source: BBS 2006 and BBS 2008

### Number of Hatcheries

In 1990, there were 14 hatcheries and by 1997 there were about 35 poultry hatcheries in different districts of the country (Khan, 1998). The number of hatcheries increased to 130 in 2006 of which about 16% of the hatcheries are not in operation. In addition there are six hatcheries in public sector which are producing HYV chicks and distributing to farmers. At present broiler DOCs are produced by 85% of the hatcheries while both the layer and broiler DOCs are produced by rest of the 15% of the hatcheries.

### Grand Parent Stock Farms

The poultry farmers of Bangladesh use as many as 11 strains of broiler and 15 strains for layer. But all are imported strains. The country spends about US\$ 10 million per year for importing chicks of parent stock. But some entrepreneurs have started Grand Parent Stock farm in the country. The positions of G.P. farms are shown in Table 4.

**Table 4: Establishment of GP Farms in Bangladesh**

Farm	Year of establishment	Production/ year ('000')
Kazi Grand Parent Stock Farm Ltd	2005	1450
Paragon GP Ltd	2005	1040
Aftab GP Farm Ltd.	2006	494
Aqua Breeders Ltd.	2005	520
M.M. Agha Limited	2003	468
Rafid	2006	312
Sanowara	2006	104
C.P. Bangladesh Ltd	2007	200

Source: Farm House vol 1 Issue-4 2007, pp.12-13

#### Parent Stock and Production of DOCs

The growth of parent stock of layer and broiler is presented in Table 5. Considering 1991 as base year the parent stock of layer increased to 942 % in 2005 but the increase was higher in the case of parent stock of broiler which was 7640%.

**Table 5: Growth of poultry in Bangladesh, 2000-2005**

Year	Layer ('000')				Broiler ('000')			
	No. of parent stock	Production of DOCs	Fixed base index number		No. of parent stock	Production of DOCs	Fixed base index number	
			Parent stock	DOCs			Parent stock	DOCs
1991	22.5	2025	100	100	30	3540	100	100
2000	145	13050	644.44	644.44	750	90000	2500	2542.37
2001	236	21240	1048.89	1048.89	1062	100359	3540	2835
2002	370	33300	1644.44	1644.44	1381	116000	4603.33	3276.84
2003	138	12420	613.33	613.33	1952	163968	6506.67	4631.86
2004	344	30960	1528.89	1528.89	2299	164148	7663.33	4636.95
2005	212	19080	942.22	942.22	2292	192528	7640.00	5438.64

Source: BPIA 2002, BRAC 2005 and DLS 2005

#### Number of Feed Mills

To meet the increasing demand for poultry feed of the commercial farms a number of feed mills are established in the country. The number of feed mills / factories was found 52 in 2006 of which 12 were out of operation. Table 6 shows the distribution of active feed mills in different districts of the country. The concentration ratios of 3-Firm and 4-Firm in feed industry were estimated at 27.32% and 32.96%. (Jabbar *et al.* 2007). Feed prices have been increasing steadily over the years.

**Table 6: Distribution of feed mills in different districts**

District	No. of mills	Per cent
Gazipur	12	30
Chittagong	8	20
Narayanganj	4	10
Mymensingh	3	8
Dhaka, Kishoreganj, Khulna (20 in each district)	6	15
Manikganj, Rajbari,,Jessore,Sirajganj Nilfamari, Joypurhat,Chapainawabganj (1 in each district)	7	17
Total	40	100

Source: Ahammed 2006

### **Number of Pharmaceutical Companies**

The poultry industry of the country has attracted more than 100 pharmaceutical companies in drugs and vaccine markets. An approximate estimate indicates that more than Tk. 3500 million worth of drugs are marketed annually in Bangladesh (Ahammad 2006).

### **Number of Equipment Companies**

Specialized equipment is necessary for development of poultry industry. There are more than 16 companies, which are involved in import, and sale of various poultry related equipment in the country. Moreover, some firms are also evolved as manufacturers of poultry equipment in the country.

From the above discussion it is clear that the poultry sector in Bangladesh has been expanding very rapidly over the years. Let us see the environment in which poultry farmers are operating their business.

### **Environment of Poultry Industry**

Poultry industry in Bangladesh has mainly grown with the initiative of the private sector and NGOs. The Government also helps this industry to grow in many ways. Government measures include provision of credit on easy terms, tax holiday for import of poultry vaccines, drugs, equipment etc. This growth has been achieved without having any National Policy of poultry development in the country. Although government provided state facilities to importers of all items related to poultry but the government is practically indifferent to marketing practices, farm income, production practices and quality of the product with recent exception of the caretaker government. So National Poultry Development Policy is essentially prerequisite for the development of poultry industry in the country. This is supported by various studies (Raha 2007 Rahman 2007 Das *et al.* 2008).

### **Training/ technical know how**

Field survey showed that most of the farmers started poultry farming without having prior training on poultry rearing which is very essential. In addition their formal education

varied from 4 years to 9.5 years (Raha 2007). Even hired persons are not always well trained. Consequently the farming practices are poorly performed.

### Safety & quality

Both the backyard raisers and commercial poultry farmers are not so concerned with food safety because their captive markets are neighbours, local hawkers who have no concern about the matter. The processing plant should adopt Hazard Analysis and Critical Control Points (HACCP) system.

### R&D

Research and development is almost neglected in poultry industry. There are many big business houses in breeder farms, hatcheries, feed mills, processing units etc. but none is seriously concerned about research and development.

## IV. PROSPECT

Considering the growth of population, increase in income, changes in food habit, and a little awareness about health a bright prospect could be expected for poultry sector. There is a huge gap in demand for eggs and meat and their supply (Table 7). There is no organized effort to increase cattle, goat or sheep for meat purpose. In this context, poultry is the most nearest and cheaper alternative to meet the increasing demand for meat.

**Table 7 Per capita annual requirement and consumption of egg and meat in Bangladesh**

Item	Requirement	Current consumption	Deficit (%)
Egg (No.)	260	58.7	77.42
Meat (Poultry) [kg.]	43.8	2.25	94.86

Source: Rahman 2007

The scope of expansion of poultry farming creates demand for its one of the inputs which is shown in Table 8.

**Table 8: Gap between demand for and supply of parent stock**

Year	Demand for parent stock '000'	Production of parent stock '000'
2004	1800	200(11)
2005	2200	13 00(59)
2006	2800	22 00(81)
2007	3100	45 00(145)

Source: Farm House volume 1 Issue-4 2007, pp. 12-13

Note Figures within parentheses indicate percent of total production in terms of demand

It is revealed from table 8 that there was a sharp increase in the production of parent stock in Bangladesh. The parent stock producers are expecting to produce 45% more than the requirement of the country in 2007. This sector can create job for 12 million people instead of



current 6 million if we can reduce the gap of protein deficiency between requirement and current consumption of poultry products by 10% through increased production (Rahman 2007).

#### V. CONCLUSION

Development of poultry farmers are not keeping pace with the rapid growth of different allied industries such as breeder farms, hatcheries, feed mills, equipment manufacturing firms; pharmaceutical companies etc although whose long run survival depend on actual growth of poultry farms in Bangladesh. For the development of poultry industry the country should have its own strain of chicken which would be most suitable for our environment. No industry can develop by importing all of its basic inputs. The concerned scientists of different universities and research institutes should come forward with research programmes for the development of own strain of chicken. In addition to development of strains, research should also be conducted for the development of feed from alternative sources and improvement in management practices. As one of the most prolific writers in management, Peter F. Drucker observed that the greatest opportunity for increasing productivity is surely to be found in knowledge work itself, and especially in management (Wehrich and Koontz 2002). Numerous poultry farms of small sizes and absence of integrated poultry farming resulted in poor scenario at farmers' level in the country.

The development of an efficient and scientific poultry industry should be a priority for the government of the country since:

- More efficient domestic poultry production is an important component to improve current poor protein diet. Chickens have an efficient feed conversion rate, transformation of scarce grain resources into more added value meat and egg.
- Poultry farming can create a considerable number of direct and indirect jobs both in rural and urban areas.
- The development of modern poultry industry would have a beneficial effect on our agricultural sector, creating demand for some crops such as maize, oil-seeds, corn. Poultry farms would produce significant quantities of organic fertilizers, litter at a cheaper price, highly valuable for vegetables and fruit production and enhancement of soil.
- The adoption of integrated poultry farming could reduce the production cost and marketing cost.
- Implementation of National Poultry development policy is prerequisite for retaining the growth trend and development of poultry industry.
- To harvest the prospect of poultry industry government intervention and a concerted effort from all corners / stakeholders including breeder farms, hatcheries, feed mills, pharmaceutical companies and other support service providers and commercial farmers are badly needed.

## REFERENCES

- Ahamed, N. (2002). Components of Bangladesh Semi-Scavenging Poultry Model. In International Network for Poultry Development, People Fight With poverty: Learning from the Bangladesh Experience. Workshop held in Dhaka, Bangladesh, October 20 – 24.
- Ahmed, K. (2006). Poultry Business Directory, Poultry Khamar Bichitra, Dhaka, Bangladesh.
- Ahmed S.U., Ali M.S. and Begum A. (1990). An Economic Study on the Performance of Broilers and Layer Round the Year, Bangladesh Agricultural University Research Progress Report. (Mimeo).
- BBS. (2004). *Statistical Pocketbook of Bangladesh-2003*, Bangladesh Bureau of Statistics, Ministry of Planning, Government of the People's Republic of Bangladesh.
- BBS. (2006). *Statistical Pocketbook of Bangladesh 2005* Bangladesh Bureau of Statistics, Ministry of Planning, Government of the People's Republic of Bangladesh.
- BBS. (2008). *Statistical Pocketbook of Bangladesh 2007* Bangladesh Bureau of Statistics, Ministry of Planning, Government of the People's Republic of Bangladesh.
- BER. (2005). *Bangladesh Economic Review*, Economic Adviser's Wing Finance Division, Ministry of Finance, Government of the People's Republic of Bangladesh.
- BER. (2006). *Bangladesh Economic Review*, Economic Adviser's Wing Finance Division, Ministry of Finance, Government of the People's Republic of Bangladesh.
- BER. (2007). *Bangladesh Economic Review*, Economic Adviser's Wing Finance Division, Ministry of Finance, Government of the People's Republic of Bangladesh.
- BPIA. (2002). Bangladesh Poultry Industries Association, Bangladesh Poultry Industries Association Report, Dhaka.
- BRAC. (2005). Report on Poultry Farms, Bangladesh Rural Advancement Committee.
- Das, S.C., S.D. Chowdhury, M.A. Khan, M.Nishibori, N.Isobe and Y.Yoshimura. (2008). "Poultry Production Profile and Expected Future Projection in Bangladesh", *World's Poultry Science Journal*, 64: 99 –117.
- DLS. (2005). Report on Parent Stock Import, Department of Livestock Services, Dhaka.
- Haque, Q.M.E. (1992). Rural Poultry in Bangladesh Economy, Paper presented in Bangladesh Animal Husbandry Association Conference, Dhaka, December, 1992.
- Jabbar, M.A., Rahman, M.H., Talukder, R. K. and Raha, S. K. (2007). Alternative Institutional Arrangements for Contract Farming in Poultry Production in Bangladesh and Their Impacts on Equity, Research Report 7. ILRI, Nairobi.
- Khan, R. (1998). Hatchery Industry in Bangladesh: A Market Structure Analysis. Unpublished M.Sc. Thesis, Bangladesh Agricultural University, Mymensingh.
- Mohasin, S. (2007). Introduction and Prospect of Grand Parent Stock Farms in Bangladesh, *Farm House*, 11(4):12-13.
- PKB. (2009). *Poultry Khamar Bichitra*, 17(1): 12 and 35, Dhaka, Bangladesh.
- Raha, S.K. (2003). Poultry Farming Under Participatory Livestock Development Project : An Agribusiness Study. A Report submitted to PLDP, Bureau of Socioeconomic Research and Training, Bangladesh Agricultural University, Mymensingh.
- Raha, S.K. (2007). Broiler Industry in Bangladesh: Some issues. Proceedings of the Seminar 5<sup>th</sup> International Poultry Show & Seminar 2007, World's Poultry Science Association, Bangladesh Branch, Dhaka.
- Raha, S.K. (2008). Broiler Farming in Bangladesh: An Agribusiness Study. A Report submitted to University Grants Commission of Bangladesh, Agargaon, Dhaka, Bangladesh.
- Rahman, M. (2007). Protein for All. Proceedings of the Seminar 5<sup>th</sup> International Poultry Show & Seminar 2007, World's Poultry Science Association, Bangladesh Branch, Dhaka.
- Wehrich, H. and Koontz, H. (2002). *Management – A Global Perspective*, Tenth Edition, Tata McGraw-Hill Publishing Company Limited, New Delhi, India.