

Poultry sector country review

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Poultry sector country review

This review is based on the following report:
The Structure and Importance of Commercial and
Village Based Poultry in Ghana

Dr K.G. Aning
August 2006

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Foreword

The unprecedented widespread outbreaks of Highly Pathogenic Avian Influenza (HPAI) that occurred in many countries in Asia, Europe and Africa since 2003 have been asking for rapid and active response on a national, regional and international level. The HPAI crisis had to be addressed worldwide at the source, which is the poultry population.

The main danger of this disease, like others, lies in the way in which humans interact with and handle the production, distribution, processing and marketing of live poultry and poultry products. The direct and indirect socio-cultural and economic impacts of disease outbreaks influence policy measures and disturb markets, causing the loss of assets. There are strong negative impacts on the livelihoods of rural communities for all producer groups including small holders. Assessment and guidance on measures along the poultry chain for a safe poultry production is therefore of great importance. Specific consideration should be given to strategies and measures that ensure a sustainable pro poor supporting approach and development.

Better understanding of the specific situations of the different poultry sectors and the related market chains will help to develop appropriate disease control measures and improve biosecurity.

This review is part of a series of Country Reviews that are commissioned by the Animal Production Service (AGAP) of the Food and Agriculture Organization of the United Nations (FAO) for the Socio-Economics, Production & Biodiversity Unit of the Emergency Centre for Transboundary Animal Disease of FAO (ECTAD).

This review is intended as a resource document for those seeking information on the poultry sector at national level. It is not exhaustive. Some topics are only partially covered or not covered at all and the document will be supplemented and updated on an ongoing basis. Contributions and feedback are welcome by the author(s), FAO/AGAP and FAO/ECTAD Socio-Economics, Production & Biodiversity Unit¹.

The original report by Dr K.G. Aning was edited by Ms Jenny Schwarz in August 2008 and has been supplemented with data from the FAO statistical database (FAOSTAT), the World Bank and the United Nations Population Division.

¹ For more information visit the FAO website at: www.fao.org/avianflu/en/farmingsystems.html or contact either Philippe Ankers or Olaf Thieme, Animal Production Officers. Email: Philippe.Ankers@fao.org and Olaf.Thieme@fao.org Food and Agriculture Organisation, Animal Health and Production, Viale delle Terme di Caracalla, 00153 Rome, Italy

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Acronyms and abbreviations

ADB	Agricultural Development Bank
AgSSIP	Agricultural Services Sector Improvement Programme
AI	Avian Influenza
AIWG	Avian Influenza Working Group
AnGR	Animal Genetic Resources
APD	Animal Production Directorate
ARI	Animal Research Institute
ASF	African Swine Fever
BSE	Bovine Spongiform Encephalopathy
DFID	Department for International Development (UK)
FAO	Food and Agriculture Organization
FASDEP	Food and Agriculture Sector Development Policy
GFA	Ghana Feedmillers Association
GHS	Ghana Health Service
GNAPF	Ghana National Association of Poultry Farmers
GNP	Gross National Product
GVMA	Ghana Veterinary Medical Association
LPIU	Livestock Planning and Information Unit
MLFM	Ministry of Lands, Forestry and Mines
MOFA	Ministry of Food and Agriculture
MOH	Ministry of Health
NADMO	National Disaster Management Organization
NARP	National Agricultural Research Project
NGOs	Non-Governmental Organizations
NLSP	National Livestock Services Project
NMIR	Noguchi Memorial Institute for Medical Research
OIE	World Organization for Animal Health
PDB	Poultry Development Board
USAID	United States Agency for International Development
VSD	Veterinary Services Directorate
WHO	World Health Organization
WPSAGB	World Poultry Science Association, Ghana Branch

Chapter 1

The country in brief

Country:	Ghana	
Location:	Western Africa, bordering the Gulf of Guinea, between Cote d'Ivoire and Togo	
Population, total	23,008,443 (2006)	Source: World Bank, August 2008
Population, growth rate:	2% (2006)	Source: World Bank, 2008
Economy group:	Low income	Source: World Bank, August 2008

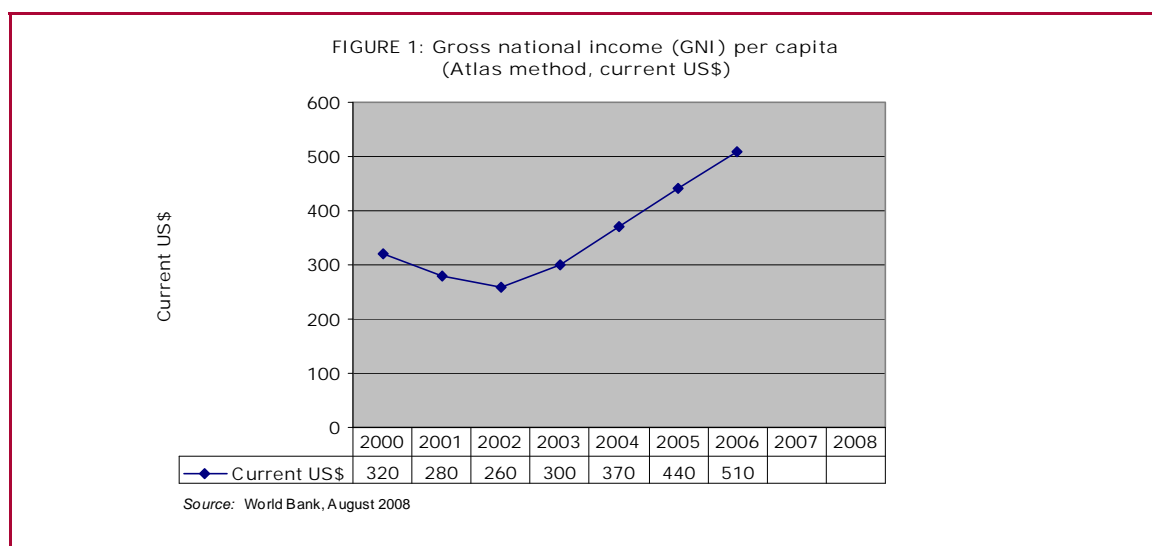
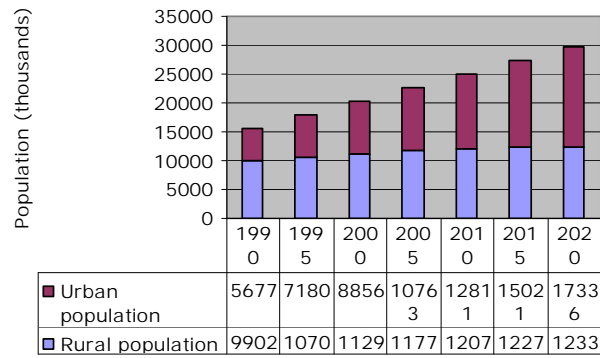
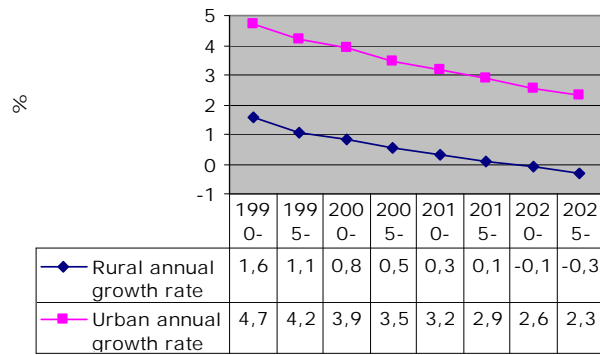


FIGURE 2: Demographic profile



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2007 Revision, <http://esa.un.org/unup>, August 2008

FIGURE 3: Annual population growth rates

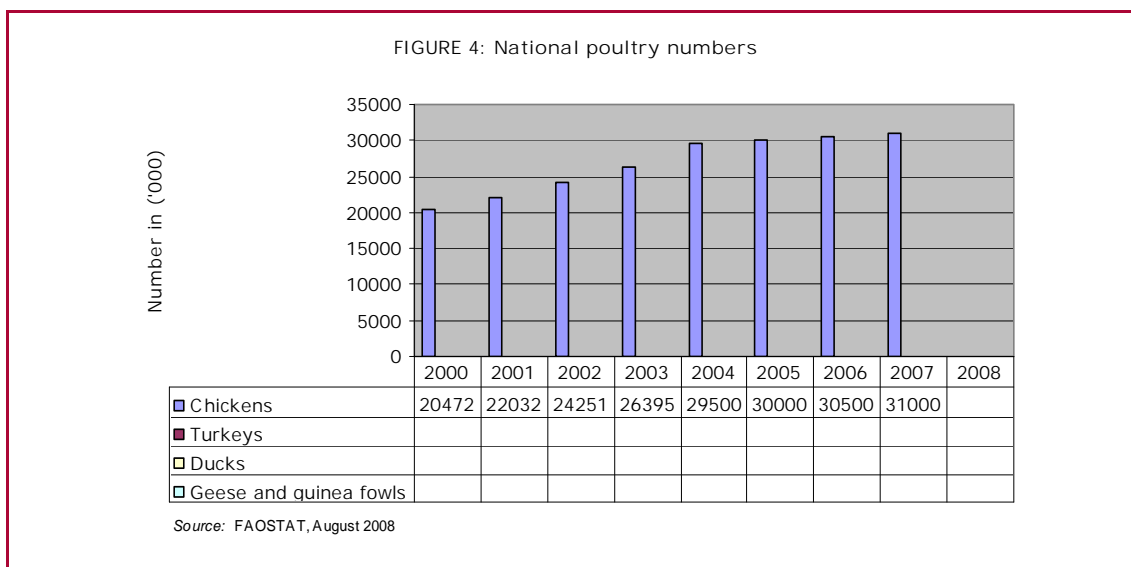


Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2007 Revision, <http://esa.un.org/unup>, August 2008

Chapter 2

Profile of the poultry sector

2.1 NATIONAL POULTRY FLOCK



2.2 GEOGRAPHICAL DISTRIBUTION OF POULTRY FLOCKS

The latest available statistical data obtained through head-counts of poultry species are for 1996.

TABLE 1:
Numbers of the poultry species and their regional distribution (1996)

Location	Chicken					Ducks	Guinea	Turkey	Pigeons	
	Cockerels	Broiler	Layers	Local	Unspecified					
	Exotic (Commercial)	Exotic (Commercial)	Dual purpose							
Upper East Region	2056	0	460	391869	0	394385	31200	362957	5267	18116
Upper West Region	27097	23861	26701	569819	0	647478	22070	284763	45364	6061
Northern Region	0	0	0	1100737	0	1100737	93543	354142	11440	0
Brong Ahafo Region	28824	53680	208934	401916	0	693354	23820	60853	9861	9237
Ashanti Region	101776	115803	1206291	361537	404665	2190072	37164	40247	19358	0
Eastern Region	0	0	0	311210	436825	748035	52885	11731	14288	0
Greater Accra Region		22180934	2716518	387706	0	25285158	33216	21483	16575	4379
Volta Region	596428	0	0	0	238303	834731	75560	46632	13922	0
Central Region	60668	88124	305518	205420	0	659730	16504	2526	5918	0
Western Region	0	0	0	0	304110	304110	0	0	0	0
Total for the country	816849	22462402	4464422	3730214	1383903	32857790	385962	1185334	141993	37793

Source: Livestock Planning and Information Unit data, 2006

The official data since then have been projections (see table 2), indicating a steady increase in populations over the 2001-2005 period.

TABLE 2:
Projected regional poultry populations

Administrative Regions	Census		Projections 1				
	1995	1996	2001	2002	2003	2004	2005
	Greater Accra	4,179,458	5,341,120	10,160,174	11,729,071	13,540,230	15,631,062
Central	676,089	684,778	939,391	871,023	903,308	936,790	971,514
Western	247,377	304,110	380,039	401,405	423,971	447,806	472,982
Eastern	747,496	826,940	1,223,531	1,328,907	1,443,358	1,567,665	1,702,679
Volta	1,160,028	970,845	1,192,775	1,206,122	1,219,619	1,233,267	1,247,067
Ashanti	2,103,541	2,286,841	3,880,693	4,290,010	4,742,500	5,242,716	5,795,693
Brong Ahafo	863,630	797,146	1,571,243	1,765,314	1,983,356	2,228,328	2,503,559
Northern	1,468,320	1,559,865	1,749,368	1,792,610	1,836,921	1,882,328	1,928,856
Upper East	888,475	811,925	763,276	747,563	732,174	717,101	702,339
Upper West	912,898	1,005,736	968,151	983,429	998,949	1,014,713	1,030,727
Total	13,082,557	14,589,306	22,828,641	25,115,454	27,824,386	30,901,776	33,525,809

Source: Livestock Programme Information Data, 2006

However, these projections are unlikely to be accurate as anecdotal evidence from poultry farmers indicate a decline in commercial production in most regions over the period as a result of frequent Gumboro disease outbreaks (Otsyina et al., 2005), competition from cheaper imported poultry meat and eggs and the shortage or high cost of feed ingredients such as maize. For example, one large commercial poultry farm (Sydal Farms) in Greater Accra has discontinued its broiler hatchery and production operations. Nevertheless, while broiler bird populations are likely to be in decline, there is evidence that between 2001 and 2005 layer bird operations have increased, judging from the increase in number of poultry operations. According to Gyening (2006), several layer farms have expanded their operation to stock 50,000 birds or more and currently the Dormaa-Ahenkro district in Brong-Ahafo sharing a border with Cote D'Ivoire, is believed to be holding some 1.5 million layer birds.

Table 3 shows the relative importance, in terms of numbers and distribution, of the poultry species in Ghana today. Since very little statistical data has been collected over the years and information in the table has been obtained from various interviews with government officials and poultry farmers. As expected, village chickens are mostly concentrated in the more rural regions (Northern, Upper East and Upper West) but are also present in large numbers in the other regions.

TABLE 3:
Relative importance of poultry species in Ghana

Adm. Regions	Commercial Exotic chickens		Village Chicken	Guinea fowl		Turkey		Duck		Quail	Pigeon
	Broiler	Layer		Exotic	Local	Exotic	Local	Exotic	Local		
G. Accra	+++	+++	++	++	+	+	+	+	++	+	+
Central	+	++	++				+		+		
Western	+	++	++				+		+		
Eastern	+	++	++				+		+		
Volta	+	++	++				+		++		
Ashanti	+++	++	++	++			+		+		
Brong Ahafo	++	++	++				+		+		
Northern	Negligible	+	+++	+	+++						+
Upper East	Negligible	+	+++		+++						+
Upper West	Negligible	+	+++		+++						+

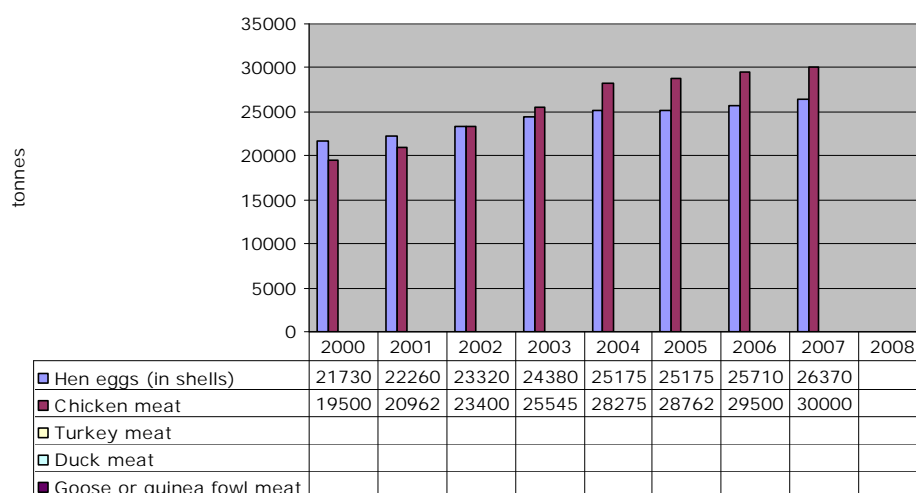
Source: Stakeholder Interviews, 2006

Exotic birds are kept for commercial purposes and they are more abundant in the urban areas of Greater Accra and Ashanti, where markets for their products exist. There are also substantial commercial bird populations in Brong Ahafo, Western, Central and Upper West Region.

Livestock and poultry populations in Ghana have remained low perhaps because no ethnic group relies entirely on them for its livelihood (unlike in some parts of Africa).

2.3 PRODUCTION

FIGURE 5: National production of the poultry sector



Source: FAOSTAT, August 2008

Table 4 gives the same figures relating to poultry meat and egg production plus information on import and demand.

TABLE 4:
Poultry meat and egg demand and supply in Ghana (1000 tonnes)

Year	Meat (chicken, turkey, guinea fowl, etc.)				Eggs			
	Production	Export	Import	Demand	Production	Export	Import	Demand
2001	20.96	0	12.26	33.22	22.26	0	0.10	22.36
2002	23.40	0.79	27.30	49.91	23.32	0	0.08	23.40
2003	25.55	0.79	38.18	62.94	24.38	0.2	0.17	24.35
2004	28.27	0.39	48.0	75.88	25.18	0.17	0.14	25.15

Source: FAOSTAT, 2006

The production figures presented in Table 5 are based on projected poultry populations (Table 2) actual import figures presented by the VSD, MOFA and the layer bird populations. With a projected national poultry population of 33,525,869 (Table 2) in 2005, it is estimated that a total of 36,184 mt of poultry meat was produced in that year. The demand for poultry meat (local production plus imports) between 2001 and 2005 is also shown in Table 5. According to LPIU, MOFA data these represent between 18% and 24% of the total meat demands of Ghanaians. The difference was obtained from other livestock products.

TABLE 5:
Local poultry meat production and imports

Year	Potential Sources of Poultry Meat (tonnes)			% of total meat supply
	Domestic ¹	Imported ²	Total	
2001	26,554	30,261	56,815	17.9
2002	28,962	19,986	48,947	15.2
2003	31,369	27,798	59,166	18.1
2004	33,776	39,089	72,864	22.0
2005	36,184	42,288	78,472	23.4

¹ Estimated

² Actual

National egg production for 2005 is estimated conservatively to be 1570 million (Table 6). Estimates of the number of eggs were based on stockholdings per farm and 66% egg production.

TABLE 6:
Egg production (2005)

Region	No. of Farms (Sectors 2 & 3)	Estimated no. of Eggs (millions)
Greater Accra	487	323.2
Ashanti	498	1032.1
Brong Ahafo	218	150.0
Central	32	28.5
Western	58	36.2
Total	1075	1570.0

2.4 CONSUMPTION

The national per capita animal protein consumption is one of the lowest in Sub-Saharan Africa, estimated at some 53g per day (Batsa, 1993) which is lower than the recommended 65g. The estimated poultry product consumption is 12 eggs and 1.2kg meat per annum (WPS Year Book 1999). The world average is 154 eggs and 9.7kg meat, respectively.

Figure 6.a and 6.b: Poultry meat (in average calories/capita/day) (in kg/capita/year)

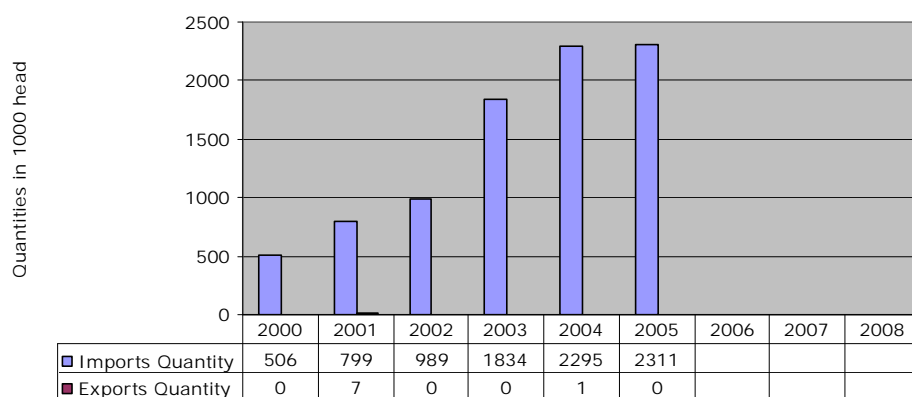
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Figure 6.c and 6.d: Eggs (in average calories/capita/day) (in eggs/capita/year)

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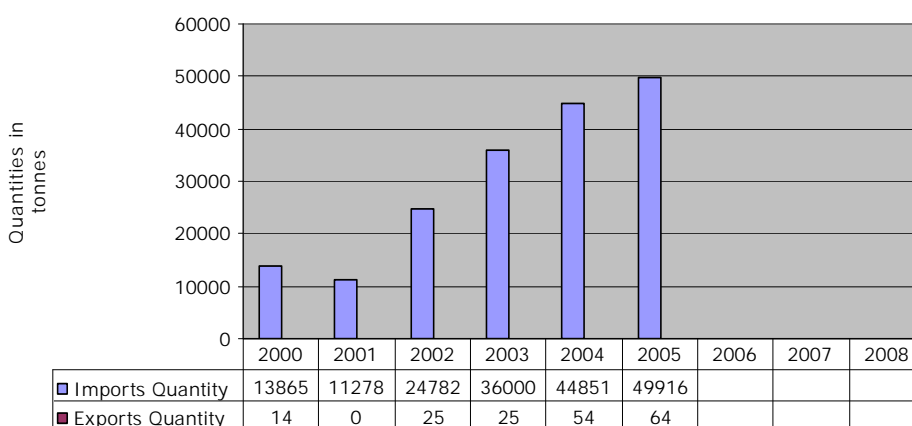
2.5 TRADE

Figure 7.a: Import/Export of live chickens (up to 185 g. only)



Source: FAOSTAT, August 2008

FIGURE 7.b: Import/Export of chicken meat



Source: FAOSTAT, August 2008

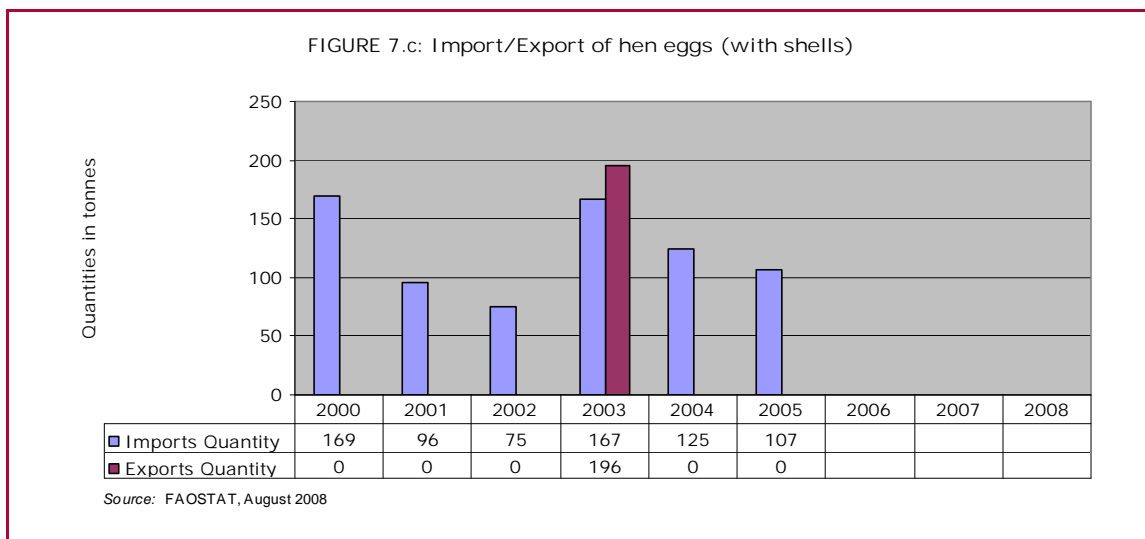
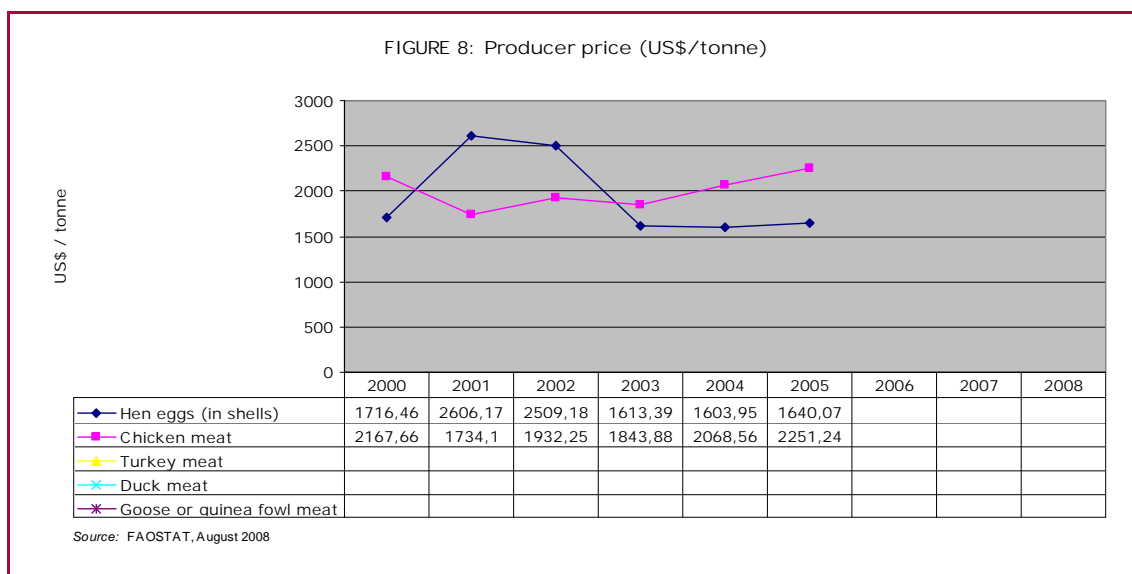


Figure 7.d: Import/Export of poultry feed and feed ingredients (maize, soybeans)

This information has not yet been sourced.

2.6 PRICES



Production costs of an egg and one kg of poultry meat are shown in Table 7. C1 is the Production Cost, S2 is the sale price, R is the returns. NA stands for Not available.

TABLE 7:
Profitability of the commercial poultry industry

Year		Egg (¢/unit)	% of Returns	Meat (¢/kg)	% of Returns
2001	C	NA		10,526	
	S			<u>15,000</u>	42.5
	R			4,474	
2002	C	NA		11,850	
	S			<u>17,000</u>	47.7
	R			5,650	
2003	C	367.3		13,430	
	S	<u>480.0</u>		<u>15,500</u>	15.4
	R	112.7	30.7	2,070	
2004	C	700.0		16,277	
	S	866.6	23.7	21,000	29.0
	R	166.6		4,723	
2005	C	762.0		17,376	
	S	<u>966.6</u>	26.9	<u>21,000</u>	20.9
	R	204.6		3,624	

Sources: Animal Research Institute data; Agricultural Development Bank data

Table 8 shows changes in the cost of inputs. The price of day-old chicks increased steeply between 2001 and 2005 from 75% to 122%. Similarly the prices of all categories of poultry feed rose by 96.4 to 106.7%. The increases in feed costs generally reflected the market price of maize, locally produced but often supplemented with imports.

TABLE 8:
Price changes of inputs of poultry production (cedis)

Item	2001	2002	2003	2004	2005	% Increase on 2001
<u>Day-old chick(¢ x 1,000)</u>						
Broiler	4.0	4.6	5.8	6.5	7.0	75.0
Layer	4.5	5.0	6.6	7.0	10.0	122.2
<u>Average cost of Feed (¢x1000/45kg)</u>						
Broiler starter	84.5	93.7	103.0	121.7	166.0	96.4
Broiler Finisher	78.3	90.3	95.7	109.8	158.0	101.8
Chick starter	75.0	83.3	93.0	112.8	155.0	106.7
Grower	65.5	66.7	75.7	89.8	130.0	98.5
Layer	72.0	77.0	87.3	107.5	147.0	104.2
<u>Average Cost of Medication/bird</u>						
Broiler (Up to 6 weeks)	1.3	1.4	1.2	2.0	1.5	
Layer (up to 16 weeks)	2.3	2.5	2.6	2.3	2.6	
Cost of maize (¢x 1000/kg)	1.2	1.3	1.8	3.0	4.4	266.7

Source: Compiled from data from ARI Technical Reports

The unit cost of production of eggs rose from ¢367.3 to ¢762.0 from 2003 to 2004. This represented a total percentage increase of 107.5. However, the returns on investment did not change significantly. The cost of production of meat similarly increased from ¢10,526 to ¢17,376 over the period with an overall increase of 65.1% but yearly increases between 6.8% and 21.2%, the highest increase occurring between 2003 and 2004. This reflects the market price of maize.

Figure 9 Consumer price (US\$/tonne)

This information has not yet been sourced.

Chapter 3

Poultry production systems

TABLE 9:
FAO classification of poultry production systems

Sectors (FAO/definition)	Poultry production systems			
	Industrial and integrated	Commercial		Village or backyard
		Bio-security		
		High	Low	
Sector 1	Sector 2	Sector 3	Sector 4	
Biosecurity	High	Mod-High	Low	Low
Market outputs	Export and urban	Urban/rural	Live urban/rural	Rural/urban
Dependence on market for inputs	High	High	High	Low
Dependence on goods roads	High	High	High	Low
Location	Near capital and major cities	Near capital and major cities	Smaller towns and rural areas	Everywhere. Dominates in remote areas
Birds kept	Indoors	Indoors	Indoors/Part-time outdoors	Out most of the day
Shed	Closed	Closed	Closed/Open	Open
Contact with other chickens	None	None	Yes	Yes
Contact with ducks	None	None	Yes	Yes
Contact with other domestic birds	None	None	Yes	Yes
Contact with wildlife	None	None	Yes	Yes
Veterinary service	Own Veterinarian	Pays for veterinary service	Pays for veterinary service	Irregular, depends on govt vet service
Source of medicine and vaccine	Market	Market	Market	Government and market
Source of technical information	Company and associates	Sellers of inputs	Sellers of inputs	Government extension service
Source of finance	Banks and own	Banks and own	Banks and private ²	Private and banks
Breed of poultry	Commercial	Commercial	Commercial	Native
Food security of owner	High	Ok	Ok	From ok to bad

Sector 1: Industrial integrated system with high level of biosecurity and birds/products marketed commercially (e.g. farms that are part of an integrated broiler production enterprise with clearly defined and implemented standard operating procedures for biosecurity).

Sector 2: Commercial poultry production system with moderate to high biosecurity and birds/products usually marketed commercially (e.g. farms with birds kept indoors continuously; strictly preventing contact with other poultry or wildlife).

Sector 3: Commercial poultry production system with low to minimal biosecurity and birds/products entering live bird markets (e.g. a caged layer farm with birds in open sheds; a farm with poultry spending time outside the shed; a farm producing chickens and waterfowl).

Sector 4: Village or backyard production with minimal biosecurity and birds/products consumed locally.

² Money lenders, relatives, friends, etc.

3.1 BACKGROUND INFORMATION

The Ghanaian economy is based largely on agriculture, which accounts for 41% of Gross National Product (GNP). About 60% of the labour force is engaged in this sector, most operating a crop farm or mixed crop and livestock /poultry farming. According to a recent survey (MOFA/DFID, 2002) the livestock/poultry component serves as a 'safety net', providing an important source of ready cash for emergency needs. Thus even though livestock and poultry contributes only 7% to the agricultural GNP (FASDEP, 2002) their role in rural livelihoods and food security is enormous.

In the 1960s, the Government of Ghana identified poultry production as having the greatest potential for addressing the acute shortfall in the supply of animal protein and job creation, and established an integrated poultry project in Accra. The growth of the industry was slow initially, as supplies of day-old chicks and other inputs were irregular. This was exacerbated by frequent outbreaks of Newcastle Disease which discouraged potential farmers. These constraints were overcome and by the 1970s poultry production was established, supported by the removal of custom duties on poultry inputs (feed additives, drugs and vaccines).

In the early 1980s however, the downturn in the Ghanaian economy severely affected the availability of feed ingredients and other inputs, and poultry production declined. Although the situation improved towards the end of that decade, a change in Government policy resulting in trade liberalization (and the influx of cheaper poultry meat products) and the re-imposition of taxes and duties on imported inputs for the poultry industry have since caused a severe decline of the poultry industry in Ghana. Frequent outbreaks of Infectious Bursal Disease (Gumboro disease) also contributed to this decline while the annual occurrence of Newcastle Disease in village chickens frustrated rural poultry keepers. The outbreaks of Avian Influenza (AI) caused by the Highly Pathogenic H5N1 AI strain (HPAI) in some parts of Asia, Europe and Africa threaten to cause further devastation of the local poultry industry in Ghana.

Table 10 shows the distribution of the poultry operations in Ghana as classified according to the FAO system. Only one unit in the Dormaa district of Brong-Ahafo has been described (in an interview) to fall in Sector 1. However, according to the President of the Ghana National Association of Poultry Farmers (GNAPF), none of the large-scale poultry farms has the full characteristics described for Sector 1.

TABLE 10:
Poultry production systems and their distribution in Ghana (2005)

Administrative Regions	FAO System				Total
	1	2	3	4a	
Greater Accra	-	146	342		487
Central	-	8	24		32
Western	-	7	51		58
Eastern	-	6	27		33
Volta	-	-	6		6
Ashanti	-	169	329		498
Brong-Ahafo	1*	44	173		218
Northern	-	-	21		21
Upper East	-	-	3		3
Upper West	-	-	15		15
Total	1*	380	991		1372

a – Comprises local chickens kept by the majority of almost all rural and peri-urban households (5-25 birds/household) and in a small number of cases, exotic birds (10-15/household) kept in backyards. Current distribution data by region not available.

* Based on interview only.

The break-down of poultry farms by district was available for only the Brong Ahafo Region (Table 11).

TABLE 11:
District distribution of commercial poultry farms in Brong-Ahafo region

District	Sector/System				Total
	1	2	3	4	
Dormaa	1*	37	110		148
Jaman South		2	21		23
Berekum		2	13		15
Sunyani		3	29		32
Total	1	44	173		218

It is important to note that two large farms stocking 150,000 and 83,000 layer birds, respectively in the Dormaa district are supplied with inputs from a parent company across the border in Cote D'Ivoire.

(Dr. Ayensu, personal communication).

3.2 SECTOR 1: INDUSTRIAL AND INTEGRATED PRODUCTION

Non existent

3.3 SECTORS 2 AND 3: OTHER COMMERCIAL PRODUCTION SYSTEMS

Sector 2

These operations are described locally as large-scale Commercial Poultry Farmers. They are mainly egg producers, but some occasionally raise broiler birds, guinea fowls or turkeys for meat especially during festive seasons. Most operate their own feed mill. Some operate a hatchery and maintain parent stocks. They are privately-owned by individuals or families. These farms stock over 10,000 birds each and the system is characterized by high inputs.

The birds in this sector are kept wholly indoors, either on deep litter or in battery cages and fed well-formulated diets so that by 16 weeks, pullets start dropping and broilers attain 2 - 2.5 kg live weight between 6 and 7 weeks. The main feed ingredients are locally obtained maize or imported yellow maize, soya bean meal, cotton-seed cake and fishmeal. Vitamin-mineral premixes are imported.

Most of these farms follow the vaccination programme recommended by the Veterinary Services Directorate:

- Newcastle Disease: HBI/Lasota/Inactivated (14, 42 days and 16 weeks of age)
- Gumboro Disease: 7 and 28 days of age
- Fowl Pox: 35 and 84 days of age
- Antibiotics, vitamins and anti-coccidial medications are given according to the farm's previous health records or profiles.

Sector 3

This system encompasses small-scale farms keeping 50-5,000 birds or medium-scale farms with 5,000-10,000 birds. They rely on the hatcheries for day-old chicks and the feed mill operations for feed. Bio-security levels are low, with free-range and wild birds sometimes having access to the poultry houses.

The birds are kept wholly indoors, on deep litter or in battery cages. There are often complaints from these operators about the quality of poultry feed and day-old chicks obtained from suppliers. Their operations are very susceptible to price-changes in feed ingredients as they are unable to stock large quantities of feed.

They also rely on private veterinarians and MOFA Veterinary and Extension Agents, and use the recommendations given above.

3.3.1 Breeding stocks and hatching eggs

Over the last five years, day-old chicks and guinea keets for commercial production have been produced by seven hatchery companies (Table 12). They all produce well below their installed capacities on account of low demand. Only three of these companies maintain their own parent stock of layer or broiler chickens. The rest depend on imported fertile eggs. Figures of parent stock or imported eggs for all the hatcheries are not readily available for analysis. However, those of one operator (Afariwaa Farms) are shown in Table 13. The figures reflect the demand for chick types and keets during a particular year.

TABLE 12:
Hatchery operations in Ghana

Hatchery Company	Location (Region)	Installed Capacity (per annum)	Estimated % operation (2005)	Day-olds produced
Darkoa	Ashanti	5 million	10	Broilers, Layers
Afariwaaa	Greater Accra	6 million	17	Broilers, Layers
Sydal	Greater Accra	1 million	-	Guinea Fowl, Broiler
Asamoah-Yamoah	Ashanti	Unknown	25	Layer Guinea-fowl
Topman	Ashanti	Unknown	10	Layer, Broilers
Kranyakoa	Eastern	1 million	Unknown	Layer
Jehu	Ashanti	Unknown	Unknown	Layer

Source: Stakeholder interview; a - Company had its own parent stock.

TABLE 13:
Total hatch at Afariwaa farms (Greater Accra)

Year	Broilers	Layers	Cockerels	Guinea Fowl
2001	829,178	774,993	781,167	2,385,00
2002	1,137,097	341,225	348,620	1,703,000
2003	952,700	675,283	669,420	2,297,000
2004	895,621	947,420	962,425	2,805,000
2005	707,416	567,074	581,410	1,855,000

Source: Farm Records

3.3.2 Broiler meat

This information has not yet been sourced.

3.3.3 Chicken table eggs

This information has not yet been sourced.

3.3.4 Other species

Guinea Fowl

Commercial production of exotic guinea-fowl started in Greater Accra and Ashanti before 2001, but as demand is low, guinea keets are currently only hatched on demand in two hatcheries in Greater Accra and Kumasi. Fertile eggs are imported from Belgium. The number of exotic guinea fowls produced is small.

Ostriches

There are currently nearly 20 ostrich farms in Ghana. They are located in Greater Accra, Central, Ashanti and Volta Regions. The number of birds per farm range from 8 to 300 birds. It is estimated that at the end of 2005 there were 4000 ostriches in the country.

Ducks

Exotic ducks were produced for local restaurants between 2001 and 2005 on two farms in the Tema Metropolitan Area (Greater Accra). It is estimated that over the period 36,000 ducks were produced per year.

3.4 VILLAGE OR BACKYARD PRODUCTION

3.4.1 Chickens

The village or backyard production system (the low input system) is the most prevalent in Ghana, with poultry playing a very important role in the livelihoods of farmers. Village chickens are kept all over the country in the rural and peri-urban areas. They account for 60-80% of the national poultry population, according to various estimates (FASDEP, 2002; Gyening, 2006). The village poultry population in Ghana was estimated at 12 million (Amakye-Anim, 2000) and in 2005 at over 20 million (FAOSTAT). The Ghana National Census (2000) stated a total of 3,701,241 households, 65.9% of which reside in the rural areas. If each rural household keeps an average of 10 village chickens the total rural poultry population will exceed 25 million.

Almost all households in rural areas keep some chickens and, in some areas of the country, guinea fowls, turkeys and ducks. The 1996 livestock census figures (Table 1) show the highest concentration of village chickens, local guinea fowls, ducks, turkeys and pigeons in Upper East (99.7%), Upper West (92.3%) and Northern (100%) Regions, compared to exotic breeds. These are the three poorest regions in the country.

Supplementary feeding in the form of maize or other grains, kitchen waste, pito mash (a by-product of the local brewery) and termites harvested from the field are usually provided. In operations in peri-urban areas, wheat bran may also be given. Generally, however these birds fend for themselves.

In recent years (since 1998) the Veterinary Services Department has introduced the vaccination of local chickens against Newcastle Disease (ND). The locally-produced I2 vaccine is applied by veterinary staff, Community Livestock Health Workers or the stock owners themselves via the conjunctiva. The rural commercial poultry farmers (cockerel and layer operators) obtain veterinary care (vaccination against ND, Gumboro and Fowl Pox) and antibiotic treatment from MOFA veterinary assistants.

Commercial rural poultry keeping

Some limited commercial poultry rearing takes place in the rural areas. Commonly, exotic cockerels are raised for meat, especially for festive occasions. In the 1996 census figures however, this operation accounted for only 0.3% of the numbers in Upper East and 2.7% of the numbers in Upper East and Upper West Regions. This activity takes place also in peri-urban areas of the other regions, but no figures are available for comparison.

In recent years there has been an expansion of small-scale layer units into rural areas. This has been aided by NGOs working to reduce rural poverty. Table 14 shows that 11 households in the district of Afram Plains (Eastern Region) increased their holdings of birds from 33.3% to 87.5% over the period from 1997-2000, yielding about 800,000 eggs. Eggs produced were sold locally. It is estimated that some 30,000 layer birds are kept for this purpose in the rural parts of Ghana.

TABLE 14:
Small-scale commercial egg production in rural areas of Ghana (Afram Plains District), Eastern Region

Year	No. of households	No. of laying hens Beginning	As at 2001	% Increase	Egg production (No.)
1997	3	450	800	87.5	192,000
1998	3	550	1000	81.8	240,000
1999	3	600	800	33.3	192,000
2000	2	500	800	60.0	192,000
Total	11	2,100	3,400	61.9	816,000

Source: Akunzule, A, 2006

The Role of Village Poultry Keeping

Village chickens and other local poultry species (particularly guinea-fowls) are kept for protein nutrition and as a means of sustaining or improving livelihoods in rural areas. Together with livestock, they make vital contributions to the household and farm enterprises in northern Ghana (Karbo et al, 2002). In a study carried out on the Coastal Savanna (Aboe et al, 2003), village chickens were found to also play a very important role in the economy of rural parts of Southern Ghana. They are generally kept for meat and eggs and to generate income for family needs (Table 15). Their contribution to household security and income is shown in Table 16. They are also kept for cultural purposes, such as gifts, payment of bride price and for religious rituals. Thus rural poultry plays very important nutritional and socio-economic roles in rural life in Ghana.

TABLE 15:
Role of village chickens in rural livelihoods

Factors	% Poultry keepers responding
Use of village chickens	
Income supplementation	85
Domestic meat supply	100
Domestic egg supply	40
Use of income from village chickens	
Personal needs	68
Hospital bills	23
Supporting crop farming	15
School fees	35
Paying debts	10
Point of sale	
Farm gate	85
Market	40
Food vendors	10
Constraints to increased production	
Disease	90
Feed availability	58
Housing	36
Finance	20

Source: Aboe et al, 2003

TABLE 16:
Income generated from local poultry in two districts of the Northern Region

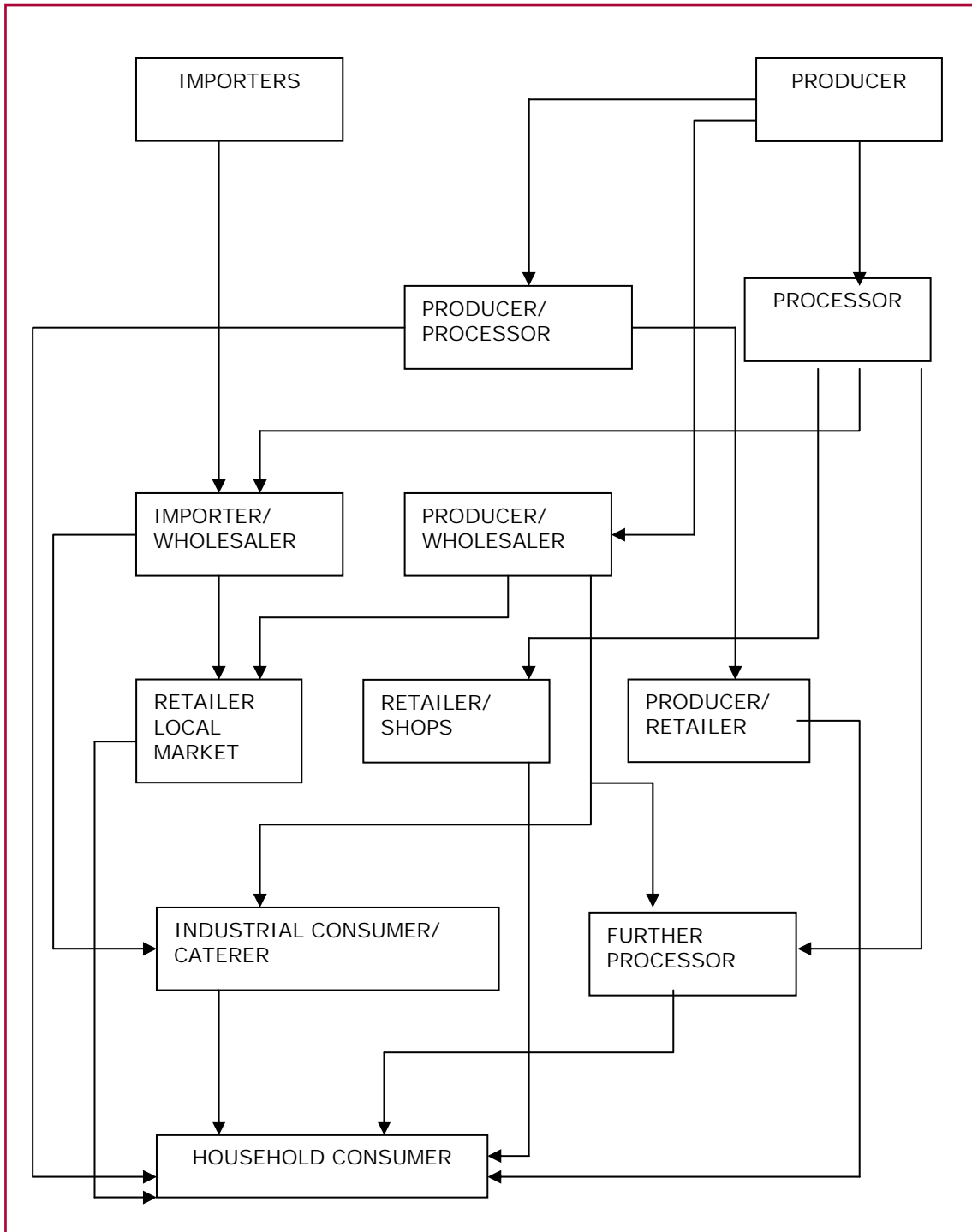
Year	Species of birds	No. of birds	Av. No. house hold	Birds sold	Gross Income (000) (¢)	Av. Price/bird ¢	Net income household (¢)
1997	Guinea fowls	799	20	388	2,319	6,546	63,494
	Chickens	499	12	226	1,159	5,128	28,875
	Turkeys	2	2	-	-	-	-
1998	Guinea fowls	799	20	586	3,536	6,034	88,400
	Chickens	499	13	217	1,237	5,701	30,930
	Turkeys	2	4	2	100	-	50,000
1999	Guinea fowl	1933	48	476	4,408	9,261	110,200
	Chickens	19,587	15	195	1,020	5,231	25,500
	Turkeys	19	19	-	-	-	-

No. of households surveyed = 100 (1997-1999)

3.4.2 Ducks

This information has not yet been sourced.

3.5 POULTRY VALUE CHAIN ANALYSIS



3.5.1 Day-old chicks

This information has not yet been sourced.

3.5.2 Chicken meat

Producers (Farmer–Traders)

The majority of small-scale, backyard farmers (50-5,000 birds) sell their produce at the farm-gate. They also sell whole dressed broilers to families and caterers. The latter tend to dictate the price as they have alternative sources such as imports. Village chickens are sold live either at the farm-gate or on the market.

Processors

Some small-scale and most medium and large-scale broiler producers process for sale as whole birds. As at 2005, the two large producers that processed chicken parts had a combined capacity to process 20,000 birds per day (ADB, 2003). Another emerging category of processors convert chicken meat into nuggets, sausages, frankfurters and marinated chicken. The cost of processing and storage has gone up drastically on account of high electricity tariffs and this is affecting local operators.

Wholesalers

Meat importers play a major role in the wholesale of poultry meat products. They usually operate cold storage capacities of 1,000-2,000 mt and sell products to retailers in cartons and in bulk. Wholesalers are considered as key to the success of the chicken out-grower scheme initiated in 2003. They were encouraged to stock and distribute local chicken. Producers also act as wholesalers when they sell culled layer birds to retailers, or broiler birds in bulk to caterers and other traders.

Retailers

Traders go to poultry farms to purchase birds in bulk for further retailing. They usually sell these birds live on the open market. There is some vertical integration, with some producers selling live at the farm-gate and processing for retail. Some retailers, especially women who buy frozen poultry from wholesalers, sometimes retail them at cold stores. Others retail in the local market, where they may have smaller refrigeration units such as deep freezers.

Consumers

Consumers comprise industrial (catering organisations) and household consumers. The former further process chicken in cooked forms. Household consumers purchase chickens in all forms, but mainly as live birds and cut-up portions.

3.5.3 Table eggs

This information has not yet been sourced.

3.5.4 Other species

This information has not yet been sourced.

Chapter 4

Trade, marketing and markets

4.1 DOMESTIC MARKET

This information has not yet been sourced.

Table 17: Distribution of markets

This information has not yet been sourced.

4.2 IMPORT

The local production and import figures for poultry meat are shown in Table 5. The bulk of imported poultry birds come in the form of cut portions, while locally produced birds are sold as live or processed whole birds, although a couple of large-scale producers have attempted to sell birds in cut parts.

Imported poultry tend to be cheaper by 30-40% (ADB, 2003; see also Table 18). The imposition of tariffs on poultry imports has tended to give a slight competitive advantage to local broiler producers, but this government intervention has not been sustained.

It is generally known that the unrestricted importation from Europe and America of heavily subsidized poultry meat which sell more cheaply on the local market has contributed immensely to the depression of broiler bird production in Ghana. Most poultry operations are therefore for eggs and some large-scale farms have been forced to shut down their broiler operations.

TABLE 18:
Average market prices of locally-produced and imported poultry meat (¢ x 100/kg)

Year	Local ¹	Imported ²
2001	15.0	13.0
2002	17.0	12.5-13.5
2003	15.5	14.5-15.0
2004	21.0	14.5-19.5
2005	21.0	16.0

Source: 1- ARI Technical Report
2- LPIU data, 2006

The above table also shows increasing annual levels of poultry meat imports. The Government contends that it is necessary to maintain them, not only to conform with international trade regulations, but also to give Ghanaians access to affordable sources of animal protein.

4.3 EXPORT

Table 5 shows that there is some export of poultry products. These exports are likely to go to neighbouring Togo. There is an occasional glut of eggs, which is speculated to be caused by high egg imports from Cote D'Ivoire before the occurrence of AI in that country.

4.4 SLAUGHTERING FACILITIES

There are few formal abattoirs in the country and these are listed in Table 19.

TABLE 19:
Formal abattoirs in Ghana

Abattoir	Location	Year Established	Status
Midland Processing Plant	Ashanti Region	1989	In operation
Farmer George	Greater Accra	2004	In operation
Afariwaa Farms	Greater Accra		Operation suspended
Asamoah-Yamoah	Ashanti Region		Under construction

Two of these abattoirs (Afariwaa and Asamoah-Yamoah) will provide processing facilities for "satellite" broiler producers. Their active operations depend on the current state of local broiler bird production.

4.5 POULTRY FEEDS

The average poultry feed production of all feed types of 12 feed-milling operations and that of Afariwaa Farms are shown in Table 20. The increase in 2004 reflects an increase in production following a brief imposition of custom duty on imported poultry meat.

TABLE 20:
Poultry feed production (Greater Accra)

Year	Average Production of 12 Companies (tonnes)	Afariwaa Farms (for farm operations)
2001	3327.0	1545.0
2002	3993.8	1302.0
2003	3556.7	1485.0
2004	4043.3	2160.0
2005	7392.0	1371.0

Sources: Records of Ghana Feedmillers Association and Afariwaa Farms

Chapter 5

Breeds

The Food and Agriculture Organisation (FAO) funded a comprehensive study of the State of Ghana's Genetic Resources (AnGR) in 2003, through the country's Ministry of Food and Agriculture. The study report confirms the presence of the following species and breeds in the Poultry Production Sector:

Chickens (*Gallus domesticus*)

Local Ghanaian Fowl (Village chicken)

Varieties: Frizzle, Barred, Naked neck

Distribution: Throughout the country

Exotic Breeds (used for commercial production) usually imported or hatched locally from established parent stock or imported eggs.

For egg production: Shaver Starcross 579; Hisex Brown; ISA Brown; Lohman Brown; Starcross 288; Afabird was developed locally.

For broiler production: Starbro, Ross 1 (UK); Hybro (Holland); Arbor Acres; Cobb (USA) and Hypeco (Holland) are imported. Afabro is a locally developed broiler breed.

Distribution: Commercial production farms

Turkey (*Meleagris gallopavo*)

Local Ghanaian Turkey

Varieties: White, Bronze, Buff

Distribution: Nationwide

Exotic Breeds: California White imported during festive seasons

Guinea Fowl (*Numida meleagris*)

Local Ghanaian Guinea fowl

Variety: Pearl helmeted

Distribution: Throughout the country, but concentrated in the Northern and Upper Regions

Exotic breeds: Galore (imported from France and Belgium)

Distribution: Greater Accra, Ashanti and Northern Regions

Duck (*Anas platyrhynchos*)

Local Ghanaian Duck

Variety: Muscovy duck

Distribution: Throughout the country

Exotic breeds: Pekin; Greenhead

Distribution: Greater Accra Region

Ostrich (*Struthio camelus*)

Local ostriches (very few)

Exotic: Imported from South Africa

Distribution: Greater Accra, Volta, Ashanti and Northern Regions.

Pigeon (*Columba livea*)

Local Ghanaian Pigeon

Distribution: Throughout the country.

The Ministry of Food and Agriculture (MOFA) is planning to upgrade the size and productivity of the local Ghanaian fowl through a cross-breeding programme with cockerels of an exotic breed. In many parts of Southern Ghana cross-bred fowls can be seen.

It is feared however that susceptibility of crossbreds to infectious diseases such as Gumboro is higher than that of the 'pure' local bird, and that broodiness in crossbred hens is compromised. These may affect village chicken populations.

5.1 EXOTIC BREEDS

See above

5.2 LOCAL BREEDS

See above

Chapter 6

Veterinary health, public health, biosecurity measures

6.1 HIGHLY PATHOGENIC AVIAN INFLUENZA

In the more recent past (1990s), Gumboro disease caused great losses through mortality and the poor performance of poultry surviving the outbreaks (Aning, 1995). The threat posed by this disease is giving way to that of AI, even though there was no indication of the presence of the virus in the country at the time of writing (August 2006). The threat is in the form of consumer responses to fear at its possible entry and the effect of a consumer boycott on poultry production.

After February 2006 when HPAI was first reported in Nigeria, the fear of the disease spreading to poultry and humans in Ghana was heightened. This fear was fanned by the media and the consumer demand for poultry meat and eggs fell drastically.

TABLE 21:
Poultry products price changes and other impacts of the global Avian Influenza outbreak (Greater Accra Region) 2006

Item	30 January	28 th March	20 May	30 June
Average Cost of egg (¢)	766.7	600	466.7	733.3
Cost of poultry meat (¢/kg)	32,500	25,000	20,000	25,000
Meat consumption (%)	100	NA	20-80	NA
Sale of day-old chicks	+++	-	-	-

Source: Ghana National Poultry Farmers Association 2006

NA Not available

+++ Normal sale pattern
No sales

Table 21 shows producer and consumer responses to the threat of the entry of AI into Ghana. The demand for poultry meat - both imported and locally produced - fell by 20% to 80% between January and May 2006, although prices had gone down. The price of eggs on the market also fell during this period. Farmers responded by selling off their stock at low prices to cut their losses. During the period there was a huge accumulation of unsold eggs at the egg production centres. One hatchery operator (Afariwaa Farms) had to destroy about 60,000 day-old chicks as poultry farmers stopped taking them due to fears of an AI outbreak in the country and a general drop in purchase of eggs and poultry. Some parent stock were sold off as well and this operator incurred very heavy losses. Feed-millers as well as veterinary drug distributors also incurred low sales. It was only after sustained awareness-raising programmes on radio and television by MOFA, MOH and GVMA and a well-attended symposium organized by the World Poultry Science Associations, Ghana Branch (WPSAGB) in April 2006, that consumer interest in poultry products began to improve.

These impacts were the result of the fear of AI being introduced into Ghana; the results of an actual outbreak will be devastating. It is not known how many Ghanaians depend partly or solely on commercial poultry production, but the effect on employment in the Greater Accra, Brong Ahafo and Ashanti Regions will be damaging. If large numbers of village poultry have to be destroyed in the event of AI outbreak, the livelihoods of rural dwellers - especially in the three northern regions - will be severely affected, and the food and nutritional security of most Ghanaians will be significantly compromised.

Table 11 shows a high level of commercial poultry activity in the Dormaa district of Brong Ahafo which shares a boundary with Cote D'Ivoire. The possibility of AI cross-over into this district is real, and this would affect 148 poultry farms in that district and another 23 in Jaman South district which also shares a boundary with Cote D'Ivoire.

Official regulations for the control of avian influenza

The government regulations and interventions to prevent the entry of AI into Ghana, as well as its reaction to the spread of the disease in parts of Asia, Europe and Africa have been well reviewed (Akunzule, 2006).

Reaction to the Global Spread

- Prior to the entry of AI into Africa, the importation of all poultry products from affected countries was banned. The ban is enforced through the official regulations guiding the importation of meat and meat products in the country. Permits are not given for bone-in or tripe coming from countries where African Swine Fever (ASF) and Bovine Spongiform Encephalopathy (BSE) are present and AI has been added to these diseases. The procedure for meat and meat product importation was well advertised in newspapers by the VSD (Appendix III).
- A public awareness campaign was mounted through posters, flyers, newspaper advertisements and articles, radio and television discussion programmes to highlight the roles of migratory birds, movement of infected poultry and importation of contaminated poultry products in the spread of AI. Clinical signs of the disease in birds and man were also highlighted.
- The GVMA independently and in association with MOFA organized several public awareness programmes all over the country in late 2005 and early 2006 through radio programmes.
- In early 2006 MOFA, through the VSD, organized several training workshops for field veterinarians and supporting staff for the detection and control of AI.
- A surveillance system has been established to monitor and assess AI threat at all the entry points along the border of the country, at live poultry market places and in resting places of wild birds near water bodies.

Control Strategy (Plan)

The FAO and WHO have expressed concern that close proximity between humans and poultry, and to some extent, pigs could lead to the rapid spread of HPAI from birds to human and human to human transmission, leading to an AI pandemic. These organizations urged member countries to prepare and implement national pandemic influenza preparedness plan (Resolution WHA56.19).

In response to the resolution, the Ghana Government established the Avian Influenza Working Group (AIWG), with representation from the following organizations.

1. Ghana Health Service (GHS) Ministry of Health (MOH)
2. Veterinary Services/MOFA
3. Wildlife Division/Ministry of Lands, Forestry and Mines
4. Noguchi Memorial Institute for Medical Research (NMIR) University of Ghana, Legon
5. National Disaster Management Organization (NADMO)/Ministry of Interior
6. World Health Organization
7. Food and Agriculture Organization
8. United States Agency for International Development (USAID) and
9. Quality Health Partners

Membership of the AIWG is shown in Appendix 1.

The AIWG prepared and published Ghana's "Preparedness and Response Plan for Avian and Human Pandemic Influenza 2005-2006" in December 2005. It was revised in February 2006.

According to the booklet the objectives of the Plan are:

“To define clearly the actions and resources necessary to build the capacity in Ghana to adequately prepare for and respond to the threat of pandemic avian influenza by strengthening existing structures and their capabilities.”

The Plan is based on WHO and FAO recommendations and has the following strands:

- A. Planning and co-ordination by a National Co-ordinating Council composed of high level government officials. The Council will provide the highest possible political support, the enabling environment and resources for effective implementation. It will also be responsible for overall co-ordination.
- B. Surveillance, situation monitoring and assessment
this will involve the Ministries of Health, Food and Agriculture and Land, Forestry and Mines, but the VSD and Wildlife Division will be principal agencies.
- C. Prevention and Containment
MOH/GHS are responsible for implementing systems for the prevention and containment of human influenza. The NMIMR is the designated “National Influenza Center”, and will provide laboratory support.
- D. Health System response
Health workers at all levels shall be trained in diagnosis, management and control of the disease in response to human influenza.
- E. Communications
The Health Prevention Unit of the GHS shall coordinate the communication actions of the lead technical ministries and their public relation units on behalf of AIWG.

The Plan has received some public criticism for being too ‘human-centred’ for a disease that is primarily an animal one. This many meant that the budgetary allocation to the animal component could be less than required.

“To vaccinate or Not to Vaccinate”

The Government (MOFA) has firmly decided that vaccination of birds against AI will only be part of a containment/control programme. However, a section of stakeholders in the poultry industry is urging that vaccination should take place before AI enters the country. This opinion is based on the fact that the result of post-exposure vaccination will not be helpful, that it can reduce morbidity and mortality and that virus excretion of vaccinated birds is known to be low. At the original time of writing, the Government had stuck to its decision.

6.2 OTHER MAJOR POULTRY DISEASES

For regularly updated information on the status of notifiable and other transboundary poultry diseases, please refer to:

The FAO Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases available at www.fao.org/ag/aq/againfo/programmes/en/empres/home.asp

The OIE World Animal Health Information Database (WAHID) available at www.oie.int

This information has not yet been sourced.

6.3 BIOSECURITY MEASURES

There are almost no farms with high bio-security levels in the country. This, together with the large population of free-roaming village poultry and the ease of movement of birds from farm to market, poses great challenges to the containment and control of AI should it enter the country.

Chapter 7

Current policies, legal framework

This information has not yet been sourced.

Chapter 8

Analysis

8.1 CURRENT STRENGTHS AND WEAKNESSES OF THE POULTRY SECTOR

There is a great need for better statistical information on the poultry industry in Ghana. Much of the available statistics are projections based on census figures collected by the VSD to assist the Department plan and execute its poultry health programmes and the last such census was carried out in 1996. This review therefore depended heavily on data collected from poultry farms, farmer organizations and MOFA officials through interviews.

The market price of maize and the unbridled importation of poultry meat into the country are the most important challenges to the growth of commercial poultry production in the country. The Government has intervened sporadically to support the industry, but it needs to do more in these two areas.

NGO interventions to improve rural poultry production - both commercial and village poultry (especially chickens and guinea-fowls) - will help reduce poverty in rural households.

8.2 PROSPECTS OF THE POULTRY SECTOR OVER THE NEXT FIVE YEARS

Commercial poultry production takes place largely in and around urban centres where the markets exist. There is rapid urbanization in the country; the urban population increased from 32.0% in 1984 to 43.8% in 2000, according to census data. It is expected that poultry meat and egg demand, especially the latter will continue to increase. Increased peri-urban poultry production has been identified as a means to meeting the anticipated increased demands and also creating wealth (Okantah et al, 2003). It is important to note, however, that meat (both livestock and poultry) contributes only 40% of the national animal protein supply, with the rest coming from fish (FASDEP, 2002). In the face of rapidly depleting fish stocks in Ghana's territorial waters and an undeveloped aquaculture industry, there is a great need for expanded poultry production, not only for nutritional security, but also for job creation, especially in the rural areas of the country.

Annex I

Who is who (contact list)

Membership of the Avian Influenza Working Group (AIWG), Ghana

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Annex II

List of major projects – poultry sector

Support of Government

- (i) In the recent past Government has acted to provide direct support to the poultry industry. In 1999 a special tax of 20% was imposed on poultry meat imports to protect the local industry. However it was revised downwards to 10% soon after and totally removed in 2002. This caused a sharp increase in imports and although an attempt was made to legislate to change a special tax (Act 641 of 2003) this had to be scrapped in 2004 after international protests.
- (ii) In the face of severe maize shortages in Ghana in 2005, the Government through MOFA intervened to import 20,000 mt. of yellow maize to be sold to poultry farmers.
- (iii) Various agricultural development projects undertaken with World Bank loans including National Livestock Services Project (NLSP) (1996-2000) had the objective of increasing meat, egg and milk production by 50% by 2020. The research programme which was implemented along with the NLSP, National Agricultural Research Project (NARP) and its successor, the research component of the Agricultural Sub-sector Improvement Programme (2002-2006) both addressed poultry development constraints.
- (iv) Government has also supported the industry through a programme that facilitates capitalisation and marketing of broiler birds through a joint Government and ADB Broiler Outgrower Scheme initiated in 2003. In this scheme, designated processors evacuated matured birds from farms for processing in their plants. The products were then sold to Cold Store wholesalers for distribution. It involved 552,000 broiler birds over a 6-month period.
- (v) In 2005, the Government established the Poultry Development Board whose terms of reference include advising government on the growth, modernization and sustainability of the poultry industry. Its Terms of Reference are shown in Appendix IV.

Support of Non-Governmental Organisations (NGO's)

Several NGOs are involved in poultry development projects as means of combating rural poverty. Table 22 shows these NGOs, their areas of operation and types of poultry they sponsor.

TABLE 22:
Non-Governmental Organizations in poultry development

NGO	Operational Region and (Districts)	Type of Family Poultry	Date commenced and status
Ricerca and Cooperazione	Western and Eastern Region (Sefwi-Wiawso, Afram Plains)	Smallholder, Commercial layers	1994; on-going
Heifer International	Brong Ahafo, Ashanti, Greater Accra, Eastern and Volta Regions (Techiman, Nkoranza, Kintampo, South Atwima-Nwabiagya, Asante-Akyem North, Ga West, Hohoe District, Krachi East Akwapim North)	Cockerels and layers	2002; on-going
Opportunities Industrialisation Centre (OIC)	Northern Region (Gushiegu, Karaga, East Mamprusi, Savelugu-Nanton, Tolon-Kumbungu, Bunkurieggy-Yoyo, Gonja West, Gonja Central, Tamale Rural)	Rural poultry vaccination	2005; on-going
Kindness International	Upper East Region (Kasena –Nakana)	Rural poultry vaccination	2005; on-going
World Vision, Ghana	Eastern and Upper East Regions (Kwahu West, Bongo)	Cockerels	2004; on-going
Sankofa Foundation	Greater Accra Region Dangme East Dangme West	Layers	2005; on-going
German Technical Cooperation (GTZ)	Eastern Region (Afram Plains)	Cockerels	2004; on-going

Source: Akunzule, A (2006) with additional information from personal interviews.

The NGOs have identified rural poultry development as an effective short-term means of improving livelihoods and improved rural protein intake. The interventions are in the form of support for village chicken vaccination against Newcastle Disease and establishing smallholder layer and exotic cockerel production for eggs and meat. In some places, exotic cockerels have been used for genetic improvement of village chickens, but this has not been an intended output.

Annex III

Import procedure

ADVERTISEMENT

MINISTRY OF FOOD AND AGRICULTURE

PROCEDURE FOR THE IMPORTATION OF MEAT AND MEAT PRODUCTS INTO GHANA

The Ministry of Food and Agriculture wishes to inform all importers of meat and meat products that the following procedure shall apply for the importation of meat and meat products into Ghana:

1. Apply to the Minister of Food and Agriculture for approval to import meat or meat product. The application must contain the following information;
 - a) full description of the type of product (descriptions such as poultry product, beef product will not be accepted);
 - b) specific country of origin (for example if the country of origin is Europe, indicate the specific country and not European Union). In the case of the United States of America, specify the state and if from Canada, please specify the province;
 - c) quantity of each product to be imported in kilograms.
2. The Minister of Food and Agriculture may either approve or reject the application;
3. The importer will be informed whether his/her application has been approved or not. If approved the approval will indicate the product and the quantities approved;
4. The importer may then place his/her orders for the specific quantities of the product(s) and from the specific country as approved by the Minister.
5. The importer then obtains an INTERIM IMPORT PERMIT from the Director of Veterinary Services AT LEAST two weeks before the expected date of arrival of the products;
6. The ports of entry for meat and meat products shall continue to be TEMA SEA PORT and KOTOKA INTERNATIONAL AIRPORT;
7. Upon arrival of the products at the port, the importer will then be issued with a FINAL IMPORT PERMIT by the Director of Veterinary Services after the payment of the appropriate fees to enable the importer to clear the products from the port.
8. IMPORTERS ARE TO NOTE THAT APPROVAL WILL NOT BE GRANTED TO ANY IMPORTER WHO BRINGS IN PRODUCTS BEFORE APPLYING FOR PERMIT.

NOTE: THE APPROVAL TO IMPORT, THE ISSUANCE OF THE INTERIM AND FINAL IMPORT PERMITS WILL DEPEND ON THE ANIMAL HEALTH SITUATION IN THE COUNTRY OF ORIGIN OF THE PRODUCT(S).

Annex IV

Terms of ref. - Poultry Development Board

- a) Advise the Government on the development, growth, modernization and sustainability of the Poultry industry.
- b) Ensure adequate and continuous supplies of essential feed ingredients, quality day old chicks and veterinary medicaments, vaccines and diagnostic equipment and reagents.
- c) Establish procedures for hatchery practice and quality control of day old chicks and feeds.
- d) Promote rigorous modernization of the Industry and the production of processed poultry products to meet culinary demands for the citizens and tourists and also for export.
- e) Establish procedures for regulating the Industry and monitoring chicks placements with the view to avoiding seasonal gluts or shortages of eggs and chickens which have hitherto been a perennial event.
- f) Advise Government on sound policies for monitoring and review of duties and taxes on imported raw materials as well as poultry products so as to maintain the competitiveness of locally produced poultry and poultry products vis-à-vis imports.
- g) Establish research, data and information dissemination system for the poultry industry.

Annex V

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Annex VI

MAPS

No maps available