

Poultry sector country review



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Dr Omar M. Touray

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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.

This sector review was prepared by Dr Omar M. Touray, consultant in The Gambia in October 2008. Information collected was 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

| | |
|----------------|---|
| AATG | Action Aid The Gambia |
| AfDB | African Development Bank |
| AI | Avian Influenza |
| ANR | Agriculture and Natural Resources |
| AU-IBAR | African Union - Inter African Bureau for Animal Resources |
| CBO | Community-Based Organizations |
| CRR | Central River Region |
| CRRS | Central River Region South |
| DES | Department of Extension Services |
| DLS | Department of Livestock Services |
| DOC | day-old chick |
| DOP | Department of Planning |
| DOSA | Department of State for Agriculture |
| DVS | Department of Veterinary Services |
| EU | European Union |
| FAO | Food and Agriculture Organization of the United Nations |
| GARD | Gambia Agricultural Research and Diversification |
| GBA | Greater Banjul Area |
| GMD | Gambian Dalasi (1US\$ = 22.75 GMD in October 2008) |
| GNI | Gross National Income |
| GOTG | Government of The Gambia |
| HPAI | Highly Pathogenic Avian Influenza |
| KMC | Kanifing Municipal Council |
| LNERV | National Laboratory for Livestock and Veterinary research |
| LRR | Lower River Region |
| MT | Metric tonne |
| NADA | National Agricultural Development Agency |
| NARI | National Agricultural Research Institute |
| NASS | National Agricultural Sample Survey |
| NBR | North Bank Region |
| NCD | Newcastle disease |
| NGOs | Non-Governmental Organizations |
| NVRI | National Veterinary Research Institute |
| PRSP II | Poverty Reduction Strategy Paper |
| PSIP | Peri-Urban Smallholder Improvement Project |
| SPFS | Special Programme for Food Security |

| | |
|-------------------|---|
| SPINAP-AHI | Support Programme to Integrated National Action Plans for Avian and Human Influenza |
| UNDP | United Nations Development Programme |
| URR | Upper River Region |
| USA | United States of America |
| USAID | United States Agency for International Development |
| USDA | United States Department of Agriculture |
| WR | Western Region |

Chapter 1

The country in brief

Country: The Gambia

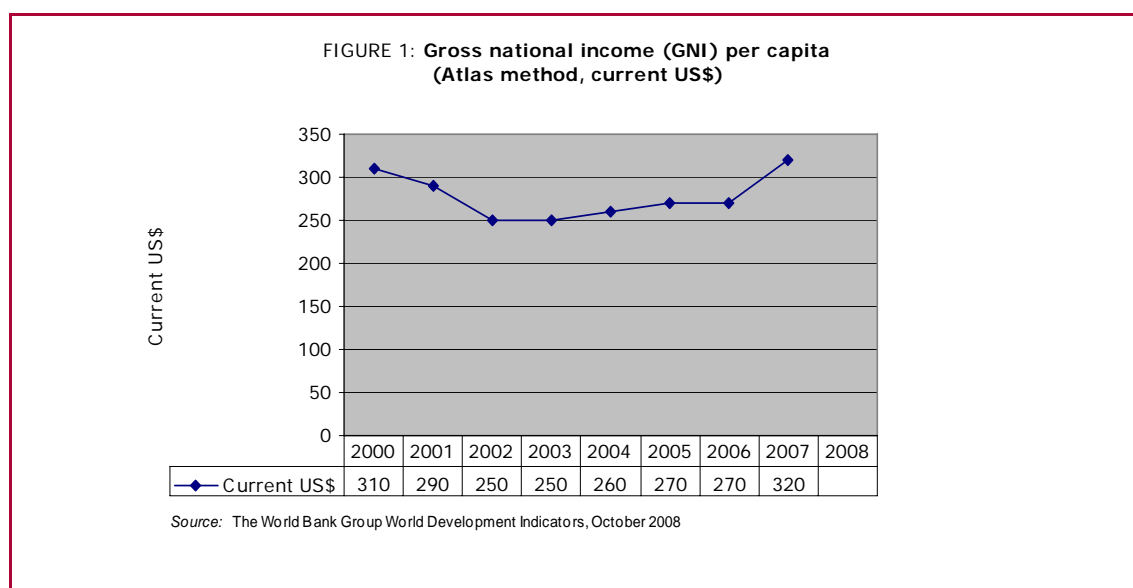
Location: West Africa, bordering North Atlantic Ocean and Senegal

Population, total 1,360,681(2003) *Source: Population and housing census, Gambia bureau of statistics*

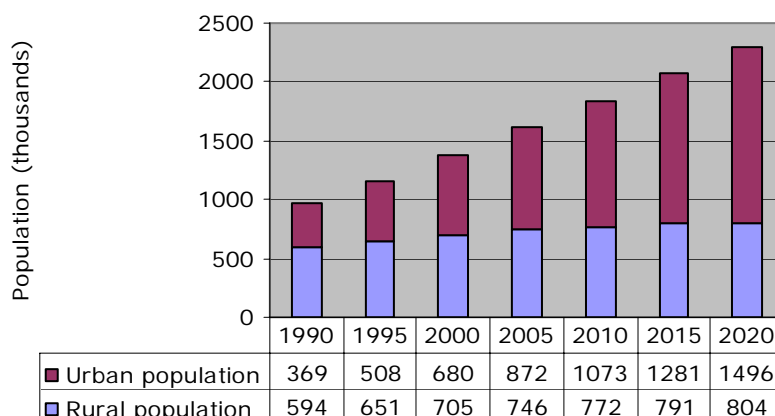
Population, growth rate: 2.8% *Source: Population and housing census, Gambia bureau of statistics*

Economy group: Low income economy *Source: World Bank, 2008*

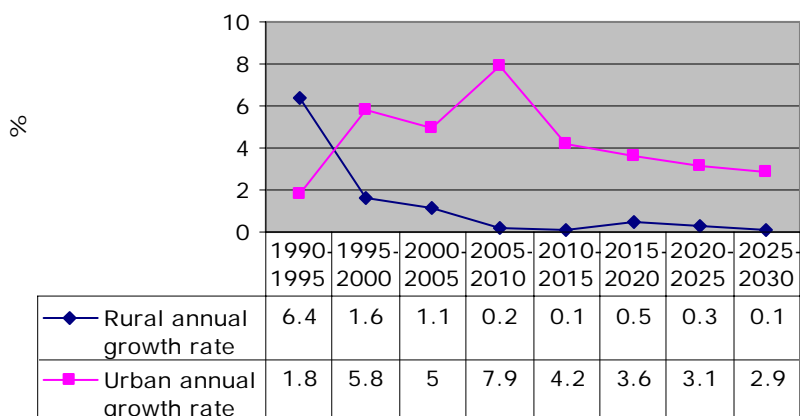
The Gambia is one of the poorest countries in the world with a per capita Gross National Income (GNI) of US\$ 320 in 2007 (Figure 1). The Gambia's Human Development Index (HDI) is 0.502, which gives the country a rank of 155th out of 117 countries (UNDP Human Development Report, 2007).



With a total land area of 11,000 km², a population of 1.3 million with a growth rate of 2.8%, The Gambia is one of the most densely populated countries in Africa. Over the years the country has witnessed a sharp increase in the urban population. According to the 2003 Population and Housing Census, about 55% of the urban population (2.6% of the total population) live in Banjul, the capital city, 24% in Kanifing municipality and 29% in the Western Region. The urban population growth rate increased from 6.4% in 1990 to 7.9% in 2003, but it is projected to decline to 2.9% by 2020 (Figures 2 and 3).

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>, October 2008.

FIGURE 3: **Annual population growth rates**

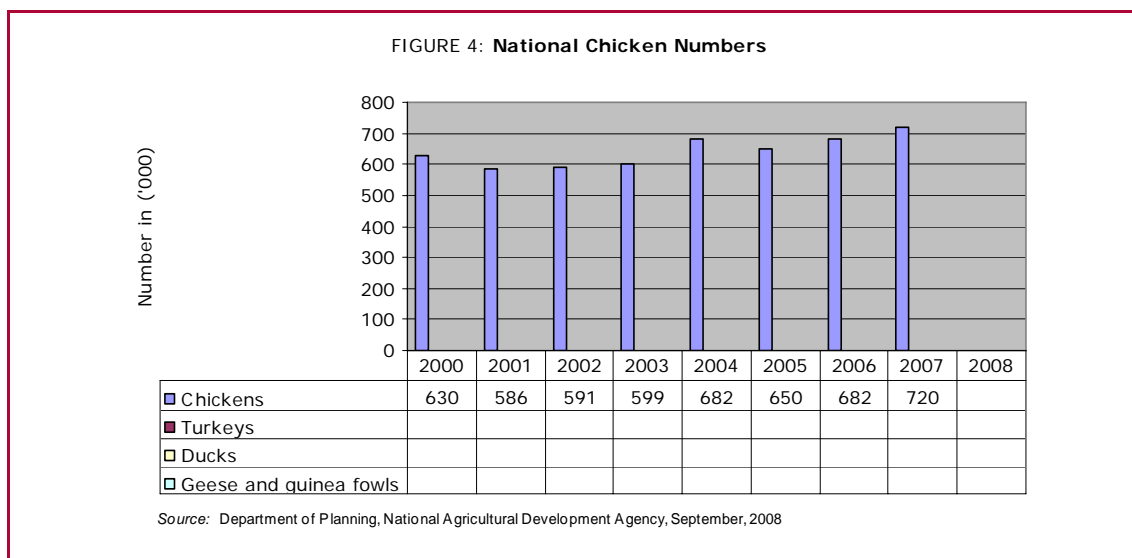
Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2007 Revision, <http://esa.un.org/unup>, October 2008.

Chapter 2

Profile of the poultry sector

2.1 NATIONAL POULTRY FLOCK

The national poultry flocks comprise local and imported exotic chicken, ducks, geese, guinea fowls, ostriches and pigeons.



The National Agricultural Sample Survey (NASS) conducted by the Department of Planning (DOP) of the National Agricultural Development Agency (NADA) estimated the national indigenous chicken (*Gallus domesticus*) population at 630,000, 682,000 in 2000 and 2006, and 720,000 in 2007 (Figure 4). It has proved very difficult to obtain reliable data on the actual number of exotic chickens in The Gambia; however the Department of Veterinary Services (DVS) in 2007 conducted a survey of commercial poultry farms in Banjul, Kanifing Municipality and Western Region, and estimated that there were about 31,672 exotic layer and 49,100 broiler chickens in these areas. Additionally, there were 6,200 and 15,700 layer and broiler chickens, respectively, in other parts of the country during the same period.

The other poultry species namely, ducks, guinea fowls, geese, turkeys, ostriches and pigeons are also present in the country, but their numbers have not been established.

2.2 GEOGRAPHICAL DISTRIBUTION OF POULTRY FLOCKS

2.2.1 Chicken

The Western Region has the highest concentration of commercial (73.23%) and backyard (32.88%) chickens in The Gambia (Table 1). The concentration of commercial chickens in the Western Region is in response to the big demand for poultry products in the Greater Banjul Area (Banjul and Kanifing Municipality (KMC) and the western part of Western Region), which now accounts for about 50% of the human population with a relatively higher per capita income, and the location of major hotels, guest houses and restaurants.

TABLE 1:
Regional distribution of chickens in the Gambia, 2007

| Region | Total | | Commercial | | Backyard | |
|-----------------------|----------------|------------|----------------|------------|----------------|------------|
| | # | % | # | % | # | % |
| Banjul | 265 | 0.03 | 265 | 0.26 | NA | NA |
| KMC | 5,885 | 0.71 | 5,885 | 5.85 | NA | NA |
| Western | 310,415 | 37.84 | 73,722 | 73.23 | 236,693 | 32.88 |
| Lower River | 28,850 | 3.52 | NA | NA | 28,850 | 4.00 |
| North Bank | 178,722 | 21.78 | 9,000 | 8.99 | 169,722 | 23.58 |
| Central River North | 35,310 | 4.30 | NA | NA | 35,310 | 4.91 |
| Central River South | 67,719 | 8.25 | 10,400 | 10.33 | 57,319 | 7.96 |
| Upper River | 193,272 | 23.56 | 1,400 | 1.39 | 191,871 | 26.66 |
| National Total | 820,437 | 100 | 100,672 | 100 | 719,765 | 100 |

Source: Department of Planning, Department of Veterinary Services, and own estimates

About 15% of all commercial chickens in The Gambia were found in the south bank of Central River Region, and this could be attributed to the establishment and registration of a Community Based Organization (CBO), the Rural Poultry Farmers Association of Central River Region South (CRRS), in 2000. The organisation, whose objective is to increase food security for beneficiary households, was established through the assistance of the Food and Agriculture Organization (FAO) Special Programme for Food Security (SPFS), and subsequently by Action Aid The Gambia (AATG) in 2005.

The number of households owning chickens and average flock sizes are presented in Table 2. The Western Region has the highest number and percentage of households owning chickens whilst Lower River has the least. The average flock sizes range from 6 in Central River Region North to 18 in Upper River Region, with a national average of 12. As the NASS does not cover Banjul and KMC, the local and exotic chickens in these areas are not included in Table 2.

TABLE 2:
Number of households owning chickens in 2007

| Region | Number of Chickens | Number of Households | % of Households | Average Flock Size |
|---------------------|--------------------|----------------------|-----------------|--------------------|
| Banjul | NA | NA | NA | NA |
| KMC | NA | NA | NA | NA |
| Western | 236,693 | 20,174 | 35.0 | 11.7 |
| Lower River | 28,850 | 3,358 | 5.8 | 8.6 |
| North Bank | 169,722 | 11,432 | 19.8 | 14.9 |
| Central River North | 35,310 | 5,632 | 9.8 | 6.3 |
| Central River South | 57,319 | 6,486 | 11.2 | 8.8 |
| Upper River | 191,871 | 10,630 | 18.4 | 18.1 |

Source: Department of Planning, National Agricultural Development Agency, 2008

Poultry production is often used to address gender imbalance in income in agriculture, but individual household interviews in the Western Region showed that 53% of chickens are owned by the family, 27% by women and men, 13% by women alone, and 7% by men (FAO, 1998).

2.2.2 Migratory and wild birds

The Gambia lies within the East Atlantic flyway of migratory birds, and the existence of wetlands in the country provides ideal habitats and sanctuary for migratory birds from Europe, North America and Asia during the winter season. In the Gambia there are more than five hundred and fifty species of birds and one third of these are migratory birds. One of the migratory species that frequents the country, the great Cormorant, has been known to contract the AI virus in Asia. The risk of disease transmission between wild and domesticated birds is therefore a cause for concern. Given the wide variety of birds, bird watching has become one of the major attractions of tourists visiting the country.

The Department of Parks and Wildlife Management monitors water birds in the wetlands listed in Table 3. The close proximity of the wetlands to human settlements presents a risk of introduction of AI as a result of shared habitats between wild and domesticated birds.

TABLE 3:
Wetlands and their locations

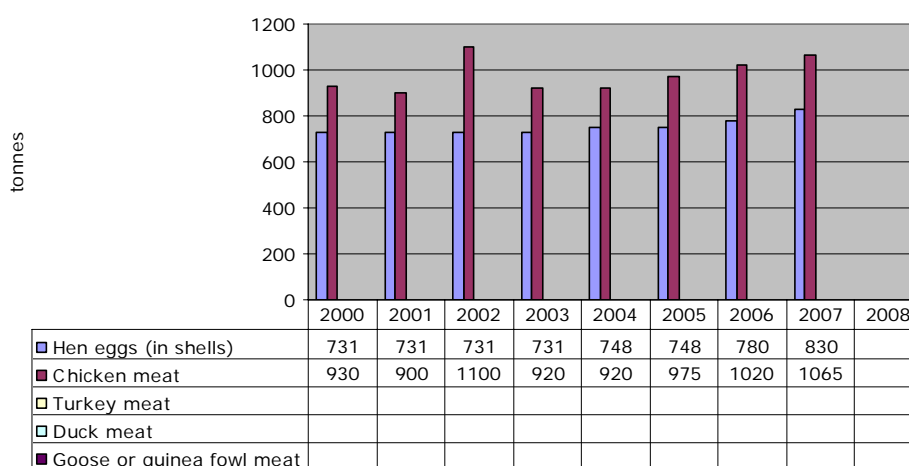
| Site | Location |
|---------------------------|----------------------------|
| Tanbi wetland complex | Banjul |
| Kotu Creek | Kanifing Municipal Area |
| Kartong Allahein River | Western Region |
| Tanji River | Western Region |
| Bijol Islands | Western Region |
| Niumi Rivers | North Bank Region |
| Bambali Swamps | North Bank Region |
| Boabolong wetland reserve | North Bank Region |
| Kaur Swamps | Central River Region North |

Source: Comprehensive National Emergency Preparedness and Response Plan for Avian Influenza, Republic of The Gambia, 2007

2.3 PRODUCTION

There are wide gaps in the poultry production figures in The Gambia. FAO estimated chicken meat production in the years 2000, 2002 and 2007 to be equivalent to 930, 1,100, and 1,065 metric tonnes (MT), respectively (Figure 5.1).

FIGURE 5.1: National production of the poultry sector (FAOSTAT)



Source: FAOSTAT, October 2008

Based on the DVS' 2007 survey, and information gathered from DVS' field staff in the other regions, estimates of the amount of chicken meat produced from the commercial and traditional sectors in 2007 are lower (table 4). The total estimated production in 2007 was equivalent to 435 MT (Table 5).

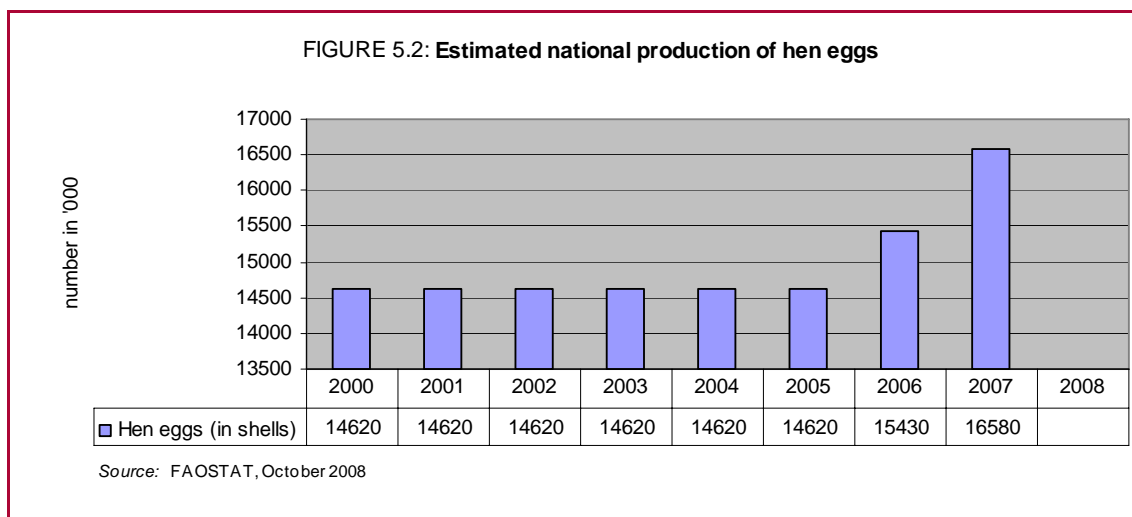
TABLE 5.
Estimated annual production of chicken meat in 2007.

| | Numbers | Average dressed weight | Nr. of Cycles | MT | Total (MT) |
|--------------|---------|------------------------|---------------|------|------------|
| Broilers | 64800 | 1.3 | 4 | 337 | 337 |
| Spent Layers | 37872 | 1.5 | 1 | 57 | 57 |
| Backyard | 54000* | 0.75 | 1 | 40.5 | 40.5 |
| Total | | | | | 435 |

* Based on an off-take rate of 45.2% in scavenging production system

Source: Own Estimates

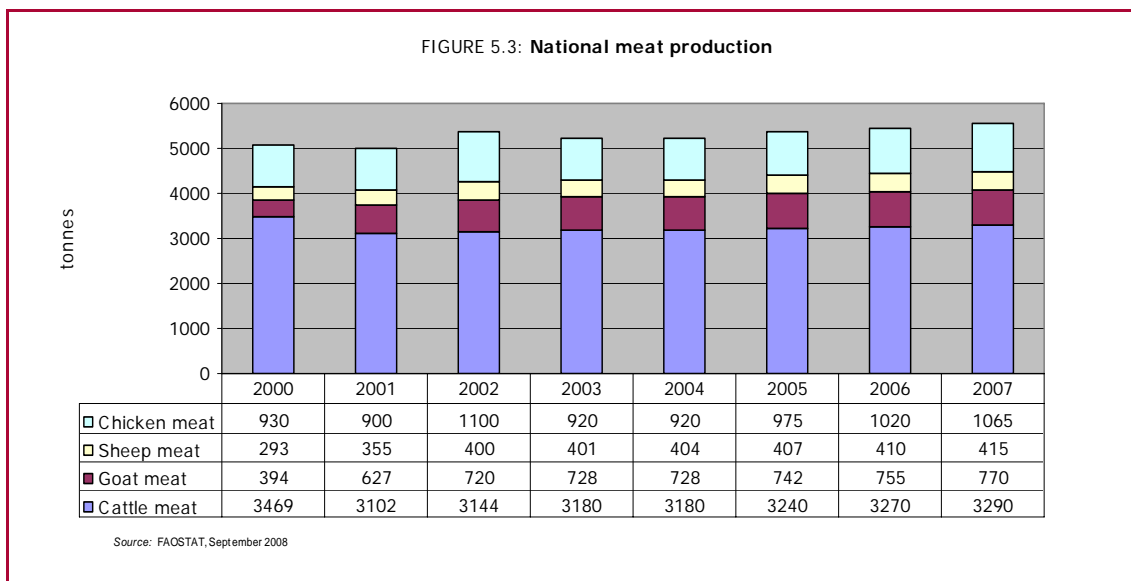
The number of eggs produced in 2000, 2002 and 2007 was estimated by FAO to be 14.6 million, 14.6 million and 16.6 million, respectively.



Based on the DVS' 2007 survey and information gathered from DVS' field staff in the other regions, and from members of the Poultry Revitalisation Task Force the number of eggs produced by 37,872 commercial layer chickens in 2007 was about 10 million eggs.

Egg production data obtained through Hen History and presented in FAO Animal Health and Production Paper 142 (1998) showed that village hens produce 23 eggs per year. In table 2, it is estimated that 57,712 households own chickens (NASS, 2007) with 3.8 hens each producing 23 eggs per year, thus the traditional sector produces about 5 million eggs per year.

A comparison of the various animal products produced in The Gambia shows that cattle meat is the most significant (in terms of volume) animal product in the country followed by chicken meat, goat meat and mutton in that order (Figure 5.2).



2.4 CONSUMPTION

In 1996 low chicken consumption levels, one chicken in every two months, was reported in rural Gambia (FAO, 1998). FAO estimated poultry meat consumption per capita from 2000 to 2003 are shown in figure 6.a. Consumption declined from 2kg to 1kg per capita during the period. Similarly, consumption in terms of energy declined from 6 kcal/capita in 2000 to 3 kcal/capita in 2003 (Figure 6.b.).

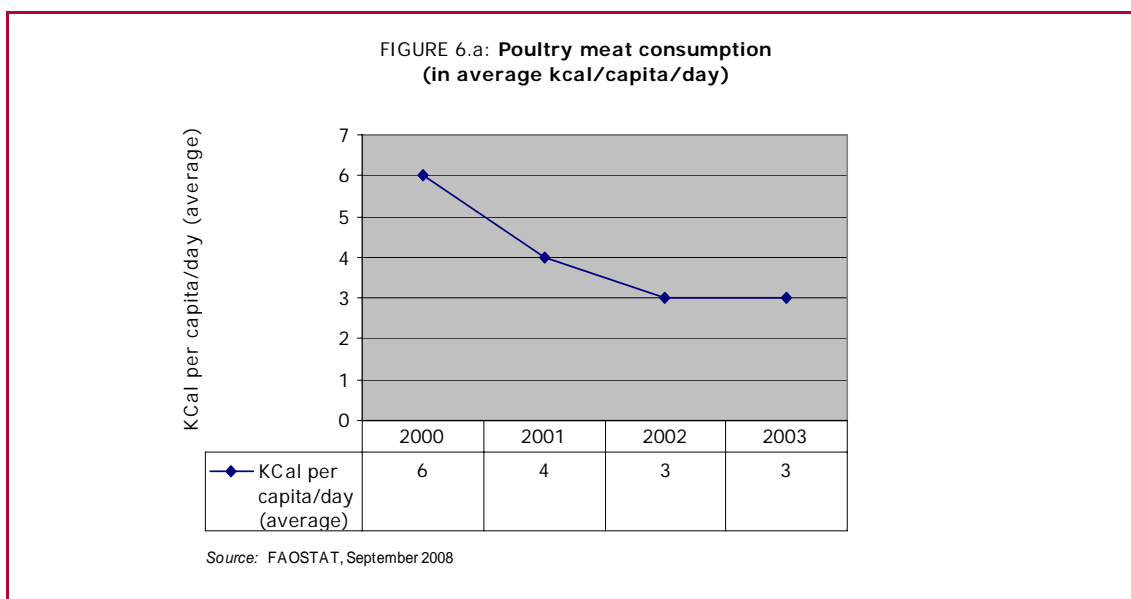
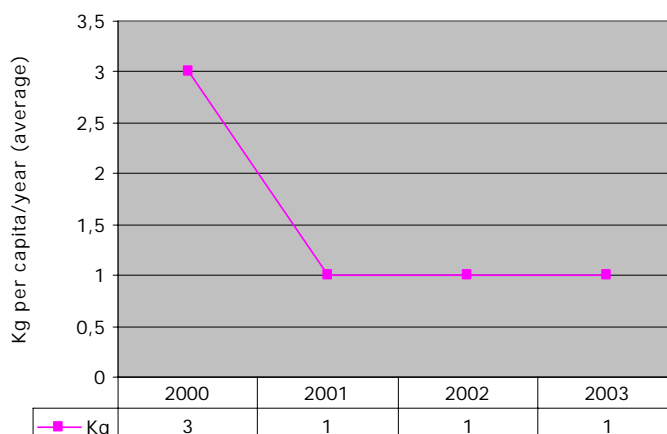


FIGURE 6.b: Poultry meat consumption (in kg/capita/year)

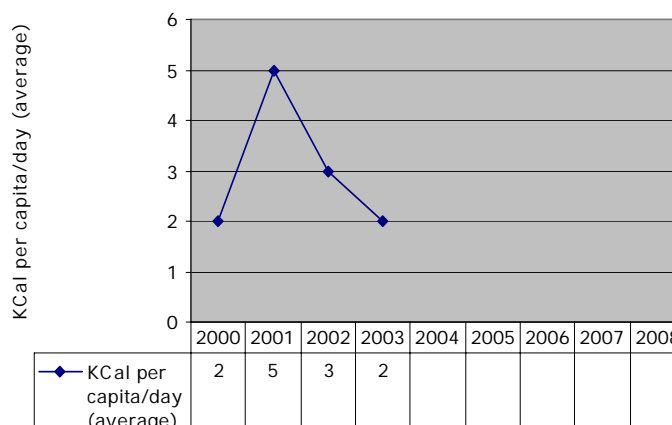


Source: FAOSTAT, September 2008

Local chicken meat produced by the traditional and commercial poultry production systems has been computed to be 435 MT. In addition 50% of 1,963 (968) and 1,226 MT (613) of frozen whole chicken and chicken cuts and offals, respectively imported into the country were consumed by household consumers, and the other half by the hotels and catering establishments. Thus per capita consumption in 2007 was equivalent to 1.1 kg.

In 1996, it was estimated that egg consumption levels in rural Gambia was negligible, and FAO estimated national egg consumption levels at 1 kg per capita per year in 2001 and 2003. About 1,247 MT or 17.5 million eggs were imported in 2007 (and assuming that half, 8.75 million eggs, were consumed at the household level), and that the commercial sector produced over 10 million eggs during the same year, then the estimated egg consumption level in 2007 was equivalent to 14 eggs, or 1 kg, the same level estimated by FAO in 2001 and 2003. However, with common observation it has been shown that the number of eggs consumed by Gambians is quite high, as it is a popular breakfast item which is served boiled or fried by households and street food vendors all over the country.

FIGURE 6.c: Eggs consumption (in average calories/capita/day)



Source: FAOSTAT, September 2008

Estimated egg consumption (in terms of energy) stood at 2, 5, 3 and 2 kcal in 2000, 2001, 2002 and 2003, respectively (Figure 6.c).

2.5 TRADE

Trade statistics, which were obtained from the Gambia Bureau of Statistics (GBOS) FAOSTAT and DVS, were found to be incomplete and conflicting.

2.5.1 Day old chicks

In the past day-old chicks (DOC) for the commercial sector were mainly imported from Europe, but currently most of the chicks are imported from Dakar, in neighbouring Senegal. The chicks are transported by road, and enter the country through various land border entry points and are therefore not captured in official statistics. The low import figures presented in the Data from the GBOS in Table 6 is reflective of this.

TABLE 6:
Number of imported day-old chicks (heads) 2000-2007

| Item | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------------------|------|------|------|-------|-------|------|------|------|
| Gallus Domesticus < 185g | 500 | 16 | 0 | 54 | 1,054 | 0 | 180 | 37 |
| Ducks, Geese, Turkeys, Guinea Fowl | 45 | 0 | 0 | 1,220 | 3,018 | 0 | 0 | 32 |

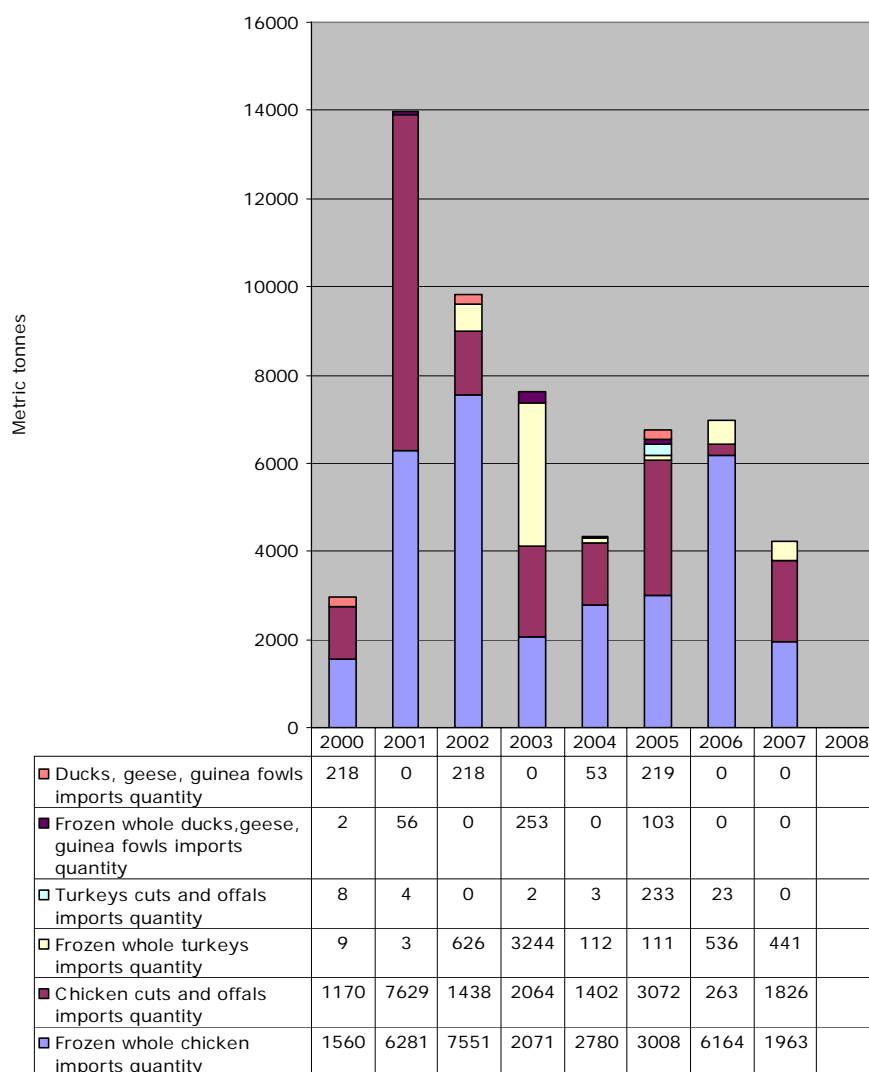
Source: GBOS, September 2008

However the data obtained from DVS and other sources indicated that 64,800 broiler and 37,872 layer DOCs were imported to The Gambia in 2007.

2.5.2 Chicken meat

Frozen whole chicken and chicken cuts and offal represent the most significant poultry products imported to the country (Figure 7.b). Importation of frozen whole chicken, cuts and offal from the EU and Brazil was highly significant in 2001, 2002 and 2006 and was estimated at Gambian Dalasi (GMD) 8,843 million, 32,423 million and 51,481 million whiles FAO estimated the imports at US\$ 4.4 million, US\$ 8.0 million and US\$ 44.04 million for the same period.

FIGURE 7.b: Import/Export of poultry meat



Source: Gambia Bureau of Statistics, September 2008

There was no export of poultry meat between 2000 and 2007.

2.5.3 Chicken live

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

See chapter 2.5.1.

2.5.4 Eggs

Over 1,941 MT, equivalent to GMD 6,879 million, of eggs was imported in 2002 (Figure 7.c.), but the volume of imports declined to just over 1,247 MT in 2007, and this was equivalent to GMD 8,077 million. Like frozen chicken, eggs are also mainly imported from the EU, Brazil and India.



Studies conducted in The Gambia have revealed that the importation of frozen whole chicken and cuts from the European Union (EU) and Brazil is reported to be having a serious negative impact on the marketing of locally produced chicken (Ceasay and Jagne, 2000).

2.5.5 Feed

Access to feed (availability and affordability) is the most prohibitive constraint to poultry production. Commercial poultry producers rely on imports of compounded feed rations from neighbouring Senegal. It is estimated that two private companies, namely Dam Jah and First Choice, imported about 550 metric tonnes and 450 metric tonnes of feed in 2007, respectively, while RHUE Farm imported 3.8 MT for its own use. The amount of feed imported is higher than what is being reported as other individual producers also travel to Senegal to purchase feed for their own use, as well as for sale.

Under the improved back-yard production systems practiced in rural areas, feeds consist of locally available resources like household food waste, agricultural by-products (cereal brans and oil seed cakes), broken grains (maize, millet, sorghum), scrap vegetables and other green materials, ground fish meal and oyster shells. The feed ingredients are mixed in various proportions and offered to the birds after allowing them to scavenge around the house.

There are about 5 feed mills in The Gambia with a combined milling capacity of 8.5 MT per hour; however, none of them is currently operational. Key constraints cited include financing and shortages of feed ingredients such as maize and oilseed cakes which constitute the key components of poultry feed. Details on each of these ingredients are provided below.

Maize

The amount of maize produced in The Gambia on an annual basis is variable and is insufficient to meet the demand of the feed processing industry. According to the DOP, maize production increased from 22,000 MT in 2000 to 33,400 MT in 2003, but declined to 31,400 in 2007 (Table 7). The data presented shows that the amount of maize imported into the country is also variable. Furthermore, the amount of imported or locally produced maize used as human or animal food is not known.

TABLE 7.
Local production and imports of maize in metric tonne

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Local production* | 22,000 | 29,000 | 18,600 | 33,400 | 29,200 | 29,900 | 29,100 | 31,400 |
| Imports** | 156 | 15 | 9 | 375 | 230 | 43 | NA | NA |

Sources: Department of Planning, National Agricultural Development Agency. September 2008.
**FAOSTAT, September 2008

Fishmeal

The amount of fish provided by the industrial and artisanal sub-sector is shown in Table 8. The artisanal fisheries sub-sector supplies almost all the fish consumed locally and is the major employer of Gambians in the sector. Fish, especially Bonga (*Ethmalosa fimbriata*), which constitutes about 80% of landings and 40% of which is usually preserved by smoking, is the cheapest source of animal protein in The Gambia. It is consumed by the majority of people from the rural poor to the urban rich, and is also used in poultry feed as a source of protein. There are no industrial fishmeal processing facilities in The Gambia. Individual farmers prepare feed on their farms using artisanal grinders to process the smoked Bonga. The quantity of fish meal used in animal feed is also not known.

TABLE 8.
Marine fish production (in metric tonnes)

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|-----------------------|--------|--------|--------|------|------|--------|--------|------|------|
| Industrial production | 9,237 | 11,198 | 12,160 | NA | NA | 4,625 | 2,830 | NA | NA |
| Artisanal production | 26,867 | 32,016 | 32,336 | NA | NA | 30,169 | 32,976 | NA | NA |

Source: Department of Fisheries, 2007

Groundnut Cake

Groundnut cake is a by-product from groundnut processing, the major cash crop of the country and a cheap source of protein. The area and yield of groundnuts fluctuate on a yearly basis (Table 9) due to the lack of inputs (seeds, fertilizer and agro chemicals) and poor marketing arrangements. The limited processing of groundnuts into oil, and export of the cake, also affects the availability of groundnut cake for the feed milling industry. In 2008 858 MT of groundnut cake was produced and sold at GMD 8,500 equivalent to US\$ 373.66 per MT and was all exported to Mauritania.

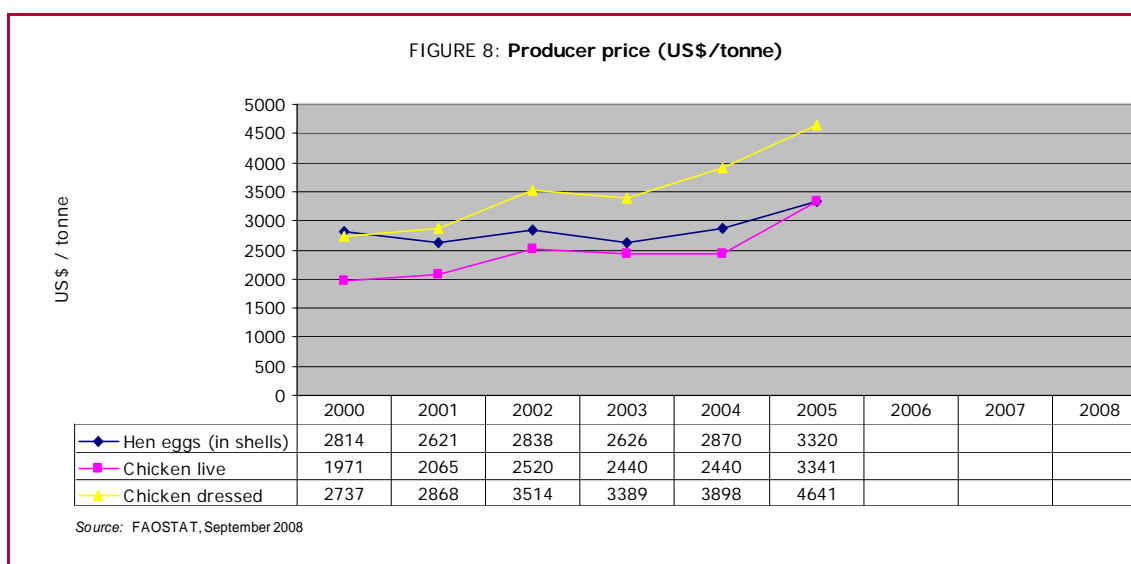
TABLE 9:
Groundnut production (in metric tonnes)

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|----------|---------|---------|--------|--------|---------|---------|--------|--------|------|
| Quantity | 138,000 | 151,000 | 71,000 | 93,000 | 136,000 | 116,000 | 82,000 | 76,000 | NA |

Source: Department of Planning, National Agricultural Development Agency, September, 2008

2.6 PRICES

The annual changes in producer prices of broiler chickens are shown in Figure 8. It indicates that the prices increased from 2000 to 2002, slightly declined in 2003 only to increase again in 2004 and 2005. The price increases are due mainly to increased production costs, particularly the cost of feed. The commercialisation of live chickens is facilitated by private dealers who purchase the birds at farm gate or at weekly markets (Loumos) for retail at urban live bird markets. Locally produced chickens from the traditional production systems fetch higher prices because they are generally preferred by consumers who consider them to be tastier than those locally produced by commercial farmers using exotic birds, or the imported frozen whole chicken and chicken parts.



Annual changes in producer prices of hen eggs are presented in the same figure 8. Egg producer prices fluctuated between 2000 and 2004, but were highest in 2006. Eggs from the indigenous backyard birds are generally left to hatch consequently their commercialisation is relatively low. The prices of locally produced eggs from the commercial exotic birds are generally more expensive than the imported ones as it is considered by the consumers to be fresher and having longer shelf life.

The average retail prices for chicken meat and eggs in GMD are presented in Table 10 and illustrated in Figure 12. It shows that in 2004 and 2008 the retail price of live chicken was about 34% and 55% more expensive than dressed chicken. However the retail price of dressed chicken increased marginally from 2004 to August 2008, while that of live chicken and eggs increased by 32.1% during the same period. The increase in the retail price of live chicken is a reflection of the increased production cost.

**TABLE 10:
Average retail prices of dressed and live chicken and eggs GMD**

| | 2004 | 2006 | 2007 | 2008 |
|-------------------------|-------|--------|--------|-------|
| Dressed Chicken (1000g) | 61.62 | 60.01 | 62.79 | 62.95 |
| Live Chicken (1000 g) | 95.0 | 116.67 | 133.75 | 140.0 |
| Eggs (1) | 4.22 | 4.35 | 4.70 | 4.93 |

Source: GBOS, September 2008

Ceesay and Jagne (2000) reported that the majority of the retail shops and supermarkets sold imported chickens and eggs, the prices of imported whole chickens and cuts have been on the increase due to exchange rate fluctuations. At the time of writing this report the price of imported frozen whole chicken has been about GMD 70.83 or US\$ 3.11 per kg, while that of dressed or live broilers from the commercial sector is about GMD 96.15, or US\$ 4.22, and local chickens (live) GMD 107.14, or US\$ 4.71.

Chapter 3

Poultry production systems

TABLE 11:
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 prevailing production systems in The Gambia conform with the FAO Classification of poultry production systems in Table 11. The population of the indigenous poultry flock, as indicated in section 2, is estimated at about 720,000, and its production is an integral component of subsistence farming in Gambian villages. Exotic chickens have also been introduced in Gambian villages by government and donor funded projects as well as Non Government Organisations (NGOs). The exotic bird population is estimated at 100,672.

3.2 SECTOR 1: INDUSTRIAL AND INTEGRATED PRODUCTION

As indicated in Section 2.5.1 day-old chicks are imported from Senegal and to a limited extent from Europe. However RHUE Farm, the only farm that falls under Sector 1, has recently established a 19,200 capacity hatchery at Latriya, in the Western Region.

Detailed observations of the farm and discussions with the proprietor revealed the following:

- The hatchery was established in 2008. The farm imported fertile eggs, of the Cobb and Hubbard breeds, from Miami, USA, and produced 17,228 broiler day-old chicks (first hatch) for sale to commercial producers. The second production of day-old chick broilers is expected on 7th November 2008 with the incubation of 15,000 eggs.
- There are plans to maintain grand parent stock by 2009.
- The hatchery was established in 2008. The farm imported fertile eggs, of the Cobb and Hubbard breeds, from Miami, USA, and produced 17,228 broiler day-old chicks (first hatch) for sale to commercial producers. The second production of day-old chick broilers was on 7th November 2008 with the incubation of 15,150 eggs, with a hatching percentage of 91.5, equivalent to 13,862 broiler DOC.
- The farm has placed an order for a waste processing plant for the hatchery and meat processing facilities.
- The farm has a preliminary biosecurity plan in respect to farm hygiene, disinfection, control of movement in and out of the farm. There are plans to sign a contract with a private service provider to develop a comprehensive biosecurity plan including monitoring, implementation and training of staff.

3.3 SECTORS 2 AND 3: OTHER COMMERCIAL PRODUCTION SYSTEMS

All the 29 commercial poultry farms fall under Sector 2. They are all private farms with individual, family, or group ownership involved in eggs and/or broiler production. The production systems are characterised by high input utilization. The birds are kept indoors on deep litter and provided with compounded feed. They generally follow recommended vaccination programmes and rely on private veterinarians and or extension agents from the DVS for provision of services. Levels of biosecurity measures vary from moderate to low, depending on location, ability and willingness of the proprietor to maintain standard operating procedures.

3.3.1 Breeding stocks and hatching eggs

There are no breeding farms. Commercial farms are dependent entirely on importation of day-old chicks. Until recently, the RHUE farm hatchery started the production of broiler DOC for sale to farmers. RHUE Farm imports hatching eggs from the USA.

3.3.2 Broiler meat

Table 12 shows the number of farms that were in operation in 1986, 2000, 2004 and 2008. The data shows a decline in the number of farms, from 16 in 1986; 14 in 2000; 9 in 2004, back to 29 in 2008. The farms have capacities ranging from 1,200 to 8,000 broilers per cycle. In addition the FAO funded Special Programme for Food Security (SPFS), the Peri-Urban Smallholder Improvement Project (PSIP), DVS and some NGOs have assisted women's groups to establish small scale commercial farms in the rural areas.

The Gambia Poultry Industry Revitalisation Working Group has however indicated that 5 commercial farms have stopped production in 2008 and that 3 others are scaling down their operations because of the rising cost of production and marketing problems.

TABLE 12:
Commercial farms operating in Greater Banjul area

| Name | Location | 1986* | 2000* | 2004* | 2008** |
|-------------------|---------------|-------|-------|-------|--------|
| Green Gold | Fajara | X | | | |
| GGPD | Welingara | X | | | |
| Kerr Kandeh | Nema Kunku | X | X | X | X |
| CSY Jow | Fajara | X | | | |
| Fredrick Oldfield | Abuko | X | X | X | X |
| Fatou Jobe | Fajara | X | | | |
| Fatou Kinneh Jobe | Kololi | X | | | |
| Mohamed Haidara | Kololi | X | X | | |
| Imad Kassir | Farato | X | | | |
| Mrs Fye | Bakau | X | | | |
| Edel Milky | Bakoteh | X | | | |
| George Raid Azzi | Lamin | X | | | |
| Baboucarr M. Fye | Kombo North | X | | | |
| Edirisa Saffriwe | Tabokoto | X | | | |
| Serign Jobe | Sinchu Balia | X | | | |
| Njagga Njie | Banjulunding | X | | | |
| Jay Ceesay | Nema Kunku | | X | | |
| Dam Jah | Sukuta | | X | | |
| SANGOL Farm | Abuko | | X | | |
| Chakus Farm | Sukuta | | X | X | |
| Mammie Ceesay | Abuko | | X | | |
| Fasainey Dumbuya | Banjulunding | | X | | |
| Baboucarr TS Mbye | Farato | | X | | |
| AA Njie | Lamin | | | X | |
| Bai John Camara | Abuko | | X | X | |
| Nai Ceesay | Sinchu Balia | | X | X | X |
| Marcus Dreyer | Siffoe | | | | |
| BSC Farms | Busumbala | | X | X | |
| Momodou Kotu Cham | Sukuta | | | X | X |
| Ali Khan | Kanifing | | X | X | X |
| Alhagie Camara | Bakau | | | | X |
| Sulayman | Tanji | | | | X |
| Miss Ayopola | Mariama Kunda | | | | X |
| Gambia College | Brikama | | | | X |
| Sisters | Brikama | | | | X |
| Mr Boye | Latrikunda | | | | X |
| Mahtar Faal | Kembujeh | | | | X |
| Bothrop School | Brikama | | | | X |
| Sifoe Farm | Sifoe | | | | X |
| Ismaila Jadama | Lamin | | | | X |
| Lamin Mboob | Abuko | | | | X |
| RHUE Farm | Latria | | | | X |
| Naffie Sanjang | Brikama | | | | X |
| Lamin Sonko | Farato | | | | X |
| My Kolley | Makumbaya | | | | X |
| Samba Bah | Kubariko | | | | X |

TABLE 12:
Commercial farms operating in Greater Banjul area

| Name | Location | 1986* | 2000* | 2004* | 2008** |
|-----------------|------------|-----------|-----------|----------|-----------|
| Muslim Hands | Kotu | | | | X |
| Sumbundu | Sukuta | | | | X |
| Nelvin Davies | Sukuta | | | | X |
| Kanie Ceesay | Old Yundum | | | | X |
| Adama Ndimbalan | Tanji | | | | X |
| Jammeh Poultry | Kartong | | | | X |
| Alasan | Tanji | | | | X |
| Total | | 16 | 14 | 9 | 29 |

Sources: *The effects of importation of meat and eggs on small scale poultry producers in The Gambia. Ceesay, Njie and Jagne, 2005.

**DVS survey of commercial poultry farms in The Gambia

3.3.3 Chicken table eggs

Information from poultry producers covered in Table 12 indicates that most are involved in egg production, with only a few of them doing broilers. This is attributed to the following: (1) the ease associated with the marketing of local eggs (between egg imports, which come in waves); (2) eggs have a longer shelf life, which affords the producers time to market; and, (3) consumer preference for locally produced eggs because of health concerns associated with imported eggs.

The 2007 DVS survey show that the 23 farms producing eggs have a total capacity of 60,407 birds. In addition women's groups sponsored by PSIP and SPFS were also managing layers in rural areas.

3.3.4 Other species

No detailed studies have been conducted on ducks, geese, guinea fowls, turkeys and ostriches in The Gambia; consequently no data exists on their populations. The production systems that have been observed for ducks, geese and guinea fowls can be classified under Sector 4 (backyard production and birds/products consumed or sold locally).

The production systems for turkeys can however be classified under Sector 3 (birds/products usually marketed commercially).

Observation and discussions with producers indicate that they market through hotels, restaurants and individual consumers at farm gate.

3.4 VILLAGE OR BACKYARD PRODUCTION

3.4.1 Chickens

The village or backyard production system (the low in-put system) is the most prevalent in the country. Chickens, as indicated in Section 1, are predominantly owned by the family, women and men, by women alone, and by men (in that order), but their management is the domain of women and children. They are a valuable asset, especially for the poor and marginalised, and are a source of income and household food security.

Average flock sizes, described in terms of flock structure, i.e. proportion of different age groups and sexes, was on average 3.8 hens, 1.07 cocks, 6.3 growers and 4.8 chicks with a hen to cock ratio of 3:1. Annual egg production was estimated at 23 per hen (FAO, 1998) weighing 36.2 g. (Anonymous, 1988).

The traditional village or backyard production systems defined as the production of village chicken (poultry meat and eggs) using locally available household feed resources can be classified into three systems:

- The Free Range is characterised by scavenging and extensive husbandry practices. Adequate housing is generally not provided, supplementation is rarely done, and water is provided occasionally. Confinement of the birds normally takes place at night in kitchens, owners' houses or locally made hen coops primarily to minimise predation. The major constraints faced by this system are the extremely high incidence of diseases, mainly NCD resulting in high mortality rates. The owners are not biosecurity conscious as such no measures are put in place.
- The Backyard System is characterised by scavenging, with some husbandry practices including supplementary feeding, provision of water, housing and occasional vaccination, primarily against NCD.

Under the 2 system above, birds are occasionally sold but are usually kept for home consumptions and social occasions.

- Improved Backyard System is characterised by scavenging, the provision of houses with nest boxes, improved feeding and diseases control (mainly deworming and vaccination against NCD).

Farmers undertake this as an income generation venture.

Under the free range, backyard and improved backyard production systems, utilising indigenous chickens, chicks are produced by natural incubation. However, incubating hens under the free range and backyard systems receive little care or attention resulting in high chick mortalities. In contrast, under the improved backyard system where incubating hens are provided with nest boxes, feed and water, chick mortality is generally low.

Cross breeding programmes have been implemented in order to increase live weight and egg production in local chickens. The introduction of exotic genes through the cockerel exchange programme was initiated in the 1990s under a United Nations Development Programme (UNDP) funded project. The exchange of ISA Brown and Star Cross cockerels for those of the indigenous breed in selected villages was complemented with improved management practices like provision of housing, feed, water and health care. The programme could not be sustained due to inadequate institutional support. Poultry genetic improvement programmes in a number of African countries are however reported not to have achieved sustainable improvements, and this has been attributed to, inter alia, the inability of the villagers to maintain higher management levels needed to exploit hybrid vigour associated with the cross breeds and the lack of adequate extension support (FAO, 1998).

3.4.2 Ducks and geese

Small flocks of ducks and geese can be found in compounds in urban areas and rural villages. The birds are normally kept under an improved backyard system for meat and eggs, but parameters like egg and meat production have not been collected.

3.4.3 Other species

Guinea Fowl

Guinea fowls are indigenous to The Gambia; large flocks range the bush thus the name bush fowl. Small numbers are being raised under the improved backyard system but parameters like egg and meat production have not been collected.

Turkeys and Ostriches

Comparatively few turkeys and ostriches are reared in The Gambia. The number of farmers rearing turkeys is not known, but there is currently only one farm rearing ostriches in the country.

3.4.4 Case study one: Rural poultry farmers association of CRR-South

The Rural Poultry Farmers Association of Central River Region South (CRRS) was established and registered as a Community Based Organization (CBO) in 2000. It was established through the assistance of the FAO's Special Programme for Food Security (SPFS) in 2000 and subsequently supported by Action Aid The Gambia in 2005 with the provision of 2 milling machines for feed production. During the initial phase of the association, 27 village based auxiliaries received intensive training in poultry production out of which 8 were provided 50 birds each to manage as loan and pay back to the association. All members of the association paid annual contribution of GMD 100.00.

The association set up with the objective of increasing food security for beneficiary households, has since made gradual progress and provides day-old chicks (Table 13 below); orders feed from Senegal for members and provides free vaccination of chicks for members. The other health interventions are paid for by the farmers. All participating farmers implement the health programme recommended by DVS.

TABLE 13:
Import of day-old chicks by year by the Rural Poultry Farmers Association of CRR South

| Year | Broilers | Layers | Total |
|------|----------|--------|--------|
| 2006 | 3,100 | 2,400 | 5,500 |
| 2007 | 10,400 | - | 10,400 |
| 2008 | 1,500 | - | 1,500 |

Source: Personal Communications, Abdoulie Manjang, DVS, 2008

It now covers 1,700 households 75% of which are women with each household managing from 50-250 birds. Due to high feed demand for layers most of the members operate broiler enterprises with up to 6 production cycles managed annually. The principal breed raised is the Cobb.

The CRR South intervention area has been divided into 15 clusters with each cluster represented at the monthly committee meeting to take stock of activities, sharing information and experience and path the way forward.

The principal constraints encountered by members of the association include availability of feed and marketing of finished broilers. The association has tried to address these constraints through the introduction of Soya beans and targeting festive periods such as the Ramadan, Gammo (Birth of Prophet Muhamed) and Tamhari (Muslim New Year) for marketing.

3.4.5 Case study two: Village duck production.



Pa Ebrima Jeng a 65-year old male farmer from Nema-kunku, Western Region has been involved in livestock production for over 40 years. He has managed to keep various types of short-cycled domestic animals, including goats, sheep, rabbits, local chicken and ducks.

He was introduced to duck farming through a short-cycled livestock programme in 1997 by the Department of Livestock Services when he was given a pair of ducks. He has since been involved in breeding, rearing and marketing of ducks, which is now his principal economic activity. He now annually sells both duck eggs and meat with an average of 200 eggs and 40 matured ducks at GMD 95³ per crate and GMD 400⁴ per pair or GMD 300⁵ for the matured male. Initially he used to market through hotels, restaurants and individuals, but now receives customers at his residence. In addition to providing for his livelihood he also fenced his house through proceeds from the duck enterprise.

In addition to household leftovers, he provides supplementary feed comprising millet bran costing GMD 100⁶ per 50kg bag. He uses family labour to operate the enterprise.

His principal constraint is housing which has inhibited him from expanding production. During the rainy season he experiences high mortality of young ducks.

3.4.6 Case study three: Small scale commercial eggs production

Awa Jallow a forty-five year-old female farmer resides in Jamagen Sanjal Village in The North Bank Region. Through capacity building and material support provided to communities by the Peri Urban Smallholder Improvement Project (PSIP) funded by the African Development Bank (AfDB) and the Gambia Government from 1999 to 2007 beneficiaries acquired skills in poultry management and enhanced their income status. Awa developed keen interest in poultry production and has graduated from her group of 70 members to set up her own broiler poultry enterprise since 2003. Starting with 100 birds she now raises 500-600 birds per cycle with 4 cycles per annum.

Awa acquires her day-old chicks and feed from neighbouring Senegal and benefits from the technical assistance support of the project as well as the Livestock Assistant in the area. She markets in her community or in the neighbouring town of Farafenni⁷, North Bank Region.

The main constraints she encounters include the high cost of feed and lack of cold storage facilities for the dressed birds.

3.5 POULTRY VALUE CHAIN ANALYSIS

3.5.1 Day-old chicks

As indicated in Section 2.5.1 commercial poultry farms generally depend on imports for replacement chicks.

Imported day-old chicks destined for village women's groups are usually brooded at DVS headquarters in Abuko before they are transported for several kilometres to the production sites. The transfer of the birds, especially during the heat of the day, is very stressful and may compromise the health status of birds.

³ US\$ 4.18

⁴ US\$ 17.58

⁵ US\$ 13.19

⁶ US\$ 4.40

⁷ A growth centre on the trans-Gambia highway 2km from the Senegal border with a thriving weekly market.

3.5.2 Chicken meat

Poultry marketing particularly for small to medium scale commercial producers is plagued with numerous constraints. Most of the marketing by poultry growers is conducted at the production site and involve the selling of live broiler birds and culled layer birds to individual consumers, or middlemen. Hotels, restaurants and individual consumers also purchase dressed chickens directly from the producers or from the supermarkets.

There are no slaughtering / processing facilities in the country thus the growers carry out this activity themselves resulting in differences in the qualities of the marketed products. The poor quality of local poultry is one key factor highlighted by hoteliers as responsible for their preference for imported products. Timely and reliable information is not available to producers or to buyers.

Commercial broiler producers are specifically faced with the following constraints:

- Levy of sales tax (17%) on poultry inputs such as feed and feed ingredients, day-old chicks, hatching eggs and veterinary drugs and vaccines.
- High cost of imported feed and limited availability of locally produced feed.
- Lack of processing and cold storage facilities for poultry products.
- Inadequate or weak support and regulatory services.
- Strong competition from cheap imported poultry products.
- Lack of access to credit.

Importers play a major role in the wholesale and retail trade of poultry meat products. They usually operate cold chain facilities and market their products to retailers in cartons and to household consumers either in cartons, or whole chicken or in portions. Imported whole chicken or portions are sold by retail shops, supermarkets and street vendors. An important effect of the importation of poultry products has been an increase in health risks and incidents of food poisoning (Ceesay and Jagne, 2000), the DLS has documented instances wherein imported poultry products have been examined and found to grow fungi.

Producers in the traditional sector sell their chickens live to satisfy some of their basic needs. The price of local chicken is generally higher than the imported, especially in urban markets.

The marketing channel for the traditional sector is presented in Table 14 for the village level and weekly markets. It shows that the marketing chain at the village level is shorter and simpler than at the weekly markets.

TABLE 14.
Marketing channels for the traditional sector

| | |
|---------------|---|
| Village Level | Producer to Consumers Producer to Middlemen |
| Weekly Market | Producer to Consumers Producer to Middlemen Producer to Middlemen to Consumers Producer to Retailers Producer to Retailers to Consumers |

The specific constraints faced by traditional producers include:

- Limited feed availability
- High level of predation
- Frequent disease outbreaks (especially Newcastle Disease) and high mortalities
- Inadequate or weak support and regulatory services
- Non-existent biosecurity measures

3.5.3 Table eggs

As mentioned earlier some poultry producers have shifted from broiler to egg production. The links of the value chain for eggs is similar to that of broilers. Producers sell to consumers at farm gate or to middlemen who in turn sell to retail or corner shops. Imported eggs, which are sold by retailers, supermarkets and street vendors, are generally cheaper than locally produced eggs. Recent trends indicate that modern producers market directly to hotels, this move is expected to provide fresh eggs to their clients.

There is very little commercialisation of eggs from the indigenous hens.

3.5.4 Other species

These are usually sold live at farm gate and at live bird markets. The main concerns in the markets include the mixing of different types and ages, low biosecurity and animal welfare measures in place. Furthermore, due to the overcrowding in the markets, there is generally very close proximity between humans and birds.

Chapter 4

Trade, marketing and markets

The Gambia has a regulated trade liberalisation policy. Cheap poultry meat and eggs are imported from diverse sources and sold in supermarkets, retail shops and by street vendors. Chicken products from the commercial farms and the traditional sector are sold live (broilers), at farm gate, to middlemen, or directly to consumers.

4.1 DOMESTIC MARKET

There is a big demand for poultry products in the Greater Banjul Area (GBA) which now accounts for about 50% of the population with a relatively higher per capita income. The major hotels, guest houses and restaurants are also located in the GBA and provide linkages with the tourism sector, since most of the poultry products, particularly poultry meat consumed in this sector are imported. The poor presentation of local poultry products is one key factor highlighted by hoteliers as responsible for their preference for imported items.

In order to address the above, the National Codex Committee is currently formulating national standards for poultry and poultry products which should be in place together with the appropriate regulations in December 2008.

Poultry products from the commercial and traditional sectors are generally preferred by a segment of the population with higher income and consciousness of the perceived health implications associated with imported products. Consumers perceive that due to freshness locally produced birds are tastier and healthier than the imported ones. For the traditional dishes there is consumer preference for the indigenous chicken because of taste. Similarly, in current culinary practices in the urban households and catering industry, there is greater preference for locally produced exotic broiler birds because of size and tenderness.

The major live bird markets for poultry (both indigenous and exotic) exist in the urban municipal markets of Banjul, Serekunda (KMC), Bakau (KMC) and Brikama (WR) where they are kept in cages. In these markets there are specific areas where the caged birds are sold. These birds are either sold live, or slaughtered and defeathered, at the request of the client. These designated areas are not fenced off and also lack the basic hygiene and sanitation facilities. As the birds are in close contact with humans, and also given that the offals and by products from the slaughtered birds are not properly disposed off, the potential risks for disease transmission are high. Furthermore, the slaughtering of the birds is done without veterinary supervision.

In the rural areas the main live bird (indigenous) markets comprise the weekly markets commonly called loumos⁸ where itinerant traders bring birds collected from villages for marketing. There are twenty-five loumos distributed throughout the country, but the main live bird markets are Farafenni (NBR), Kerr Pateh (NBR), Fass (NBR), Bureng (LRR), Brikamaba (CRR-S), Jareng (CRR-S), Wassu (CRR-N), Kaur (CRR-N), Sare Ngai (URR-N). These loumos located close to border routes with Senegal serve as sources of indigenous birds for the municipal markets of The Gambia and Senegal. As in the case of the municipal markets, the live bird markets at the loumos also lack appropriate infrastructure for marketing and sanitation. There is currently no data collection on live bird sales at municipal markets and loumos.

⁸ Loumos are open general markets found in the rural areas which are held weekly. They also serve as secondary livestock markets.

4.2 IMPORT

As indicated in Section 2.5.2 and 2.5.3 The Gambia imports chicken meat and eggs to meet the growing demand, especially during the tourist season (October to April). Poultry products are imported from diverse sources, including Europe, North and South America, Asia and Africa as indicated in Table 15. The main importers include, TAJCO, Jafaar, Kairaba Shopping Centre and Chellarams and the major hotels.

In 2000 and 2003 the Federal Republic of Germany was the leading exporter of frozen whole chicken and eggs to The Gambia, but Netherlands was the principal import source of eggs from 2005 to 2007.

TABLE 15:
Origin and quantity (mt) of imported poultry products

| Origin | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------------------------|-------|------|------|------|------|------|
| Fresh or Chilled Whole Chicken | | | | | | |
| France | 27 | 0 | 0 | 0 | 28 | 0 |
| Germany F. | 154 | 2956 | 0 | 0 | 0 | 29 |
| Netherlands | 2 | 0 | 31 | 0 | 0 | 0 |
| United Kingdom | 3 | 0 | 3 | 0 | 0 | 0 |
| Belgium | 0 | 0 | 0 | 3 | 0 | 0 |
| Brazil | 0 | 0 | 0 | 26 | 21 | 0 |
| Denmark | 0 | 0 | 0 | 0 | 113 | 15 |
| Ghana | 0 | 0 | 0 | 0 | 0 | 6 |
| Cote D'Ivoire | 0 | 0 | 0 | 0 | 0 | 24 |
| Kenya | 0 | 0 | 0 | 0 | 844 | 0 |
| Lebanon | 0 | 0 | 0 | 0 | 253 | 0 |
| United States | 0 | 0 | 0 | 0 | 0 | 89 |
| Frozen whole Chicken | | | | | | |
| Belgium | 353 | 0 | 2 | 0 | 0 | 0 |
| Germany F. | 3,195 | 657 | 140 | 0 | 28 | 0 |
| Netherlands | 16 | 78 | 212 | 77 | 0 | 0 |
| Argentina | 0 | 0 | 0 | 115 | 0 | 0 |
| Brazil | 27 | 160 | 0 | 0 | | 89 |
| India | 0 | 0 | 25 | 0 | | |
| United States | 0 | 0 | 0 | 932 | | 27 |
| Hong Kong | 0 | 0 | 0 | 0 | 29 | 0 |
| Lebanon | 0 | 0 | 0 | 0 | 2 | 0 |
| Saudi Arabia | 0 | 0 | 0 | 0 | 0 | 285 |
| South Africa | 0 | 0 | 0 | 0 | 0 | 0 |
| Chicken Offal | | | | | | |
| Brazil | 20 | 0 | 0 | 25 | 0 | 26 |
| Denmark | 0 | 3 | 0 | 0 | 0 | 0 |
| France | 0 | 27 | 0 | 0 | 0 | 0 |
| Netherlands | 0 | 113 | 0 | 0 | 47 | 1 |
| United States | 0 | 798 | 0 | 0 | 0 | 0 |
| Belgium | 0 | 0 | 0 | 146 | 0 | 0 |
| China | 0 | 0 | 0 | 0 | 0 | 18 |
| Sierra Leone | 0 | 0 | 0 | 0 | 27 | 0 |

TABLE 15:
Origin and quantity (mt) of imported poultry products

| Origin | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|-------|------|------|-------|------|------|
| Frozen Cuts and Offal | | | | | | |
| Belgium | 615 | 1 | 0 | 1 | 0 | 0 |
| France | 27 | 0 | 0 | 0 | 0 | 0 |
| Germany F. | 27 | 84 | 26 | 0 | 0 | 0 |
| Lebanon | 0 | 8 | 0 | 763 | 0 | 0 |
| Netherlands | 29 | 0 | 2 | 0 | 0 | 868 |
| Brazil | 0 | 0 | 0 | 0 | 27 | 0 |
| United States | 0 | 0 | 673 | 600 | 27 | 0 |
| Birds eggs in shell, fresh, preserved or cooked | | | | | | |
| France | 75 | | 59 | 1 | 28 | 0 |
| Germany F. | 1,417 | 634 | 247 | 132 | 1 | 0 |
| Netherlands | 439 | 151 | 590 | 1,011 | 740 | 940 |
| United Kingdom | 0 | 0 | 29 | 0 | 0 | 0 |
| Belgium | 9 | 0 | 103 | 0 | 0 | 0 |
| Brazil | 0 | 0 | | 0 | 0 | 57 |
| Denmark | 0 | 37 | 52 | 0 | 0 | 0 |
| United States | 0 | 0 | 52 | 127 | 23 | 124 |
| South Africa | 0 | 3 | 0 | 0 | 0 | 0 |
| China | 0 | 0 | 0 | 19 | 0 | 0 |
| India | 0 | 0 | 44 | 0 | 98 | 78 |
| Senegal | 0 | 0 | 18 | 0 | 0 | 0 |
| Spain | 0 | 0 | 34 | 92 | 0 | 0 |
| Thailand | 0 | 0 | 18 | 0 | 0 | 0 |
| Singapore | 0 | 0 | 0 | 0 | 0 | 20 |
| United Arab Emirates | 0 | 0 | 0 | 0 | 0 | 27 |

Source: GBOS, September, 2008

4.3 EXPORT

The Gambia does not export poultry products.

4.4 SLAUGHTERING FACILITIES

There are no specialized and approved poultry slaughtering facilities in The Gambia. Individual growers slaughter on-farm resulting in differences in qualities of the marketed products. The products are also not inspected by veterinary authorities. Live birds bought at the market in urban centres may be slaughtered at the market, or at home.

Kombo Meat Factory, an ongoing business enterprise, is processing poultry meat (smoked chicken, portions, burgers and sausages). Recently, RHUE Farms has installed a modern poultry processing and packaging plant which is expected to be commissioned in the near future.

Chapter 5

Breeds

5.1 EXOTIC BREEDS

The commercial poultry producers use the following exotic breeds:

For egg production:

- ISA Brown
- Lohman Brown
- Hi-line White
- Black Nera

For broiler production:

- Cobb
- Ross

5.2 LOCAL BREEDS

The local chicken is a dual purpose type with variable body conformation and physical characteristics. Many of the phenotypes expressed in village flocks can be traced to breeds raised for show purposes or fighting. It is common to see black skin, silky feathering, feathered shanks, crested heads, old English game stature and dwarfing which would suggest some bantams have contributed to the gene pool (GARD Report # 45, 1988).

Chapter 6

Veterinary health, public health, biosecurity measures

The Department of Veterinary Services and the Department of Extension (under the National Agricultural Development Agency established in 2007) are responsible for veterinary services in general, including veterinary public health and biosecurity issues, and agricultural extension (including poultry), respectively.

The DVS is headed by a Director and is assisted by a Chief Veterinary Officer and Veterinary Officers in each of the regions. The DVS is divided into the following divisions:

- Directorate comprises 2 units: Partnership and Institutional Development Unit and Veterinary Information Systems Unit
- Animal Health Division comprising 2 units: Laboratories Unit and Field Unit
- Veterinary Public Health Division comprising 2 units: Hygiene and Inspection of Products of Animal Origin Unit and Zoonosis and Market Access Unit.

The total staff complement is 78. The number of professional posts for veterinarians is 7, but currently, the Department has only two Veterinarians en poste, one of whom is the Director. The department is understaffed.

6.1 HIGHLY PATHOGENIC AVIAN INFLUENZA

Highly Pathogenic Avian Influenza, H5N1, has neither been detected nor reported in The Gambia. Cognisant of the fact that The Gambia is vulnerable to the threat of H5N1 from infected poultry, wild bird imports and migratory birds; the government has established a National Avian Influenza Task Force. The Task Force comprises members from both the public, private and civil society institutions and organisations. The Task Force in 2007 prepared a comprehensive National Emergency Preparedness and Response Plan for Avian Influenza (AI).

The Department of Veterinary Services carried out active field surveillance and laboratory tests, only rapid kit tests are used. Serological tests are not carried out due to lack of reagents and equipment (700C freezer). So far no samples have been sent to the designated laboratories, i.e. National Laboratory for Livestock and Veterinary research (LNERV) in Dakar, Senegal and National Veterinary Research Institute (NVRI) in Vom, Nigeria.

The Department has carried out a number of training sessions for beneficiaries, including its own staff and farmers. It has also collaborated with FAO, United States Department of Agriculture (USDA) and United States Agency for International Development (USAID) in organising regional training seminars in The Gambia on various aspects of HPAI.

Highly Pathogenic Avian Influenza has not been reported in The Gambia. However, given that H5N1 has been confirmed in ten African countries, and more so in West Africa namely, Nigeria, Ghana, Togo and Ivory Coast; The Gambia has carried out an AI risk assessment.

The following ecological characteristics of The Gambia make it potentially vulnerable to AI: the existence of wetlands (Section 2.2.2 Table 3) which serves as rice producing areas and which also attract migratory birds some of which may be implicated in the transmission of the H5N1 virus; the close proximity of wetlands to human settlements and trade routes favour close interaction between migratory birds and humans. The traditional poultry management system and open live bird markets provide close interaction between birds and humans which constitutes a potential source of transmission. Furthermore, the Gambia lies on the east Atlantic Flyway providing sanctuary for migratory birds from Asia, Europe and North America during the winter months.

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/againfo/programmes/en/empres/home.asp

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

Common diseases and parasitic infestations in village and commercial poultry production systems in The Gambia, and their control methods, are listed in Table 17 below.

TABLE 17:
Common diseases and parasitic infestations

| Production system | Diseases and Parasitic Infestations | Control Methods |
|--------------------|--|--|
| Village poultry | Newcastle Disease | Vaccination |
| | Fowl Pox | Occasional vaccination and treatment |
| | Endo parasites | Deworming |
| | Ectoparasites caused by mites, flea, ticks | Insecticide dusting, regular cleaning of poultry house |
| Commercial poultry | Newcastle Disease | Vaccination, disinfection, culling |
| | Gumboro disease | Vaccination, disinfection, culling |
| | Fowl Pox | Vaccination, treatment |
| | Endo parasites | Deworming |
| | Ectoparasites caused by mites, flea, ticks | Insecticide dusting, regular cleaning of poultry house |
| | Coccidiosis | Vaccination, treatment, culling, disinfection |

Source: Department of Veterinary Services, 2008

High mortalities due to predation (cats, dogs and birds of prey), especially among young chickens, is also a problem in the traditional village production system. The provision of housing under the improved backyard is the measure been taken to control predation.

6.3 BIOSECURITY MEASURES

Different risk factors have been identified in relation with avian influenza:

- The existence of wetlands which provide habitats for migratory birds (The Gambia lies along the Trans-Atlantic flyway of migratory birds), and serve as rice producing areas.
- The close proximity of the wetlands to human settlements and trade routes.
- The free range system of poultry husbandry practiced.
- Uncontrolled movement of people and transport at the level of the commercial farms
- The on-farm slaughtering and processing of bird and improper disposal of wastes.
- The widespread use of recycled carton egg trays for the marketing of eggs.
- The proximity between poultry and people at both household and market levels.
- The porous borders and lack of enforcement of livestock movement regulations.
- The proliferation of open live bird markets.
- The low level of awareness of the conditions for the introduction and spread of the H5NI virus and other pathogens.

In cognisance of the risks and threats that AI poses to The Gambia, the Government has put in place a Comprehensive National Emergency Preparedness and Response Plan for AI. This plan was prepared in 2007 and is already being implemented. The lead role for implementation of the plan is assigned to DVS and the Department of State for Health Services to work in close collaboration.

As the primary threat is to the poultry population DVS has been able to take the lead in the preparation of a funding request to support prevention and control of AI in The Gambia. The request also prepared in 2007 has been submitted to the African Union Inter African Bureau for Animal Resources (AU-IBAR) for funding through the Support Programme to Integrated National Action Plans for Avian and Human Influenza (SPINAP-AHI) (October 2008).

In terms of concrete steps taken on AI biosecurity related measures public sensitisation and training activities targeting poultry producers, poultry sellers, health personnel, veterinary personnel and other actors in the poultry value chain have been undertaken. Three international training sessions bringing together participants from the sub region have been held in The Gambia so far.

Laboratory diagnostic capacities are being enhanced, including the setting up of an AI laboratory, whose staff has received the requisite training particularly in the use of AI rapid test kits. There is also ongoing active field surveillance of diseases for AI and NCD.

Chapter 7

Current policies, legal framework

In 2006 the Department of State for Agriculture with support from FAO prepared the draft Agriculture and Natural Resources Policy. However, this document is yet to be finalised and adopted by government. The draft document provides a broad-based Policy Framework for the Agriculture and Natural Resources sectors to cater for the following:

In the short term - a strengthened agricultural sector supported by at least 10% of the national budget, producing sustainable increased level of self-sufficiency in food production by at least 25%, as well as increase income of small-holders, and increase food security at household level.

In the medium term – a sector linked to markets with measurable levels of productivity and competitiveness, leading the growth of the economy, reducing poverty, particularly rural poverty.

In the long term – a vibrant diversified modernised agricultural sector with high levels of competitiveness, and a major source of sustainable food security, agricultural trade and investment, and the leading sector in meeting the Millennium Development Goals (MDGs) of the country to reduce hunger by half by 2015.

However, the livestock (including poultry) sectoral objectives and strategies to implement the ANR policy framework are quite weak and vague in terms of definition and specific scope of practical interventions and targets, and this is not the case for the crop based commodities where targets are clearly defined.

7.1 POULTRY IN THE LIVESTOCK POLICY

The existing legislation related to livestock in general, and poultry in particular are all outdated. There are two sector based acts, i.e. the Diseases of Animal Act of 1949, and the Animal Welfare Act. There is also a draft Livestock Marketing Bill 2005 which is now under review. In addition, the Food Act of 2005 allocates responsibility to DVS representing the Department of State for Agriculture for the control, licensing and inspection of poultry establishment and slaughter houses to regulate, ante mortem and post mortem inspection of animals, control of poultry products and products of animal origin on farms and other production establishments. The Food Act also assigns the control of products of animal origin, including poultry products in the market place to Department of State for Health. DVS also is responsible for the control of importation of livestock, including poultry and products of animal origin, excluding fish and fish products. The latter being the responsibility of the Department of Fisheries. The two sector-based acts mentioned above, including the draft Livestock Marketing Act are in the process of being reviewed for updating and harmonisation for greater synergy. They will furthermore be made to be coherent with the overarching Food Act of 2005.

A review of all these acts, including the Food Act, reveals that biosecurity elements are not adequately integrated. However, the National CODEX Committee is now preparing the National CODEX an SPS strategic plan (2009-2013) and biosecurity measures are being taken on board in the process.

Chapter 8

Analysis

8.1 CURRENT STRENGTHS AND WEAKNESSES OF THE POULTRY SECTOR

An analysis of the Strengths, Weaknesses, Opportunities and Threats (SWOT) of the poultry sector was conducted on 5th October 2008 with poultry stakeholders as part of the study process and is presented below:

Strengths

- Existence of organizations of both commercial and small-scale producers with legal status and meeting frequently,
- Existence of a Poultry Consultative Working Group comprising all stakeholders and which has identified principal constraints and developed an action plan to address problems.
- Availability of basic infrastructure for feed production and for hatching within the private sector for sustainability of the industry.
- Availability of technical know-how on poultry production among producers

Weaknesses

- Weak support service capacity in extension, technology generation and in financing to the poultry sector.
- Limited information flow to producers from the public sector and the absence of poultry disease reporting system.
- Lack of a defined public private-partnership arrangement in the delivery of services.
- Weak policy and regulatory framework, particularly in biosecurity
- Weaknesses in backward linkages particularly for feed, day-old chicks and veterinary drugs and vaccines.
- Inadequacy of infrastructure for slaughtering, processing, preservation, cold storage, and distribution.

Opportunities

- Rising demand for local poultry products from local markets and the tourist industry.
- Greater awareness and lobbying for the consumption of fresh locally produced poultry products.

Threats

- The high sales tax levy coupled with the importation of cheaper poultry products by importers may further accelerate the rate at which farmers are abandoning the industry.
- Outbreak of diseases with huge mortalities in poultry and which can be passed to consumers or handlers of poultry products.
- Low level of biosecurity measures in traditional village production systems, weekly and municipal markets leading to potential major disease transmission.

8.2 PROSPECTS OF THE POULTRY SECTOR OVER THE NEXT FIVE YEARS

The prospects of the poultry industry in The Gambia in the next five years is premised on favourable economic growth, political stability, responsive Agricultural and Natural Resources (ANR) sectoral policy environment and absence of major disease outbreaks. The future prospects will be characterized by the following:

- Increased domestic demand for poultry products from hotels and restaurants and from high urban populations given current trends in urban population growth rate and increase in number of new hotels and catering facilities.
- Increased private investment in the production of quality poultry meat and eggs premised on positive government response to the current constraining fiscal regimes (high sales tax levy).
- Increased investment by the private sector in the production of day-old chicks, feeds, distribution of drugs and vaccines and the delivery of veterinary health services.
- Restructured public veterinary services in line with OIE recommended standards to provide effective support and regulatory services responsive to the needs of producers and consumers.
- Public and consumer concerns and awareness on consumption of safe poultry products will enhance marketing of locally produced poultry products (particularly eggs).
- Programmes of support to the transformation of traditional poultry production systems to make them adopt better husbandry and health practices thereby making them productive, profitable and biosecure.

Best Case Scenario

In the best case scenario economic growth and demand for poultry products will be favourable and private sector investment in the production of feed and day-old chicks, and distribution of drugs and vaccines sustained over the period. Well trained and equipped human resources will be retained within the public and private service delivery systems in support of all the actors in the poultry value chain. This will be buttressed by a favourable sectoral policy and regulatory framework and fiscal environment. No major disease outbreak of pandemic or economic significance will occur.

Worse Case Scenario

The worse case scenario will be the reverse of the above comprising poor economic growth, natural calamities, political unrest and outbreak of major diseases particularly HPAI. The import of cheap poultry products (dumping) will continue at the detriment of local farmers.

Annex I

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Annex II

List of major projects – poultry sector

Two projects with components on poultry are highlighted below:

- | | | |
|---|----------------------|---|
| 1 | Project: | Peri-Urban Smallholder Improvement Project (PSIP) |
| | Agency: | AfDB |
| | Duration: | 2002-2007 |
| | Geographical area: | North Bank and Western Regions |
| | Directly benefiting: | 2,300 |
| | Status: | Closed |

The project set up small-scale commercial poultry enterprises in 35 communities providing corrugated iron sheets, cement with beneficiaries providing labour for the construction of poultry houses. It also provided drinkers, feeders, day-old chicks and vaccination and feed for 1 broiler production cycle. In order to facilitate marketing it provided freezers for dressed birds in both regions.

- | | | |
|---|----------------------|--|
| 2 | Project: | Special Programme for Food Security (SPFS) |
| | Agency: | FAO and IDB |
| | Duration: | 1999-date |
| | Geographical area: | North Bank, Western, Central River Regions |
| | Directly benefiting: | |
| | Status: | Ongoing |

The project set up small scale poultry enterprises in 40 households providing them with drinkers, feeders, day-old chicks and vaccination and feed during the brooding period.

Annex III

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Annex IV

Maps

No map on poultry population available