



Review Article

Animal and Meat Production in Ghana-An Overview

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ABSTRACT

Animal production is an integral part of Ghana's agricultural economy and a major source of livelihood for many rural households in the Northern, Upper East and Upper West Regions of Ghana. In Ghana, animals are raised under the extensive, semi-intensive and/or intensive system. However, the extensive system is the commonest method and it is practiced most especially in rural communities. Animal production holdings are commercially, family or individually owned. Commercial farmers normally keep poultry, and mostly under the intensive system. Different animal species are reared in Ghana purposely for local consumption. This paper provides an analysis of animal and meat production in Ghana within a 10 year period. Between 2001 and 2010 the average of live animal production was 3,958,560 for goats, 3,269,460 for sheep, 1,373,700 for cattle, 404,600 for pigs, and 33, 252 for chickens. In general, the increase in goat and sheep production was higher than the increase in cattle, pigs and chicken production within this period. Averages of meat production in Tonnes were 34,427, 24,491, 13,535, 12,336 and 12,056, for chicken (chicken meat), beef (cattle meat), pork (pig meat), chevon (goat meat) and mutton (sheep meat), respectively. The increase in chicken meat was the highest within this period. Total meat production in Tonnes was 177,723 in 2001, 176, 086 in 2002, 181,686 in 2003, 186,470 in 2004, 188,537 in 2005, 191,021 in 2006, 198,093 in 2007, 220,243 in 2008, 232,516 in 2009 and 244,742 in 2010. Opportunities for increased animal and meat production in Ghana still exist since the country imports animal and meat from abroad. This overview provides reference data of animal and meat production in Ghana. It is expected that the Government and other stakeholders will use this data in planning and making of policies, and to monitor changes that may occur overtime.

Key words: Agricultural economy, Animal production, Animal species, Meat production, Ghana.

INTRODUCTION

The Republic of Ghana is located in the west of Africa. It shares borders with Togo to the east, Cote d'Ivoire to the west, Burkina Faso to the north and the Gulf of Guinea, to the south. Ghana lies on latitude 5 degrees, 36 minutes north and longitude 0 degrees, 10 minutes east (Anonymous, 2012a). The total land area is about 238,537 square kilometers consisting of 230,940 square kilometers of land and 8,520 square kilometers of water (Anonymous, 2012a). The average annual temperature is about 26 °C and the annual rainfall is 736.6mm/29" (Anonymous, 2012a). The climate is tropical. There are two distinct rainy seasons in the south that is from May-June and August-September; in the north, the rainy seasons tend to merge (Anonymous, 2012a). A dry, north-easterly wind, the Harmattan, blows in January and February. The location of Ghana in the globe, size and climatic condition influence animal production in Ghana.

Agriculture dominates the economy of Ghana. It employs about 60% of the working population and contributes about 37% to Ghana's gross domestic products (GDP) (Anonymous, 2012b). Animal

production is an important part of Ghana's agriculture economy. Both ruminants and non-ruminants are reared in Ghana. Ruminants usually reared in Ghana are cattle, goats and sheep, while the non-ruminants reared are pigs and poultry (domestic fowl, guinea fowl and ducks). Traditional animal production such as rabbits, grasscutters, bees, snail and fish farming is also gaining much importance. Animal production in Ghana is done under three main systems, that is, the intensive, semi-intensive and extensive systems. The intensive system is mainly practiced by commercial farmers while the extensive system is normally practiced in rural communities. Animals are normally slaughtered by individuals in their homes, by individuals or authorized persons in slaughter slabs owned by the community/government and by authorized persons in slaughterhouses/abattoirs owned by the government. In many rural communities in the three Northern Regions of Ghana, livestock production is a major source of livelihood especially during the dry season. The 3 Northern Regions of Ghana accounts for about 75% of all cattle produced in Ghana. Ghana imports animals

(mainly ruminants) from neighboring countries. Processed meats and meat products are mainly imported from Europe and America. Importation of live animals and meats give an indication that, there are great potentials for increase animal production with readily available market.

This overview compiles and analyzes data on animal and meat production in Ghana from 2001 to 2010 according to data from FAOSTAT. It also discusses the opportunities and challenges of animal production in Ghana.

ANIMAL AND MEAT PRODUCTION IN GHANA

Animals produced in Ghana are solely for local consumption. As a by-product, bullocks are sometimes used as draught power for crop production. Animal faeces are also sometimes used as manure to fertilize crops. Tables 1 and 2 showed the animal and meat production in Ghana for selected animals from 2001-2010, respectively.

From Table 1, live goat production is the highest in Ghana, followed by sheep, cattle, pig and game meat production. Live chicken production was the least. Between 2001 to 2010, cattle production increased by 11%, sheep production increased by 36%, goat production increased by 52%, pig production increased by 72% and game meat production increased by 98%. Live chicken production alone increased tremendously by 117%. Animal production trend also revealed that there was an increased in live animal production each year except for cattle and pig production. In cattle production, there was a decrease of 1% in production between 2005 and 2006, and continues increase in cattle production occurred in the rest of the years. With regards to live pig production, there was a decrease in production between 2001 and 2005, thereafter production increased hitherto 2010.

Meat production in Ghana between 2001 and 2010 followed a different trend compared to live animal production (Table 2). Between 2001 and 2010 chicken meat production increased by 147%, mutton production increased by 77%, pork production increased by 67%, chevon production increased by 35% and beef production increased by 7%. Currently in Ghana (2010), chicken (51,675t) meat production is the highest, followed by beef (25,775t), pork (17,506t), mutton (16,914t) and chevon (14,273t). Beef production was the highest between 2001 and 2002. Chicken meat production increased in 2003 to overtake beef production from 2003 to 2010. Beef production was also within 20,000t throughout the 10 year period, while chicken meat production increased within 20,000t in 2001 to 50,000t in 2010. Pork, Chevon and mutton production were similar and within 10,000t to 20,000t. Total game meat production was 66,138t; 62,000t; 64,051t; 661,56t; 64,000t; 61,667t; 57,864t; 64,951t; 69,276t and 74,100t in 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009 and 2010, respectively. Game meat production trend undulated within the 10 year period. Decreases in game meat production were found between 2001 to 2002 and 2004 to 2007. Total meat production (chicken, beef, pork, chevon, mutton plus

others which are unknown) was 177,723t (2001), 176,086t (2002), 181,686t (2003), 186,470t (2004), 188,537t (2005), 191,021t (2006), 198,093t (2007), 220,243t (2007), 232,516t (2009), and 244,742t (2010). Total meat production decreased in 2002 but increased subsequently for the rest of the years.

OPPORTUNITIES AND CHALLENGES

Animal and meat production in Ghana has a number of opportunities and challenges. First of all, Ghana imports live animals (especially ruminants) from neighboring countries and meat from either Europe or America. This means that local supply is less than demand; therefore livestock farmers can increase their production level and still find market. There is also the opportunity of readily available land and grass/herbs. The useable land size of Ghana, coupled with human population ensures that vase land is available for animal production and other agriculture activities. Most part of this land has enough coverage of grass and other plants which animals depend on as feed. The breeds of animals available in Ghana have better adaptation to Ghana's tropical climatic condition. Most breeds have better resistant to diseases and other harsh environmental conditions. They have the ability to survive under free range system, scavenge on their own and experience minimal ill-health problems. Six breeding stations have also been set up for four types of livestock namely, cattle, sheep, goat and pig to improve their production performance. Apart from that government agencies (e.g. Ministry of Food and Agriculture, the animal production directorate, the veterinary services directorate, the policy planning, monitoring and evaluation directorate, some banks etc.), many non-governmental organizations and other stakeholders in the meat and animal industry are continuously providing education, incentives and other forms of support for livestock farmers to improve and to increase their input and output. Several works have also been carried out in Ghana either by government, non-governmental and/or universities researchers to improve upon local animal breeds and/or their meats. For instance, Teye et al. (2011a, 2011b) reported that feeding Djallonke sheep with whole cotton seed supplementation improved juiciness and overall liking of the meat.

Notwithstanding these opportunities several challenges bedevil the meat and animal industry in Ghana. Improper handling of animals prior to slaughter is a common practice in Ghana. These practices have adverse effects on carcass and meat quality (Adzitey, 2011; Adzitey and Huda, 2011; Adzitey et al., 2011a). Despite efforts to improve animal breeds by the setting up of animal breeding stations, most of the local animal breeds have low prolificacy and poor feed conversion efficiency.

Local livestock farmers keep few animals and sometimes cannot afford veterinary services when their animals are sick. The implication is that fewer animals are contributed by these farmers to the animal and meat industry of Ghana coupled with the vulnerability to high animal mortality.

Table 1. Live production of selected animal species in Ghana from 2001 to 2010

Animal / Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average
Cattle	1,315,000	1,330,000	1,344,000	1,359,000	1,373,000	1,359,000	1,373,000	1,392,000	1,438,000	1,454,000	1,373,700
Goats	3,199,000	3,230,000	3,560,000	3,595,600	3,923,000	3,997,000	4,196,000	4,405,000	4,625,000	4,855,000	3,958,560
Sheep	2,771,000	2,922,000	3,015,000	3,111,500	3,211,100	3,314,000	3,420,000	3,529,000	3,642,000	3,759,000	3,269,460
Pigs	312,000	310,000	303,000	300,000	290,000	477,000	491,000	506,000	521,000	536,000	404,600
Chickens	22,032	24,251	26,395	29,500	28,386	34,030	37,038	39,816	43,320	47,752	33,252

Source: FAOSTAT (2012)

Table 2. Meat production (tons) of selected animal species in Ghana from 2001 to 2010

Animal / Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average
Beef	24,000	24,125	24,375	23,070	25,393	23,865	23,419	25,350	25,538	25,775	24,491
Chevon	10,560	10,659	11,748	12,120	11,810	11,170	13,083	13,663	14,273	14,273	12,336
Mutton	9,563	10,080	10,403	10,270	9,920	10,370	10,773	15,881	16,389	16,914	12,056
Pork	10,500	10,416	10,164	10,080	10,248	15,456	16,506	16,968	17,506	17,506	13,535
Chicken	20,963	23,400	25,545	28,275	28,763	31,493	41,730	44,460	47,970	51,675	34,427
Game meat	66,138	62,000	64,051	66,156	64,000	61,667	57,864	64,951	69,276	74,100	65,020
Meat total	177,723	176,086	181,686	186,470	188,537	191,021	198,093	220,243	232,516	244,742	199,711

Source: FAOSTAT (2012)

Vulnerability of animals to death is also higher in animals kept extensively or under the free range system compared to those kept intensively. Veterinary services in Ghana are generally considered as expensive by livestock farmers (local and commercial farmers). Therefore, when animals are infected with diseases treatment can be a challenge and death of animals can be eminent. Meats in Ghana are contaminated with foodborne pathogens and a potential source of foodborne infection (Adzitey et al., 2010a; Adzitey et al., 2011b). Feed cost is also a problem that hampers animal production in Ghana. Furthermore, during the dry season feed scarcity is a major problem. Feed scarcity problems are common and severe in the three Northern Regions. Teye et al. (2011a) indicated that feeding whole cotton seed supplementation improved the productivity and meat quality of small ruminants at a cheaper cost. Feeding layers on processed mucuna beans also reduced feed cost, improved egg production and increased profit (Teye et al. 2010). Adzitey et al. (2010b) reported that processed mucuna beans meal can be used by farmers to substitute some percentage of fish and soybean meal without adverse effect on carcass characteristics, primal cuttings and eating quality of the broiler breast and thigh, thus reducing feed cost and making use of less utilized feeds.

CONCLUSION

Animal and meat production in Ghana between 2001 and 2010 followed different trends. In general, live goat production was the highest within this period. In terms of meat production, chicken meat production was the highest. This implies that more chickens are slaughtered in Ghana than goats. The animal and meat industry of Ghana is an emerging market with relatively many opportunities. Meat demand exceeds supply and livestock farmers can take advantage of that to increase their production level. A number of challenges such as poor breeds, cost of veterinary services, pest and diseases, feed cost and scarcity during the dry season, inability of most farmers to own large number of animals etc. are setbacks of the animal and meat industry of Ghana.

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