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Ghana's Poultry Sector: Limited Data, Conflicting Narratives, Competing Visions

James Sumberg, Martha Awo, Dela-Dem Doe Fiankor, George T-M. Kwadzo and John Thompson

Ghana Poultry

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This paper analyses the policy context around the Ghana poultry sector with a particular focus on a number of 'evidence issues'. We will identify and probe where there appear to be different or conflicting facts, interpretations, narratives and visions, and consider implications for policy processes in the light of the rhetorical acceptance of evidence-based approaches to policy. Being explicit about the limitations of evidence-based policy in situations like this can only increase the prospects that poultry policy in Ghana will deliver outcomes that are economically viable, socially just and environmentally sustainable.

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Ghana's Poultry Sector:

Limited Data, Conflicting Narratives, Competing Visions

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STEPS Working Paper 56

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Acronyms

AIWG	Avian Influenza Working Group
BUSAC	Business Sector Advocacy Challenge
EBP	Evidence Based Policy
ECOWAS	Economic Community of West African States
CAADP	Comprehensive Africa Agriculture Development Programme
CAHWs	Community Animal Health Workers
CEPS	Customs, Excise and Preventive Service
CET	Common External Tax
DFID	Department for International Development
DOC	Day Old Chick
FAOSTAT	Statistics Division of the Food and Agriculture Organization
GAIN	Global Agricultural Information Network
GATT	General Agreement on Tariffs and Trade
GNAPF	Ghana National Association of Poultry Farmers
HPAI	Highly Pathogenic Avian Influenza
ICOUR	Irrigation Company of Upper Region
IFPRI	International Food Policy Research Institute
ILRI	International Livestock Research Institute
ISSER	Institute of Statistical Social and Economic Research
MOFA	Ministry of Food and Agriculture
LDP	Livestock Development Project
MRACLS	Multi-Round Annual Crop and Livestock Survey
NAFCO	National Food Buffer Stock Company
NGO	Non-Governmental Organisation
RVC	Royal Veterinary College
SRID	Statistics Research and Information Directorate

USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WTO	World Trade Organization
YAP	Youth in Agriculture Programme

1. Introduction

Over the last decade persistent rural poverty, climate change, food price increases, rising population pressure and heightened investor interest have re-focused attention on the agricultural sector in sub-Saharan Africa. As governments, development partners, NGOs and investors try to determine how best to respond to a rapidly changing context, there has been an upsurge of interest in agricultural policy, including how it is argued, made and implemented, the politics associated with it, and the 'success stories' that can provide both insights into its impacts and lessons for the future.

Along with this new enthusiasm for agriculture and agricultural policy comes a strong discourse about 'evidence-based policy' (EBP). Rooted in the fields of medicine and healthcare, EBP purports to bring rationality to policy making, and it is often summarised as focusing on 'what works' (Pawson 2002). The EBP movement has been repeatedly critiqued for a simplistic, linear understanding of the relationship between evidence and action and for its normative approach to the *desirable* relationships between research-based knowledge and policy formulation. More recent literature on EBP, and particularly that associated with the 'realist synthesis', recognises that there are different 'evidence bases'; that the notion of evidence can be quite slippery; and that different kinds of evidence can be interpreted and valued differently (Head 2008; Pawson 2002; Whitfield 2013). Nevertheless, the idea that policy must take account of evidence (e.g. of what worked where and for whom) is now generally accepted, and many governments and donor agencies, from the United Kingdom Department for International Development to the World Bank, emphasise the central importance of EBP to improve development interventions. Of course, before the point of evaluating the impacts of various policy options, 'evidence' is also critical for establishing trends, constraints and dynamics within a sector or around a problem of interest. The concerns about the availability and quality of baseline data relating to food and agriculture in Africa (e.g. crop areas, yields, livestock populations and offtake levels) are long-standing and well-recognised (Kelly and Donovan 2008). More often than not policy analysts, advocates, and programme and project developers rely on national data series available through government statistics offices and the Statistics Division of the United Nations Food and Agriculture Organization (FAOSTAT) because it is 'the *best* data available' (or more often because it is 'the *only* data available').

The coverage and quality of such data may vary depending on the nature and importance of the crop or livestock species, the nature of production systems and the domestic and export-oriented marketing arrangements. Data relating to minor crops and livestock species, those dominated by small-scale producers and mixed cropping systems, or where there is little government intervention are often more limited and/or of particularly low quality. This is essentially the situation for poultry in Ghana and, as we shall see, it has significant implications for the policy process. We will argue that because of these 'evidence issues', the poultry sector in Ghana provides important insights into the realities and limitations of evidence-based policy-making in the agricultural sector in Africa.

The objective of this paper is to explore these evidence issues through an analysis of the main trends and dynamics around poultry production, consumption and trade in Ghana. We will identify and probe where there appear to be different or conflicting facts, interpretations, narratives and visions, and consider implications for policy processes in the light of the rhetorical acceptance of evidence-based approaches to policy. Because of their dominance within the poultry sector we focus specifically on chicken meat and eggs. In the next section we briefly introduce the Ghana poultry sector and then explore the official statistics about the sector that are widely cited by policy analysts and advocates. Next, we analyse the context, rhetoric and reality of policy as it impacts the poultry sector, and explore competing visions for the sector. The paper ends with a set of conclusions that highlight the limitations of EBP when basic information about the sector is lacking.

2. Background

Poultry, including chickens, turkeys, guinea fowl and ducks have been produced and consumed in Ghana for many generations. Free roaming poultry are ubiquitous in rural areas; chicken is an essential part of 'traditional' dishes such as light soup, and for many people a chicken is the heart of Christmas and other festival meals. Chickens still play a role in the ritual lives of some people and places.

With an economy dominated by cocoa, it should not be surprising that in the years following independence there was only limited policy interest in the poultry sector. In an early assessment of the economy it was noted that 'in the last five years, a poultry industry has grown up outside the larger towns' (International Bank for Reconstruction and Development 1960). Poultry received some limited attention in the Nkrumah Government's ultimately futile drive to establish large-scale, mechanised state farms in the early 1960s (Due 1969; Hinderink and Sterkenburg 1983). Interestingly, at the same time as the state farms were being dismantled, poultry was identified as a promising area for new investment projects (International Bank for Reconstruction and Development 1967: 29). Since then the poultry sector has had to weather the political and economic crises that characterised the first four decades of the post-independence period. More recently it was affected by structural adjustment policies and the relatively strong economic growth experienced in recent years.

The sector is usually described as being comprised of two distinct parts: modern, commercial, intensive or semi-intensive operators on the one hand, and small-scale, backyard, extensive poultry keepers on the other. While these can appear quite distinct, in fact there are linkages between them including disease transmission and the flows of key inputs, products and raw materials (e.g. poultry feed and day old chicks). Nevertheless, in terms of policy, advocacy and development they are most often dealt with as distinct, independent and, at least to some degree, oppositional. Whether these two parts should be conceived of belonging to a single 'poultry sector' is open to debate.

There is a relatively small body of literature on Ghana's poultry sector but it includes four main strands. The first is made up of studies relating to either commercial or 'backyard' production systems. For example, Aboe *et al.* (2006a) and Aboe *et al*. (2006b) report on the husbandry, productivity and livelihood contribution of village poultry near Accra, while others report drug use in commercial poultry operations and perceptions of veterinary services (Turkson 2008; Turkson 2009). The second strand comprises reviews of the sector that are based essentially on secondary materials (Killebrew and Plotnick 2010). Several such reviews have been undertaken through FAO (Aning 2006; FAO 2006), while the United Stated Department of Agriculture (USDA Foreign Agricultural Service also produces periodic assessments focused in large part on opportunities for US exporters (e.g. Flake and Ashitey 2008). The third strand includes both published papers and other reports that are framed by the 2007 Avian Flu outbreak. Here work focuses on topics such as epidemiology (Pelletier *et al*. 2012), responses (AIWG 2006) and impacts (Akunzule *et al*. 2009; Birol and Asare-Marfo 2008; Diao 2008; Mensah-Bonsu and Rich 2010). Finally there is a body of unpublished dissertations and studies in agricultural schools and colleges dealing with aspects of the poultry value chain (Agbenyegah 2008; Bandanaah 2012; Dadzie 2009; Kangwongnuo 2007; Kyeremeh 2008; Larvoe 2012; Opoku 2011; Owusu 2006; Yeboah 2006).

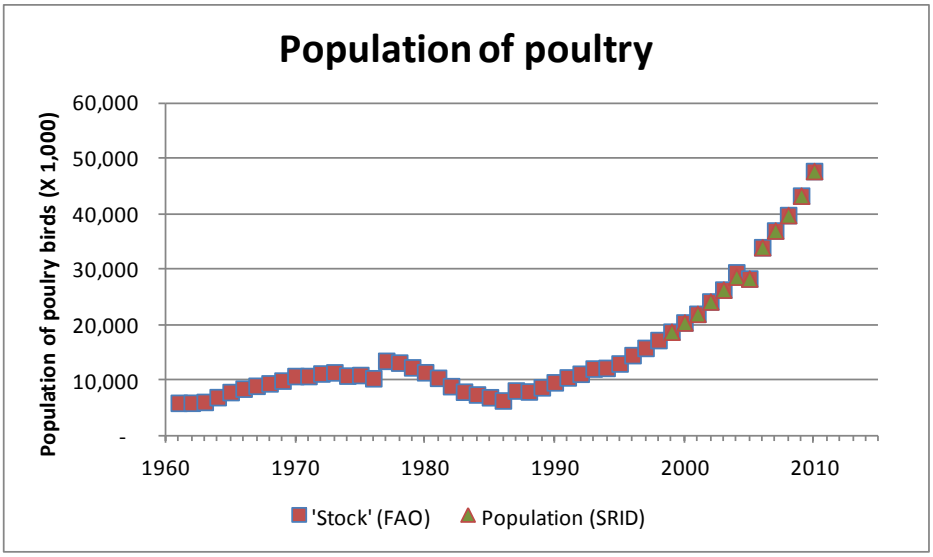
3. Evidence: What is known?

A common narrative about the poultry sector in Ghana suggests that the 1970s and 1980s was a kind of golden age when investments were being made, commercial producers did well and the country was nearly self-sufficient in chicken meat and eggs. This narrative suggests that this era waned as economic crises brought on structural adjustment and trade policies associated with the General Agreement on Tariffs and Trade (GATT) and World Trade Organization (WTO), which in turn opened Ghana's markets to 'dumping' and a flood of subsidised imports. With time this took a heavy toll on domestic producers, as the volume of inexpensive imports of frozen chicken meat increased dramatically. It is suggested that within this general decline egg producers have fared somewhat better than those producing broiler meat. This is partly because of the ease with which frozen meat can be transported across the world, the significant price advantage of imported chicken meat, and the difficulties associated with transporting and handling fresh eggs.

Unfortunately, moving beyond this narrative is extremely difficult as meaningful data that would allow a picture to be painted of trends or changes in the size, structure or health of the sector are simply not available (and where they exist they are not credible). The key words in the last sentence are 'meaningful' and 'credible'. As discussed below, the data that are commonly cited in relation to the poultry sector in Ghana are highly problematic and, we will argue, provide a less than adequate base for either analysis or informed policy making.

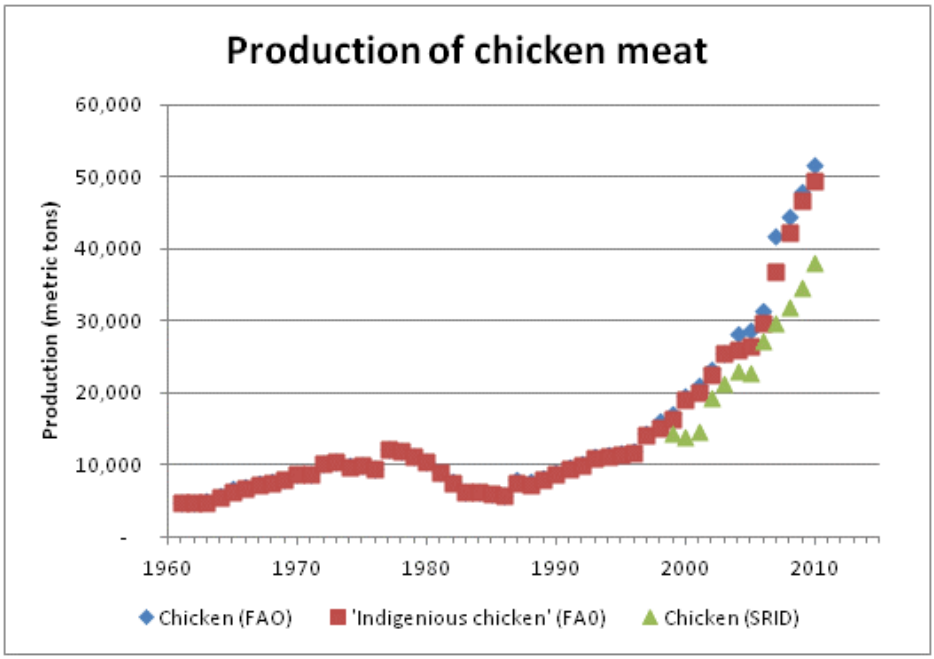
The Ministry of Food and Agriculture (MOFA) through its Statistics Research and Information Directorate (SRID) maintains time series data on the national poultry population, poultry meat production and poultry imports (available in *Agriculture in Ghana: Facts and Figures*). This series is the basis for all the data on Ghana's poultry sector that is available through the Food and Agriculture Organization's FAOSTAT website and that appears (e.g.) in the Institute of Statistical Social and Economic Research (ISSER) at the University of Ghana's flagship publication *The State of the Ghanaian Economy* (Figures 3.1 and 3.2).

Figure 3.1: Official estimates of national poultry population



Source: 'Stock' data from FAOStat; 'population' data from *Agriculture in Ghana: Facts and Figures (2010)*, issued by: Ghana Ministry of Food and Agriculture, Statistics, Research and Information Directorate (SRID), May, 2011

Figure 3.2: Official estimates of chicken meat production

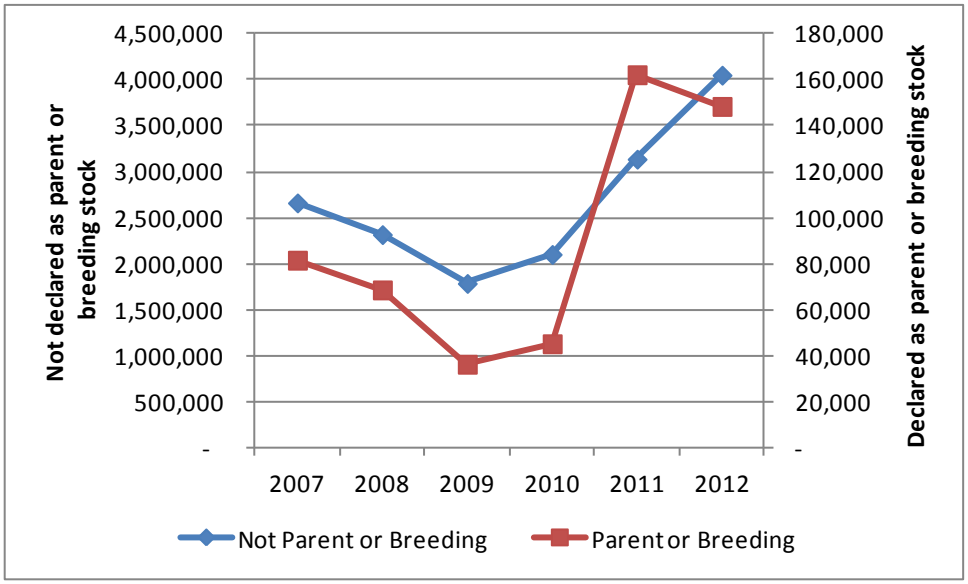


Source: FAO data from FAOSTAT; SRID data from *Agriculture in Ghana: Facts and Figures (2010)*, issued by: Ghana Ministry of Food and Agriculture, Statistics, Research and Information Directorate (SRID), May 2011

Until 1984 the Ghana Statistical Service conducted an annual Agricultural Sample Census that included a count of all livestock. In principle MOFA continues to conduct a district-level Multi-Round Annual Crop and Livestock Survey (MRACLS). However, important concerns have been raised about the coverage and quality of MRACLS data (Nyanteng and Aggrey-Fynn 2009). According to Quiñones *et al.* (2011), 'MRACLS operations currently provide imprecisely measured statistics for a small, unrepresentative sample' (p.8). A population growth coefficient has been used to estimate the population of birds in the years between surveys. Poultry meat and egg production were estimated by applying a formula to the respective population estimates. The last full counts of livestock populations were conducted in 1995 and 1996. These distinguished between broilers, layers and local birds: prior to this no categorisation was done. Following the outbreak of avian flu in 2007, United States Agency for International Development (USAID) agreed to fund a national poultry census, which MOFA undertook in December 2009. This means that all official data relating to the size and output of the poultry sector over a 40-year period is based on a very limited number of data points. Any trends that emerge from these data series must surely be viewed with extreme caution. Figure 3.1 illustrates the strong influence of a constant growth rate being applied over an extended period, while Figure 3.2 shows how the population figures drive the production estimates.

More fundamentally, the value of population estimates, whether based on counts or projections, is open to question. Commercial broilers are kept for a target period of six weeks, after which facilities are cleaned and disinfected (and sometimes rested or 'fallowed' for a few days to a few weeks) before a new batch of birds arrives. In Ghana, where many broiler producers are said to target their production to coincide with peak consumption periods around Christmas, Easter and the end of the Ramadan fasting period, broiler houses may be empty for a considerable period between production cycles (Rondon and Ashitey 2011). If the livestock head count takes place at a time when, because of this targeted, periodic approach to production most farms either have or do not have birds, population and thus production estimates will be significantly skewed. Additional information, such as the number of production cycles per year, which has not been part of the data collection exercises, would be needed for meaningful estimates of production.

Figure 3.3: Imports of day-old chicks (DOCs)

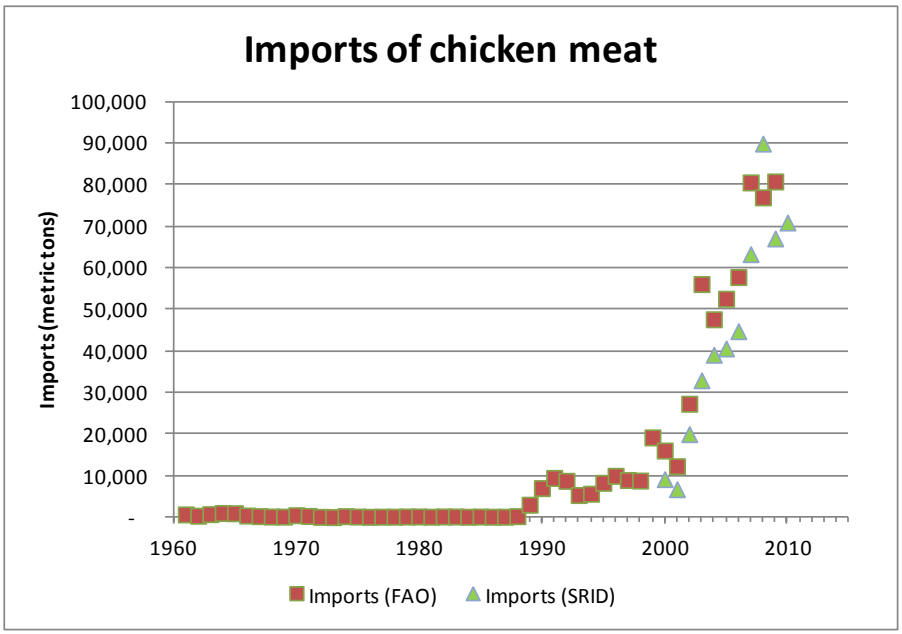


Source: [1]

Other key indicators of activity in the poultry sector include import levels of inputs (including day-old chicks (DOCs), hatching eggs, vaccines, drugs and feed) and frozen chicken meat. Data on all formally declared imports into the country are collected by the Customs Division of the Ghana Revenue Authority. At best these still only provide a partial picture as, for example, vaccines, DOCs and frozen chicken meat are also produced domestically. These data will not capture imports that are not reported or that are underreported. Figure 3.3 suggests that since 2009 the quantity of DOCs imported has increased very considerably. Is this a sign of a healthy domestic sector, or are these imports simply substituting for the collapse of domestic DOC production? The latter possibility seems unlikely as the imports of DOCs declared as parent or breeding stock increased by more than a factor of three from 2009 to 2012, and the importation of hatching eggs is also increasing. Taken at face value, these data appear to contradict one of the main claims made by the commercial broiler and egg producers – that their industry has shrunk dramatically in the face of unfair competition. On the other hand, Figure 3.4 appears to confirm another central claim of the commercial producers, that imports of frozen chicken meat have skyrocketed.

[1] Data shown in Figures 3.3 and Table 4.1 were derived as follows. A spread sheet containing raw data on all cases of official imports of DOC and hatching eggs between 5 January 2007 and 10 December 2012 was obtained from Revenue and Customs. Over this period there were 861 and 333 cases in the files for DOC and hatching eggs respectively. These data were then cleaned of cases that had either been misclassified or that related to poultry species other than chicken, which resulted in the elimination of 22 cases from the DOC file and 79 from the hatching egg file. Next, each case was classified as (1) either broiler, layer, mixed or unidentified, and (2) either declared as parent or breeding stock or not declared as parent or breeding stock. In some of the cases the number of units (quantity of DOC or hatching eggs) was clearly specified, while for the other cases there was no indication of the quantity imported. However data for 'gross mass' were provided for all cases. Linear regression equations were estimated for the relationship between gross mass and number of units for those cases for which both items of data were available. The fit was excellent (for DOCs $R^2 = 0.99$, n = 329; for hatching eggs, $R^2 = 0.96$, n = 106). These equations were then used to estimate the number of units for the remaining cases. Given the relatively high proportion of mis-classification, especially for hatching eggs, we have to wonder how many legitimate cases of the importation of chicken DOCs and hatching eggs were also mis-classified and therefore would not appear at all in these files.

Figure 3.4: Official estimates of chicken meat imports



Source: FAO data from FAOStat; SRID data from *Agriculture in Ghana: Facts and Figures (2010)*, issued by: Ghana Ministry of Food and Agriculture, Statistics, Research and Information Directorate (SRID), MAY, 2011

Despite these limitations, which in our view are so serious as to undermine any meaningful analysis, all of the policy-oriented reviews and analyses of the sector (Aning 2006; FAO 2006; Killebrew and Plotnick 2010; Mensah-Bonsu and Rich 2010) are based primarily on these data. While some authors acknowledge some of these weaknesses, others do not.

If the available and widely used data are as unreliable as we suggest, it is important to make explicit the very basic questions for which there would appear to be no answers, and around which there is active contestation. These are:

- Is the domestic poultry sector growing, stable or shrinking?
- What is the distribution of farms, production and employment by product and farm type?
- What is the total size of the market, and what are the market shares of domestic production (from different types of farms) and imports?
- How profitable are different types of domestic production?

This context of uncertainty about the structure of the sector and even of the most basic trends within it has a major impact on policy discourse and processes as we will see in the next section.

4. Policy: context, rhetoric and reality

The broader context is critical to any understanding of poultry sector dynamics and the policy processes associated with them. For Ghana this context can be characterised by an extended period of political stability, relative consistency of economic policy and, over the last decade, significant economic growth of between 4.1—7.3 per cent GDP per annum (IMF 2012). Associated developments include important reductions in poverty, increasing levels of education, changes in labour force participation and a growing urban middle class with rising consumption expectations (Kolavalli *et al.* 2012). It is important to note that despite these developments and the associated re-classification of Ghana by the World Bank as a 'lower-middle-income economy'[2], entrenched sectoral and regional disparities continue. While the agricultural sector has performed well (Dewbre and Borot de Battisti 2008), the fruits of economic growth are more apparent in urban areas and in the southern part of the country compared to rural areas and the north (Kolavalli *et al*. 2012). Problems such as graduate unemployment, specifically, and youth unemployment, more generally, are now receiving increased attention.

Another critically important part of the context is Ghana's neoliberal economic policy and particularly its low tariff regime and general openness toward international trade. Indeed, a major point of contention for commercial poultry producers is Government's apparent unwillingness to increase the tariff on imported chicken meat from 20 per cent to the Economic Community of West African States (ECOWAS) Common External Tax (CET) rate of 35 per cent (Anon. 2011; Johnson 2011). In terms of agricultural policy generally, Ghana signed a Comprehensive Africa Agriculture Development Programme (CAADP) 'compact' in 2009, and there are numerous initiatives involving government, multi- and bi-lateral agencies and NGOs within the agricultural sector, from 'Youth in Agriculture' and Ghana Rice Interprofessional Body to the National Food Buffer Stock Company (NAFCO) and Value Chain and Outgrowers Investment Fund. The language of 'value chains' is central to most of these initiatives, although it is important to note that 'the value chain approach' seems to be understood and operationalised in very different ways.

The main policy actors in relation to the poultry sector are various arms of government (including the Ministry of Finance and Economic Planning, Veterinary Services Directorate of MOFA, the Animal Production Directorate of MOFA), organisations representing commercial poultry producers[3], other commercial interests, including companies, involved in the importation and/or distribution of production inputs and frozen chicken meat, feed producers, domestic inputs producers, development NGOs focused on small-scale producers, and think tanks. Others with an interest in policy processes around the poultry sector include maize and soya producers, development partners and the international financial institutions. Issues around domestic poultry production, consumption and imports receive considerable attention through the popular press, radio, television and the internet. Commercial poultry producers' associations, especially the Ghana National Association of Poultry Farmers (GNAPF), have a particularly high profile in these public fora and debates.[4]

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[2] Defined by the World Bank as US$1,026 - US$4,035 Gross National Income (GNI) per capita (see http://data.worldbank.org/about/country-classifications)

[3] Poultry farmers are organised at district, regional and national levels. Membership of The Ghana National Association of Poultry Farmers (GNAPF), whose objective is to 'established to plan the development of Commercial Poultry Farming so as to attain National Self-sufficiency in Poultry and Poultry Products' is open to 'all poultry farmers registered with their Regional Associations'. In 2012 GNAPF had 1,300 members. (http://www.gnapf.com/index.php/membership)

[4] In 2011 the GNAPF benefited from a grant under the Business Sector Advocacy Challenge (BUSAC) Fund to develop an advocacy strategy, including a media campaign, around government's proposal to increase the tariff on imported chicken meat from 20 per cent to 35 per cent in line with the ECOWAS Common External Tax (CET) (Anon. 2011)

The main lines along which policy is argued have remained relatively constant for at least a decade. They include: the restriction (or not) of imports of frozen chicken meat through higher tariffs or an outright ban; the provision (or not) of direct support to domestic producers; the desirability (or not) of national self-sufficiency in poultry products; and the pros and cons of supporting commercial versus backyard producers. The arguments that are used to support policy advocacy in relation to poultry include: national food security (underlined by the food price spikes since 2007); the potential for employment generation (more recently specifically for young people); product quality and public health concerns; the increasing importance of 'biosecurity'; the link between small-livestock (like poultry) and poverty alleviation, especially for women; and the Government of Ghana's willingness (or not) to stand up to the international financial institutions. In the absence of much meaningful data about the poultry sector, these arguments are supported mostly by claims, narratives and 'facts' that have taken on a life of their own through repetition in the press and on the internet. Some of the most common of these include: overseas poultry producers are heavily subsidised and this subsidised production is 'dumped' in Ghana (Khor 2008); the domestic poultry sector is in decline[5]; and if imports were restricted the poultry sector could provide 498,000 jobs (compared to only 4,625 in 2010[6]).

Nevertheless, compared to cocoa, maize or rice, the poultry sector does not feature prominently in economic planning or agricultural policy and programme documents. Where it is referred to, the proposed measures appear to lack either purpose, focus or consistency (Table 4.1), and it is difficult to discern a specific policy approach or strategy towards the poultry sector. A prime example of policy inconsistency is the way proposed changes to the tariff levels for imported chicken meat have been handled since at least 2003. Further, it is striking that there is seldom recognition of the different challenges and opportunities faced by broiler meat and egg producers – both are simply 'poultry'. This is despite the fact that, while broiler producers compete against frozen imported poultry parts from Brazil, Europe and the USA, the egg producers encounter only limited competition from neighbouring Côte D'Ivoire. Remarkably, policy and programmes often fail to distinguish between commercial and backyard poultry producers.

Table 4.1: Measures announced in the annual budget statement relating to the poultry sector

Year	Measure
1999	• Youth in Agriculture Programme (YAP)
2000	• All veterinary drugs and ingredients for the manufacture of poultry feed be exempt from import duty
2001	• Make conscious effort to screen and make available to farmers high yielding maize varieties as well as timely supply of appropriate fertilizer and agro-chemicals
2002	• Customs, Excise and Preventive Service (CEPS) will implement measures to ensure that correct taxes are levied on verified values for the poultry products • CEPS will collaborate with the destination inspection companies to update the values on these specified poultry and meat products on a regular basis

[5] 'Cheap Imports Damaging Ghana's Poultry Industry', 02 August 2010, The Poultry Site citing My Joy Online, accessed 01/10/2012; 'Poultry sector declines', 21 August 2013, Daily Guide, accessed on 01/10/2113

[6] 'Ghana's Industry Collapse Blamed on Imports', 2010, citing Mr Philip Abayori of the National Farmers and Fishermen Award Winners Association (http://www.thepoultrysite.com/poultrynews/19249/ghanas-industry-collapse-blamed-on-imports), accessed 23 November 2012. Interestingly, the experience of Nigeria, where the importation of poultry products has been banned since 2002, is held up by the GNAPF and others as an example of what works and that Ghana should follow: the fact that 10 per cent of all working people in Nigeria are employed in the poultry sector is used to support the argument that in Ghana the sector also has significant untapped potential to create employment (EnvironQuest 2007).

2003	• An additional duty of 20 per cent be charged on imports of finished poultry products into the country
2004	• Nil
2005	• Train 400 farmers in various diversified agricultural enterprises (sheep, goat, piggery, poultry and fish farming) [through Special Programme for Food Security (SPFS)]
2006	• Sufficient quantities of 1 – 2 vaccines will be produced locally and sold to farmers at very affordable prices • Any additional vaccines needed will be imported in sufficient quantities for sale to farmers • Monitor closely the development of the "bird flu" disease in other parts of the world • Support the YAP • Livestock Development Project (LDP)
2007	• Farmers will be trained in husbandry practices including breed selection, housing and nutrition • Train farmers in the identification of five poultry and livestock diseases • Conduct active and passive surveillance for epizootic diseases- […] Avian Influenza (Bird Flu) • Intensify awareness creation and educational campaigns on Avian Influenza (Bird Flu) of the citizenry • 20,000,000 doses of I2 vaccine for village chicken will be produced • Actively promote the use of locally produced rice and poultry products by all public institutions like schools, hospitals and the security agencies • About 50 mt of foundation seed soybeans will also be produced. Irrigation Company of Upper Region (ICOUR) will also assist farmers to produce 200 tons of certified seed soya bean and 240 tons of soya bean grains
2008	• Nil
2009	• Support a pilot project […] by engaging hatchery operators to hatch two million chicks for distribution to farmers • Guinea fowl farmers in the three Northern regions will also be supported with incubators to produce keets for farmers • Pong-Tamale and Accra veterinary laboratories will be enhanced to increase the manufacture of poultry and livestock vaccines locally • 300 Community Animal Health Workers (CAHWs) will be trained and equipped to facilitate their work
2010	• A nationwide campaign to vaccinate local poultry/guinea fowls […] against diseases • Distribute brooded chicks (cockerels) • Surveillance for […] Avian Influenza (Bird Flu) will continue to be conducted • Scientific, Industrial Research and Development to promote the use of […] the use of locally produced vaccines for […] poultry • The import duty on imported […] poultry products will be rationalized to check dumping of such goods on the Ghanaian market
2011	• A significant portion of the Japanese grant and other grants will be made available to poultry farmers to be used to acquire the necessary equipment and chemicals for the industry

	• Discussions underway with some foreign investors on the production of poultry feed in the country • With the help of the South African expertise, large feed processing mills will be established as part of the agro processing to feed the poultry industry
2012	• 700 poultry farmers will be engaged for the production of poultry under the Livestock Programme of the Youth in Agriculture Programme • Procure and distribute 20,000 day old chicks, piglets, doves and ducks to beneficiary farmers • Under the National Cockerel/ Guinea Fowl Programme, 5,000 household poultry keepers in 7 Regions will be supported with 50,000 brooded cockerels • Continue to organize a nation-wide campaign to vaccinate local poultry/guinea fowls against Newcastle Disease and Avian Influenza (Bird Flu) […] in collaboration with other stakeholders • Support Council for Scientific and Industrial Research (CSIR)

Source: see footnote 1

Notwithstanding the above, a number of policy elements can be identified, including:

- An oft-repeated commitment to support the development of the domestic poultry industry
- An 'indirect' strategy to support the sector (via support to maize and soybean farmers to increase production, which should decrease feed prices), in contrast to the 'direct' approach to support, favoured by some commercial producers
- A twin track approach, providing support for commercial operators (as above) as well as to backyard poultry keepers (e.g. through vaccination and the distribution of improved cockerels)
- Maintenance of a domestic market that is open to the importation of poultry meat.

If these are the main policy and programme thrusts relating to the sector a number of points of tension, contradiction or incoherence can be identified. Most importantly, the idea that support to crop farmers will reduce feed costs for poultry farmers would appear to contradict one of the stated objectives of MOFA's National Food Buffer Stock Company (i.e. 'to guarantee an assured income to farmers by providing a minimum guaranteed price and ready market') (see Benin *et al*. 2011). Similarly, there is an apparent tension between the objective of supporting the development of the domestic industry and maintaining only minimal barriers to the importation of chicken meat.

This situation might best be understood in terms of a set of trade-offs faced by policy makers in relation to four interest groups: maize and soya producers, commercial poultry producers, frozen chicken importers and urban consumers. The massive increase in the importation of frozen chicken would suggest that despite the official rhetoric, policy has consistently favoured the interests of urban consumers over those of domestic poultry producers. A similar conclusion might be appropriate in relation to policy associated with two other key foods – rice and tomato paste – where, despite much rhetoric, some investment and high profile civil society activism (e.g. Lambrechts *et al*. 2005; Ochieng and Sharman 2004), the realities of global comparative advantage and the Government's open trade policy result in markets that have long been (and remain) dominated by imports (Awo 2012; Lançon and Benz 2007; Robinson and Kolavalli 2012). Put another way, policy makers seem to have prioritised *food policy* (i.e. to increase the supply of inexpensive staple foods to consumers) over *agricultural development policy*. Regardless of its longer-term implications for the agricultural sector or national food security, such a choice can be understood as part of an evolving political economy that recognises the electoral importance of urban and increasingly middle-class voters (e.g. Poulton 2012) and 'consumers' more generally.

Johnson (2011) uses a fascinating comparative analysis of the relative effectiveness of poultry producers in Ghana, Cameroon and Senegal in changing government policy to suggest that producers in Ghana were ineffective in their quest for higher import tariffs because they were not united and they did not develop a strategy that brought consumers to their cause.

Part of the hesitancy to sacrifice immediate consumer gratification for longer-term agricultural development objectives may be due to the fact that in recent years, chicken meat has become a much more central part of everyday food consumption, particular for urban residents. Indeed, chicken meat may be becoming a structural part of the diet and what has been termed a 'psychological staple' (Iwasaki 2004), associated, particularly among the younger generation, with self-identity as part of a modern, middle income country. If this is indeed so, it would be a brave (or foolish?) politician who would make any move likely to result in a significant increase in the retail price of chicken meat. Thus chicken meat might be thought of as a 'politically charged' food, with important implications for policy processes and outcomes. We suspect that a very similar line of argument could be developed to explain the contradictions between the rhetoric and the reality of policy relating to both rice and tomato paste.

Competing visions

A number of competing visions for the future of the poultry sector in Ghana circulate among sector actors. By and large they are only partially developed and would have to be considered 'emergent'. These visions articulate around one or more of the following three dimensions:

- Market share to domestic production: high or low
- Structure of the domestic sector: integrated or not integrated
- Role of small-scale producers: important or not important

None of the visions speak to all of these dimensions; below we briefly outline three such visions:

1. *Level the playing field and we will take back our markets*: this vision is rooted in the belief that unfair competition is at the heart of the sector's 'decline'. Those promoting it, such as the GNAPF, see foreign subsidies and low import tariffs as the major barriers to sector viability. Associated with a call for national self-sufficiency, this is essentially a conservative vision that speaks first and foremost to the needs and concerns of present-day commercial producers.

2. *Learn lessons from others and go for vertical integration*: this vision is rooted in an appreciation of the proven 'efficiency' of what has become the dominant global model for commercial poultry production. The proponents of this option, including some senior ministry officials and input suppliers, look to examples from Brazil, the European Community or the United States of America and a very small number of large-scale, integrated operations in Ghana. Full vertical integration would mean that most commercial producers would become contract growers associated with a small number of large integrated firms. This vision is promoted as having the potential to deliver the inexpensive, high quality poultry products that consumers now demand. It also provides a model for dealing with increasingly strict biosecurity standards. Some suggest it would be an 'easy' option for producers as most decisions are taken out of their hands.

3. *Use small-scale poultry for food security and income*: this vision is rooted in the proposition that small livestock have proven potential to reduce poverty, and are particularly suited to women (Kryger et al. 2008; cf. Okali 2011). Whether for home consumption or as part of a small-scale commercialisation strategy, this vision depends on significant government or donor inputs, including the scaling up of the kind of micro-credit and improved cockerel programmes that are already in place. However, in the view of some experts and providers of goods and servicing to commercial producers, operations below 1,000

birds cannot be serviced economically. Following this logic, government and NGO involvement with village poultry producers might be best understood as a social programme.

While the directionality of change associated with these three visions is pretty clear, we are not yet in a position to analyse their respective implications in terms of distribution (of benefits and costs) or diversity (of system resources). There is however a lot already known about the second vision, which minimises diversity (e.g. in organisational form and genetic material) and shifts benefits toward a handful of integrated firms and consumers (Hinrichs and Welsh 2003). In effect all the frozen chicken imported into Ghana is already a product of this kind of industrial scale vertical integration.

As these and other visions continue to emerge, they will begin to interface with and be modified by a variety of local and global interests. One example is the strong global concern and increasingly formal protocols relating to 'biosecurity' in the poultry industry: when the reality of these comes into play, policy advocates in Ghana may find that their policy space is quite severely constrained.

5. Conclusions

In a world where, at least in principle, policies based on evidence are *de rigueur*, how should the analyst, advocate and policy maker act when the available evidence is partial and of poor quality at best, or irrelevant at worst? This, we suggest, is the situation facing those currently arguing policy in relation to the poultry sector in Ghana. If we are unwilling to put much faith in the official statistics, even if they are 'the best data available', what are we left with, other than competing narratives, unsubstantiated claims and dubious facts?

Our analysis of the available secondary statistical materials, combined with interviews with key informants, give us some confidence in concluding that:

- Over the last ten years the quantity of frozen chicken meat imported into Ghana has increased dramatically.
- The playing field is not so uneven that it is impossible for local producers of meat and eggs to stay in business. At some level and for some parts of the market local producers are still competitive.
- Egg producers seem to have fared better under liberalisation than have broiler producers.
- The position of chicken meat in the diet and food preferences of urban consumers, especially those of the younger generation, seems to have shifted (or is shifting) towards a 'psychological staple'.[7]
- The sector has not yet experienced the kind of structural transformation, including vertical integration and a move towards contract farming, that is seen elsewhere (although there have been some high profile attempts to innovate along these lines).
- Despite the existence of producers' organisations at district, region and national levels, the sector remains fragmented (and there is some sense that there is a lack of trust among key actors in the sector).
- There are a number of emergent, competing visions for the future of the sector which will have important implications for the directionality of technical and structural change, the distribution of benefits arising from that change, and the diversity of systems resources.

With the economic, political and social changes taking place in Ghana, one might interpret the apparent increase in chicken meat consumption as a clear manifestation of the Livestock Revolution, usually described as accelerated growth in demand for livestock products tied to human population growth, rising incomes, continuing urbanisation and changing food preferences (Delgado *et al*. 1999; Sumberg and Thompson 2013). While from the demand-side this may well be right, from the supply-side Ghana's livestock revolution appears to be developing in quite a unique way. Instead of being met primarily by a local supply response, the increased demand in Ghana is being met by large-scale, integrated poultry operations based in Brazil, Europe and America. This is not the dynamic envisaged by those who trumpeted the development potential of the Livestock Revolution, where small-scale producers, particularly those near urban markets, were (hopefully) to share in the benefits enjoyed by urban consumers. The particularities of Ghana's agricultural economy, its openness to international trade, and the highly integrated, industrial nature of modern chicken meat production and processing, point to a global, trade-dominated dimension of the Livestock Revolution that was perhaps not sufficiently highlighted in the original literature.

[7] We hope to explore this proposition further through field work.

Is this a development pathway that is set in stone? Is there room for other visions to emerge and take root? Through what processes and coalitions, and by using what tactics, will alternatives be contested? What role will contested notions of sustainability play in these processes? And finally, what role will 'evidence' – in all its forms – play in these policy processes? These are important questions and certainly deserve research attention. However, in the near term the more practical question relates to the goals and strategies of policy making when even the most basic data are lacking. In contexts like these perhaps EBP should be quietly set aside, and replaced with what we might call 'good enough policy'. Here the focus moves up a level to the choice of the general direction of travel toward a very broadly specified goal like 'national self-sufficiency' of 'sustainable production'. The whole point of policy then becomes to maintain movement in the general direction of travel, a task that is less dependent on the availability of high quality data.

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