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Analysis of Current Status of Poultry Value Chain in Ethiopia: Implication for Information Generation and Exchange: A Review

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Abstract
The objective of this paper was to review the current status of poultry value chain in Ethiopia. According to the recent findings, there are about 59.5 million Chickens in Ethiopia. Out of the total chickens mentioned, 54.1 million (90.85%) are indigenous, 2.6 million (4.39%) are exotic and 2.8 million (4.76%) are hybrids. Scholars explained that poultry production in Ethiopia can be classified in various ways such as small, medium and large with yet poorly developed and traditional poultry value chain. Reports have shown that the poultry value chain distribution approach has been better practiced than the input-output approach mainly under smallholder production system. However: in large scale production system, both the input-output and the poultry value chain distribution approach have been undergone following the dynamics of poultry technologies and involvement of both national and international poultry research institutions (EIAR and ILRI), investments and interventions. Researchers indicated that the flow of information along the poultry value chain (Poultry Value chain Mapping) has not yet thoroughly investigated. Reports have shown that the poultry value chain actors are variable along the different areas of Ethiopia. Some of the poultry value chain actors studied were chicken multiplier and distributors as input supplier, poultry producers(for production purpose),poultry collectors and transporters, poultry wholesalers and retailers, restaurants and cafeterias and consumers (end users) as in the case of North Ethiopia (Adwa areas). Moreover; some of the poultry value chain actors in Southern part of the country were poultry producers, urban assemblers and Village assemblers, Wholesalers and retailers, Brokers, Processors, Supermarkets, Hotels and restaurants and consumers. Scholars have shown that the poultry value chain enabling environment has not yet conducive enough. The tax systems (import of essential inputs) have been indicated to quite challenging. The shortages of Foreign exchange, adequate supply of feed and insufficient knowledge base have additionally been cited as major hindrances of the poultry value chain. Literatures have shown that there has been a chronic shortage of day old chicks and fragmentation of distribution channels in the country. Some of the opportunities of poultry value chain have been mentioned as existence of governmental (MoAL) and non-governmental institutions (ILRI and Commercial companies), higher recent government prioritization and high population size (over 100 million). The poultry value chain is very fragmented and poor .The poultry production taxing system is also inadequate requiring key researches and policy interventions. Therefore, it is appropriate to recommend that there should be a need to develop clear policies and strategies for poultry value chain in Ethiopia through integrated effort of public and private sectors. There should also be capacity building (More practical oriented training) along the entire poultry value chain in the country as a whole.
Keywords: Analysis, Poultry, Value chain, Status, Ethiopia

1. INTRODUCTION

Poultry is the largest livestock group in the world estimated to be about 23.39 billion consisting mainly of chickens, ducks and turkeys (FAO., 2011; FAO.,2007) and has remained to be important in the improvement of food security and livelihood (Zemelak *et al*.,2016) and contributing about 28-30% of all animal protein consumed in the world (FAO., 2011;ILRI.,2014).

Reports also disclosed that the total chicken population in Ethiopia has increased (CSA, 2011; ILRI, 2014) and estimated to reach above 59.5 millions (CSA, 2014; FAO, 2011). Moreover; it has also been reported that village chicken production account above 90% of the total chicken production where exotic and hybrid chicken constitutes above 10% of the chicken production in the country (CSA, 2014; ILRI, 2014).

References have shown that the price of agricultural products particularly poultry products have been rising both in domestic as well as international markets due to rising income in newly emerging developing nations and high population growth (Aklilu *et al*,2007). poultry products have very high income elasticity's, and demand increases rapidly with rising income as countries shift from lower to middle income economies (Auke *et al*,2015).. Increases in poultry consumption have been particularly dramatic and widespread, while changes in beef, pork, and dairy demand vary with cultural differences between countries (Ekin *et al,* 2008). Future meat demand has been expected to grow at roughly equivalent rates in different developing countries (Vernooij *et al,* 2012).

Scholars have explained that Agricultural product value chains in general poultry in particular have been disclosed to be the main driving force of economic development and has a guiding and simulating impact on production and distribution of poultry and poultry product production (FAO, 2014). The poultry marketing system has taken on increasing importance as a traditional agrarian society has been transformed in to modern industrial society (CSA, 2014). The increasing proportion of the population living in urban centers and the rising level of income requires more highly organized channels for processing and distributing agricultural products in general and poultry in particular (ILRI,2014).

Literatures approved that various research efforts have been undergone to improve poultry production and productivity in Ethiopia. A review of past research works have indicated that the research largely concentrated on the biological aspects of poultry production such as supplementary feeding and breeding (Fisseha *et al*, 2010). Increased production, however, needs to be accompanied by efficient marketing systems and one means of investigating the efficiency of chicken marketing system has been informed to be through studying and identifying factors that determine the market chain analysis of chicken (Shepherd,2007).

Findings have shown that the Ethiopian poultry value chain has not been well developed and has been explained to be traditional (Dawit *et al*, 2008). Marketing of poultry and poultry products at open markets has been reported to be common throughout the country and both live birds and eggs have been sold on road sides (Gebregiziabher, 2010). The poultry value chain has been reported to be often very short mainly through a direct interaction of producers and final consumers in live-bird markets which has been described as a simple poultry value chain (Aklilu *et al,* 2016). Governmental and nongovernmental organizations have taken initiatives to undergo the livestock value chain improvement in general and the poultry and poultry product in particular (ILRI, 2014). Livestock and Irrigation Value Chains for Ethiopian Smallholders (LIVES) project has been initiated with the objective to transform smallholders into more commercial farmers through value chain based interventions in high value livestock commodity development including poultry and poultry products (ILRI, 2014).

Researchers have shown that poultry value chain activities have shifted products from its producer to its end user and include production, marketing and distribution (CSA, 2014). Poultry value chain could be defined as the range of activities required to bring poultry meat or eggs to consumers via the different phases of production, marketing and distribution with added values (Awol, 2010). It can also be described as market focused collaboration among different stakeholders who produce and market value added products. Value chain analysis helps to understand the production system, marketing channels and their relationships, the participation of different actors, and the critical constraints that limit productivity and the competitiveness of the producers of various scopes (FAO, 2014). Others have also informed that the poultry value chain involved a number of actors such as farmers, assemblers, wholesalers, retailers, processors, urban consumers and cooperatives (CSA, 2014). Households sold majority of their birds and eggs directly to urban consumers (FAO, 2014). Assemblers, retailers and wholesalers purchase the majority of birds and eggs sold (Ekin *et al,* 2008). Processors and cooperatives made rather a limited contribution in the supply chain (Aklilu, 2007).

2. REVIEW

2.1. Definition of Poultry Value Chain and Poultry Value Chain Related Terms

References have shown that different value chain dictionaries have been to be elaborated to make ease of readers with various scopes at all levels and scholar environments (USAID, 2006).

2.1.1. Definition of Poultry Value Chain

References have explained that the poultry value chain could be defined as the full range of activities required to bring a product (meat, egg) to final consumers passing through different phases of production, processing and delivery (Aklilu *et al*, 2016). It can also be defined as a market focused collaboration among different stakeholders who produce and market value added products (USAID, 2006). Others also defined as the sequence of productive process from the provision of specific inputs for a particular product for a primary production, transformation, and marketing and up to the final consumption (FAO, 2012). It can be defined as an institutional arrangement linking and coordinating producers, processors, traders and distributors of a product such as poultry and poultry products (ILRI, 2014).

2.1.2. Definition of Value Addition in Poultry

References informed that value addition in poultry could be defined as a process of changing or transforming a poultry product from its original state to more valuable state of consumers (Aklilu *et al*, 2016).

2.1.3. Definition of Poultry Value Chain Selection

References have indicated that poultry value chain selection has been defined as a process of deciding on which poultry value chain poultry enterprise should develop in order to get the maximum benefit from its investment and innovations starting at the early planning stage of the chicken and chicken product enterprise of the value chain process (Aklilu *et al*, 2016).

2.1.4. Definition of Poultry Value Chain Mapping

Reference have shown that poultry value chain mapping has been defined as a graphical representation of a process by which poultry product of value could be created or modified and showed what should be done to create value and who should do it as taking in to account the mitigations and interventions in the whole value chain process explained as graphical scheme (Aklilu *et al*, 2016).

2.1.5. Definition of Poultry Value Chain Analysis

Poultry value chain analysis is a tool for working out how you can create the greatest possible value for your consumers and the best way to maximize profit (FAO, 2014).

2.2. Overview on Poultry Production Systems in Ethiopia

Different authors classified poultry production system in Ethiopia as small, medium and large based on the chicken types and their scale of production system dynamics. Reports also showed that small scale chicken production system account for more than 95% of poultry production in Ethiopia (Mekonnen*et al.*, 2010).

Besides; small scale production system could be classified into three as traditional free range poultry production system(having less than 10 chickens), improved free range poultry production system (having less than 50 birds) and small scale confined poultry production systems (some hybrid inclusive) having range from 50-1000 bird(FAO,2012).Different scholars also classified poultry production system in Ethiopia as village, peri-urban and urban based on the chicken types, purpose of production, level of technologies used and their production environment and the village chicken ecotypes have been vast and important specially for women in developing courtiers like Ethiopia (CSA,2014).

Reports also showed that poultry production in Ethiopia could be classified as extensive, semi-intensive and intensive based on their level of intensity of production, confinement and production objectives set. Moreover; various researchers informed that chicken ecotypes could be classified based on their Agro-ecological conditions (Shishay *et al*, 2014).According to the GTP-II of Ethiopia master plan poultry production system could also be classified as scavenging, semi-scavenging and commercially confined depending on the level of feed and feeding technologies, the chicken types and purpose of production intended in the country (ILRI, 2014)

2.3. Poultry Value Chain and Value Chain Actors in Ethiopia

References have shown that large-scale farms provide information and advice to small-scale and backyard farmers (USAID, 2006). Large-scale farms significantly contribute to knowledge spread through their use of imported technologies which may not have been introduced earlier and via the importation of DOCs, which may not have been previously evaluated important skills and values in the value chain business interactions (FAO, 2012). Large-scale farms were also identified as one of the most influential actors in terms of movement modern inputs through many direct and indirect involved value chain actors along the value chain in Ethiopia (ILRI, 2014).

Reports have shown that The network mapping exercise could be impose to influential actors/institutions in the assimilation of modern poultry technologies for small-scale farms and the influential actors have been mentioned as assemblers, retailers, transport facilities; followed by traders and feed processors through the exchange of feed and wholesalers, hotels and restaurants, and processors through the proper disposal of wastes from the whole poultry vale chain processes in the country (Aklilu *et al,*2016).

2.4. Poultry Producers along the Value Chain in Ethiopia

References have disclosed that local poultry producers have been smallholders who mainly produce indigenous and dual purpose chickens (Awol, 2010). There are also commercial layer and broiler producer in Ethiopia and poultry size of poultry producers varies depending on agro ecological setting and wealth of the producer (Aklilu, 2007). Larger herd sizes are usually observed among local poultry producers, but herds are very small in commercial layer and broiler producers. Local poultry producers tend to sell for cash and their chickens are important sources of egg and meat for the household (USAID, 2006). It is important to note the local poultry value chain behavior is considerably variable among the chicken producers in Ethiopia (Mekonnen, 2007).

Scholars have shown that local poultry producer intends to sell his/her chickens not based on demand, but rather most producers (especially those who have very small poultry) sell their chicken when cash is needed to meet obligations (EMMA, 2013). Thus supply of local poultry to the various value chains is governed by factors apart from market price incentives (Shepherd, 2007). Poultry producers sell their chickens mainly at the beginning of the school year to pay school expenses for children and religious festivals such as Easter, Christmas and Ramadan (FAO, 2014). Local poultry producers usually sell their chickens in nearby for the primary value chain actors. The poultry feed producers for local chickens are non conventional feeds while the commercials get from commercial feed processing plants found primarily in urban and peri-urban areas (FAO,2012).

2.5. The Poultry and Poultry Product Collectors along the Value Chain in Ethiopia

References have explained that poultry and poultry product collectors could be producers or small traders who trade chicken as a part-time or full business (FAO, 2012). The sources of capital for collectors vary depending on relationships they have with their buyers and the level of trust they have developed with traders (ILRI, 2014). Those poultry and/or egg collectors who have developed trust with traders usually get advance payment from these traders so that they will collect chickens and/or eggs satisfying the trader's quality requirements (USAID, 2006).

2.6. The Large Scale Poultry and Poultry Product traders across the Value Chain in Ethiopia
Scholars have shown that poultry and poultry product traders who supply thousands of chickens a week to export urban consumers and larger service providers (national and international hotels) in the country (FAO, 2014). Large-scale poultry traders have a network of small traders and collectors that will collect chickens and/or eggs from different corners of the country. Some chicken and chicken product providers lounge a premium prices to traders that can supply thousands of chickens and chicken products (). Suppliers have found to establish their collection networks and try to supply as many chickens and/or eggs as they can base on the profitability of the service providers (ILRI, 2014).

These Poultry Value chain actors are those involved in input supply, producing, processing, trading and consuming the poultry and eggs (Zemelak *et al,* 2016). It includes the direct actors such as input suppliers, producers, traders and consumers and indirect involved institutions (FAO, 2014). Each actor plays specific roles at different points of the value chain. Households produce poultry and eggs, they exchange breeding stock with neighbors, or buy from traders, market and hatchery. Eggs are sold to primary egg collectors, neighbor, and local market to local consumers. Secondary traders transport eggs from rural areas to urban markets where they sell to urban consumers through supermarkets, shops and restaurants. In a wider sense, certain government agencies at the macro level can also be seen as value chain actors if they perform crucial functions in the business environment of the poultry value chain intended (USAID, 2006).

2.7. Service Providers and Individual Consumers across the Poultry Value Chain in Ethiopia
References have mentioned that service providers (such as Hotels) are the major outlets for poultry and poultry products in Ethiopia (FAO, 2012). They buy poultry and products and process them into different dishes. Most hotels have permanent poultry and poultry product suppliers (usually small-scale traders). Some hotels also buy from producers or collect in poultry and poultry product markets. Individual consumers usually buy poultry or eggs during religious festivals. The type of chicken demanded by individual consumers varies with the wealth of the consumer and poultry and poultry products are more affordable than other animals for financially poor households (EMMA, 2015).

2.8. Poultry Value Chain Approach and Mapping in Ethiopia
References have shown that there have been various poultry value chain approaches and the mapping of the value chain could also be different in different both developed and developing countries (Dawit *et al,* 2008).
2.8.1. Value Distribution Approach of Poultry in Ethiopia
References shown that this approach usually shares of retail value added or final retailer price are used as proxies for the division of value added or economic surplus. However, this approach has overlooked differences in production costs as well as being unpredictable (Some retailers add a higher margin) both in developed and developing countries (Ekin *et al,* 2008).
2.8.2. Input-Output Poultry Value Chain Approach in Ethiopia
Undertaking firm level input-output approach is another value chain approach. Moreover; this approach assumes firms produce in a vacuum and that a change to the tune of a given value will result in an increase of value added product of another corresponding value in the value chain (FAO,2012).This approach may be relevant if the firms are in isolation and independent of global market (Auke *et al,*2015).

2.9. Some Poultry Value Chain Mappings in Ethiopia
References have shown that (Mapping the flow of information along the poultry value chain) has been crucial for the identification of the actors to whom poultry participants should be communicated. Each actor in the poultry sector, whether private and public, or formal or informal, has particular roles in the value chain communication process. Network mapping exercises help to identify the different actors involved in the poultry value chain, and to understand their roles, linkages, and influence the poultry value chain information (Aklilu *et al,* 2016).

References have shown that value chain mapping has been explained as the graphical representation of input supply, production functions, processing, trading and consumption within value chain actors (USAID, 2006). So, poultry value chain mapping was done to identify the core process, value chain actors and their activities at each stage. It was also performed to understand the characteristics of the chain actors and the relationships among them in the chain such as the flow of goods through the chain, employment features, the destination and volumes of the domestic sales. The value chain map shows the flow of poultry chain, activities carried out at each stage of the value chain (Scenario 1).

Scenario 1. Poultry value chain mapping in some areas of Ethiopia

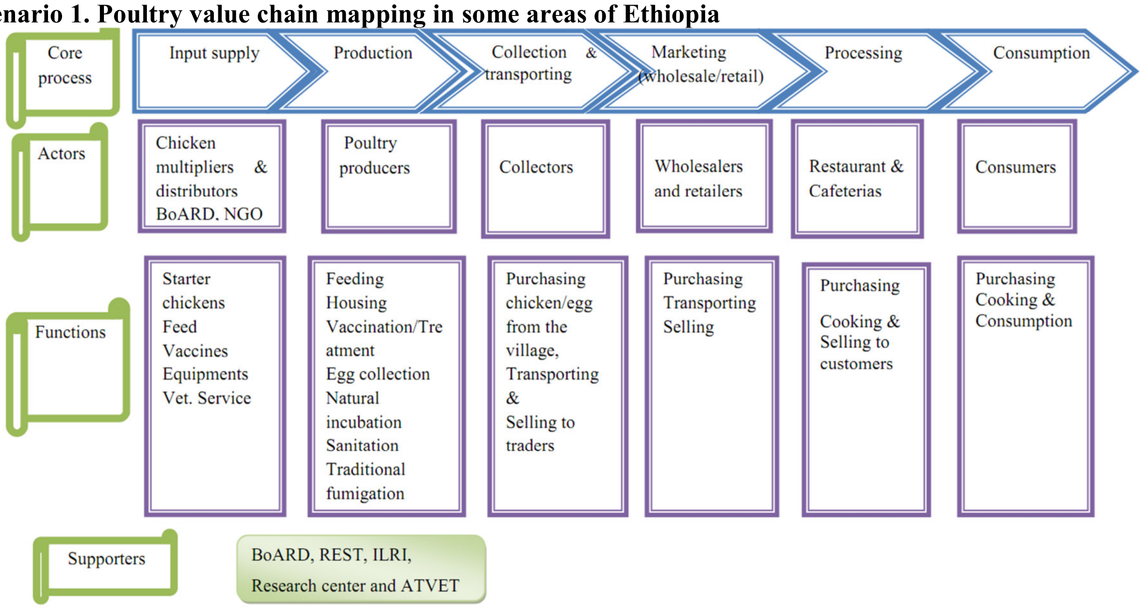

Figure 1. Poultry value chain map study of Adwa of Tigray region, Ethiopia

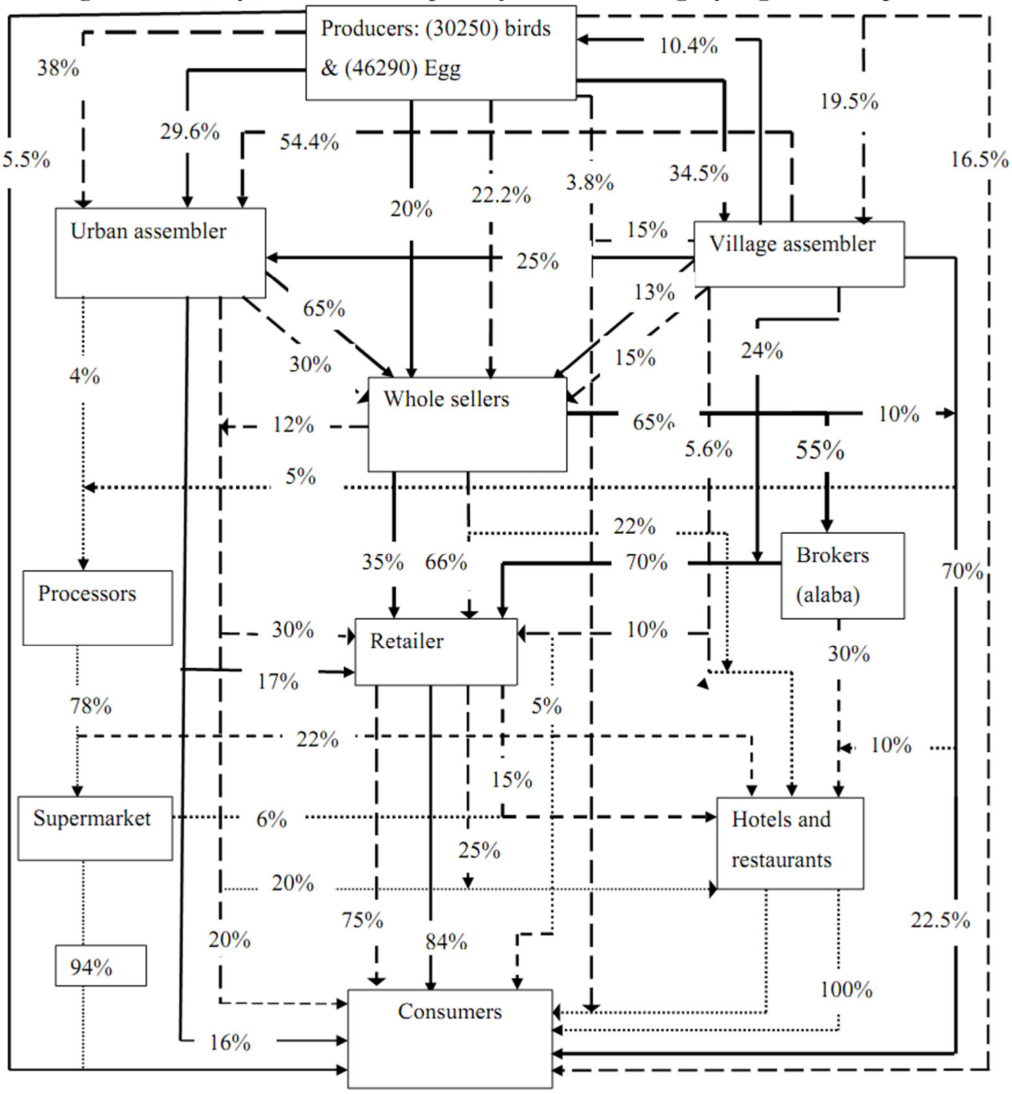

Figure 2.Poultry value chain mapping in Ethiopia

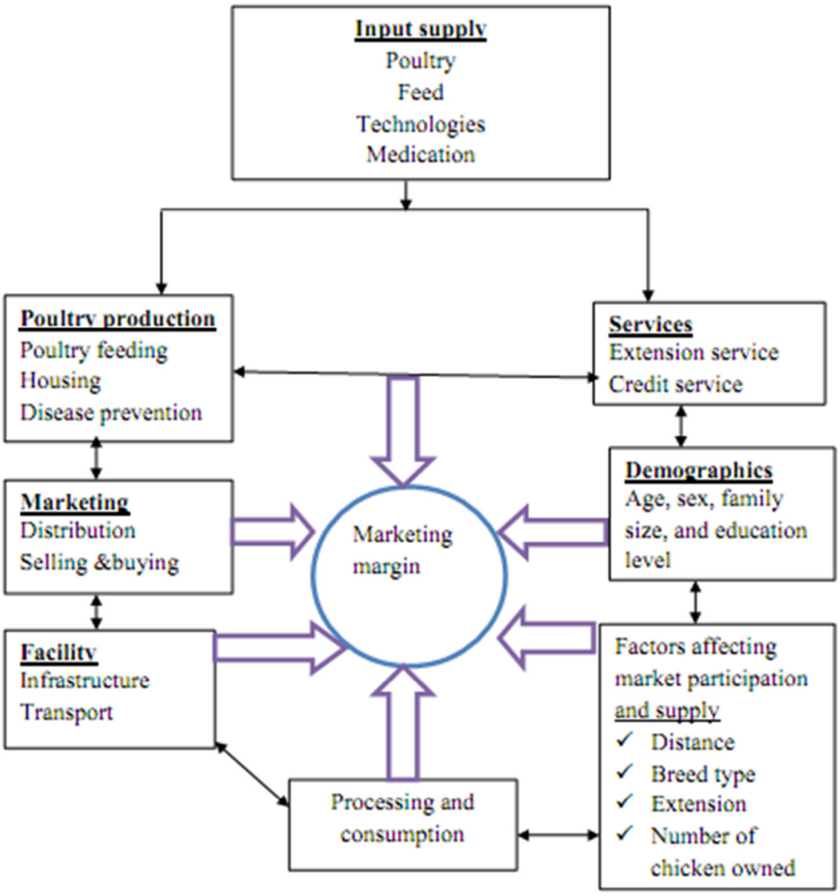

Figure 3.Poultry value chain frame work in Ethiopia

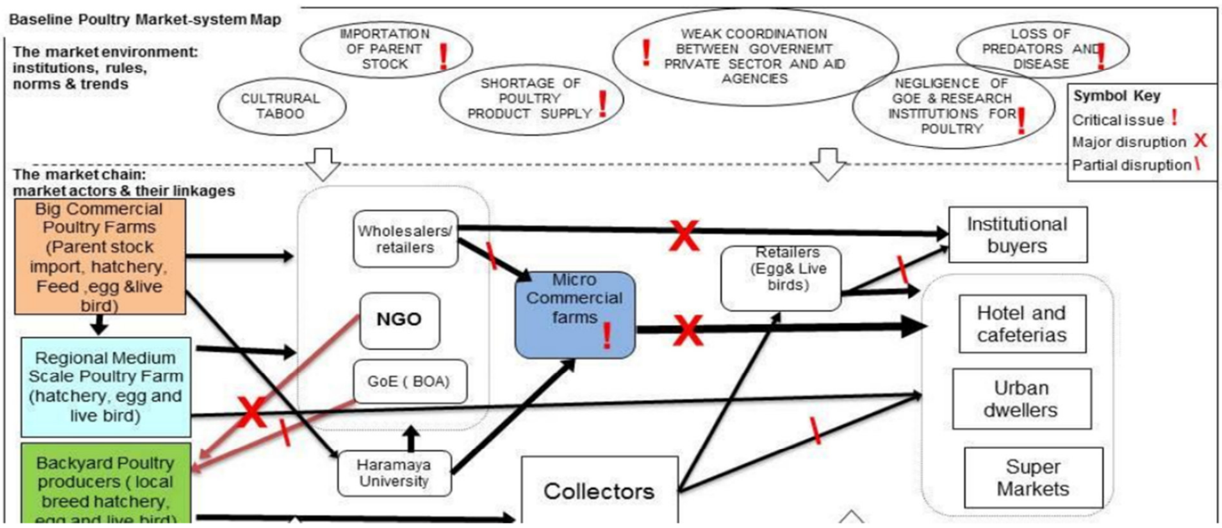

Figure 4.Poultry value chain actors (Direct VS indirect) in Ethiopia

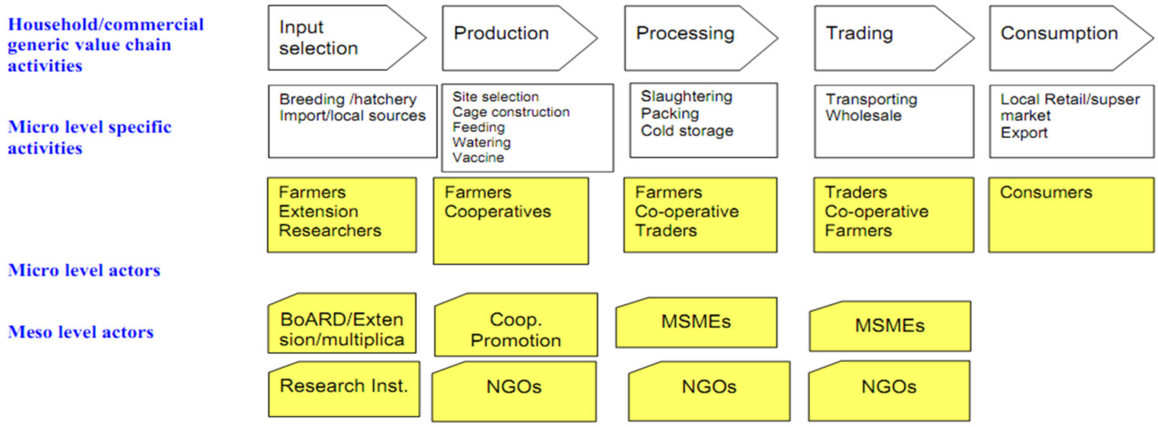

Figure 5.Poultry Vale chain actors in Ethiopia

2.10. Poultry Value Chain Analysis in Ethiopia

References have shown that Value chain studies, including production system and market chain studies, are essential to value chain analysis, which when coupled with poultry product analysis has been a powerful tool to identify key constraints and opportunities for value chain control based on poultry management in the production and marketing system. Several production system and market chain studies have been conducted to support different poultry strategies and interventions in both developed and developing countries. This practical aid is intended as an adjunct to the FAO value chain approach. Further practical advice is provided for more effective use of value chain studies in poultry as part of decision support (Shishay *et al*, 2010).

2.10.1. Steps in Poultry Value Chain Analysis

Step 1. Identify the firm's primary and support activities

All the activities (from receiving and storing materials to marketing, selling and after sales support) that are undertaken to produce goods or services have to be clearly identified and separated from each other. This requires an adequate knowledge of company's operations because value chain activities are not organized in the same way as the company itself. The managers who identify value chain activities have to look into how work is done to deliver customer value (FAO, 2012).

Step 2. Establish the relative importance of each activity in the total cost of the product

References have shown that the total costs of producing a product or service must be broken down and assigned to each activity. Activity based costing is used to calculate costs for each process. Activities that are the major sources of cost or done inefficiently (when benchmarked against competitors) must be addressed first (FAO, 2012).

Step 3. Identify cost drivers for each activity.

References have shown that, only by understanding what factors drive the costs, managers can focus on improving cost driving factors. Costs for labor-intensive activities will be driven by work hours, work speed, wage rate, etc. Different activities will have different cost drivers (FAO, 2012).

Step 4. Identify links between activities

References have shown that Reduction of costs in one activity may lead to further cost reductions in subsequent activities. For example, fewer components in the product design may lead to less faulty parts and lower service costs. Therefore identifying the links between activities will lead to better understanding how cost improvements would affect the whole value chain. Sometimes, cost reductions in one activity lead to higher costs for other activities (FAO, 2012).

Step 5. Identify opportunities for reducing costs

When the company knows its inefficient activities and cost drivers, it can plan on how to improve them. Too high wage rates can be dealt with by increasing production speed, outsourcing jobs to low wage countries or installing more automated processes (FAO, 2012).

2.11. Opportunities for improving Poultry Value Chain in Ethiopia

The survival and profitability of a small scale enterprise like a small poultry business depends on the qualities of the person who starts the business. Entrepreneurs have special traits that are measurable through some psychological tests and social indices. People possessing these traits and social indices at a certain level are expected to be more successful than those without them (Awol, 2010).

Scholars informed that Farmers can grow poultry feed components like soya, maize, millet, sorghum, sunflower, rice, and cotton and sell to feed manufacturing companies or to farmers mixing their own feed at home. Farmers can brood day old chicks into month old chicks and sell to farmers who fear the process and risks involved in brooding and make huge margins. Farmers can raise their chicken to maturity and sell meat or eggs through contract selling to organized markets. Farmers can collect the highly effective chicken manure and sell to other farmers planting other crops. Shrewd business people can seek knowledge on feed formulation, mix the various categories of feed for layers, growers and chick marsh and sell to other poultry farmers (Mekonnen, 2007).

References have indicated that business people can act as agro-vet dealers and stockiest for poultry related inputs like vaccines, feed feeders and drinkers among others to serve farmers in a given region. Accounts clerks can help local farmers in record keeping and book keeping to ensure they keep track of their expenses and incomes. Local extension service providers can offer training and extension services to farmers. A slaughter house can be constructed to safely process chicken for farmers before sale to buyers who require dressed chicken (Fisseha *et al*, 2010).

Scholars reported that traders can bulk chicken from farmers, buying at farm gate price and re-selling at a margin to organized markets. Operators can take advantage of the organized value chain to transport chicken, eggs and inputs to and from farmers. These, among others are significant opportunities in the poultry value chain that shrewd business operators can take advantage of. It is however important to increase the production of chicken first to meet the required demand to be able to jumpstart the other related poultry businesses (Vernooij *et al,* 2016).

Literatures have shown that indigenous chicken offers a low investment start-up enterprise to farmers and does not require a lot of space. The birds are more tolerant to harsh conditions and diseases than commercial breeds and can be fed on cheap, locally available feeds or free forage, with minimal care. These varieties present employment opportunities and income to women, youth and the rural poor, with a ready local market. Furthermore, the indigenous poultry industry has a recognized potential to generate higher income and transform living standards if appropriate interventions such as improved genetics, better feeding, housing and management for more meat and eggs are developed and implemented. The benefits of indigenous chicken to rural households are potentially quite high, yet the industry has not been adequately supported. In many African countries, for example, the sector remains in its infancy (FAO, 2012).

References have shown that the value chain presents many other untapped opportunities, such as agro input suppliers, hatcheries, breeding farms, vaccine producing firms, improved feed manufacturers, manure aggregation, slaughtering, processing and improved housing equipment. Others include secondary bulking and transportation which may take the form of village-based and trading route-based brokers. Transportation to various retail outlets such as supermarkets and franchise outlets, chicken abattoirs as well as the growing hospitality industry all present strong opportunities for growth and investment. Support is needed from governments, the private sector, research institutions, the donor community and other stakeholders to develop this promising sector and capture the immense value opportunities at hand (ILRI,2014).

2.12. Challenges of Poultry Value Chain in Ethiopia

References have shown that the poultry value chain enabling environment has not yet conducive enough. The poultry value chain tax system (import of essential inputs) needs streamlining; food safety regulations need to be enforced. There is still a strong role to play for lobbying bodies such as the Ethiopian Poultry Producers Association (EPPA). Ethiopian import regulations can be quite a challenge. To import breeding stock farmers need to apply for an import permit at the Ministry of Agriculture. With this permit the farmer needs to arrange a letter of credit at the bank. The shortage of Foreign exchange and the often contradictory terms of conditions are often delaying this process. Currently there is no consistent supply of feed in adequate amounts, no regular and reliable supply yet of basic housing equipment, poor veterinary services and there is an insufficient knowledge base (FAO, 2014).

There is a chronic shortage of day old chicks in Ethiopia. This leads to many farmers abandoning poultry keeping because their poultry houses will often be empty for months on end whilst they are waiting for new supplies from the hatcheries. Although the available hatching capacity is adequate, its performance is rather poor and needs improvement. For the government (MOA of Ethiopia), for poultry associations and poultry producers, it is of importance to understand the economic impact of poultry diseases. Capacity building is still needed for disease monitoring, epidemiology and diagnostic skills (CSA, 2014).

2.13. SWOT Analysis and their evidences for Poultry Value Chain in Ethiopia

SWOT analysis is a process that identifies an organization's strengths, weaknesses, opportunities and threats. Specifically, SWOT is a basic, analytical framework that assesses what an entity (usually a business, though it can be used for a place, industry or product) can and cannot do, for factors both internal (the strengths and weaknesses) as well as external (the potential opportunities and threats). Using environmental data to evaluate the position of a company, a SWOT analysis determines what assists the firm in accomplishing its objectives, and what obstacles must be overcome or minimized to achieve desired results: where the organization is today, and where it may be positioned in the future poultry SWOT analysis in both developed and developing countries including Ethiopia (USAID, 2006).

A/**Strength:**

Our strength as a commercial poultry farm and egg production company is the fact that we have healthy relationships with loads of major players (agriculture merchants) in the industry; both suppliers of poultry feeds and medications and buyers of chickens and eggs within and outside of the country (USAID, 2006).

We have some of the latest commercial poultry farming hatchery, tools and equipment that will help us raise and produce eggs in commercial quantities with less stress. Aside from our relationship (network) and equipment, we can confidently boast that we have some the most experienced hands in Ethiopia (USAID, 2006).

B/**Weakness:**

Our weakness could be that we are a new commercial poultry farms and egg production company in the country, and perhaps it might take us sometime to attract big time customers in the industry. We are aware of this and from our projection will overcome this weakness with time and turn it to a major advantage for the business in Ethiopia (USAID, 2006).

C/**Opportunities:**

The opportunities that are available to us as a standard commercial poultry farm and egg Production Company cannot be quantified, we know that there are loads of households, and businesses such as hotels and fast food restaurants that can't do without daily supply of chicken and eggs. We are well positioned to take advantage of this opportunity in Ethiopia (USAID, 2006).

D/**Threat:**

Some of the threats and challenges that we are likely going to face when we start our own commercial poultry farm and egg production company are global economic downturn that can impact negatively on household spending, bad weather cum natural disasters (draughts, epidemics), unfavorable government policies and the arrival of a competitor (a commercial farm that engage in the rearing of chickens and other birds) within same location. There is hardly anything you can do as regards this threats and challenges other than to be optimistic that things will continue to work for your good in Ethiopia (USAID, 2006).

Scenario 2.Poultry SWOT analysis in Ethiopia

Figure 6.SWOT Analysis of poultry in Ethiopia

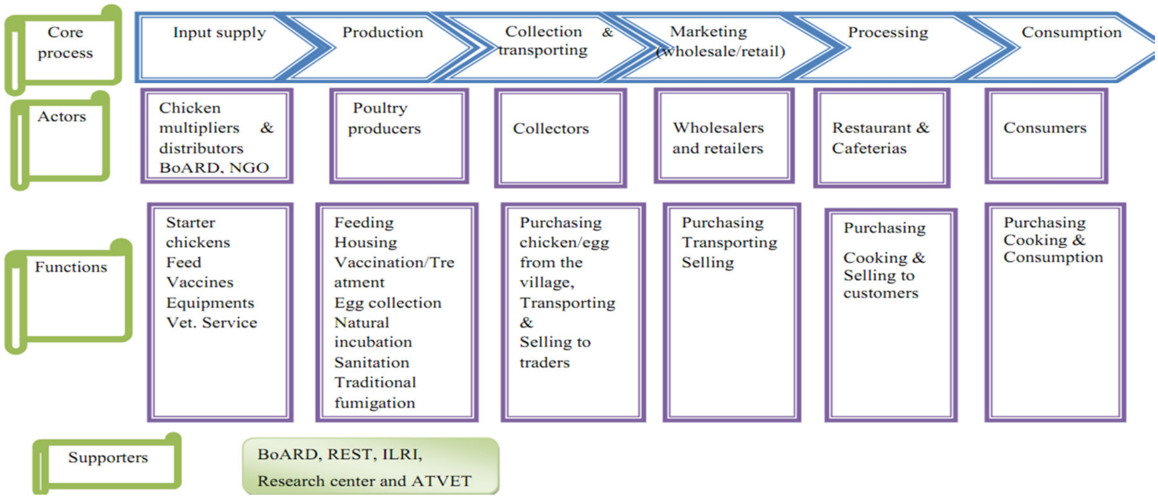

Figure 7.Poultry value chain mapping in Ethiopia

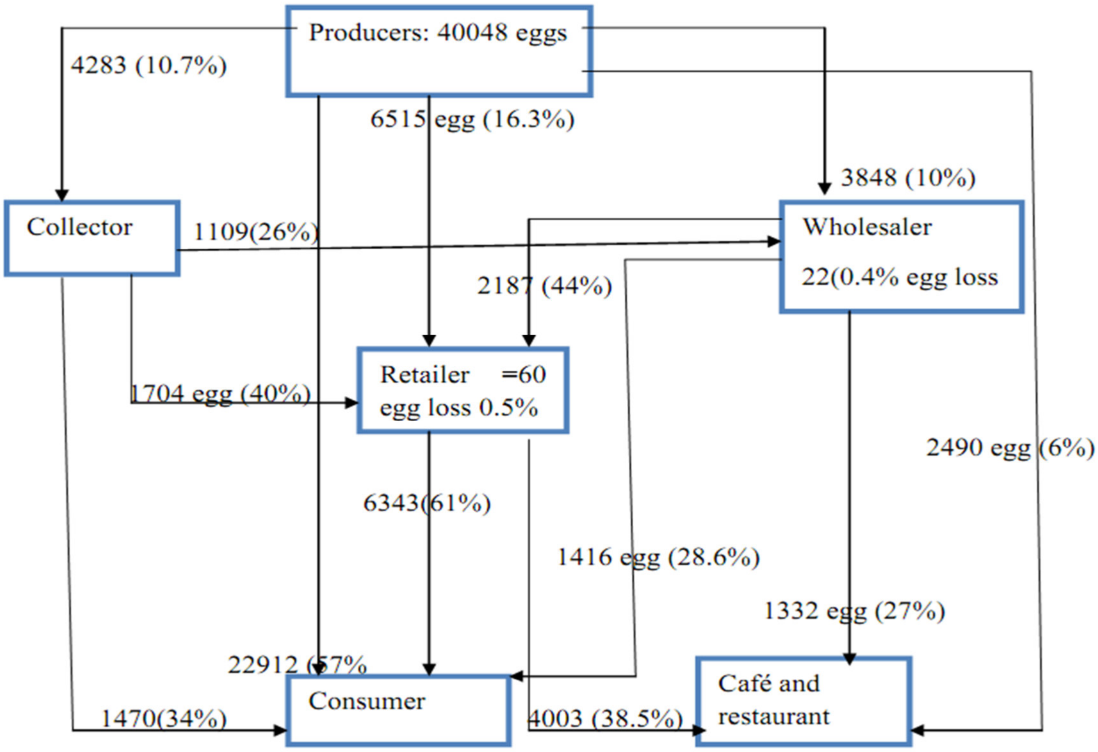

Figure 8.Value chain map of poultry in some farming areas of Ethiopia

3. CONCLUSION AND RECOMMENDATION

3.1. CONCLUSION

References also disclosed that the total chicken population in Ethiopia has increased and estimated to reach above 59.5 millions. Moreover; it has also been reported that village chicken production account above 90% of the total chicken production where exotic and hybrid chicken constitutes above 10% of the chicken production in the country.

The overall implication of the review has shown that in poultry value chain actor and linkages remained yet not to be strong at both national and regional level. The awareness of the poultry producers towards the poultry production and market system is still not adequately addressed because of inefficient promotion works at all levels of the poultry value chain. Poultry business at commercial level is not as simple as selling chickens and collecting eggs and before establishing the farm good input and output market research has to be made. Which means availability of day old or three month chicken, vet service and, feed must be ensured to buy down the risk before opening farm and made profitable business. No one should start commercial poultry farm without adequate skill and expertise and deprived of ensuring availability of proper veterinary service and feed in the locality.

Therefore, there is a need for intervention designed for improving backyard and commercial poultry market system in all value chain areas through integrated effort of public and private sector cooperation. Support the establishing of breeding centers and leveraging on regional private commercial farm to improve the input supply and market information of poultry production will be imperative. By so doing, it is possible to address constraints on production technologies, input supply and product marketing systems along the poultry value chain and possible to shift subsistence production to market-oriented production system in the country as a whole

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3.2. RECOMMENDATION

Establishing Regional Breeding center can expand commercializing and expansion of poultry production at national and regional level. The regional pastoral area development offices need to give attention and make this to happen:

- Strengthen and train Private and governmental poultry producer to improve poultry chain actors and provide poultry bio-security measures.
- Work with public service providers to sensitize community and facilitate awareness creation on the benefits of poultry production, feed and vet service
- Encouraging and support more than one commercial poultry farm in each cluster that can play significant role in supply of three-month-old chickens and processed poultry feed to communities
- Strengthen the awareness level of community through private sector actors to upgrade the skill and techniques of production and consumption (Nutritional aspect) of poultry in the market system
- Sensitize the government for improving infrastructures in urban and rural areas and ease access to get electricity, land and water etc. for private actors who are in the business and for new entrants
- Business coaching for small and medium poultry farms to rethink their business model and expand their outreach and market to potential poultry producing areas
- Facilitate training in collaboration with big commercial farms and institutes Universities and research institutes who are engaged in poultry business with less business and technical skill
- Relevant government agencies should support in verifying the breeds brought from Hatcheries and big farms for quality and viable breeds. Research centers should identify which breed is adaptable to the niche area
- Poultry base initiated projects need to work in a bilateral basis and provide training to producer group on importance of make use of the value chain to enhance profitability along with the full satisfaction of the customers of the whole poultry value chain
- Governmental and nongovernmental research institutes and universities should work in collaborative basis to undergo SWOT analysis along the poultry value chain and adequately consult policy makers in the country

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