

Full Length Research Paper

# Assessment of the production potential and constraints of chicken in some Chagni town, Awi - administrative zone, Amhara Region, Ethiopia

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The study was conducted from November to December 2011 in Chagni 01, 02 and 03 kebeles by using questionnaire survey with the aim of assessing production potential and constraints of chicken in the study area. A total of 72 households were used in the study. The 62% of the respondents were males and 38% were females. The age group was between 14 to 81 years old. The average mean number of members in the family was 4.5 and the range varies 1 to 10 in number. The 88% (n=63) of the respondents were farmers, 8% (n=6) were government workers and 4% (n=3) were daily laborers. Purpose of keeping chick was, 70 percent (n=50) to generating income, 23% (n=17) for their own consumption, 7% (n=5) either for cultural reasons or simply for leisure. The average flock size per household was 7.76. The chickens were housed permanently on 24% (n=17) of the farms, while only night shelter was provided on 73% (n=52.5) of the farms, and 3% (n=2) of the farms provided shelter for brooding only. 97% (n=70) of the respondents provide additional feed daily and others occasionally. For hatching of chicken eggs, farmers depend up on broody hens. The total number of eggs incubated using a broody hen varied from 8 - 13 and hatched 7 - 12, out which 2 - 6 chicks survived to adulthood. The total number of eggs produced ranged from 27 - 45 eggs/year/ hen, which was very low. Poultry disease was reported to be the major constraint of 58% (n=42) of respondents, followed by inadequate veterinary and extension service, high feed costs 17% (n=12) and 13% (n=9) of the farmers, respectively. In conclusion the dominant chicken production systems in the study area were the backyard extensive system with low productivity based on the local indigenous birds. Improving management techniques to promote productivity and reduce mortality were recommended.

**Key words:** Chagni, indigenous chicken, Awi-zone, Ethiopia.

## INTRODUCTION

The local birds in Ethiopia are entirely nondescript breeds chicken are maintained under a traditional system with little or no inputs for housing, feeding or health care. The

closely related to the jungle fowl (*Gallus gallus*) (AACMC, 1984) show a great variation in their body size, plumage colors and conformation.

The total chicken population in the country is estimated at 49.3 millions (CSA 2011). The majority (98%) of this greater part of the feed for village chicken is obtained through scavenging, which includes the household cooking

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**Table 1.** Poultry population in Ethiopia and in Amhara Region (CSA, 2011).

			Cocks	Cockerels	pullet	Non-laying-hens	Chicks	Laying-hens	All
Ethiopia	Indigenous	no	5,453,314	2,603,888	4,728,009	1,780,122	17,927,274	15,372,372	47,954,978
		%	11.06	5.47	9.59	3.61	36.37	31.19	97.3
	Hybrid	no	38576	8397	24056	11355	15560	90087	188032
		%	0.08	0.02	0.05	0.02	0.03	0.18	0.38
	Exotic	no	122810	68936	126119	43208	351966	430883	1143922
		%	0.25	0.14	0.26	0.09	0.71	0.87	2.32
Amahara	Indigenous	no	1402542	678,471	1,363,373	460,351	5,357,134	4,325,524	13,587,396
		%	9.98	4.83	9.7	3.28	38.13	30.79	96.72
	Hybrid	no	34,073	16,951	33,880	12663	133,028	158,498	389,892
		%	0.024	0.12	0.24	0.09	0.94	1.12	2.77
	Exotic	no	18101		6,458	2,062		37,688	71,198
		%	0.12		0.045	0.015		0.27	0.51

waste, cereal and cereal by-products, pulses, roots and tubers, oilseeds, shrubs, fruits and animal proteins (Tadelle and Ogle, 1996). Rural chicken in Ethiopia represents a significant part of the national economy in general and the rural economy in particular and contribute to 98.5 and 99.2% of the national egg and chicken meat production, respectively (Tadelle and Ogle, 1996).

Research studies on some of the indigenous birds have shown that their potential for egg production is very low. Previous study at the College of Agriculture, Alemaya, has indicated that the average annual egg production of a native chicken was 40 eggs under farmers' management conditions, but under experimental conditions the level of production was elevated to 99 eggs per hen per year (Bigbee, 1965). In a study at Soddo, by Wolaita Agricultural Development Unit (WADU) (Kidane, 1980), it was reported that the egg production of indigenous birds was reported to be 84 eggs /bird/year. According to the study by the Ministry of Agriculture (1980), average annual egg production of the native chicken is 30 to 40 eggs under village conditions could be increased to 80 eggs when birds are provided with an improved feeding, housing and health care. A more recent study at the Assela Livestock Farm revealed that the average production of local birds in Arsis was 34 eggs/hen/year, with an average egg weight of 38 g under scavenging conditions. Feed utilization efficiency of local hens was also low (Brännäng and Pearson, 1990). About 20 kg of poultry feed was needed to produce 1 kg of eggs.

According to Panda (1988) little research and development works have been carried out on indigenous chicken, despite the fact that they are more numerous than commercial chicken in most developing countries

and they have been marginalized by decision-makers.

Poultry include all domestic birds kept for the purpose of human food (meat and eggs) such as chickens, turkeys, ducks, geese, ostrich, guinea fowl, Japans quail and pigeons. In Ethiopia ostrich, ducks, guinea fowls, and pigeons are found in their natural habitat (wild) whereas, geese, japans quail and turkey are exceptionally not common in the country. Thus the word poultry production is synonymous with chicken production under the present Ethiopian conditions (EARO, 1999). Indigenous poultry contribute almost 99% of the national egg and poultry meat production (Tadelle et al., 2003).

Of the total regional Administrative Zones chicken population North Gonder, South Gonder, West Gojam, East Gojam, Awi zone together account about 62.5% chicken population (CSA, 2011) (Table 3). Up to the present, the domestic poultry sector in the region has been dominated by traditional production practices, and local breeds represent almost 96.72 % it is a little less of the national 97.3% poultry population. The total egg production in the country in the year 2010 about 98.3 million, from that 31.04% (30.52 millions) eggs produced in the Amhara regional state. The contribution of exotic breeds in the country on the same year 8.72%, about 8,576,398 eggs. The number of eggs produced in the year 2010 in Amhara region was 30,521,388 eggs, 2,829,511 the contribution of exotic chickens or that was 9.27% greater than the exotic breeds contribute at the country levels (CSA, 2011). The average number of chickens per household (flock size) is estimated at 4.4 in Amhara regional state the values of which are above that of the national average of 4.1. In recent years, some improvements have occurred, yet the poultry sector is characterized by low productivity and production (CSA,

**Table 2.** Nutrients content in the meat.

Breakdown of meat content						
Food	Energy (Kcal)	Protein (gm)	Fat (gm)	Iron (mg)	Zinc (mg)	Vitamin B12(mg)
Chicken	161	31	6	1.3	1.8	2.3
Beef	263	18.5	20	3.2	6	2.4
Goat	269	13.4	3.4	3.7	0	1.2
Maize	204	5.9	3.1	2.9	0	0
Wheat	364	10.5	1	0.8	0	0
Beans	127	9	0	2	2	0

2011) (Table 1).

With the exception of urban areas most poultry production in Africa and also in Ethiopia is undertaken through extensive system at village or family level. Almost every village household keeps domestic fowl between 5 - 20 birds and it is estimated that village fowl makes up more than 90% of the total domestic fowl population in Ethiopia (Gueye, 1998).

The production systems are characterized as including small flocks, with no or minimal inputs, with low outputs and periodic destruction of the flocks by disease. Birds are owned by individual households and are maintained under a scavenging system with little or no inputs for housing, feeding, or health care. Typically flocks are small in number with each household flock containing birds from each age group with an average of 7 - 10 mature birds in each household, consisting 2 to 4 adult hens, a male bird and a number of growers of various ages (Tadelle and Ogle, 1996). This system is characterized by low input of veterinary services, high off-take rates and high levels of mortality. Based on Tadelle et al. (2003) typical household flock sizes vary from 2 to 15 chickens. Flocks comprise chicks (0 to 8 weeks), pullets (8 to 20 weeks), cockerels (8 to 20 weeks), mature cocks and layers (Table 2).

Chickens play an important role to the rural peoples' lives in-addition to supply of high quality protein to the family food balance, provide small disposable cash income and the socio religious functions of Ethiopian regions (Tadelle et al., 2003). Keeping of poultry by local communities has been practiced for many generations. Poultry keeping is a widely practiced activity; in more than 90 percent of rural families keep one or more poultry species, in most of the region of the countries, (chickens, ducks, guinea fowl, geese, pigeon, etc.) and all ethnic groups tend to be involved in the production. Most poultry in Ethiopia is managed by women in smallholder farms, and is often a rural woman's dominant source of income. In these farms very little of purchased inputs are used with birds kept as Scavengers. According to the results of the total output of scavenging birds is low, because of low egg production, high chick mortality, and brooding behavior of the hen (Tadelle and Ogle, 1996).

Adene (1996) reported that Newcastle disease (ND),

Infectious Bursal disease (IBD) or Gumboro, Marek disease (MD), Fowl typhoid, Cholera, Mycoplasmosis and Coccidiosis are widely distributed in most African countries. According to Chaheuf (1990), Ethiopia is not exception to this situation. The Ethiopian indigenous flocks are disease resistant and adapted to their environment. According to Negussie and Ogle (1999), losses attributed to Newcastle disease is estimated at about 57.3% of the overall annual chicken mortality whereas fowl pox, coccidiocis, and predation accounts for about 31.6, 9.4 and 1.7% of the total annual flock mortality, respectively. The general indications are that the health status of the backyard poultry production system is very poor and risky, since scavenging birds live together with people and other species of livestock. Study on the current chicken production and productivity as well assessing hindering factors which might be an essential prerequisite to bring the indigenous production system to more productive conditions is not well dealt at Chagni town, awi - administrative zone. This study was therefore, assessing production potential and constraints of chicken in the study area.

## MATERIAL AND METHODS

In each of the study area data collection were applied that individual farmers were interviewed and a list of detailed information was obtained.

Amahara regional state that is one of the nine regional states of the federal democratic republic of Ethiopia, divided in to 128 peasant association and 22 urban city of total 150 Wordas of which 11 are regional Zone.

The livestock population in the Amhra Regional National State (ANRS) is estimated at 13.3 million cattle, 8.7 million sheep and 5.1 millions goats, beehive 911,986 and Poultry 14.04 million from this number 3.28% believed to have exotic blood. From large number of poultry populations in the country 49,286,932 or 28.5% poultry population is found in Amhara national regional state, it is the second largest population next to Oromia national regional state which has about 38% from the country population. Of the total regional Administrative Zones chicken population of North Gonder, South

**Table 3.** Selected kebeles and market days.

Wereda	Selected kebeles	House hold no	Place of market	market day
Chagni	01 kebele	24	Chagni	Monday,
	02 kebele	24	Chagni	Thursday,
	03 kebele	24	Chagni	Saturday.
Total	3	72		1



**Figure 1.** Observation of the study area.

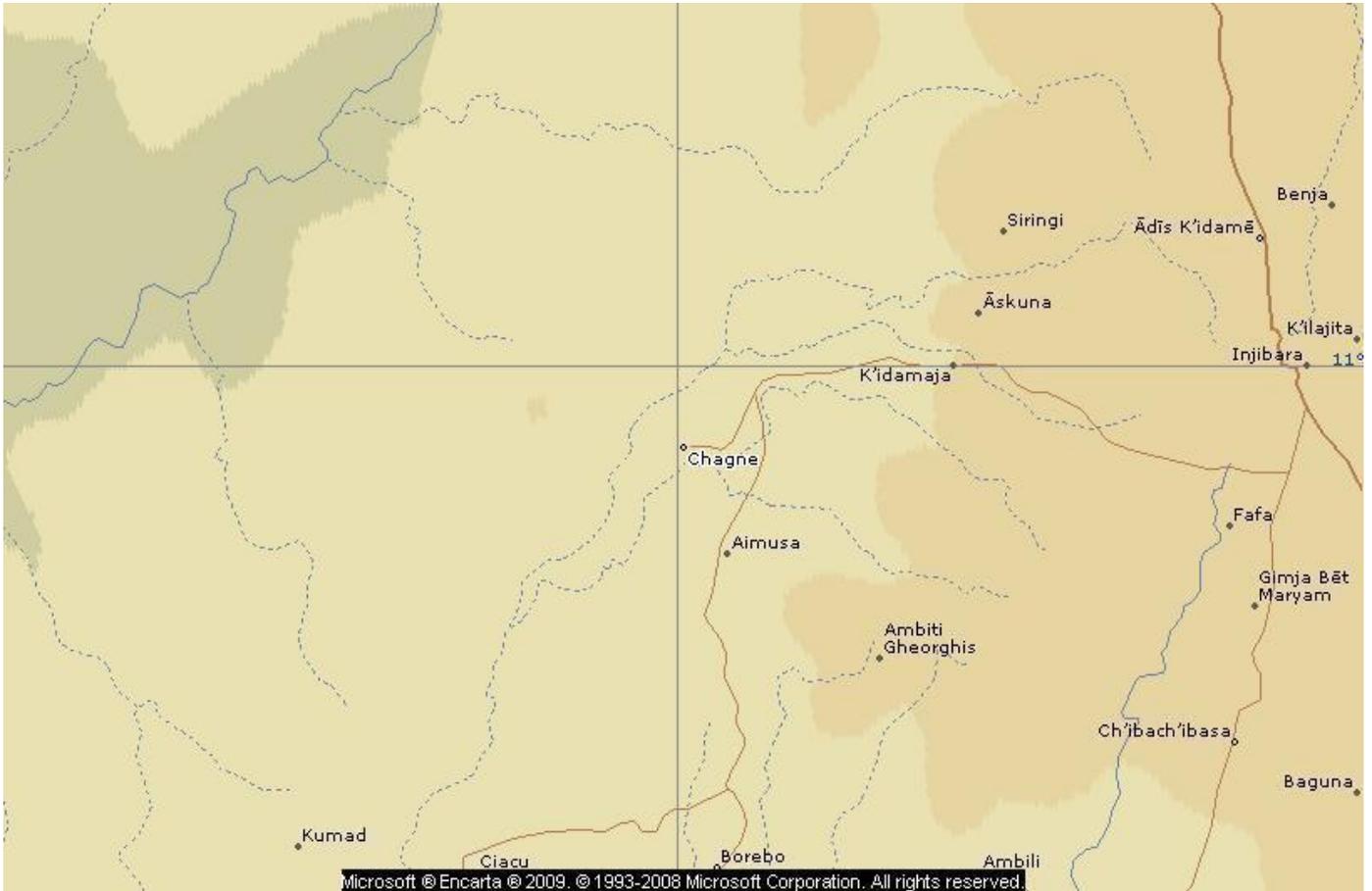
Gonder, West Gojam, East Gojam and Awi zone together account about 62.5% chicken population (CSA, 2011) (Table 3).

### Description of the study area

The study was conducted in the Chagni wereda found in Amhara regional state. The region is one of the nine regional states of the federal democratic republic of Ethiopia, divided in to 128 peasant association and 22 urban city of total 150 Woredas of which 11 are regional Zone (Figure 1).

Chagni District is one of 128-peasant association of ANRS with latitude of 10°56'N and longitude of 36°30'E shares borders with the Benishangul gumuze in the west, Dangela in the east, Oromia in the south, Jawi in the North and far 505 km form Addis Ababa (Figure 2).

According to the Woreda animal production and forage development expert, the District has an altitude range 1400 - 2200 mm, to rainfall of 1300 - 1800 mm/year and temperature minimum 22 and maximum of 37°C. There are 4382 cattle (115 cross-bred), 2732 sheep and goat, chicken 2895. The Woreda has Woina Dega, and Kolla agro-climate. It has sufficient rainfall for both crop and livestock production. The Woreda is selected by the MoARD



**Figure 2.** Chagni and selected kebeles.

as an area for voluntary resettlement for farmers from overpopulated areas because of this the Chagni city is over populated. The district characterized by crop live stock production system. The major crops of the area are maize, barely, Sorghum and teff.

### Sampling method and data collection

The survey sites were selected considering socioeconomic significance of chicken production, and population of indigenous chickens based on the accessibility to road facility, population variation of kebeles and market accessibility used to select the three kebeles. Three kebeles were covered in the study: Chagni 01, 02 and 03 kebele.

From each selected kebeles, 24 households that possessed two or more chickens were randomly considered for the survey study. Thus, 72 households were included in the survey. For marketing survey a random sampling technique was employed thus a randomly selected sellers, buyers and middlemen were interviewed from each selected market days.

### Data collection and analysis

The survey consisted of two parts namely, a socio-economic survey and a market survey, and was conducted in the months of November and December 2011. 72 households who were rearing two or more domestic chickens were randomly selected from the whole kebele.

The interview was designed to collect two sets of data. The first set covered general information on household characteristics and poultry holdings. The second set included data on more specific aspects of village poultry production such as socio-management characteristics, production objectives, population structure, breed choice and trait preferences, market preferences of specific traits, and farmers' selection practices. A total of 72 households (24 households from each kebele) were interviewed. The results of the individual interviews were summarized according to; (1) identified overall objectives of keeping chickens (egg or meat production, income generation, cultural/religious roles), (2) "traits" affecting consumer preferences in purchasing and/or selling chickens (live weight, plumage color, comb type), (3)

**Table 4.** Status in the household.

Status of the house hold	No of persons (%)
House hold head	58
House hold wife	26
Unmarried male and children	16
Total	100

**Table 5.** Households who were keeping chicks for number of years.

Number of years keeping chicks	Respondents ( n)	Percent
1 – 5	12	16.67
6–10	20	27.71
11–20	18	25
21-30	22	30.5
Total	72	100

“traits” farmers desired to be considered in improving village chickens (egg production, plumage color, conformation (“*qumena*”) comb type, reproduction). The “traits” were defined in composite terms such as “adaptation” (comprising disease and stress tolerance, flightiness/ability to escape predators, scavenging vigor), “egg production” (annual egg number, persistency of egg lay), “reproduction” (broodiness, hatchability of eggs), and “*qumena*” (conformation/erectness, visual attraction/color, size).

### Socio-economic survey

A standard questionnaire was used, and each of those persons in the household who was responsible for the farming activity was interviewed at his residence for recording information. The information collected were profile of farmer, management of the farm, problems and constraints, support services, prospects, price determination, constraints and prospects in the marketing system.

## RESULTS AND DISCUSSION

In the study site of chagni 01, 02 and 03 kebeles 62% of the respondents were males and 38% were females. The age group was between 14 to 81 years old and the average mean age was 50 years old. The marital status of the respondents 71% respondents were married and 19% were single, of them 6% were unmarried the others were divorced. Children of the family aged between 14 and 36 years.

Table 4 shows 58% of the respondents were heads of households and 26% were wife's, out of the 58% of

house hold heads, 11% (n=8) were females.

The average mean number of members in the family was 4.5 and the range varies 1 to 10 in number. The 88% (n=63) of the respondents were farmers, 8% (n=6) were government workers and 4% (n=3) were daily laborers. From the farmers category the farmers 55% (n=39) were worked in mixed farming, 5% (n=4) were took animal farming as secondary activity and 40% (n=28) were primarily crop producers. Nearly a third of the respondents keeping chicks for 21 to 30 years (Table 5).

As a first priority, 70% (n=50) of the respondents were keeping domestic chickens for generating income, while 23% (n=17) reared them for their own consumption. Another 7% (n=5) were keeping these either for cultural reasons or simply for leisure. This result was compatible to the previous studies which says that despite a number of intensive production systems with modern strains for egg and broiler production, up to 98.5 and 99.2% of the national egg and poultry meat production (AACMC, 1984) is still obtained from traditional chicken production systems, with an average annual output of 72300 metric tons of meat and 78000 metric tons of eggs (ILCA, 1993). 94% (n=68) of the respondents maintained their flock of local chickens of their own farm, while 4% (n=3) purchased chickens from other farms and Chagni market when the need arises. Also the same study was conducted by AACMC (1984) up to 98.5 and 99.2% of the national egg and poultry meat production is still obtained from traditional chicken production systems, with an average annual output of 72300 metric tons of meat and 78000 metric tons of eggs (ILCA, 1993). The number of chickens showed in (Table 6).

The average flock size per household for chicks, pullets, cockerels, hens, and cocks was 2.811, 1.38, 0.98, 2.14, and 0.49 respectively with a total average flocks size of 7.76 which was in line with the report of

**Table 6.** Flock size and structure.

Number of local chickens	Number of respondents
< 2	11
2-10	39
11-20	17
> 20	5
Total	72

**Table 7.** Stock size per household.

Chicken	Number 2-5	Number 6-10	Number 11-15
Hen	49	1	-
Cock	2	-	-
Pullet	32	-	-
Cockerels	18	2	-
Chicks	12	15	3
Total	113	18	3

**Table 8.** Disease occurrence and measures taken to control disease on the farms.

Disease problems	Treatment given traditionally	Treatment given by advising veterinarians
Fungal (NCD)	Semeza, Tetracycline	Vaccination
Twisted neck	Semeza, onion, TTC	Antibiotic, vaccination
Paralyzed leg	Semeza, onion, TTC	Antibiotic, vaccination
Drooping wing	Semeza, onion, TTC	Antibiotic, vaccination
Diarrhea	Semeza, onion, TTC	Antibiotic, vaccination

CSA (2011).

Table 7 shows 43.4% of the chicks stocks were laying hens, followed by 28.3 percent kept were pullets and on average 84% of the respondents kept 2 to 5 chicks per house hold.

Almost all of the respondents had a shelter for their chickens. The chickens were housed permanently on 24% (n=17) of the farms, while only night shelter was provided on 73% (n=52.5) of the farms, and 3% (n=2) of the farms provided shelter for brooding only. Thus, the chickens were kept in scavenging system on the majority of the farmers.

Farmers provided night shelter for their chickens either in part of the kitchen 8.53% (n=6) or in the main house 67.7% (n=49) in separate sheds, while purpose-made for chickens were 23.77% (n=17). This was an indication that the owners were aware of the importance of housing. It was further indicated that chickens were confined only during the night and that 94% (n=68) of the households cleaned their chickens' housing once per day, while 4% of the owners cleaned it twice per day and about 99.45% (n=71) of the farmers in the study area provided water for their chickens in plastic, wooden or clay bowls. 97% (n=70) of the respondents allowed feeds on their

chickens including the chicks to have open housed around for scavenging. 100% (n=72) of them gave supplementary feeds to the birds, and in different combinations. The supplements consisted of maize, sorghum, householder's leftover feeds like local bread

(*Enjera*) and bread, millet flour which were given on 84, 62, 44 and 1% of the farms, respectively. The frequency at which these supplements were fed varied from farm to farm. Some give daily and others occasionally the average number of respondents that give occasionally was 72% (n=52) than of daily 28% (n=20).

Feed costs, season and the type of crop grown in the area were the causes of variation at for supplementary feeding in the study area. It was clear from the results that nearly all (99.27 %) the chickens were managed under a traditional or extensive chicken management system. 96% (n=69) of the farmers had experienced disease problems on their farms during the current year. 99% of the farmers had experienced the problems in the beginning of dry season of (April - June). Infectious diseases were the major disease problems encountered on the majority of farms. These infectious diseases were described on the basis of the signs of disease that the farmers had observed, as given in Table 8. The farmers

**Table 9.** Farmers opinion and suggestions in order to improve family poultry production.

<b>Suggestions</b>	<b>%</b>
Farmer's Family poultry production must be promoted	78
Veterinary service must be improved	45
Extension service must be improved	33
Introduce similar improved breeds	8
Govt. subsidy in terms of leased land, fencing and feeds	34

utilized both to veterinary drugs, which they obtained from the veterinary services, and traditional methods, for the treatment and control of those diseases in their flocks of birds. The treatments varied from antibiotics to kitchen oil, lemon juice, etc. (Table 8).

The major causes of death of chickens over the study area were seasonal outbreaks of chicken diseases, specifically Newcastle disease (locally known as "*fengele*"), followed by predators. The highest chicken death rate was observed during the beginning of rainy season and 99 percent of the chicken owners reported occurrences of chicken diseases. However, there was a problem in identifying the real causes and the type of diseases that led to chicken deaths since most of the veterinary services given to the farmers were not supported with laboratory investigation. Only 2% of the farmers had counseling on chicken diseases and health management. The majority of chickens were not properly examined and no health management services were provided.

Incubation was not practiced by the owners of indigenous chickens in Ethiopia. In this study it was observed that for hatching of chicken eggs, farmers depended on broody hens. The total number of eggs incubated using a broody hen varied from 8-13 out of 9-15 eggs laid/clutch/ hen. A comparatively high number of chicks were hatched (7- 12) from the number of eggs set and out of the total number of chicks hatched, 2 - 6 chicks survived to adulthood. From the present study, it was confirmed that productive hens have on average 9 - 15 eggs per clutch with a maximum of 3 clutches/hen/year as a result the total number of eggs produced ranged from 27 - 45 eggs/year/ hen, which was very low.

Similarly studies carried out by Ministry of Agriculture (MOA, 1980) indicated that the average annual egg production of the indigenous chicken was between 30-60 eggs under village based production conditions. A study at Asela livestock farm revealed that the average egg production of local birds was 34 eggs/hen/year, with an average egg weight of 38 g (Brannang and Pearson, 1990).

It was found that about 21.24, 5.19 and 72.57% of the replacement stocks for layer chickens were obtained in the form of purchase, gift and hatched eggs, respectively.

The main source of capital (59.31%) to replace and to start chicken production was from the sale of crops. Pullets and cocks reached sexual maturity at an age ranging from 20 to 24 weeks; however, 31.92% of the pullets and 20.07% of the cocks in this study reached maturity at 28 to 32 weeks, indicating late maturity. In Ethiopia, using similar indigenous chicken lines in the same research project, pullets and cocks reached sexual maturity at 22 to 23 weeks of age.

Chickens were kept for both egg and meat production. The eggs produced were used for brooding, trade and home consumption. Depending on the location of the farm dwelling, birds and eggs were taken by the farmer to the local market and sold to traders or directly to consumers. Traders from urban areas buy eggs in village markets to sell in big cities or to owners of restaurants. The price of eggs was directly related to supply and demand as well as the orthodox Christian fasting months. The income derived from the sale of chickens and eggs was used to purchase consumable food items, for school fees, grain milling services, purchasing of improved seeds of maize, wheat and other expenses. Most of the consumers prefer to buy eggs and chickens from producers of indigenous birds, since they were considered to be tasty, were better suited to preparation of the traditional "*Doro wot*" (chicken sauce) and the dark colored egg yolks were commonly favored. Birds were brought to the local market once or twice a week to be sold to local consumers, or to local traders. People carry their chickens to the market on foot where there was no access to transport. The price of live chickens was affected by seasonal demand (holidays and fasting seasons), lack of infrastructure, plumage color, size, age, sex, market site and the health status of the birds. Normally the average prices of medium size to large size chicken ranged from 45 to 75 Birr. The price of live birds was often lower during the periodical outbreaks of Newcastle and other chicken diseases (Table 9).

Type of chicken and egg preferred for consumption based on the respondents were 93% preferred to consume local eggs, 4% preferred eggs from commercial layers 3% had no preference. While for the chicken meat 87% preferred to consume local chickens, 9% preferred broilers and 4% had no preference.

Disease was reported to be the major constraint of 58%

(n=42) of the farmers while inadequate veterinary and extension service, and high feed costs were constraints met by 17% (n=12) and 13% (n=9) of the farmers, respectively. Other minor constraints were lack of finance, inadequate housing, inadequate support from family members, and lack of water, predation and inadequate fencing/shelter, amongst the remaining 12% according to the farmer's response.

Similar studies conducted in the previous period in Ethiopia, showed that, lack of knowledge about poultry production, limitation of feed resources, prevalence of diseases (Newcastle, Coccidiosis, etc) as well as institutional and socio-economic constraints (EARO, 1999; Ashenafi et al., 2004) remains to be the major challenges in village based chicken productions. Adene (1996) has also reported that Newcastle disease (ND), Infectious Bursal disease (IBD) or Gumboro, Marek disease (MD), Fowl typhoid, Cholera, Mycoplasmosis and Coccidiosis are major diseases that have been predominantly identified in commercial poultry in most African countries. Chaheuf (1990) argued that the most devastating disease in village chickens in Cameroon is ND, whereas in commercial poultry, Coccidiosis.

## CONCLUSION AND RECOMMENDATION

Poultry production in Ethiopia is a chain of interrelated economic activities undertaken within a social context. These activities can range from the raising of poultry to the buying and selling of poultry and poultry products. Understanding the scenario of poultry production, market and its constraint within the system will be crucial to develop strategies and improve the system. Thus, 72 households owning two chicken and above. In addition, more than 100 chickens from the open markets seen their price and colors were recorded from November 2011 to December 2011 to evaluate the seasonal variations in chicken price.

A vast number of household women and children actively participate in poultry production using their own indigenous breed and local knowledge of poultry management to generate income and/or to complement the protein requirement of the households.

The most dominant chicken production systems in the study area were the back yard extensive systems based on the local indigenous birds and scavenging with occasional and seasonal supplementary feeding of homegrown grains and household food refusals with no specific poultry houses. None of the respondents has access to proper vaccination program and proper prevention mechanism to their chickens and mortality 80% are feature of the system.

Despite the many problems involved in keeping poultry, relatively promising performance of the local chicken in the study area were observed which is explained in terms of high hatchability, relatively good egg production per

year and per clutches. Moreover, nearly all households provided supplementary feed and water to their chickens, and this could be considered as the strength of the sector. Almost all the interviewed farmers also need to pursue boosting up the chicken production and productivity. This was perhaps considered as an opportunity and potential for village poultry production and development endeavors in the study area. Improving management techniques to promote productivity and reduce mortality were recommended.

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