

Socio-Economical Contribution And Labor Allocation Of Village Chicken Production Of Three Selected Districts, Benadir Region-Somalia.

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Abstract

Village chicken farming is an integral part of the local economy, significantly enhancing household incomes and food security. This study investigated the socio-economic contributions and labor allocation of village chicken production in three selected districts {Heliwaa, Deyniile and Hodan} of the Benadir region, Somalia. The research examined various factors, including ownership patterns, gender roles in poultry management, and the distribution of labor among family members. The mode of ownership of chicken in the family was various types, for instance shared ownership constituted about (57%) followed by individual ownership (43%) among the members of the households. More than around 50% of overall care-taking of chickens, feeding of chickens, cleaning of birds-quarter, treating of sick birds, decision for off take of poultry products were the responsibility of women. The major criteria used for judging of the price of local chickens were body weight (32.8%), plumage color (45.6%) and comp-type (21.5%). Fluctuations in the prices of the village chicken and chicken-products were mainly due to, fasting (34.9%), and availability of products (34.7%) and purchasing power of the consumers (30.3). Almost all farmers were selling their chicken and chicken products in local markets. This research underscores the critical role of village chicken farming in the socio-economic development of rural communities in the Benadir region.

Keywords- Chicken, Socio-economic contribution, Ownership, Somalia.

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I. Introduction

The world population of poultry, particularly chicken, is the world's most extensively kept and plentiful type of livestock species globally (Moreki et al. 2010) that means just it requires less investment compared to other livestock species. According to report of (Kitalyi 1998), village poultry accounts for more than 70% of poultry products and 20% of animal protein consumption in Africa.

In Africa, the village chicken provide employment opportunity and disposable income for small scale farmers, particularly in the off seasons, rural poultry production can be integrated very well into other farming activities as it requires very little time and investment (Sonaiya 1990).

In Somalia, the predominant poultry farming method involves raising free-range backyard chickens rather than modern poultry farms. Traditional practices center around the rearing of diverse chicken breeds such as feathered, short-necked, naked-necked, and American varieties in free-range environments. Within the Benadir region, commonly raised breeds include short-necked, naked-necked, and American chickens, with some areas also featuring feathered varieties. There has been a recent rise in the adoption of exotic chicken breeds on both large and small intensive modern farms, selected for specific breeding objectives (Abdi-Soojeede and Funwie 2022).

Women play a crucial role in livestock and poultry rearing activities, yet they have limited access to training programs aimed at improving poultry production techniques compared to men. This gap hampers efforts to enhance productivity in rural poultry farming. Effective village leadership is essential in rural areas; innovative and risk-taking leadership facilitates the adoption of technological advancements by extension agencies in rural poultry production. Rearing chickens offers several benefits, particularly for impoverished households, as it aligns well with their conditions.

Additionally, assessing the economic worth of rural poultry poses greater challenges compared to other livestock due to insufficient reliable production data. Furthermore, rural poultry's significance is often underestimated within national economies, primarily because there are inadequate measurable indicators to quantify its contribution to macroeconomic indices like the gross domestic product (GDP).

II. Obejctives

- To assess the socio-economical contribution of village chicken
- To identify ownership pattern and labor allocation in village chicken production

III. Material And Methods

This study was conducted in Benadir region particularly three districts to which known have high potential for poultry production namely Heliwaa, Dayniile and Hodan districts. Their latitude and longitude as follows (2.0856N, 45.3958E), (2.0805N, 45.2642E) and (2.0429N, 45.3135E).

Study design and Sampling procedures

A cross-sectional study design and purposive sampling method was used due to problems of infrastructure. The selected number of households to be interviewed were 45, 40 and 35 for Heliwaa, Dayniile and Hodan districts respectively. The allocation of the households was based on the population (household) size of each districts and the households were selected using simple random sampling procedures from each districts. A diagnostic survey with single-visit and multi-subject types was conducted in March- May 2024, using structured questionnaires.

Data sample collection and data analysis

The study gathered both quantitative and qualitative data on the roles and significance of poultry in addressing socio-economic issues within the community. It also examined the production and management systems related to poultry, along with identifying prevalent challenges in poultry production in the study area and exploring opportunities for improvement. Furthermore, the research assessed the socio-economic significance of poultry and collected information on how households perceive and address related challenges. The collected raw data was entered into Microsoft Excel data sheets and analyzed using SPSS statistical software (SPSS version 20) and prevalence or percentages of the data was summarized by dividing the samples for the total households interviewed.

IV. Results And Discussion

(Table 1) illustrates the role of chicken and their products in family nutrition, as well as preferences for egg consumption. The consumption of poultry products varied among family members in different study areas. In the Heliwaa district, approximately 77.8% of respondents prioritized adults when it came to consuming poultry products. In the Hodan district, about 62.8% of respondents favored adult chicken, giving priority to adults for poultry product consumption. Similarly, in the Dayniile district, around 55% of respondents primarily allocated poultry products to adults for family nutrition. Almost,(70%) of the respondents from Dayniile district had no egg color preferences for consumption; however, around 65.5% of the households from Hodan district preferred large egg size for consumption.

Also the study had observed the the quality of eggs by floating methods. Approximately 37.2% of respondents chose eggs for consumption randomly, while 36.3% used the method of floating eggs in water to assess their quality. Only 26.5% of respondents considered the external eggshell quality when selecting eggs.

Table 1. Poultry product utilization and egg preferences in the households (%)

Parameters variables and	Districts		
Egg preferences	Heliwaa	Dayniile	Hodan
Households	45	40	35
Products as nutrition			
Infants	22.2	45	37.2
Adults	77.8	55	62.8
Egg color preferences			
No preference	64.4	70	49
Brown	20	18	35
White	15.6	12	16
Egg weight preference			
Large	45	53	65.5
Medium	39	21.5	16
No preferences	16	25.5	18.5

Promoting and Selling (Marketing)

According to Table 2 displays the criteria used to determine chicken prices and the factors causing price fluctuations for poultry products. In Dayniile and Heliwaa districts, 49% and 45% of respondents, respectively,

prioritized plumage color. Respondents from the Hodan district placed the most importance on body weight at 37%, whereas those from Dayniile district assigned the least importance at 30.8% when evaluating chicken prices. Additionally, respondents from Heliwaa district emphasized comb type the most, at 24.3%.

According to Factors contributing to price fluctuations of chicken products includes the purchasing power that is naturally affected by imported chicken meat from the international markets due to discourage of the the poultry production in the country and the owners' chicken product is limited to the district. Respondents (33.7%) from Hodan district responded that the purchasing power of the consumers was main causes for chicken product price fluctuation,.Although, 46 and 45% of the respondents reported that availability of poultry products and fasting were also claimed to be main causes for seasonal fluctuations of chicken and egg prices from Hodan and Heliwaa districts respectively. The availability of chicken product in fasting time is too low because of majority of people in Ramadan Month, they use the eggs and meat of chicken to their food. Even the family's buy one time enough eggs and meat of chicken to use for the entire month of Ramadan.

Approximately 86.5% of respondents preferred selling their chickens in local markets, while 11% sold to retailers. The average travel time to the marketplace was about one and a half hour. Nearly all respondents (92.6%) transported their chickens by hand. These findings align with (Kitalyi 1998) and (Sonaiya and Swan 2004) who observed that countries like Ethiopia lacked organized market channels, middlemen to transport poultry products to major cities.

Table 2:- Criteria for chicken pricing and reasons for price fluctuations (%of respondents)

Judging criteria	Districts			
	Households	Heliwaa(45)	Dayniile(40)	Hodan (35)
Plumage color		45	49	43
Body-weight		30.7	30.8	37
Comp type		24.3	20.2	20
Price fluctuation reason				
Purchasing power		30	27.2	33.7
Fasting		45	39.6	20.3
Availability of products		25	33.2	46

According to (Table 3). Market price for eggs was mainly depended on number/ dozen than size of individual eggs in the study areas. This average price of eggs (2500 SOS) found in the study area is lower than that reported by (Yosef 1998) and (Amsalu 2003) who reported there was variation price of eggs Ethiopia due to different location price and the quality of eggs.

The average prices observed were 44,333.3 SOS per head for pullets, 70,000 SOS for hens, 52,666.6 SOS for cockerels, and 76,666.6 SOS for cocks across the study area. Although there was no statistically significant variation in chicken prices among wealth rank groups ($P > 0.05$), the poorer groups tended to sell their chickens at slightly higher prices compared to other groups. This difference may be attributed to the fact that poorer groups preferentially sell heavier and better-colored birds directly to consumers, while also targeting retailers and local markets in larger towns. Young pullets were less priced than counterpart cockerels. Cockerels with good body condition had been priced higher for the reason of to its contribution of family's meat consumption.

Table 3 - Average (mean) prices in SOS per chicken and eggs

Eggs and Chicken	Districts				
	Households	Heliwaa (45)	Dayniile(40)	Hodan (35)	Overall(Means)
Eggs		2,000	2,500	3,000	2,500
Pullets		40,000	45,000	48,000	44,333.3
Hens		60,000	70,000	80,000	70,000
Cockerel		45,000	53,000	60,000	52,666.6
Cock		65,000	75,000	90,000	76,666.6

Patterns of ownership and distribution (Allocation) of labor in chicken management

Chicken ownership within families varied, with shared ownership accounting for approximately 57% and individual ownership for 43%. These ownership patterns significantly influence decisions regarding the consumption and sale of birds.

Chickens owned by children were typically sold, while those owned by household heads were either slaughtered or sometimes sold. The shared ownership mode was less prevalent compared to the 80% and 82% reported by (Kitalyi 1998) for Gambia and Tanzania, respectively. Most respondents (60.3%) indicated they spent a significant portion of their day managing chickens. This contrasts with the findings of (Maphosa et al. 2004),

which suggested that apart from feeding, providing water, and night penning, chicken management does not require extensive time

Table 4 - Allocation of poultry management tasks among household members (%)

Activities	Family member	Heliwaa	Deyniile	Hodan	Overall
Care Taking	Men	15	20	24	19.7
	Women	60	55	48.8	54.6
	Children	25	25	27.1	27.1
Chicken's house Construction	Men	49	53	64	55.3
	Women	15	19	10	14.7
	Children	36	28	26	30
Feeding of chickens	Men	27	19	32	26
	Women	38	45	51	44.7
	Children	35	36	17	29.3
Cleaning chicken's Quarters	Men	19	15	24	19.3
	Women	50	59	49	52.7
	Children	31	26	27	28
Treatment of Sick chicken	Men	22	31	18	23.7
	Women	47	53	58	52.7
	Children	31	16	24	23.7
Decision for Take off	Men	19	32	19	23.3
	Women	57	49	42	49.3
	Children	24	19	39	27.3

Different activities of family members for village chickens management are shown in Table 4. According to the households, there has been a work division among family members in poultry productions. Women in the family were primarily responsible for overall chicken care (54.6%), feeding (44.7%), cleaning quarters (52.7%), treating sick birds (52.7%), and making decisions about poultry product off-take (49.3%). This aligns with findings from (Prabakaran 2003) and (Sonaiya and Swan 2004) who noted that women bear most of the responsibility for chicken production management. Conversely, men were responsible for constructing poultry houses and slaughtering chickens. Although the percentages appear lower, children, both boys and girls, also played a significant role in the division of poultry production tasks at home. Despite variations in the level of participation, all household members were involved in village chicken production in some capacity.

V. Conclusion

Village chicken production in the Heliwaa, Deyniile and hodan districts of the Benadir region, Somalia, plays a crucial socio-economic role. It significantly contributes to household incomes and food security, with various family members participating in the management and care of the chickens. Women's involvement is particularly notable, as they bear most of the responsibility for daily chicken care and decision-making related to poultry products. The patterns of ownership, whether shared or individual, also influence the consumption and sale of chickens. Overall, the integration of village chicken farming into household activities underscores its importance in the local economy and the livelihoods of the families in these districts.

VI. Recommendation

- Since women are caretakers of village chickens, to improve their poultry management skills and economic opportunities and provide them targeted training.
- The government should encourage these small business chicken production system and to lessen the importation of eggs and meat of chicken from international countries.
- The governments should develop better infrastructure and market channels to facilitate the sale of chickens and poultry products, ensuring fair prices and reducing transportation challenges.
- The government should conduct educational programs for all family members involved in poultry production, emphasizing the importance of best practices in feeding, housing, and disease management.

- Finally I hereby recommend the other scholars to asses' further research on the socio-economic impacts and labor dynamics of village chicken production to inform policy decisions and development initiatives.

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