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Meat Consumption Patterns in Hawassa City, Southern Ethiopia

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Abstract

The study was conducted to study the consumption pattern of meat consumed (cattle, sheep and goat) at Hawassa city, Southern Ethiopia. Multistage random sampling procedure was used in the study area. Accordingly, a total of 697 households were selected. The collected data was analyzed by using descriptive statistics. Majority (95.1%) of the respondents consumed meat, the results also indicated that most of them consume meat once a month (26.8%) followed by consumption at a weekly basis (25.1%). Among the meat being consumed, beef was the most popular one and was mostly consumed on a weekly basis (23.7%) this was followed by chevon and mutton, which was mostly consumed once a month (13.9 % ,11.8%) respectively) by the respondents. The reason for preference of beef may be multifold with the higher availability (numbers of butcheries/ restaurants sold beef) and lower price of beef when compared to the other two meat types. The other reason preferred beef over mutton and chevon could be the culinary preference was towards beef related dishes which have led to higher consumption at home and eateries. The results showed that consumption of meat was highest during the festivals and holidays (89.1%), followed by times of social obligations (79.2%). Most of the respondents obtained meat through purchasing from butchers (92.7%) or, through sharing of slaughtered animals between friends/relatives (34.3%), by slaughtering un fattened animals, purchased directly from the market(individually(23.2%). It was concluded that in the study area, consumption status of meat was very low, only 3.2%, 5.6% and 25% of households were consumed meat (either beef or chevon or mutton) every day, twice/weekly, weekly respectively. Therefore, any development and improvement strategies of livestock production should be introduced so as to secure meat requirement of the community in the study area, Ethiopia.

Keywords: Beef; Chevon; Meat; Mutton.

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1. Introduction

Ethiopia is heavily depending on agriculture sector which plays a major role in the overall development of the country's economy. The sector contributes about 46% of the Gross Domestic Product (GDP) of which livestock sub sector attributes 30%-35% [1]. The contribution to GDP mainly depends on the production and productivity of the livestock and consequent utilization of the products by the consumers.

Meat is the most valuable livestock product since it is one of the main sources of protein for human consumption. Meat and meat products are sources of high quality protein and their amino acid composition. They are also major source of iron and some vitamins in the B group. So providing, meat consumption as nutrients can alleviate nutritional deficiencies [2].

It is anticipated that demand of meat production will increase by 58% in 2020 and the consumption of meat will increase remarkably in the same year in general in the world [3]. The human population in Sub Sahara Africa currently is increasing by 3.1% a year [4]. Increasing urban population, income capital, movement of people from rural areas to urban centers is correlated with the general increase in the population of sub Sahara Africa. Those all will increase the demand for food of livestock origin. In the year 2025 it is projected that the demand for meat exceeds 19 million tones. This level of production will require a 4% annual rate of increase of livestock productivity compared with the estimated current rate of 2.5% [4].

Meat consumption is often an indicator of the civilization or economic status of a country or that of an individual. People with a higher social or economic status consume a sufficient amount of meat products [5, 6]. The amount of meat consumed in different countries varies significantly with the social, economic, political influences, official policy, price support mechanisms, availability of livestock feeds and competition for food between man and animals, religious beliefs and geographical differences to name a few. In Ethiopia, the average annual meat consumption per capita is very low, which is estimated to be around 8 kg per year [7]. This is slightly below the meat intake of the residents of many developing countries. Different scholars also indicate that there are significant differences in meat consumption patterns in different cities and locations within the country, Ethiopia even. This may be due to the fact that income and family size differences of peoples among cities or areas.

Moreover, preference of livestock species consumed varies from location to location and amongst communities within location. Consumption preferences (of meat) in Ethiopia are skewed towards beef, mutton and chevon while this ranking changed from location to location and also within locations [8].

The meat consumption behavior is the deciding factor for the improvement of livestock production sector in the globe in general, in the regions and in the country in particular. Because consumer's behavior can demonstrate the processing, selecting, using, evaluating and culling of products and services, so as to satisfy their needs and decisions [9]. Moreover, consumption patterns of consumers are a predominant factor for growth of meat markets in domestic and export markets competitions. Therefore, information about consumers' meat is a vital to apply appropriate livestock development strategies and policies. However, there was not any documented

information on consumers' meat in the study area so far. The specific meat consumption pattern will be of a vital in planning the location specific and species based animal farming. Accordingly, the study was focused with the objective to identify the meat consumption patterns of urban population in Ethiopia.

2. Materials and Methods

The study was carried out from February 2012 to June 2012 in Hawassa city, which is the capital city of Southern regional state of Ethiopia. It is situated 270 km south of Addis Ababa via Debre Zeit between 7.05° N to 7°3′N latitude and 38°28′ E to 38.467° E longitude. Hawassa city had a total population of 183,027 residents, of whom 94,366 were men and 88,661 women, it is expected that since then the population has escalated significantly. The city has an area of 157.21 square kilometers which of course has increased since then. In the year 2007, the Hawassa city had 45,823 households, with an average of 4.22 persons per households, which also increased over time (Hawassa, 2007 unpublished report).

A multistage and random sampling technique was used in the study. In the first step, from the eight sub cities, four sub cities were selected randomly. In similar manner, in the second step, two districts were randomly selected from each selected sub cites. Thus, totally eight districts were selected. Thereafter, 5% of the households were selected randomly within each selected districts. Accordingly, a total of 697 households were selected for the study.

Data was collected from both primary and secondary data sources. The primary data was collected using structured and semi-structured questionnaire and pre-tested before the actual data collection so as to evaluate the appropriateness of the design, clarity of the questions, and interpretation of the questions by the farmers and time required for an interview. The result from the pre-test was used to implement for the final questions. The interviews were conducted by trained research assistants under close supervision by the researcher.

For conducting the field survey, four enumerators and two supervisors who have the knowledge about the area and well acquainted with the culture and can speak local language were recruited and "trained" on the methods of data collection and contents of the interview. On the background of this, the followings were the main focal points in the assessment such as meat consumption pattern, events of meat consumption preference of meat etc.

Notice that the study was focused on three meat types beef, chevon and mutton (cattle meat, goat meat and sheep meat) because the other meat types; camel meat, rabbit meat and swine meat are totally inaccessible in the study area. Moreover, meat of fish and poultry are insignificantly consumed by the community in the study area.

The secondary data were collected from different sources such as books, research publications, journals, office reports of cities and sub cities, Inter-net etc.

The collected data was analyzed statistically using SPSS v-17 for Windows by using descriptive statistics in percentage; represented in table ith the objective to identify the meat consumption patterns of urban population in Ethiopia.

3. Result and Discussion

3.1. Meat consumption pattern

The results from Table 1 indicated that meat was consumed by almost all the respondents in the study area. The current result agreed with the observations of [10] who reported similar findings from Borena, southern Ethiopia and [11] from Metema, northern Ethiopia. According to the result from Table 1, the respondents mostly consumed beef followed by chevon and mutton. The reason may be due to the accessibility and also affordability of beef [10]. The other reason may be because more numbers of shops sell beef, which is a result of more supply of beef animals and more demanding for beef. The result is also similar to that reported by [11] who reported that the restaurants and butcheries are the major source of beef for household consumption. However, the result of present study disagreed with [12] from India where beef is rarely consumed and most of the consumed meat is mutton and chevon, which is attributed to personal preference and religious attributes prevalent in the region.

Table 1: Meat consumption (%) among respondents in the study areas

Parameters	Sub cities				
	Mk (N=168)	Hk (N=229)	Ta (N=248)	Bad (N=52)	Overall (N=697)
Ruminant meat consumption	91.6	96.9	95.6	96.1	95.1
Beef	91.1	96.1	95.2	96.2	94.5
Chevon	48.2	41.5	44.8	42.3	44.3
Mutton	54.2	45.4	39.1	38.5	44.5

Mk=Mahlenketema,Hk=Haikdar,Ta=Tabor,Bad=BahleAdarash,N=respondents number

The results from Table 2 indicated that the frequency of meat consumption varied across the study area, most of the respondents consumed meat once a month. The results from Mahlenketema and Tabor agree to the result of the overall findings, however; the respondents from Haikdar indicated that they consumed meat more frequently (once a week) which may be attributed to the fact that most of the people are wealthy while those from Bahle Adarash consumed meat at a fortnightly interval.

Table 2: Frequency of meat consumption by respondents (%)

Parameters	Sub cities				
	Mk (N=168)	Hk (N=229)	Ta (N=248)	Bad (N=52)	Over all (N=697)
Everyday	-	5.2	3.6	1.9	3.2

Twice/week	6.5	6.1	5.6	-	5.6
Weekly	19.0	28.8	25	28.8	25.1
Fortnightly	18.5	16.2	16.5	36.5	18.4
Monthly	26.8	23.1	31.9	19.2	26.8
Once/two month	7.1	5.7	2.4	3.8	4.7
Once/four month	6	2.6	5.6	3.8	4.6
Once/six month	4.2	4.8	1.2	1.9	3
Yearly	3	3.9	3.2	-	3.2
Do not consume	8.9	3.6	5	4.1	5.4

Mk=Mahlenketema,Hk=Haikdar,Ta=Tabor,Bad=BahleAdarash,N=respondents number

The results of the frequencies of meat consumption by species are also presented in Table 3. The results indicated that beef was the most popular type of meat and was mostly consumed on a weekly basis this was followed by chevon and mutton, which was mostly consumed once a month by the respondents. In consistent to this study, [13] reported that the consumption of beef among the urban population of India is picking up with many of them consuming beef on whole as there are people with diverse cultures and ethnicity/ religion. [13] also indicated that the respondents included in their study consumed mutton at least once a week while very few consumed it on an occasional basis. However, [12] and [14] reported that in their study area mutton is mostly consumed while chevon and beef were consumed by only a few respondents.

Table 3: Frequency of meat consumption (by species) by the respondents (%) at Hawassa city

Meat consumption frequency	Respondents (N=697)		
	Meat type		
	B	Ch	Mu
Everyday	2.2	.4	1.3
Twice a week	4.7	.4	.3
Weekly	24.5	2.0	1.7
Fortnightly	16.5	5.3	3.7
Monthly	23.7	13.9	11.8
Once/two month	3.6	3.2	2.3
Once/four month	6.7	2.6	5.2
Once/six month	5.7	6.2	7.6
Yearly	6.9	10.3	10.9
Do not consume	5.5	55.7	55.5

B=beef,Ch=chevon,Mu=mutton,N=respondents number

3.2. Reasons of meat type preferences

Table 4 presents households' preference ranking of meat type consumed in the city. The result indicated that most of the respondents preferred beef over the meat from small ruminants (chevon and mutton). The reason for

preference may be multifold with the higher availability and lower price of beef when compared to the other two meat types. As most of the respondents culturally preferred beef over mutton and chevon, more numbers of butcheries/ restaurants sold beef, beef was available even in less quantity the respondents preferred the same, while mutton and chevon was sold by very few restaurants and the numbers of small ruminants slaughtered were a few thus the accessibility to mutton and chevon was grossly limiting. The other way by which the respondents could avail it was by in house slaughtering. However, it seems that the culinary preference was towards beef related dishes which have led to higher consumption at home and eateries and sales of the same.

Similar observations pertaining to cultural preferences and meat type have also been reported by several studies [2, 15]. The results as observed in this study are in consonance with the observations of [16] who also reported the respondents' preference for beef over mutton and chevon in Southwest, Nigeria. The results as observed by [16] indicated that the preference of the respondents were attributed to their cultural and culinary preferences, income of the respondents, religion, their proximity to market, health reasons etc. Similar results were also reported by [5, 17] who observed that among the interviewed population beef preferred over mutton and chevon, respectively in order of choice. The high preference for beef as observed by [17] could be attributed to larger herd size. Similar results pertaining to preference of meat type as observed in this study was also reported by [18] from Alaba woreda, southern Ethiopia. However; in contrary to, the current result, a study conducted by[13] in rural India reported that beef was the least preferred type of meat which was primarily attributed to religious sentiments in spite of the fact that it was the cheapest of all the different types of meat available.

Table 4: Households' ranking and reasoning of their choices to ward meat type (by species) consumption by respondents (%) at Hawassa city

Parameters	Respondents (N=697)		
	Meat type		
Preference rank (%)	B	Ch	Mu
1st	66	19.8	14.2
2nd	21.1	43.5	35.4
3rd	12.9	36.7	50.4
Reason for Preference (%)	N(460)	N(138)	N(99)
Better quality	81.7	97.8	98
Easily available	91.3	15.9	12.1
Affordable	67.8	13.0	6.1

B=beef, Ch= chevon, Mu=mutton, N=respondents number

3.3. Events of meat consumption

As indicated in Table 5, the meat consumption was popular during the religious holidays and this is followed by social obligations which is in line with the observations of [11] and [17] and the meat was also procured to provide extra nutrition to the family members who are sick and infirm and also to nursing mothers during parties and on the arrival of friends and guests. The results are similar with those reported by [19] and [20], who

reported those religious holidays, festivals, weddings; births were the main reasons for meat consumption. In addition, [21] reported ,from Goma district, Jimma Zone, western Ethiopia that meat of small ruminants are mostly, consumed during the religious holidays and some occasions like weddings, births in a family, during coffee harvest , hosting guests, circumcision and funerals etc.

Table 5: Reasoning of meat consumption by respondents (%)

Parameters	Sub cities				
	Mk (N=168)	Hk (N=229)	Ta (N=248)	Bad (N=52)	Overall (N=697
Social obligations	80.4	75.1	83.9	71.2	79.2
Time of family member sickness	82.1	79.5	71	71.2	76.5
Arrival of friends and guests	54.8	51.1	44	48.1	49.2
Religious holidays	89.3	90.8	87.1	90.4	89.1

Mk=Mahlenketema,Hk=Haikdar,Ta=Tabor,Bad=BahleAdarash,N=respondents number

Table 6: Sources of meat in the study area by respondents (%)

Meat sources	Sub cities				
	Mk (N=168)	Hk (N=229)	Ta (N=248)	Bad (N=52)	Overall (N=697)
Slaughtering house fattened animals (individually)	-	1.7	2.4	7.5	2.9
Purchasing from hotels/restaurants/butchers	91.1	95.2	91.1	92..3	92.7
Sharing slaughtered animals between friends/relatives	39.9	18.3	41.9	50	34.3
By slaughtering un fattened animals, purchased directly from the market(individually)	20.8	27.1	21	25	23.2
As gift from friends and relatives	3.6	2.6	2.8	1.9	2.9

Mk=Mahlenketema,Hk=Haikdar,Ta=Tabor,Bad=BahleAdarash,N=respondents number

3.4. Meat sources

The results related to the source of meat available for consumption in the study area is presented in Table 6. The study showed that, most of the respondents purchased meat from the eateries. Slaughtering in house fattened animals was sources of meat consumption for some households in all sub cities except, in Mahlenketema. The other means of obtaining meat was by slaughtering an animal between friends/ relatives and sharing the meat of the same. Slaughtering (individually) un fattened animals (purchased directly) from the market and as gift from friends and relatives were also source of meat consumption for some of the respondents family in all sub cities.

The current results agreed with the reports indicated by [11] and [17]. [11] who had reported that in rural areas of Ethiopia, purchase of meat from eateries/ butcheries was less common as most of the inhabitants preferred in house slaughtering and also for large ruminants they preferred communal slaughtering and then sharing of meat among the members. Similary, result by [10] also indicated that consumers obtained meat through one of the three ways: they may purchase live animals directly from from abattoirs.the terminal market and slaughter by themselves or, they may get meat from markets; or, they may also obtain meat from butchers who sell the meat.

4. Conclusion

- The study indicated that most of the interviewed respondents in the study areas consumed meat, among the meat being consumed beef was mostly preferred over other types of meat. This may be attributed to higher availability of beef when compared to other types.
- The study also indicated that the respondents preferred to consume meat occasionally which may be fallout of high price of all types of meat and limitation of capital due to this meat consumption was only popular during the religious holidays and social obligations (wedding, funeral, birth in a family and other public ceremonies).
- Most of the respondents in the study areas obtained meat through various ways, among which purchasing from butchers was the main source.

5. Recommendations

- Generally, it was concluded that consumption status of meat was very low, only 3.2% 5.6% and 25.1% of households were consumed meat (either beef or chevon or mutton) every day, twice/weekly, weekly respectively therefore, any development and improvement strategies of livestock production should be implemented so as to secure meat requirement of the community in the study area, Ethiopia.
- More ever, more butchers cooperatives' should be established in the study area to develop the consumption of status of meat for the people. Because as butchers cooperatives' number become increase, the price of meat will decrease so that the poor people would afford to purchase meat for consumption.

Conflict of interests

The author(s) did not declare any conflict of interests

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