

Small Ruminant (Sheep and Goat) Value Chain in West Amhara

(Dera and N/Mecha Cases)



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for Agro-Business Induced Growth
in the Amhara National Regional State**

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List of Abbreviations and Acronyms

AgroBIG	- Agro-Business Induced Growth program
ACSI	- Amhara Credit and Saving Institute
BDS	- Business Development Service
CSA	- Central Statistics Agency
DI	- Detailed Interview
ERCA	- Ethiopian Revenue and Customs Authority
EIAR	- Ethiopian Institute of Agricultural Research
ETB	- Ethiopian Birr
FOB	- Freight on Board
FGD	- Focus Group Discussion
EM	- Effective Microorganisms
GTP II	- Second Growth and Transformation Plan
KII	- Key Informants Interview
LMP	- Livestock Master Plan
NGO	- Non-Governmental Organization
USD	- United States Dollar
VC	- Value Chain
VCA	- Value Chain Analysis

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Executive summary

Background and Objective: Agro-Business Induced Growth programme is a bilateral agribusiness development program of the Ethiopian and Finish governments, which mainly operating in Amhara regional state. The programme first phase was implemented in Fogera and Mecha Woredas, that ended in 2017, the second phase is running for four and a half years until 2021. The second phase covers North Achefer, South Achefer, North Mecha, South Mecha, Bahir Dar Zuria, Dera, Fogera and Libo Kemkem Woredas. From livestock value chains, dairy, small ruminant fattening and poultry added and the project intended to address bottlenecks hindering producers, traders, processors, retailers and consumers to get the best value from their participation using the Value Chain Development Approach. The study conducted to assist actors in small ruminant VC to identify their business opportunities and competitive advantages, and to address the shortcomings that pose a risk for their business initiatives to prosper.

Methodology: A Participatory Value Chain Analysis with Gender, Green and Governance (PVCA + G³) framework has taken as a comprehensive tool for data collection and analysis process. The study used both primary and secondary data sources. For the primary data collection two sample Woredas (Dera and N/Mecha) taken mainly for the upstream actors. Conducted interviews and group discussions with actors at different segment of the value chain that includes small-scale producers, multipurpose cooperatives and unions, processors, supermarkets, hotels, different sector offices and experts from Kebele to national level. To assess the overall existing situation, Ethiopia and other countries trends and benchmarks thoroughly reviewed.

Value Chain Situation: Meat consumption level is projected to grow significantly on the years ahead until 2028 according to the nation's LMP, which will intensify the demand for meat. This is mainly associated with the ever-increasing population in both urban and rural areas across the nation. Accordingly, the demand for sheep and goat meat will increase at the national level and the study areas as well in the upcoming years.

Value Chain Constraints and Interventions: The main constraints identified in all segments of the VC are increasing feed price and knowledge gap in assuring the proper feed mix, limited access for improved breed, shortage of medical supplies and ineffective animal health service provision, limited loan access, poor production management, little or no regular market for and buyers linkage, poor coordination among the VC actors. To address the constraints interventions proposed includes, promoting youth groups or cooperatives as local feed suppliers, provision of training on optimum use of feed and improved management system, develop commercial feed supply system and create access for molasses, improve public and private health/vaccination service providers with better accountability and incentive, better market linkages creation, and engage with the VC actors to create effective public-private dialogue platforms for identified critical issues.

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1. Introduction

1.1. Programme Background and Assignment Objective

Programme for Agro-Business Induced Growth in Amhara regional state (AgroBIG) is a bilateral agribusiness development programme of the Ethiopian and Finnish governments. The first phase of AgroBIG (2013–2017) was implemented in Fogera and Mecha woredas in the Amhara region. The second phase of AgroBIG runs for 4.5 years (2017–2021) and is designed to sustain the gains and achievements of Phase I, and further strengthen agribusiness development within the Tana sub-basin.

The geographical focus of the second phase of AgroBIG is 89 kebeles in eight woredas: North Achefer, South Achefer, North Mecha, South Mecha, Bahir Dar Zuria, Dera, Fogera and Libo Kemkem, falling under the Koga-Gilgel Abay, Gumara and Rib catchments. The Programme targets approximately 300,000 direct beneficiaries classified into three main groups: (1) Individual farmers and farming household members; (2) Agricultural cooperatives and associations; and (3) Other private sector value chain actors.

AgroBIG uses the Value Chain Development Approach, addressing the bottlenecks that hamper producers, traders, processors, retailers and eventually consumers to get the best value from the product they are either producing, processing, trading or consuming. In addition to promoting vegetable and crop value chains, AgroBIG II is intended to include other potential value chains from within the livestock sub-sector for the Programme support to help the targeted beneficiaries diversify their income sources. The initial assessments made by the Programme team suggest that small ruminant fattening, dairy and poultry production have the desired potential for job and income generation, considering women and youth in particular.

Based on the team identification the small ruminant (sheep and goat) value chain analysis designed to produce comprehensive analyses to assist the AgroBIG implementers to identify their business opportunities and competitive advantages, and to address the shortcomings that pose a risk for their business initiatives to prosper. The results of the analysis will also guide AgroBIG decision makers and management to ensure resources for interventions that have the best potential to help developing the value chain. The small ruminant value chain analysis conducted taking Dera and North Mecha as sample areas.

The specific objective of the VCA analysis were:

- a) To determine potential activities for increased income related to small ruminant value chain that enhance the attainment of the targets of AgroBIG.
- b) To identify the potential of the small ruminant value chain – at their all stages – to create jobs, with specific focus on women and youths.
- c) To review the support packages and operational guidelines developed by the Livestock Promotion Agency to assist youth groups' engagement in livestock production. Assess the potential and observed challenges of the respective support and interventions in job creation for youth.
- d) To identify the existing and potential value chain actors, supporters and enablers (focused on downstream) having capacity to create sustainable markets for the Programme beneficiaries (smallholder farmers, their cooperatives, service providers, women and youth groups).
- e) Carry out in-depth analysis on various aspects of the value chain opportunities, constraints, show causes & effect of the chains (root-immediate causes), propose market-based solution (interventions) and the actors expected to be part of the solution.
- f) To indicate the value addition activities along each node of the value chain(s).
- g) Include successful business models or cases to ensure chain optimization.

1.2. Methodology

Both primary and secondary data sources used for the study.

Secondary sources: Review of secondary information conducted to assess existing value chain situation, country specifics and trends, other countries benchmarks.

Primary sources: Interview and key informant discussion conducted with primary value chain actors, existing different private and public service providers using semi-structured questionnaire and guiding questions. Representative respondents' type identified at the beginning of the study and additional actors added during the process of the study to get more comprehensive opinions and information. The respondents include producers, multipurpose cooperatives and unions, hotels, butchery, brokers, different sector offices and experts from Kebele to national level. In consultation with the project team and partners for upstream respondents the following Kebeles and samples taken for primary data collection.

TABLE 1. NUMBER OF INTERVIEWED RESPONDENTS

Woreda	Sample Kebele	FGD - in Selected Kebeles	KII from Different Segments and Organizations	Individual Producers DI
Dera	Huletu wogedami; Tebabari	2	18+	6
North Mecha	Enamirt; Ribe	2		

VCA Data Collection and Analysis Process: for data collection and analysis process Participatory Value Chain Analysis with Gender, Green and Governance Lens (PVCA+G³) frame used. Both quantitative and qualitative data collection tools employed. For actors' data aggregation and estimation summary format and excel sheet employed. Detail method used and data collection instruments attached as annex in the report.

2. Market (Demand and Supply)

2.1. Demand Trend and Driving Factors

Domestic Market: Domestic meat consumption is increasing but still, with this abundance of livestock, one of the lowest per capita consumption. There are several reasons for this low consumption, including low per capita incomes, high domestic meat prices and the extended fasting seasons by the Orthodox Christians that reduces aggregate demand by 20-35% at national level. As projected in the livestock master plan of the country, production would grow from 1.275 to 1.933 million tons between 2015 and 2020. This would not, however, meet expected consumption growth of 58% by 2020 (i.e. 2.008 million tons); leaving a 7% deficit (187,000 tons) in the 2015–2020, as per red meat production and consumption balance (LMP Brief, 2015). That is a good market opportunity for those who are intent to expand and improve their supply.

The demand for sheep and goat rearing and fattening in the study area is driven mainly by the domestic demand. The meat demand complemented with breeding demand of farmers in most part of the country. The major market demand is coming from big cities. Domestic market demand for sheep and goat meat is growing due to the rise in both urban and rural populations. As projected in LMP, mutton and goat meat consumption expected to be tripled in 2028 taking 2013-baseline year.

TABLE 2. SHEEP MEAT (MUTTON) AND GOAT MEAT CONSUMPTION PROJECTION IN '000 TONES (2013-2028)

Meat	2013	2028
Mutton (Sheep Meat)	63.2	182.6
Goat meat	60.7	182.6

Source: LMP, 2017

Sheep and goat meat domestic market segment extends from Woreda town to big cities like Addis Ababa, Bahir Dar, Gondar, Debre Tabor. Traders play a significant marketing function in this segment. Butchers, hotels and restaurants are involved in preparing roasted sheep meals and different type of sauces (*Dulet, Key Wot, Alichu, Kikile, Tibs, etc...*) for local consumers. Many households slaughter sheep or goat during holidays and special events. The demand for sheep and goat by the domestic consumers follow seasonal patterns that gets very high during religious festivities like Easter, Christmas, Id Al Fetir, and New Year and becomes very low during other times of the year.

Castrated and fattened sheep provide better meat quality, and there is prestige in slaughtering fattened sheep at household level. Based on the price, households can afford to buy different range of sheep from mid-aged to well fattened ones. The market demand asserted with the responses from the local informants, "There is huge demand for sheep, either for fattening or reproduction, especially for better breeds, such as Washera".

TABLE 3. LOCAL MARKET SEGMENTS AND BUYERS REQUIREMENT

Segments	Market Size and Demand Driving Factors	Requirement and Procurement Process/Qualifying Factor
Individual Buyers in the Urban Village and Woreda Town	On average, there are more than 250 thousand population (about 30-45 thousand urban dwellers) in each Woreda. Based on 2013 LMP baseline, there will be demand for about 27,000 heads of sheep and the same amount goat.	Holiday time based on income level and affordability; Few buyers at Woreda level for well fattened sheep and goat

Segments	Market Size and Demand Driving Factors	Requirement and Procurement Process/Qualifying Factor
Individual Buyers in Bahir Dar Town	There are about 362,297 residents in Bahir Dar as per CSA projection; it is estimated that there is a demand for about 40,255 heads of sheep per year at household level.	Based on the income level, residents will buy fattened sheep at different level.
Hotels, Restaurants and Cafes	There are about 32 big hotels in Bahir Dar town and many more restaurants that buy about 2-5 sheep per day as per KII.	The big hotels prefer certified legal supplier; For some of the hotels sheep <i>Tibs</i> is not profitable.

Source: Survey

TABLE 4. SMALL RUMINANTS POPULATION ESTIMATE AND CURRENT DEMAND LEVEL OF SHEEP AND GOAT MEAT

Description	Total population	Mutton meat per annum (head) ¹	Goat meat per annum (head)
Ethiopia	94,351,001	11,793,875	11,793,875
Amhara	21,134,988	2,641,874	2,641,874
South Gondar	2,484,929	310,616	310,616
West Gojam	2,542,221	317,778	317,778
Woreda level	250,000	31,250	31,250
Bahir Dar town	362,297	45,287	45,287

Export Market: Ethiopian live sheep and meat are destined to many countries. The main export destination is Middle East countries that include Saudi Arabia, United Arab Emirates, Bahrain, Kuwait, and Oman. Djibouti, Bangladesh and Viet Nam are other destination countries. It is mainly exported as fresh, chilled or frozen meat. In terms of value, the significant number exported as meat (fresh, chilled or frozen) in case of goat (84 million USD in 2017) and as live sheep (about 15 million USD in 2017) and (Figure 1).

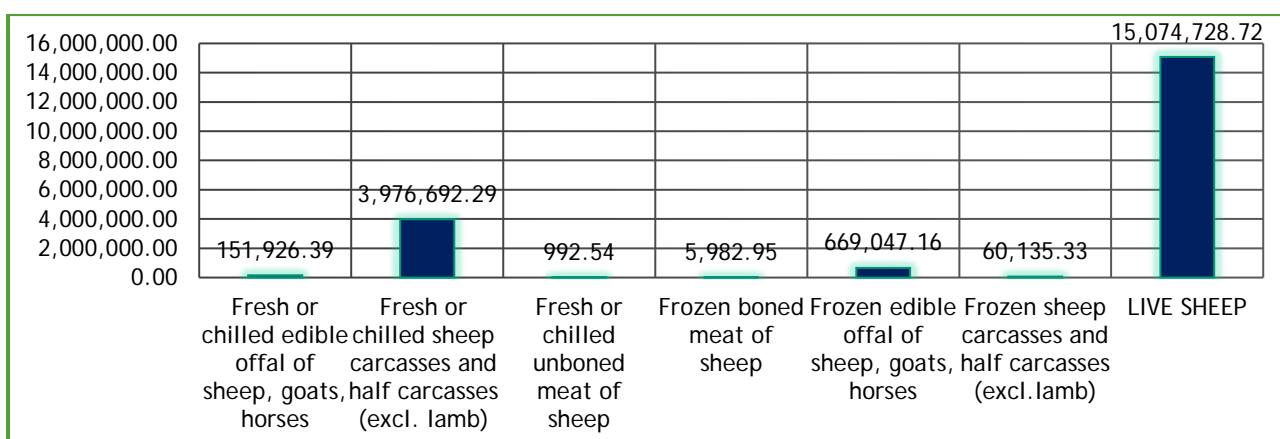


FIGURE 1. EXPORT VALUE OF SHEEP (FOB-USD, 2017)

¹ Per capita consumption taken 1Kg (considering 0.7 – 2013LMP baseline figure and projection to reach 1.5 in 2018) and one sheep estimated 8Kg mutton meat

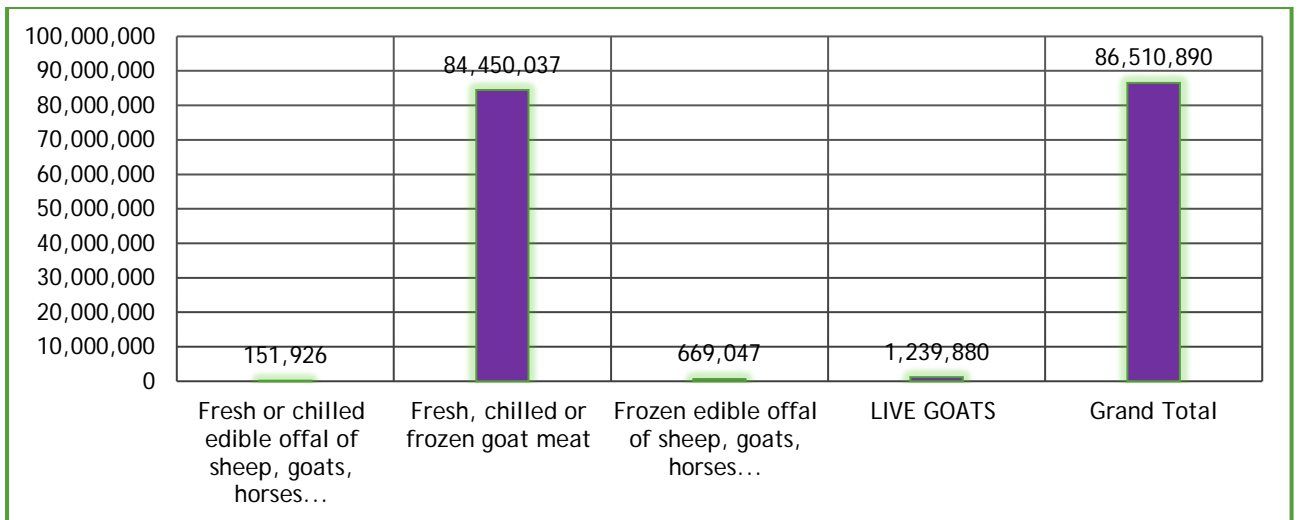


FIGURE 2. EXPORT VALUE OF GOAT (FOB-USD, 2017)

Source: ERCA, 2018

With the current export price, farmers that engaged in sheep and goat fattening are less competitive for the export market and rather get better payment from the local buyers. The average selling price of live sheep to the export market is about 1,500 ETB FOB price while the average farm gate price for well-managed sheep in the study area is 2,800 ETB (about double). In the past, there were abattoir agents who tried to source from the area.



FIGURE 3. EXPORT PRICE OF LIVE SHEEP IN USD FOB (2017)

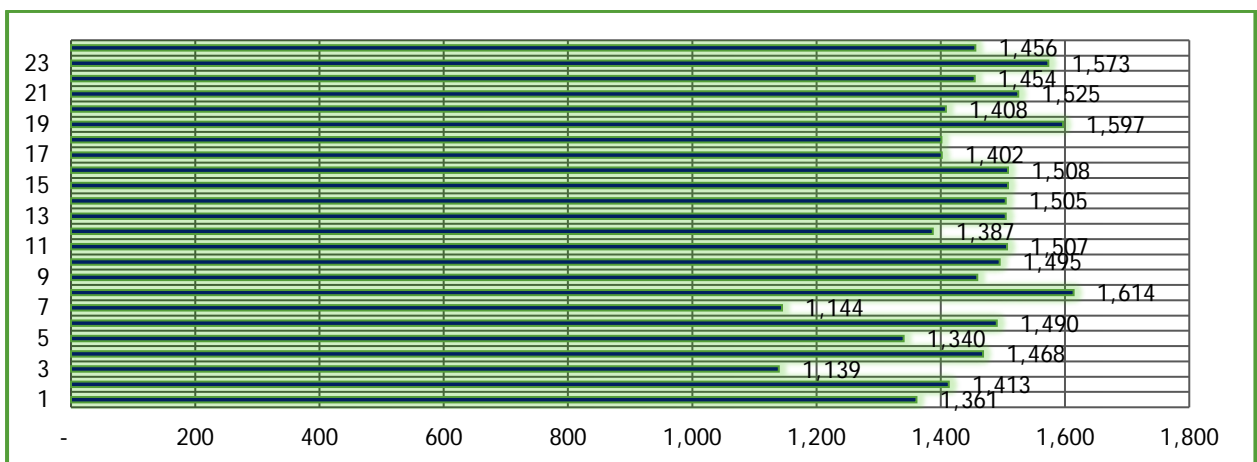


FIGURE 4. EXPORT PRICE OF LIVE GOAT IN USD FOB (2017)

Source: ERCA, 2018

2.2. Supply Trend and Driving Factors

There are about 30.7 million sheep and 30.2 million goat in the country, out of 35% of sheep and 21% goat found in Amhara Region. South Gondar and West Gojam has 10% and 12% respectively from the Amhara region sheep population. In the case of goat, it has 8% and 4% in South Gondar and West Gojam share respectively (Figure 5). Sheep and goats have many advantages over large ruminants for most smallholder farmers, such as lower feed costs, quicker turnover, easy management and appropriate size at slaughter. Sheep serve as a major cash source for critical expenses of farmers.

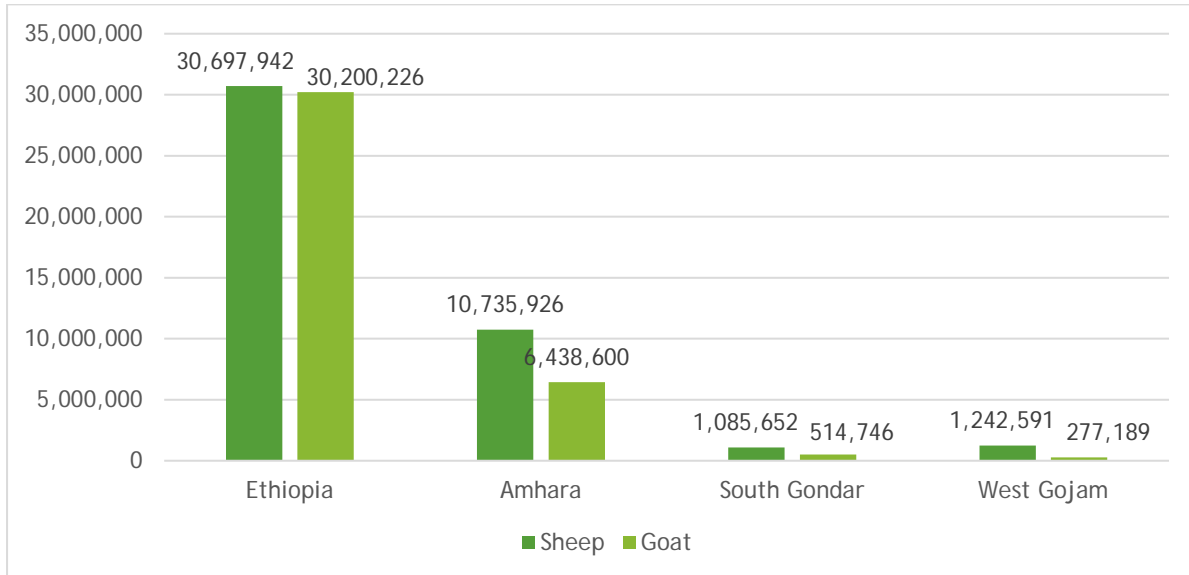


FIGURE 5. SHEEP AND GOAT POPULATION (ETHIOPIA, AMHARA REGION, SOUTH GONDAR AND WEST GOJAM ZONES)

CSA, 2017

Sheep is the third in terms of livestock number followed by poultry and cattle in both South Gondar and West Gojam Zone while goat is the fourth in South Gondar and fifth in West Gojam Zone as indicated in Figure 6.

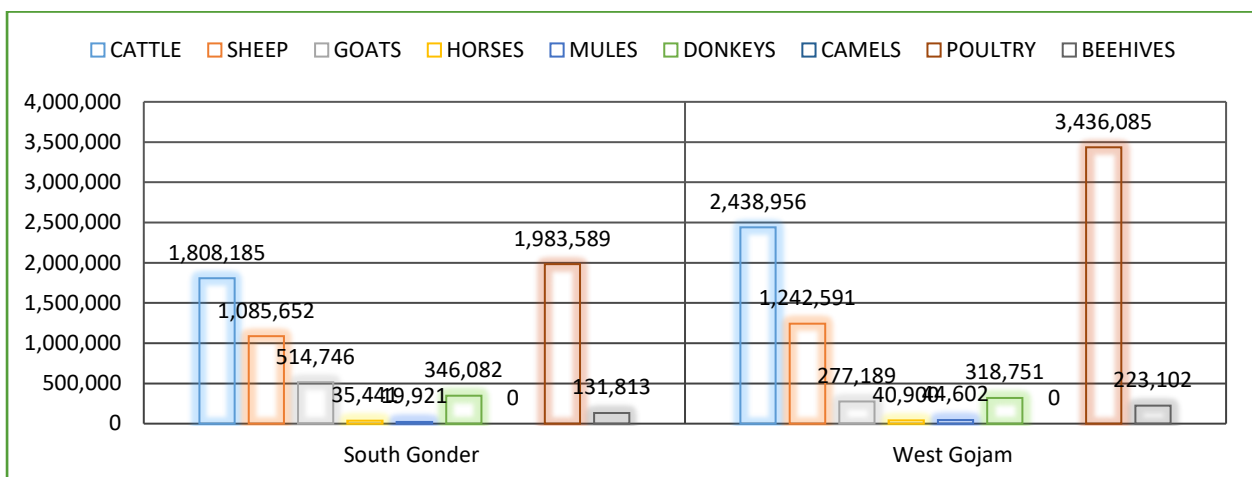


FIGURE 6. LIVESTOCK POPULATION IN SOUTH GONDAR AND WEST GOJAM ZONES

More than 99% of the sheep in the country (about 22 million are female and 8.5 million are male sheep) are indigenous breeds; and about 34,152 female and 32,126 male are cross breed type sheep that are promoted by different projects in the past. The pattern is similar in South Gondar and West Gojam Zone with no officially reported exotic or cross breed in the area. Washera and Farta breed are the known sheep breeds in the study area.

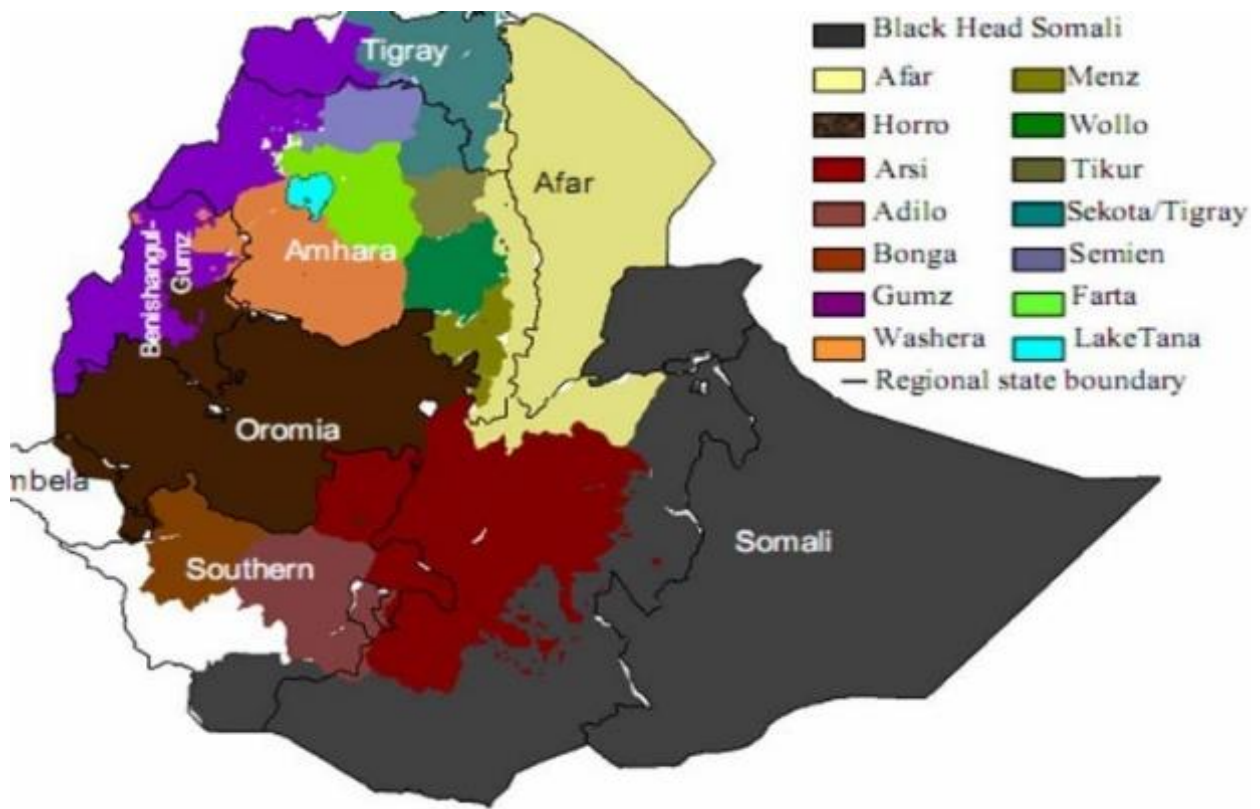


FIGURE 7. SHEEP GENETIC RESOURCES OF ETHIOPIA
 Source: EIAR, 2018

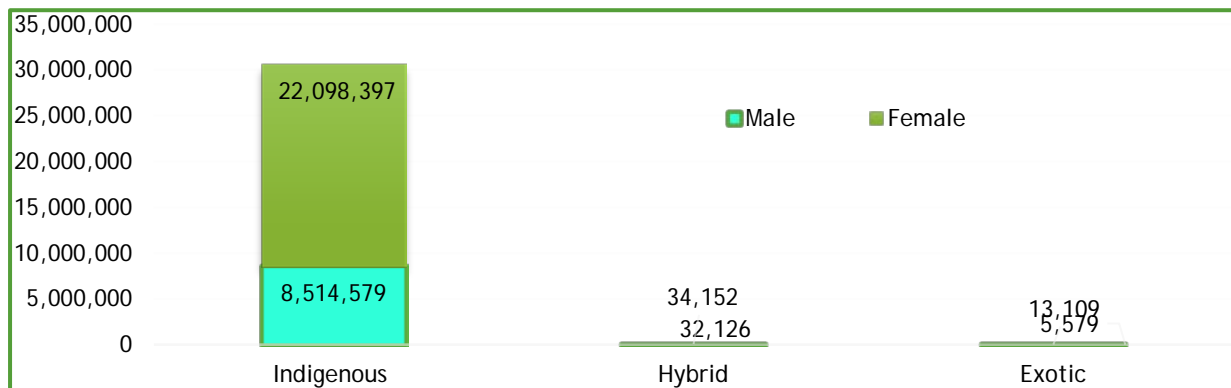


FIGURE 8. NATIONAL SHEEP POPULATION PER BREED TYPE

There are 60-145 thousand range of sheep and goat population in the study areas, where the biggest population is in Dera Woreda. In Fogera and Dera woreda, there are limited number of reported Washera sheep breeds (3% in Dera and 10% in Fogera Woreda).

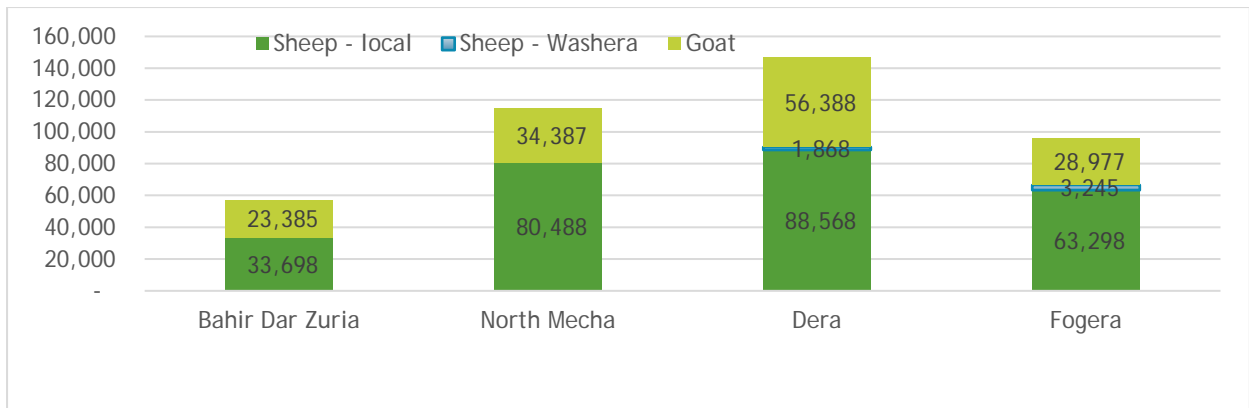


FIGURE 9. SHEEP AND GOAT POPULATION IN THE STUDY AREAS
 Source: Woreda Livestock Offices

Average holding number of sheep in the study area ranges from 2-8 in most cases; however, there are exceptional individuals that hold even more than 50 sheeps. Goat holding is less common in almost all of the visited villages, some of the households keep 2-4 goats (Figure 10).

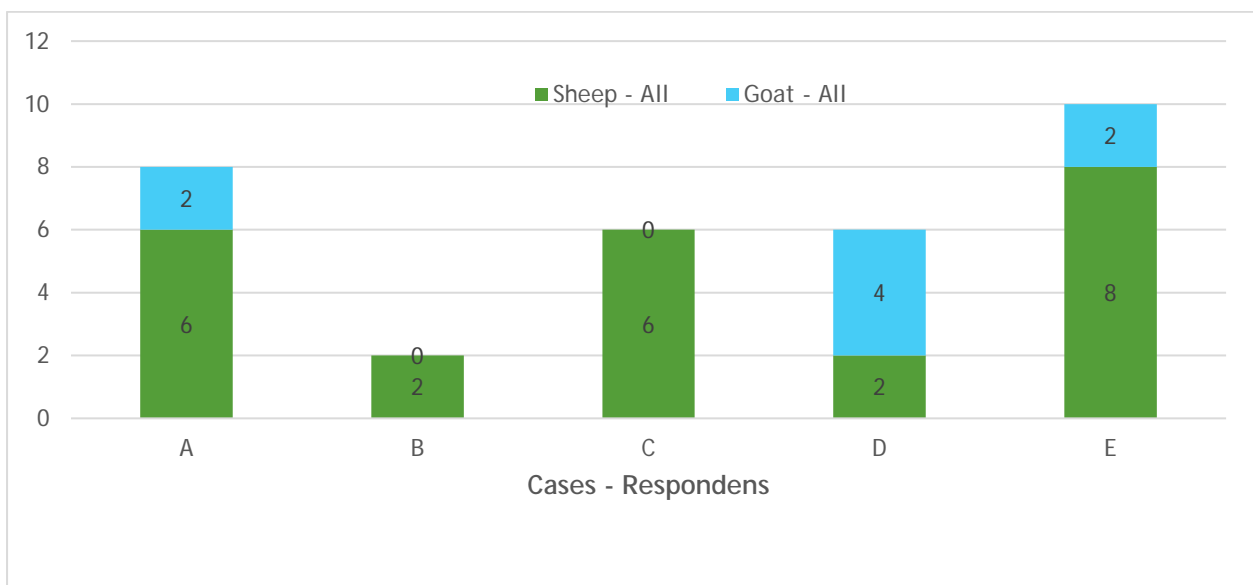


FIGURE 10. SHEEP AND GOAT HOLDING SIZE/SCALE IN THE STUDY AREAS
 Source: Detail Interview

The main purpose of holding sheep is breeding (rearing), then to supply to market/to sell for meat especially the male sheep (Figure 11).

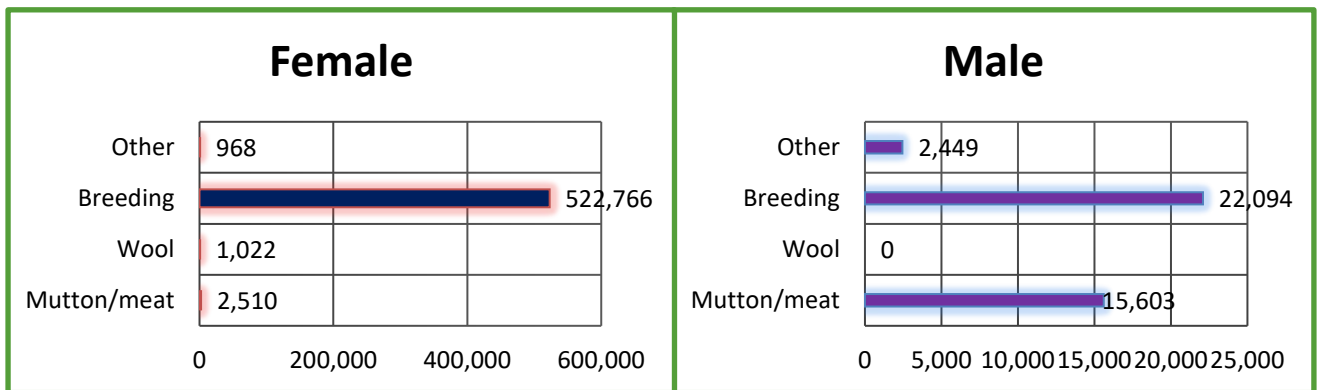


FIGURE 11. PURPOSE OF HOLDING SHEEP IN SOUTH GONDAR ZONE

Source: CSA, 2017

In the study area, fattening practice is undertaken by many farmers with different levels of traditional fattening. The practice varies among farmers, selecting from own stock or buying from the market before the holiday provide some additional feed from the farm crop residue and sometimes buying from the market to get some weight gain for better market price. In the cases assessed, about 50% of the sheep kept by the farmers are reported for fattening purpose and in all the cases assessed, they kept goat for fattening (Figure 12).

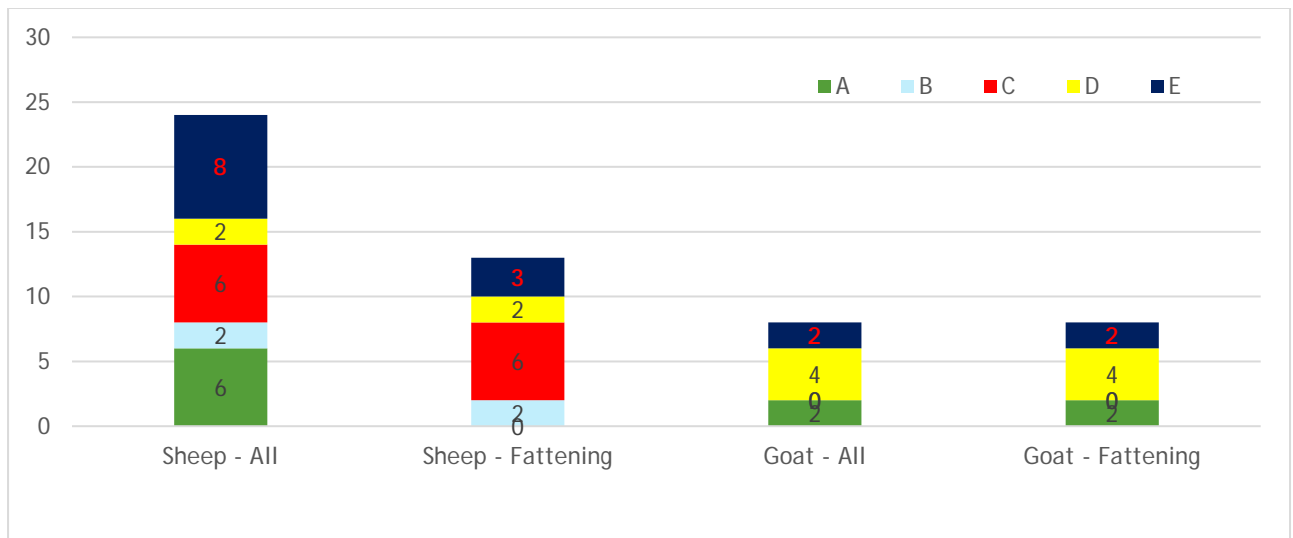


FIGURE 12. SHEEP AND GOAT KEPT FOR FATTENING (RESPONDENT CASES-A, B, C, D, E)

Sheep and goat rearing and fattening is practiced in the study area to complement the livelihood and as immediate cash source for different needs of the family. The area is convenient for rearing or fattening sheep with presence of crop and local drink residue (*Birinte*). There are no significant sheep diseases as well. Sheep fattening is an ideal enterprise for women, youth and landless individuals, as it does not demand much farmland. The farmers supply regularly managed sheep and semi-improved fattened sheep to the market. The average sheep number fattening per year ranges from 2 – 6, following big festivals.

The two zones (South Gondar and West Gojam) annual sheep sales volume estimated at about 900 thousand and 232 thousand of goat taking 2016/17 year sales estimate (Figure 13).

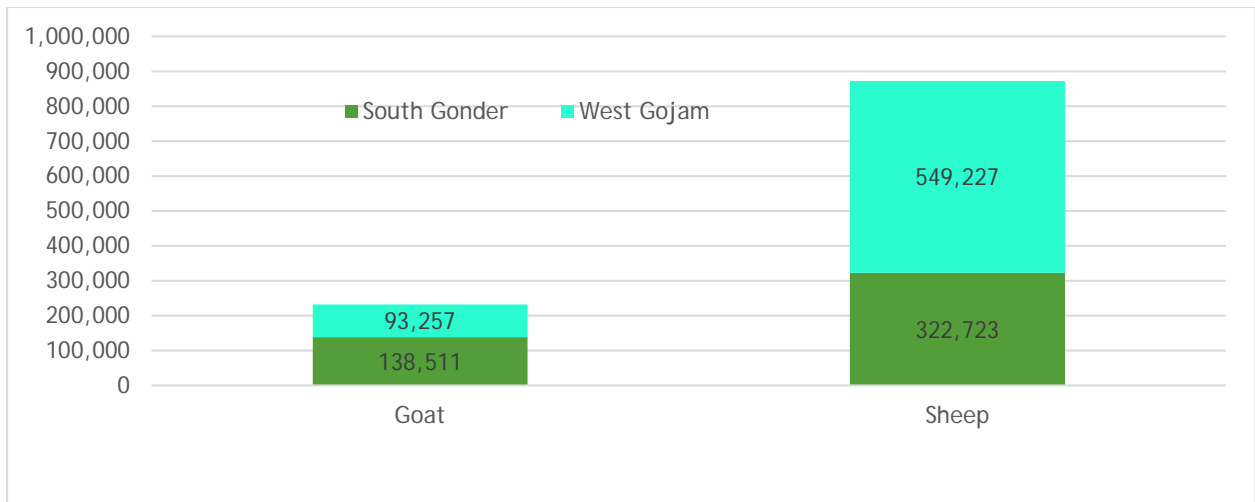


FIGURE 13. SALES/SUPPLY ESTIMATE OF SOUTH GONDAR AND WEST GOJAM ZONES

Demand and Supply Comparison Summary: when the supply and demand for sheep meat compared at different level there is surplus supply than the regional and zonal level consumption. As the practice shows, sheep and goat supplied to other part of the country. There is deficit only at national level where producers in the area can fill the current deficit by becoming more competitive with other area producers.

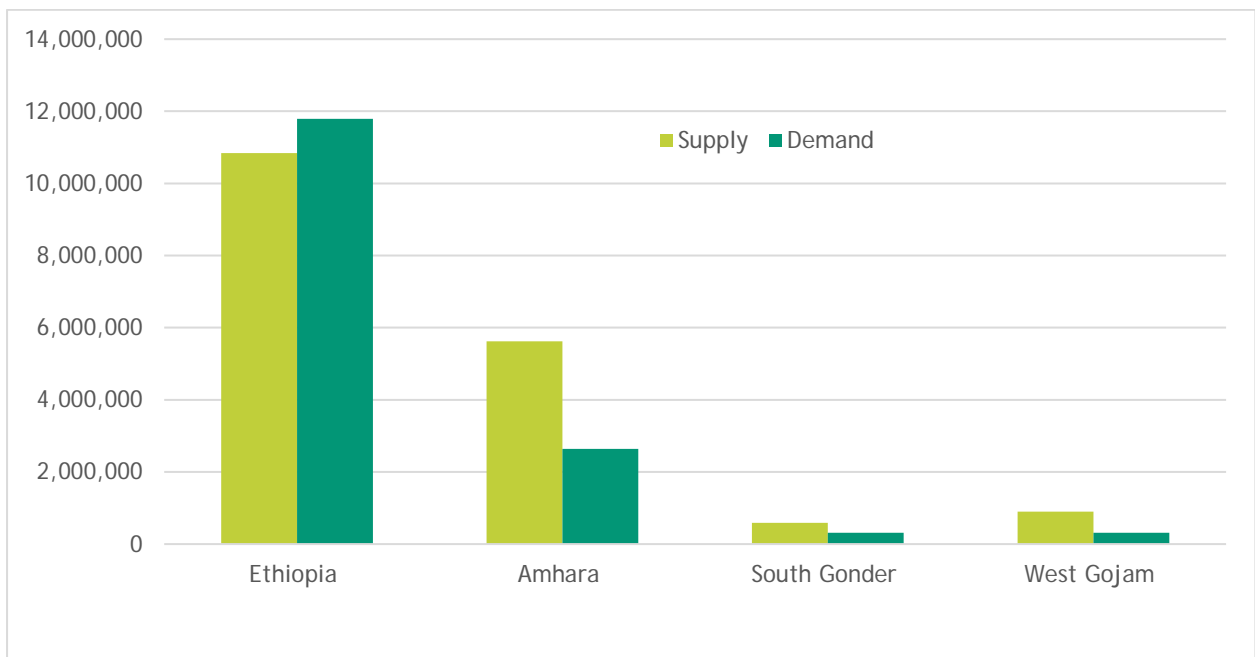


FIGURE 14. SUPPLY (SLAUGHTER AND SALES) AND DEMAND (ANNUAL CONSUMPTION ESTIMATE) COMPARISON/HEADS

Source: Own Computation

3. Functions and Actors in the Value Chain

Sheep and Goat value chain map that includes both fattened and reared is shown in Figure 15. As indicated in the graph the most common actors in the value chain are farmers and traders, with limited presence of input suppliers like feed, health service. Government and NGOs are complementing the missing services.

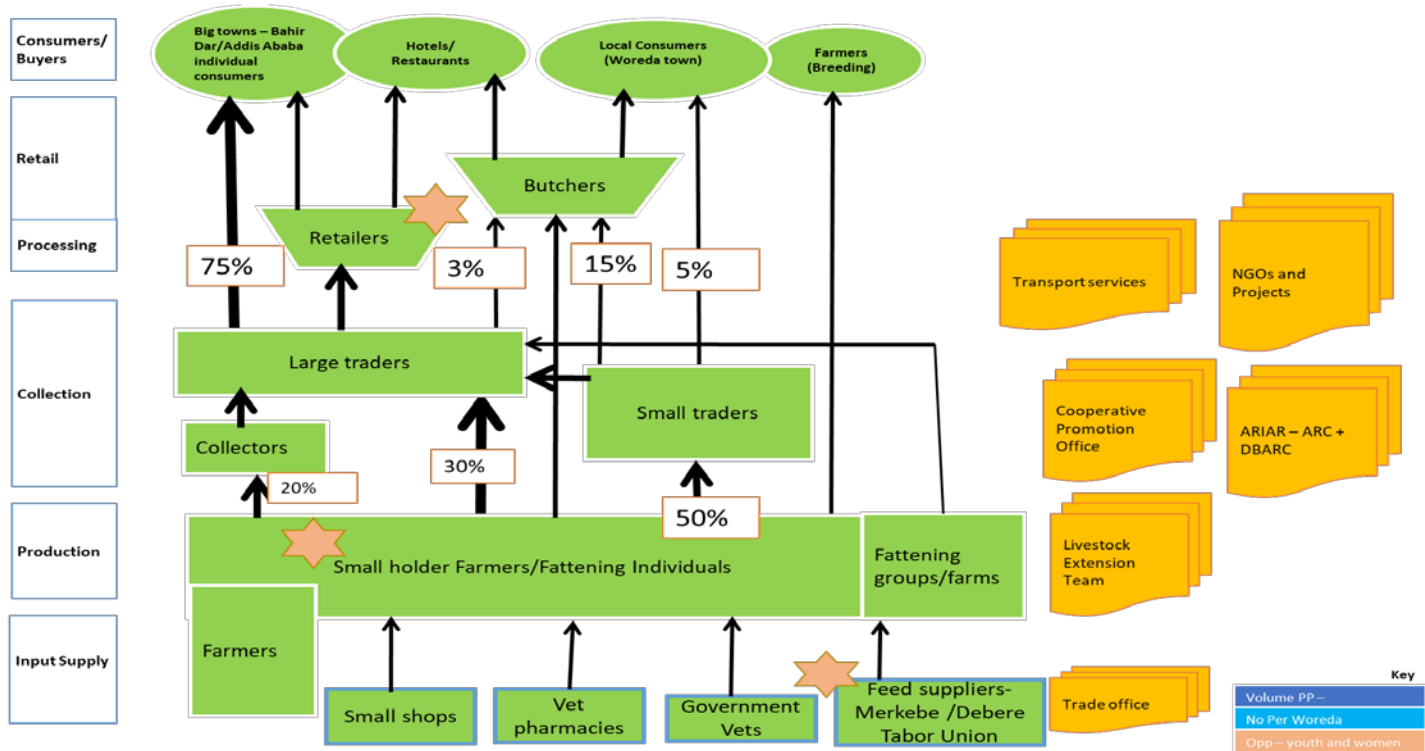


FIGURE 15. SHEEP AND GOAT VALUE CHAIN MAP OF THE STUDY AREA

The major actors in sheep and goat fattening are small-holder farmers, groups and farmers that are engaged in small ruminant fattening, feed suppliers, drug shops, livestock health service, traders, butchers and individual consumers. Major functions and actors in the value chain explained in the following sections.

3.1. Input Supply

Breed: sheep and goat for fattening or breeding sourced from own stock or buying from the nearby market/other farmers. In addition to the local selections, Washera breed, which respond, better for fattening are also available in small number in the hands of the farmers. Except few attempts to expand the Washera breed with community-based breed program, there is no specialized supplier of selected sheep and goat breed. Debre Birhan research center in Amhara leading the community based breed improvement activity in the region. At national level there were attempts to introduce sheep breeds. There are research led cross breed improvement with Awassi and Dorper sheep breed². There is an individual farm in South Achefer that is trying to improve the productivity by cross breeding the local breeds with South Africa breed.

Feed: The main feed source is grass and crop residues (Sorghum, Dagusa and others) collected from own farm and bought from other farmers. Urea-related straw introduced in some villages. Local drink

² Ayele Abebe, Sheep and Goat Research Development of Ethiopia, DBARC, March 2018, Hoasana Ethiopia

residue (Birinte/Atela) that is used by many fatteners. Farmers buy from millers and feed traders complementing feed. There are factories that serve as feed supplier like Merkeb union in Bahir Dar and Debre Tabor Feed Processing Factory that supply to their member cooperatives then to cooperative members. There are individual traders that distribute the feed to different localities sourcing from millers and wheat factories.

Vaccination and Health Service: Vaccination and health services are provided mainly by the government health centers at Woreda and Kebele level with nominal service charge (12-15 Birr per sheep/goat). There are individual health service providers and farmers use them as an option. The farmers mentioned the private providers can be accessed in non-working hours and they have required medicines.

3.2. Production Practice (Rearing and Fattening)

Scale and Practice: As indicated in Figure 10, from the holding of 2-8 sheep about 50% kept for fattening purpose. With the time, it takes and difficulty of managing, goat fattening is less preferred than sheep fattening. The fattening practiced with different level of semi-intensive management that is an easier option for farmers. Some farmers practice two rounds of fattening in a year, others once in a year and very few three times in a year. Most of the farmers fatten sheep for 3 months. Farmers will keep shorter or some time will take additional weeks considering the weight gain and the market situation. Goat fattening will take more time (5-6 months). As per the respondents September through January are more favorable months to fatten sheep. Usually farmers target the main holidays in the year.

Production and Consumption: The main purpose of the production is to sell for meat market with intensive and semi-intensive practice. Based on the family income status may slaughter for the big holiday or selected holiday.

Price and Marketing: Farmers sell their sheep in nearby market with in less than 10 Km radius for most farmers. The main buyers are traders that take to other places, local collectors, individual consumers and hotels/butcheries. The main marketing time is when big holidays approaching like Easter, New Year and Christmas. No institutional buyers like processors or public entities like Universities, Hospitals, Prison or other public centers. As per the respondents, they are selling fattened sheep from 2500-3000 Birr in the local market while goat with about 3,200-3,500 Birr. Well-fattened sheep and goat will fetch more than the indicated price (4,000-4,000 Birr). The main market information source is big traders/wholesalers like in Bahir Dar, local market own assessment and neighbors/friends that attended the market.

Main Production Constraints: access to well responding breeds (Washira), starting capital and fattening space (youth and women), feed supply, skill starting from selection for breeding and the whole management, access to medicine and market linkage mentioned as the main production constraints.

3.3. Collection, Processing and Trading

Most of the farmers sell directly to traders that take to other market. Traders take to Bahir Dar, Debre Tabor, Gondar, and other regional markets. Intermediate small traders also purchase sheep from producers and sell them to other traders, wholesalers, retailers and consumers. Large-scale traders sell to retailers in big towns, hotels, and restaurants. No one mentioned and reported any current supply to abattoirs from the study areas.

3.4. Butchery and Hotels

Hotels and restaurants prepare different types of dishes such as dulet, keywot, alicha, tibs, and kikiril and sell them to their customers. Hotels and restaurants in Woreda town buy sheep from producers or small-scale traders. Hotels and restaurants more interested in more cheap options and not well fattened that is more expensive. Few specialized butchers that are located in big towns like in Bahir Dar supply goat meat.

4. Supporters and Enablers

4.1. Financial Service Providers

Cooperatives and MFI are the main financial service providers in the area. ACSI is providing loan and other financial service in the area. The service includes saving, loan (Individual/Asset-based, group, etc...), money transfer, cash administration, and micro-insurance with an aim to reach the poorest rural people with appropriate products. There are RUSSACO's organized in different village that farmers prefer because of easy accessibility and low interest rate. Covering all members with required loan amount is difficult for some of the groups.

4.2. Technical and Other Business Development Service (BDS) Providers

Woreda and Kebele level livestock experts provide guidance and training in basic fattening practice to farmers in regular extension meetings and sometimes in collaboration with projects. The training provided is not continuous and practice based. Fattening packages are developed in the region that is under promotion in different localities for youth job creation.

5. Value Chain Actors' Relationship and Governance

Traders informed by retailers in the main towns like Bahir Dar mainly set selling price and the farmers have weak position to strongly bargain. The small traders have some type of long-term business linkage with big-traders/wholesalers including credit-based sales. Farmers if the market price is quite lower than their expectation after trying to sell to different buyers (small or large traders, individual buyers, hotels or butchery) they may take back home their sheep or goat. There is no platform to discuss and address the sector main issues and propose joint actions. In addition to the producers and traders, input suppliers have strong business interest in the value chain. There are support actors (e.g. Sector offices, NGOs) that are engaged in sheep value chain to assure the benefit to households and to create more jobs for youth in the rural and semi-urban areas.

6. Analysis of Policy Environment, Institutes and Initiatives

Livestock development including small ruminant fattening is getting attention in the national plan and investment direction. Livestock Master Plan of the country (LMP, 2015) provides guidance in the focus areas of intervention to develop the livestock sector. Sheep and goat value chain is one of the sub-sectors that is expected to contribute for the changes in the livestock sector in GTP II. The regional and zonal government is promoting sheep and goat fattening as a package for different type of households (PSNP, rural youth and women). The practical exposure, skill, incentive of experts at grass root level and operational budget is limited to deliver frequent, tailor-made and effective support to farmers.

7. Economic Analysis and Business Opportunities

7.1. Fattening Enterprise Profitability

Profitability: based on the HHs interview and KII, from existing practice with average one sheep buying cost of 1,500 (1,200-2000 range), ETB and taking the common selling price of 2,800 Birr, without considering the family labor cost they are getting about Birr 888/sheep (2,664 Birr in total) as indicated in Table 5. By increasing the scale from existing 2-3 heads per annum with more rounds and heads, the income they generate can be increased significantly by addressing constraints mentioned by producers.

TABLE 5. FARMERS' GROSS MARGIN (ETB) IN EXISTING FATTENING PRACTICE

Description	Existing practice – Gross margin (Birr)	
	Sheep fattening	Goat fattening
Buying price	1,500	1600
Scale (Number)	3	2
Feed and salt cost	1200	1200
Health	36	24
Selling price	2800	3200
Total sales	8400	6400
Total cost	5,736	4424
Gross margin per existing scale	2,664	1976
Gross margin (%)	32%	31%
Gross margin per head	888	988

7.2. Cost of Production and Other Actors Margin

Cost: the main cost element of enterprises that are engaged in fattening is buying price (55-57%) and feed (42-44%) as indicated in Figure 16.

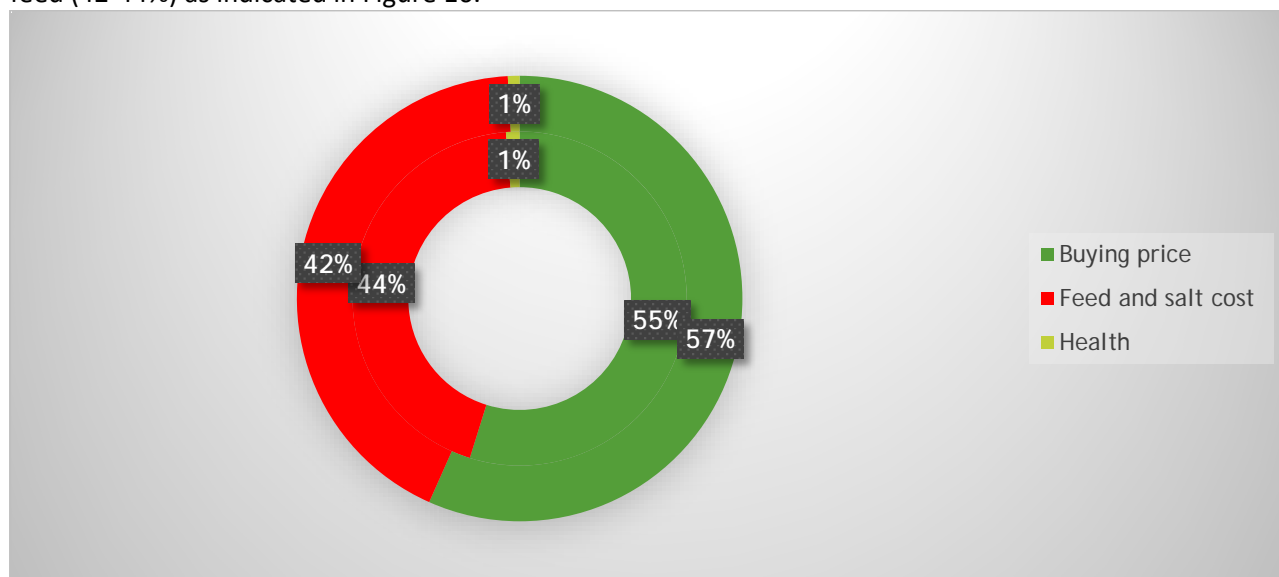


FIGURE 16. SHEEP FATTENING COST OF PRODUCTION

Other actors' gross margin varies significantly based on the buying and selling price. As indicated in Figure 17, traders get about Birr 150 Birr gross margin, that retail in the village and in the market 200 and restaurants and butchery about 275 Birr. Interviewed big restaurants reported selling especially "Tibs" (roasted sheep meat) is not profitable.

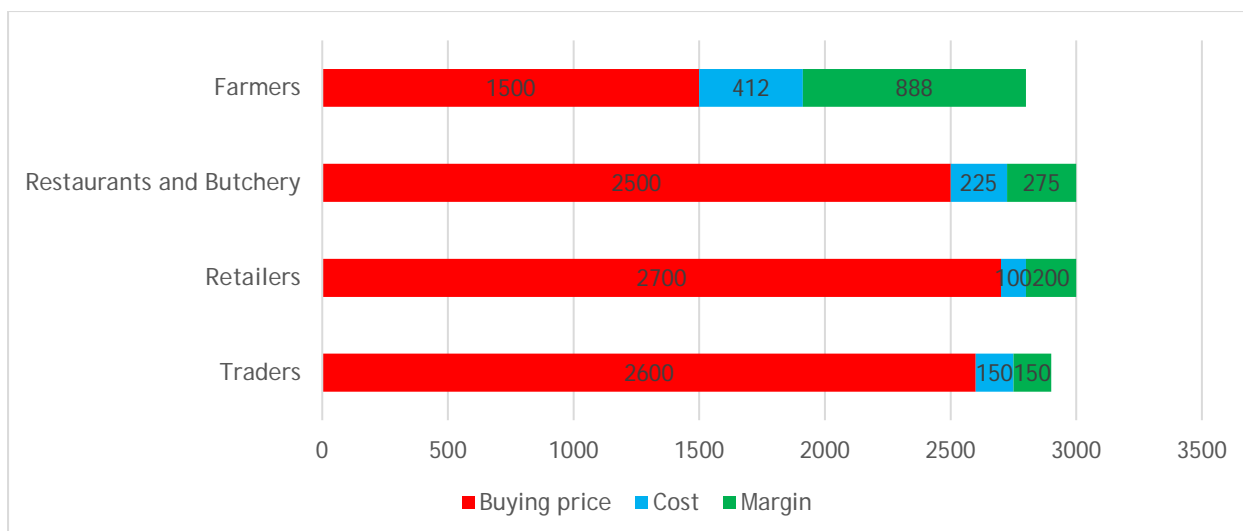


FIGURE 17. GROSS MARGIN (ETB) OF MAIN ACTORS IN THE VC

7.3. Business Opportunity for Youth and Women Groups

Unemployed youth and women number in the study areas is significant and their involvement in the value chain can be enhanced by engaging them with the business opportunity. As indicated in Figure 15, fattening, feed supply, small ruminant trading are the business opportunity areas for youth and women groups. As indicated in section 7.1 and 7.2 fattening and trading are profitable business ventures. The fattening business profitability can be improved by increasing the scale (number fattened and no of scale in a year). Local feed supply with reliable sourcing and distribution service can be a profitable venture and will contribute to address the value chain constraint. Business orientation and management skill needs emphasis in all business ventures.

The regional livestock agency to create job opportunity for youth in the region formulated a package that includes small ruminant fattening. As indicated in the package, sheep fattening is one of the rural job creation package. The package targeted to create jobs for 19,500 individuals at regional level. South Gondar and West Gojam Zones are among the target areas. In South Gondar Zone from AGroBIG target areas Dera and Libokemekem are part of the selected Woredas. In West Gojam Zone Bahir Dar Zuria, Mecha, South and North Achefer are included. In each selected Woreda targeted 262 youth to organize in 52 enterprises. One enterprise to fatten 100 sheep in one enterprise in one cycle and to conduct three cycle of fattening. As part of the support to provide technical training in fattening and business skill training for the youth. Facilitation of working premise, investment capital (80%) and other required supports assumed in the package document. In the profitability assessment, as per the team review buying (700 Birr) and selling price (1350 Birr) of sheep underestimated considering the current market price. Most of the assumptions made in the profitability seems logical and the profitability estimated acceptable. The quality of training, youth recruitment process considering the group dynamics and role sharing needs attention. Assuring the market linkage and outlet needs attention before engaged the youth into operation as part of the training session.

8. Gender and Environment

Gender: Both men, women and children engage in sheep and goat fattening activity. Sheep fattening engagement of women is very strong and in a number of location serve for women empowerment. Women responsible for the bulk of the production activity and improvement actions can be better done with empowerment of women. FHH and women members in a family can do sheep fattening with reasonable starting capital that can be expanded gradually. Income generated from sale of sheep serves mainly to serve households cash expenses and to complement household consumption items.

9. SWOT ANALYSIS

TABLE 6. SWOT MATRIX

<u>Strength</u> Environmental suitability/weather for fattening and rearing Attractive seasonal market Availability of Animal Feed Suppliers and factories in the area Supportive policy and institutions	<u>Opportunity</u> Growing domestic market Urbanization and middle-class emergence
<u>Weakness</u> Land scarcity Disease Absence of sustainable buyer and weak actors linkage Limited loan access Less developed market infrastructure and transaction	<u>Threat</u>

10. Interventions Proposed

TABLE 7. MAIN CONSTRAINT AND SHORT, MEDIUM AND LONG-TERM INTERVENTION MATRIX

Segment	Constraint	Short term proposed Solutions/Interventions	Medium and Long term proposed Solutions/interventions	Potential partner/lead organizations
Feed Supply	<ul style="list-style-type: none"> • Feed price increase, farmers willingness to pay, working capital shortage and awareness/risk sensitivity; • Not able to assure feed quality - variation/wrong mix; • Limited feed plantation 	<ul style="list-style-type: none"> • Improve the utilization of crop by-products with different nutrient and digestibility improvement treatments (EM, Molasses and others) • Promotion of nearby suppliers (youth groups or cooperatives) • Expansion of feed forage plantation demonstrated in different villages with facilitation of access to improved forage seeds • Train and demonstrate optimum use of feed and improved management systems 	<ul style="list-style-type: none"> • For promotion of effective fattening in the area, develop the feed supply system in more commercial way with better incentives provision • Promote expansion and enhance production efficiency of feed mills • Feed suppliers quality feed production capacity and distribution system development with business model refinement and facilitation of investment expansion 	<ul style="list-style-type: none"> • Private feed suppliers, Merkebe Union; Deberetabor Union; • Trade, Industry and Market Development Office • Livestock Office • Cooperatives and youth groups
Breed Improvement	<ul style="list-style-type: none"> • Low improved breed access 		<ul style="list-style-type: none"> • Encourage improved sheep and goat breed suppliers • Support sheep breed improvement initiatives (Washera and others) 	<ul style="list-style-type: none"> • Livestock Agency and private farms
Health Service	<ul style="list-style-type: none"> • Timely and effective health service provision • Shortage of medical supply 	<ul style="list-style-type: none"> • Lobby and facilitate timely required critical medical supply • Promote recognized private animal health service providers (refreshment training and recognition of service) 	<ul style="list-style-type: none"> • Enhance public animal health service delivery, better service incentive and accountability development, train more paravets 	<ul style="list-style-type: none"> • Livestock office
Financial Services	<ul style="list-style-type: none"> • Limited financial service for starters investment capital (youth and women) 	<ul style="list-style-type: none"> • Facilitate investment capital requirement for women and youth groups to operate in a business scale that is more reasonable with 	<ul style="list-style-type: none"> • Work with financial service providers to refine products for fattening (loan and insurance) 	<ul style="list-style-type: none"> • Credit and Saving Cooperatives/RUSSAC O; ACSI and Commercial Banks;

Segment	Constraint	Short term proposed Solutions/Interventions	Medium and Long term proposed Solutions/interventions	Potential partner/lead organizations
		appropriate financial service (amount and payment time alignment)		
Production	<ul style="list-style-type: none"> Limited scale and round of operation and non-optimal feeding and management 	<ul style="list-style-type: none"> Productivity and production enhancement practical extension service development – extension service with practical demonstration and semi-commercialization/market orientation extension package with access to feed and other services; Improve production practice by working with model farmers for better management practice demonstration and developing fattening simple guide Address skill gaps in technical and business management for target groups: <ul style="list-style-type: none"> Conduct business awareness creation and exposure visits with better performing farmers Guidance in selection of right animal for fattening, Using appropriate complementing feed and management based on the season, Timing/scheduling of fattening that considers the main festivals with recommended fattening period 		<ul style="list-style-type: none"> Livestock office

Segment	Constraint	Short term proposed Solutions/Interventions	Medium and Long term proposed Solutions/interventions	Potential partner/lead organizations
Market Linkage	No regular market and buyers linkage	<ul style="list-style-type: none"> • Encourage better business linkages between fattening farmers and traders/butchery 	<ul style="list-style-type: none"> • Developing live animal marketing system, market centers and infrastructure like auctions that will contribute for the transparency of the market, facilitate the creation of a grading system and improve pricing signals for both producers and traders 	<ul style="list-style-type: none"> • Livestock office; Trade, Industry and Market Development Office
Sector Coordination and Enabling Environment			<ul style="list-style-type: none"> • Work with sector actors to have effective platforms for public-private dialogue for identified critical issues and facilitate coordination and collaboration between the various value chain actors 	<ul style="list-style-type: none"> • Sector stakeholders and chamber of commerce

Annex

Annex-1: Stakeholders Proposed Interventions Prioritization (Impact and Time/Urgency)

Small Ruminant Segment	Proposed solutions/Interventions	Impact - High (Green), Medium (Yellow), Low (Red)	Time - Short (Green), Medium (Yellow), Long (Red)
Feed supply	Improve the utilization of crop by-products with different nutrient and digestibility improvement treatments	Medium	Medium
	Promotion of nearby suppliers (youth groups or cooperatives)	High	High
	Expansion of feed forage plantation demonstrated in different villages with facilitation of access to improved forage seeds	High	3
	Train and demonstrate optimum use of feed and improved management systems	High	High
	For promotion of effective fattening in the area, develop the feed supply system in more commercial way with better incentives provision	High	High
	Promote expansion and enhance production efficiency of feed mills	High	Medium
	Feed suppliers quality feed production capacity and distribution system development with business model refinement and facilitation of investment expansion	High	Medium
	Improve access of molasses and EM regularly	High	High
Breed improvement	Encourage improved sheep and goat breed suppliers	Medium	Long
	Support sheep breed improvement initiatives (Washera and others)	Medium	Long
Health Service	Enhance public animal health service delivery, better service incentive and accountability development	High	High
	Lobby and facilitate timely required critical medical supply	High	High
	Promote recognized private animal health service providers (refreshment training and recognition of service)	High	High
Financial services	Facilitate investment capital requirement for women and youth groups to operate in a business scale that is more reasonable with appropriate financial service (amount and payment time alignment)	High	High
	Work with financial service providers to refine products for fattening (loan and insurance)	High	High
	Entrepreneurship training for target participants	High	High
Production	Productivity and production enhancement practical extension service development – extension service with practical demonstration and semi-commercialization/market orientation extension package with access to feed and other services; Improve production practice by working with model farmers for	High	High

	better management practice demonstration and developing fattening simple guide		
	Address skill gaps in technical and business management for target groups:	High	High
	<ul style="list-style-type: none"> • Conduct business awareness creation and exposure visits with better performing farmers 	High	Medium
	<ul style="list-style-type: none"> • Guidance in selection of right animal for fattening, 	High	High
	<ul style="list-style-type: none"> • Using appropriate complementing feed and management based on the season, 	High	High
	<ul style="list-style-type: none"> • Timing/scheduling of fattening that considers the main festivals with recommended fattening period 	High	High
Market linkage	Encourage better business linkages between fattening farmers and traders/butchery	High	Medium
	Developing live animal marketing system and infrastructure like auctions that will contribute for the transparency of the market, facilitate the creation of a grading system and improve pricing signals for both producers and traders	Medium	Long
	Develop market centers and required infrastructure for better market transaction, not to lose weight and quality	Medium	Medium
Sector coordination and enabling environment	Work with sector actors to have effective platforms for public-private dialogue for identified critical issues and facilitate coordination and collaboration between the various value chain actors	High	High

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