

Economic Impact of Market Facilities on Small Ruminants Marketing in Menz, Central Ethiopia

Reconnaissance Survey Report

(FINAL DRAFT – NOT FOR CITATION!)

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1. INTRODUCTION

1.1. Description of the Survey Area

This reconnaissance survey was conducted between December 17, 2015 and January 21, 2015 in Menz area of North Shewa Zone in the Amhara Region. The area spans over five district administrations (Menz Gera, Menz Keyagebriel, Menz Lalo, Menz Mama and Gisherabel). These five districts are located 152, 184, 146, 124, and 223 kms far from Debre Birhan town, the capital of North Shewa Zone of Amhara region. Debre Birhan is located 130 Kms North East of Addis Ababa city. The study area shares borders with Woreillu and Moretana Jirru in the West, Jamma and Albuko in the North, Antsokeyana Gemza and Efratana Gidem in the East, and Kewot and Mojana Wodera in the South.

These areas lie within 39 - 40° E longitude and 10 - 11° N latitude and are found at an altitude ranging from 1300-2800 m.a.s.l. The mean annual precipitation is between 1900-600 mm. Rainfall is bi-modally distributed in which the short rain season lasts from February to March and the long rain season lasts from June to September. Agro-ecologically, the district is classified as 40% dega (highland), 40% Weina Dega (Wet Midland) and 20% Kolla (lowland) with the minimum and maximum average temperature being 4.8°C and 27.6°C, respectively.

According to the district agricultural development offices, the total population five districts of Menz area in 2014/15 is 366,239 of which 181760 (49.63%) are males and 184479 (50.37%) are females. The number of households in the district in 2014/15 is 74029 of which 42692 are male headed and 31337 female headed households. Like majority of Ethiopian farmers, the economy of inhabitants in the district is mainly based on crop production supplemented by different types of livestock.

Farmers are able to produce different crops such as barley, wheat, beans, lentil, *teff*, chickpea and vetch. Livestock also takes an important part in the livelihood of farming communities, which contributes to the subsistence requirements and used as a source of income, milk, meat, wool and egg production. It also contributes a lot for crop production by providing draught power, manure

and transportation services. Cattle, small ruminants, equines and chickens are the dominant livestock types kept by farmers in the survey area.

According to the district agriculture development office, in 2013/14 production year, there are a total of 2194237 livestock population in area. The major animal species kept were about 16.65 percent heads of cattle, 45.4 percent heads of sheep and goats, 3.54 percent heads of pack animals and 34.4 percent numbers of chickens. From the small ruminants group, the district is known for sheep production; however, goat production is also practiced in the mid altitude and low land parts of the districts.

Table 1. Types and number of livestock in Menz area

| Types of Livestock | Number of | % of Livestock |
|--------------------|-----------|----------------|
| | Heads | Population |
| Cattle | 312065 | 16.65 |
| Pack animals | 66423 | 3.54 |
| Small ruminants | 850763 | 45.4 |
| Poultry | 644692 | 34.4 |
| Total | 1873943 | 100 |

Source: Respective district agricultural development offices

1.2. Objectives of the Reconnaissance Survey

The main purpose of the reconnaissance survey was:

- Characterizing the small ruminant marketing systems,
- Understand the type of small ruminant markets and market facilities available in the area,
- Identifying the market participants involved in marketing of small ruminants in the area, and
- Learning how price of small ruminants are determined.

2. METHODOLOGY

2.1. Markets Visited

During the survey a total of 11 markets were visited. Five of these markets (Mehal Meda, Zemero, Rabel, Molalle and Wogere) are found in the Menz Gara, Menz Kayagebreal, Gesherabel, Menz Mama and Menze Lallo district towns, respectively. The other six markets are still in these districts and were selected based on the amount of small ruminant traded and accessibility. The table below summarizes the location and setting days of the markets visited.

Table 2. Visited markets during the reconnaissance survey

| S.No. | Woreda | Markets | Market day |
|-------|------------------|----------------|------------|
| 1 | Menz Gera | Mehal Meda | Saturday |
| | | Ashen | Sunday |
| | | Wojed | Thursday |
| 2 | Menz Kayagebreal | Zemero | Monday |
| | | Zeret | Saturday |
| 3 | Geshe Rabel | Rabel | Saturday |
| | | Girar Amba | Saturday |
| | | Molalle | Saturday |
| 4 | Menz Mama | Kollo Margefia | Sunday |
| | | Yegem | Tuesday |
| 5 | Menze Lallo | Wogere | Saturday |

2.2. Type and Number of People Talked To

Key informants including district animal production experts, development agent and small ruminant producers around visited markets of the districts were interviewed using checklists developed for the purpose. These informants were selected using purposive and convenience sampling methods. The district experts and development agents were selected using purposive sampling and small ruminant producers were selected based on convenience in the markets, on the way to and from the nearby markets, and those who came to the development agent office for

different purposes. In addition, secondary data regarding the socio economic condition of the districts were also collected from each district agricultural offices. The summary below presents the key observations obtained from the discussions with different key-informants in each districts.

Table 3. Type and number of key informants

| S.No. | Interviewed Groups | Number of People | |
|-------|------------------------------------|------------------|----|
| 1 | District animal production experts | 11 | |
| 2 | Development agents | 14 | |
| 3 | Small ruminant producers | Male | 13 |
| | | Female | 4 |

3. SUMMARY OF SURVEY RESULTS

3.1. Population and Types of Breed of Small Ruminants in the Area

Different breeds of sheep and goat are found in Ethiopia. These breeds are characterized by adapting to varying physical, productive and reproductive features. According to key informants, the area is known for its sheep production and the type of the breed – i.e., Menz, which is adapted to the natural environment of the area. Menz breed sheep is an indigenous breed with short-fat tail, small ears, compact body, short neck, coarse-hair mixed with wavy wool, medium-size (30-35kg), predominantly white, brown or black in plain and patchy coat color pattern. In addition, some Awassi breed sheep, released by Amed Guya Sheep Breed Improvement and Multiplication ranch in Menz Gera district, are also found in small amount in the area. Other sheep breeds, from South Wollo zone, especially in Gisherabel district, are also found.

According to informants, the goat breed found in the area is a *central highland goat*, which is not unique to the area, characterized by Medium-sized, broad-faced, thick horns and reddish-brown in color. The goat breed, like the sheep breed, adapted to windy, cold climate, diseases and feed shortage of the area. In the area, small ruminants are managed under traditional extensive production system with minimal inputs and without improved technologies which result in low productivity. Often they relies on grazing on communal lands and fallow plots, occasionally supplemented with straws, crop residues, stubble grazing and household by-products for their survival, growth and reproduction. In addition, during cropping season, animals are feeding on hillsides, field borders and roadsides.

Based on the data obtained from district agricultural development offices, in 2014/15, about 80 percent of the small ruminant population in the area is sheep and the remaining 20 percent is goat. The total population of sheep and goat in the five districts of Menz area is shown in the table (Table 4) below.

Table 4. Population of sheep and goats in Menz Area

| District | Small Ruminant | Number of Heads Small |
|------------------|----------------|-----------------------|
| | Species | Ruminant |
| Menz Gera | Sheep | 276597 |
| | Goat | 25929 |
| Menz Kayagebreal | Sheep | 72732 |
| | Goat | 27034 |
| Geshe Rabel | Sheep | 121010 |
| | Goat | 49584 |
| Menz Mama | Sheep | 117830 |
| | Goat | 50498 |
| Menze Lallo | Sheep | 90385 |
| | Goat | 19164 |
| Total | | 850763 |

Source: respective district agricultural offices

3.2. Importance of Small Ruminant Production in the Area

In Menz area, small ruminants are an important component of the mixed farming system playing a crucial role in the livelihood of subsistence rural communities of the area. According to small ruminant producers, the primary reasons for keeping sheep in Menz were to generate income. Thus, it is likely that farmers are mainly targeting small ruminants to generate cash that can be used to purchase household supplies, purchase farm input, repay credit, for regular saving in microcredit institution, etc. Other reasons mentioned were for meat consumption, manure, skin, and as means of saving. In addition, the coarse fleece produced from Menz sheep is widely used by farmers to weave carpet and traditional blankets called *Zitet* and *Banna*.

Small ruminants also make important indirect contributions to households through the use of crop by-products, integration with other farming enterprises, use of household wastes and locally grown vegetation, soil fertility improvements as well as important social, cultural and religious roles in

everyday life of the communities. They contribute enormously towards promotion of livelihood security and insurance against crop failure especially where land productivity is low and unreliable due to erratic rainfall and frost problems.

3.3. Available Market and Market Facilities

Following Ayele *et al.* (2003), based on the types of major market participants and volume of transaction per unit of market day, in Menz, generally, there are three types of markets where farmers use to sale their animals. These markets are: Farm gate, primary and secondary markets. According to informants, when farmers come across cash constraint or do not want to go to the distant markets, farmers transact with farmers (for replacement and fattening) and farmer traders with very minimal volume (1-2 animals) per transaction in the villages (farm gate).

Primary markets are a weekly local market where farmers and small traders are principal actors in the marketing process. In these markets, producers' sale small number of animals to small traders, farmer-traders and other farmers. Accordingly, in five districts of Menz area, there are 10 primary markets (Table 5). In addition, three other small markets (Kimir Dingay, Segno Gebeya and Meleya), where no small ruminant marketing takes place, are also available in the area.

Secondary markets (those found in the district towns) are bigger markets in the area with bigger volumes traded per week. In these markets, farmers, small and farmer-traders transact with relatively big traders, restaurant owners and in some cases to local consumers. Accordingly, there are 5 secondary markets found in Menz Gara, Menz Kaya, Gisherabel and Menz Mama districts. In these markets, traders purchase animals for resale mostly at the terminal markets in Debre Birhan, Dessie and Addis Ababa.

Informants also indicated that the type and number of animals traded in these markets also varies seasonally. Relatively, large numbers of fattened male animals are taken to the market during season of religious festivals, i.e. during New Year festivity in September, Genna (Ethiopian X-mass) festivity in January and Fasika (Ethiopian Easter) festivity in April. However, during fasting period and rainy season, small number, mainly young and old female, animals are supplied to the market. Of the three types of markets, due to the number of buyers and competitive nature of the

market, producers prefer to sale their animals in the bigger markets where they expect better price for their animals.

Table 5. Available market in Menz area

| S.No. | Woreda | Markets | Market day | Market type |
|-------|-----------------|----------------|------------|-------------|
| 1 | Menze Gera | Mehal Meda | Saturday | Secondary |
| | | Gey | Saturday | Primary |
| | | Ashen | Sunday | Primary |
| | | Wojed | Thursday | Primary |
| 2 | MenzKayagebreal | Zemero | Monday | Secondary |
| | | Zeret | Saturday | Primary |
| | | Kemir Dingay | Saturday | Primary |
| 3 | GesheRabel | Rabel | Saturday | Secondary |
| | | Girar Amba | Saturday | Primary |
| | | Dell (Shamen) | Sunday | Primary |
| | | Segno Gebeya | Monday | Primary |
| 4 | Menz Mama | Molalle | Saturday | Secondary |
| | | Kollo Margefia | Sunday | Primary |
| | | Yegem | Tuesday | Primary |
| | | Bash | Tuesday | Primary |
| | | Shesho | Saturday | Primary |
| | | Meleya | Thursday | Primary |
| 5 | Menze Gera | Wogere | Saturday | Secondary |

Source: respective district agricultural offices

In addition to the available markets of the area, producers and traders also use primary and secondary markets found in bordering districts to sale their animals. Depending on their location, farmers use markets such as Erobgebeya in Efratana Gidem, Tormesaya and Mekoy in Antsokeyana Gemza district, Alemketema in Worehillu district, Enewari and Jihur in Moretinal Jirru district, Seladingay in Mojana Woderra district, etc.

Based on the informants and our observation, the available markets found in the area do not have market facility required for proper livestock marketing. Market facilities such as holding facilities, shade, watering and feeding trough, loading and unloading ramps, weighing scale, and market information are unavailable. However, those four markets, which are found in the respective district towns, are enclosed by fence mainly for the purpose of tax collection.

3.4. Mode of Marketing and Price Setting

Informants explained that animals are sold on a per-head basis, occasionally on a group, through physical observation of the body condition of the animal, in which price agreement reached through long bargaining between seller and buyer of the commodity. In general, the method of price setting is done by eye ball estimation; yet, some buyers and traders estimate prices using traditional methods of estimating the body condition by touching the back of the animal using their palm and estimate the size. However, there is no proper yardstick especially available to small ruminants' keepers and traders for pricing.

The price animals depend on many factors. Informants indicated that, in addition to the unique attributes of the animals, the price of animals heavily influenced by the pricing structure of terminal markets, the season of the year, the occurrence of religious and cultural festivals. Indeed, higher supply of animals and better price is observed during religious festivals and lower supply and price are observed during fasting periods of the year. In addition, though market information helps farmers to plan their production to meet market demand and negotiate prices on a more 'even footing', formal supply of market information in the area is not available. However, before selling their animals, producers usually examine how the market behaved over the past few weeks (market price and what the market seeks) through self-assessment, asking their neighbors, relatives and farmer-traders.

3.5. What Do People Think about Market Facilities in Menz Markets

Small ruminant producers were interviewed about access to, their interest and willingness to pay for relevant livestock market facilities. They indicated that one of the marketing problems in the area is unavailability of market facilities that could help them properly sale their animals with lesser transaction cost. According to producers, for example, market shade could help them and

their animals to be protected from direct sunlight and, in some cases, rainfall in the market place. Market fence also helps to protect their animals from running away and theft. Feed and watering trough could help them to feed their animals in the market so that the animals could be seen strong and healthy. Latter, they were asked whether they will be willing to pay for such facilities. In fact, they indicated that they will be willing to pay for such services if available explaining that they are currently paying service tax for use of the market yard to sale their animal.

3.6. Challenges and Opportunities in Small Ruminant Marketing

Menzis an area endowed with an agro-ecology suitable for small ruminant production. In these area, genetically a unique breads of small ruminants especially sheep are evolved largely as a result of the influence of the natural environments and socio-economic conditions of the area. Small ruminant production and marketing is the fastest growing institution in area. This growth has created opportunities for producers, looking for a profitable alternative enterprise to integrate it into the existing production system.

There are several opportunities for small-scale farmers to supplement their incomes by integrating small ruminants into their farm enterprises. These opportunities are created by several factors such as the low start-up cost; occupy small housing space, able to use marginal land, the minimal labor requirements which can be cared by most family members including women and children. In addition, demands for small ruminant products are increasing in the markets. For instance the sheep breeds in Menz area produce delectable meat and hence have high demand in terminal domestic markets, which presents an opportunity for small ruminant producers to increase their income, employment and social development.

Despite the potential growing markets for small ruminant products, there are challenges, however, that must be addressed when considering the development of a successful small ruminant system. Like other parts of the country, livestock production is, for long, kept under traditional extensive systems with no or minimal inputs and improved technologies, and limited market-orientation. The structure of the live animal market generally perceived to be poor. Underdeveloped marketing systems, lack of effective marketing strategies, ineffective and inadequate infrastructural facility are generally mentioned as some of the major reasons for the poor performance of this sector.

Small ruminants are often transported on-foot and trek long distances for many hours without rest, without water and feed. Producers are taking their animals to the markets on average from 5 to 25 km away from their villages by trekking. This exposes them to infections, injuries, and stresses, the latter seriously affecting meat quality. Market yards do not have required facilities and operate without feed and water trough, shades, partitions, loading and unloading ramps, weighing scales, etc. In addition, seasonality of market price and poor access to market information are also reducing the benefit gained by the smallholders in Menz area.

4. CONCLUSION AND THE WAY FORWARDS

4.1. Technical Issues

The survey revealed that in five districts of Menz, small ruminant production -as part of livestock production - is an integral element of the subsistence agricultural system of the area kept mainly for immediate cash sources, meat, wool, manure and saving. However, livestock production in the area is, for long, kept under traditional systems with no or minimal inputs and improved technologies, and limited market-orientation.

In Menz, small ruminants are sold either on farm gate, primary or secondary markets found in and around the area. The market structures in the districts are universally poorly organized. Underdeveloped marketing systems, lack of effective marketing strategies, ineffective and inadequate infrastructural facility and lack of transportation service are generally mentioned as some of the major reasons for the poor performance of small ruminant marketing. Important marketing facilities, such as holding facilities, shade, watering and feeding trough, weighing scale, and market information services about the market price, demand and supply condition of the different markets, which are needed for proper livestock marketing activities are unavailable.

Therefore, in order to improve the small ruminant marketing performance of the area, the above mentioned problems need to be resolved and hence;

- The extension service needs to be strengthened to make the production system market-oriented and to enable farmers have different marketing strategies.
- The transportation system, especially for livestock, need to be given priority so that the area could be more connected to the different secondary and terminal markets.
- Different marketing facilities, such as holding facilities, shade, watering and feeding trough, loading and unloading ramps, weighing scale, and veterinary clinics need to be provided so that farmers would be encouraged to increase amount of sales and to take animals to the marketplace instead of selling at the farm gate and get better price.
- Formal market information services about the market price, the type of animals needed and the supply condition of these animals in different markets need to be provided to help producers plan the type of livestock production and fetch reasonable price for their produce.

4.2. Logistical Issues

In order to make the small ruminant markets better those marketing facilities, which are not found in the market need to be available either through construction or purchase. Therefore,

- Market fence and holding facilities need to be constructed using wooden pieces or using wood and corrugated iron sheet.
- Small ruminants selling shade need to be constructed using wood, which is available in the area and corrugated iron sheet roof.
- Watering and feeding trough should be constructed using concrete materials which could be purchased from competent suppliers.
- Loading and unloading ramps should be prepared using local materials like wood, stone and earthen band or concert.
- Weighing scale (Cage weighing scale with inlet and outlet door or a hanging balance weighing scale) could be purchased from suppliers in Addis Ababa.



Figure 1. Small ruminants weighing scale

- Market information services can be provided by hiring informant and constructing a notice board to provide market information about market price, the demand and the supply condition of these animals in differen markets.

5. ANNEX

5.1. The Checklist

I. Small ruminant Production

1. What are the *major types of small ruminants* produced in your district?
2. Why smallholder farming households produce these small ruminants?
3. Which types of major small ruminant breeds mainly found in the district?

II. Small ruminant marketing

1. What are the major possible reasons that initiate smallholders to sell their animals?
2. What are the possible **marketing strategies** of smallholder small ruminants' producers in your district?
3. In which types of markets do smallholder producers prefer to sell their animals? Why?
4. Which types of small ruminants (male vs female, young vs old) do smallholder producers prefer to sell normally? Why?
5. What are the roles of women and children in small ruminant marketing in the district?
6. When and how do smallholders determine the price of their animals?
7. Are there specific seasons when most of small holder farmers prefer to sell their animals? Why?
8. What are the major small ruminant buyers in the district? Where does they come from?
9. Do farmers collaborate with other farmers to sale small ruminants? Like do you collect your animals together and take them to market instead of each of you taking one or two animals?

III. Small ruminant market in formation

1. Do farmers collect market information before deciding to take their animals to the market? How? Are there any formal or informal institutions that provide market information to farmers in the district?

2. With whom do farmers discuss about markets and marketing of small ruminants? What types of information do farmers need?
3. What are the contributions of market information for smallholder small ruminant producers in the district?

IV. Small ruminant market facilities

1. Where does small ruminant marketing take place? What types of market facilities are available?
2. How far, on average, producers travel to sell their animals? How do they transport them?
3. On average, how long an animal can stay in the market before sale?
4. Do you think, the presence of market facilities (shade, feeding, watering and etc.) are important for marketing small ruminants?
5. What types of market facilities are important to improve small ruminant marketing in the district? Why?
6. If there are different facilities in the market, are you willing to pay for it?
7. Are there any challenges observed on small ruminant marketing due to absence of market facilities? When does the problem more severe? (dry season, rainy season, throughout the year)

V. Challenges and opportunities in small ruminant marketing

1. What are the key challenges of small ruminant marketing in your district?
2. What possible impacts do these challenges impose in the production and marketing activities of small ruminants in the district?
3. What possible strategies should be followed to improve small ruminant marketing in the district?
4. What are the most important opportunities in small ruminant marketing in the district?

5.2. Some Pictures of small ruminant markets and marketing in Menz area



Figure 2. Small ruminants market in one of the market day in Menz area



Figure 3. Fenced small ruminant market places in Menz area



Figure 4. Small ruminant open market without any market facility in Menz area



Figure 5. Small ruminant grazing on fallow plots, stubble grazing and roadsides in Menz area



Figure 6. Livestock forage production in Menz area