

Assessments of Cereal Marketing System in Borana Zone, Southern Ethiopia

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Abstract

Borana is known by its diversified agro-ecological zones ranging from low lands to mid high lands whereby different agricultural practices including cereal crops farming increasingly undertaken in response to environmental convergence. However, there was limited knowledge on production and marketing situation in study area. Thus, the project study focuses on the community's practices towards cereal crops production and marketing, gender role in cereal crops production and marketing, level of awareness and knowhow of households towards market oriented cereal crop production and the major cereal crops marketing constraints. PRA and formal survey was undertaken to collect important data using semi-structured and structured questionnaires respectively from producers and traders. The study indicated that though about 81% of respondent have access to informal market information sources, about 60% of the respondent sold in ad hoc manners with time, market places and price condition independent. Generally, Teff was the main cash crops sold in lowland and the second cash crop next to coffee in mid-highland. However, the communities were selling their produces from their subsistent production, mostly in small volume at nearby market. Among the major market constraint lack of market information, seasonal price fluctuation and seasonal buyers' availabilities were the most market constraints. Generally, even though the production and marketing were steady of gender equity, they were puzzled to benefit from marketing of their produces. Additionally, they were playing at the bottoms of the market channel which award the lowest marginal benefits from being selling their produces.

Keywords: Borana, cereal crops market, crop preference, market channel, market constraint

1. Introduction

The agricultural sector is the most important source of food and cash income in rural Ethiopia which was conventionally the backbone of the economy. Among these cereal, pulses and oil crops covers 78%, 14%, 8% respectively of total grain cultivated area (*Berihanu and Hoekstra 2008*). Measures in terms of cereal produce maize, wheat, Teff¹, sorghum and barley are the most common respectively. Recently, crop production become the common livelihood of borane pastoralists practicing crop farming compared to earlier decades (Coppock 1994). Solomon and Coppock (2004) expressed in their finding that the trends of grain crops consumption and marketing was also radically increasing in Borana food stuff and market competition.

It was also known by its diversified agro-ecological zones ranging from low lands to mid high lands whereby different agricultural practices are performed. Cereal crops are among the major crops cultivated in the area. Similarly, some districts of Borana zone practice cereal crops production in line with livestock production. However, the crops production was challenge by different environmental factors though the pastoral communities consider farming as a new opportunity to diversify their economy give pressure on traditional range resources (Desta and Coppock 004). Diversification is typically, expressed in the form of increased involvement in crop cultivation and camel husbandry. This surmises that an image of food insecurity is the primary driver for this pattern.

However, agricultural production was constrained by lack of intensive production and product management in addition to environmental convergence. Even though the problem related to production and product management was a solvable problem, the supply of the improved technology and crop marketing became the controversial factor due to complex interrelated participants and its coverage. The most basic concepts underlying marketing is that of human need including social, physical and individual need. In other state, marketing must be understood not in the old sense of making a sell- but in new sense of satisfying cosumers/user need (Kotler and Armstrong 2008). However, this key game was unattainable for small producers due to subsistent production.

On the other hand, pastoralists were constrained by their limited knowledge of farming management even though they were involved in the practice in response to environmental convergence. Yet again, production and marketing situation study was not undertaken for these agro-ecologies. Though the production was constrained by different factors, marketing of their agricultural produce was the main restrictive factors that diminish the gain from their effort. To fill these gaps, this study was undertaken with the objectives of assessing the knowhow of households towards market oriented cereal crop production and identify the major cereal crops

¹ Teff [*Eragrostis tef*] is an annual grass, a species of love grass native to Ethiopia as staple food

marketing constraints

2. Materials and Methods

2.1 Areas of the Study

The survey was undertaken in three districts Borana zone namely Bule Hora, Abaya and Miyo district. **Bule Hora** district is located at about 467 km from Addis Ababa where it is characterized by hilly and undulating rank of topography followed by plains. **Abaya district** is situated at 365km from Addis Ababa on Addis Ababa-Moyale main road where it is found between 6°22' -6°42'N and 38°21' and 38°41'E. Similarly, **Miyo District** is found at about 150 km from the town of the zone, Yabello, at about 707 km from Addis Ababa where its agro-ecology coverage includes 69% lowland and 31% mid-highland.

2.2. Sampling Techniques and Methods of Data Collection

Study districts and PAs selection was undertaken purposively in order to make the study sites representative of agro-ecologies and the interest cereal crops produced area. However, producer households, traders and consumers were selected using random sampling methods (simple random sampling methods) as the need to represent the majority of communities in the area. Accordingly, 10-20 producers were taken as sample per PA and 5-10 traders were also taken as sample per market places.

Semi/structure questionnaires were used to collect primary data from respondents. Additionally, PRA and face to face interview was used to collect data. The organization of PRA was assumed to be based on equal participation of wealth category and gender composition. The wealth classification criteria were made by local community supported by local community leader of PA¹. During data collection, 9-12 members were organized as PRA members per PA of which 3-4 were women included.

Finally, major data including cereal crops marketing situation, marketing constraints, work burden between members of household towards cereal crops production and marketing, and transportation routine of major produces movement from the area were collected.

2.3. Data Management and Statistical Analysis

A qualitative as well as quantitative data management technique was used to manage the data. To analysis the data Descriptive statistics as part of SPSS software (12th version) was used and other relevant data management tools like micro Soft Excel (Window 2007) were used. Using these tools, the data was presented in piquancy table and graphs.

3. Result and Discussion

3.1. Marketing Situation of Major Cereal Crops

Even though, most of small producers in study area were sold their produces, they do not produce for marketing purposes. They sold in small volume of their produces at the time of financial requirement especially during harvesting. About 85% of survey respondent report that they were sold their produces in respond to their immediate financial need. Though the selling practice of the respondent in study were time independent (time ad hoc), about 39% of the responds reports that they were selling their produces at the end Ganna season and at the begging of Adoolessa season where there was low price.

Commonly, of the two fold production season in Borana area, Ganna (March-May)² in most lowland and Afraasaa season in mid highlands were the main production seasons. Commenced from the ends of this season, the fresh crops were supplied increasingly on the market that extended to the beginning of Adoolessa (June-July) season due to it was the main harvesting season. For small financial requirement the crop produces, especially cereal crops, was the main financial source in the season. Thus, the respondent community reports that they were in this harvesting occasion which they sold their produces.

Larger numbers respondents testify that they were aware of crops demands across season and place. However, about 60% the respondent reports that they did not sold according to the demands and its values on market due to their incapability to wait for fair price season. Generally, the study result show that the crop produces selling practices was not focused but ad hoc.

However, they were selling at nearby market rather than market place preferences due to fear of marginal cost as a result of volumes of the marketing, time of marketing, distances to the market, and etc. were the main issues.

However, though they were selling their produce, their production alone was not sufficient even for their home family consumption. From survey result about 62% of respondent report that food purchase was the most events on which the communities expend their financial source.

¹ PA is the lower delineated administration unit in Ethiopia

² Ganna is a traditional seasonal classification in Borana which includes March to May

However, from entire study area in general teff was the main crops sold which have relatively high market value. Respondents were suggested that teff is the second cash crop subsequent to coffee apart from fruit crops in mid highland due to coffee was the cash crop where as teff was utilized both as cash and consumptive crops.

3.2 Market Structure of Cereal Crops

The farming produces could not directly reach to the end users from its spatial sources. However, since there are a numerous small scale producers of agricultural produces, it is difficult to address all the consumers. Once more, it is difficult for a single producer to transport its produces from a single vicinity to where the consumer is dweller due to the size of its selling fraction which otherwise costs above the resources to be sold. Therefore, existence of interconnected series course of a product flow chain/channels from one place to another by means of different participants. Market channel is related to the area from which the commodity flows from a producers or traders in other residents place to the consumers in another distinct.

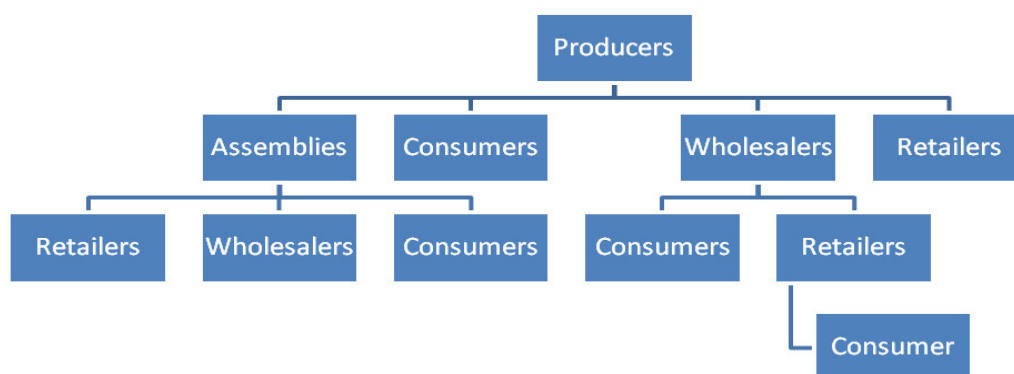


Figure 5. Market chain of cereal crops in study area

The length of this chain indicates the numbers of intermediaries participating on different activities to bond the channel on which the produces smoothly flow from the producer to consumers on the same or different places. The length of the chains was also depending on the sources of production Vs vicinity of consumption. As the point of consumption furthest the length of chain becomes longer. The length of market chains was to short at around the area of production.

Each market actors were having different market acting characteristics. Producers were located at or near the farm or place of production or those who produce and first take to the market. The second chain actors were assemblers, which mostly collect or buy produce from rural producers at rural market or in market in general and sell to the wholesalers mostly with a modest price margin or small marginal profit. The third actors were wholesalers where traders sell to other traders. In another word, it includes all activities in selling goods and services to those who buying for resell. The fourth market actors were retailers which are mostly buy from all actors except consumers and sells to consumers at different volume mostly in small amount. Finally, consumers were theses purchase for home consumption.

3.3 Cereal Crop Preferences

Borana was conventionally known as a zone dominated by pastoralist community. However, due to environmental convergence including drought recurrence, the community increasingly involved in farming activities. The community preferences inclined to where the produces has more comparative worth from different competing purpose and criteria including productivity, marketing, consumption and labor requirement. Marketing preference is mostly based on its relative market value of a produces whereas production preference was based on a probability of relative average of low labor and other input requirement, high relative environmental convergence resistant ability including rain shortage and disease breakout and high return per unit area (productivity). The consumption of crops was also on the basis of frequent in home use either from production or purchased. However, the preferences of these crop were also various across the study area/district.

Mid-highland: Maize, Teff, and barley, respectively were the most produced where as teff, maize and barley were respectively being relatively preferred for market purposes. Generally, Maize and teff were the most important crops in mid-highland of study area on average in preference aspect.

Table 4: Ranks of crops across a criteria, Abaya District (N=40)

Commodity	Preference matrix ranking across criteria (%)			Av.	Ranking
	Production	Marketing	Consumption		
Maize	26.9	15.4	15.4	19.2	1
Teff	7.7	15.4	7.7	10.3	3
Wheat	3.8	3.8	3.8	3.8	7
Barley	7.7	7.7	3.8	5.1	6
Haricot bean	7.7	3.8	11.5	6.4	5
Sweet potato	3.8	3.8	7.7	5.1	7
Coffee	23.1	23.1	3.8	16.7	2
Mango	3.8	7.7	7.7	6.4	5
Avocado	3.8	7.7	7.7	9.0	4
Banana	3.8	7.7	7.7	6.4	5
Others	8	4	23	12	

Source: Field PRA at Gololcha and Bunata PAs

Lowland: Teff, maize and wheat were the most top three produced and consumed cereal crops whereas teff, wheat and maize were the most top three sold cereal crops. Compared to other cereal crops, teff was the top labor intensive crops. Generally, on average teff, wheat and maize were the most important cereal crops in the livelihood of the community next to haricot beans.

Table 5: Ranks of crops (cereals) across the criteria, Miyo District (N=80)

Commodity	Proportional Preference matrix ranking across criteria (% value)				Av.	Average Rank
	Production	Marketing	Labor	Consumption		
Maize	16.67	16.67	8.33	16.67	14.58	4
Teff	25.00	25.00	25.00	16.67	22.92	2
Haricot bean	25.00	25.00	25.00	25.00	25.00	1
Wheat	16.67	16.67	16.67	16.67	16.67	3
Barley	8.33	8.33	16.67	8.33	10.42	5
Sorghum	8.33	8.33	8.33	8.33	8.33	6

3.4 Gender role in cereal crop production and marketing

Conventionally, all family members participate in production and marketing of major cereal crops regardless of gender. However, each member has a certain area of priority of participation. These priorities were considered as the works of women and men assigned for. At all issues household head play essential role in most activities of cereal farming activities from slashing to post harvest management relatively. During marketing of the produce it was women that mostly took produces to the market. From survey result 42% of our sample responds that female/wife were responsible to sell the farming produces.

3.5 Market Constraints and Opportunities

3.5.1 Constraints

Regardless of their small production, small scale producers need financial resources to covers their immediate livelihood course of expense. However, their production practices were not market oriented. However, from the survey result, the existences of surplus production were insignificant i.e. their production was subsistent which was insufficient to feed the family throughout a year. On the other hand, due to the volume and frequency of marketing of the produces, the small producers lack the opportunities to benefit from reasonable market price across market places and time. The time of supply and demands were also echoed as a dominant factors coupled with buyer seasonal fluctuation especially during harvesting season.

Moreover, the buyers' seasonal fluctuation has an indirect impact on prices that motivated with low competition. Thus, due to these risks of price volatility/ fluctuation, or falling price trend the small rural producers are less benefited from reasonable market price.

Moreover, there were high problems of transportation especially during rainy season mostly of remote areas of Borana zone. Thus, other than traditional transportation methods including horses, mules, donkeys and man transportation there was no tracking possible. Due to this, most of the time they obligated to sell in rural or nearby market at a low price to the rural assemblers or whole seller. This increases the gap of marketing margin and lengthens the chains of marketing from producers to the last consumers.

The other bottleneck to the rural producers was lack of awareness in market schemes. They were mystified to marketing and market oriented produces generally on market match. They produce any commodity which they believe it is important regardless of marketing and consumption demarcation. They were not aware

of which crops for market and which crops for consumption they should produce. They sold from their subsistence consumptions in case of financial shortage. Finally, from the major asymmetric market information, seasonal price fluctuation and the relative inadequate producer prices were the other bottleneck to the marketing practices of the producers.

3.5.2 Opportunities

Though there were numerous marketing constraints with small producers, there are opportunities to overcome these constraints in some extent. Grouping producers into different producers' groups with effective marketing linkage and administration coherence is the most available opportunity. The producers' market oriented group helps the producers to take the market advantage in mass at which it was individually incapable. Aware of the community with effective marketing benefit to depend on market oriented production on selective diversity of agricultural production was the other opportunity for small producers. Supply of improved crop technology with good market oriented vision to improve the food security and surplus production was the other important intervention outlet. Finally, frequent monitoring and evaluation of producers' trip on market oriented production track was the other available opportunity.

4. Conclusion

Small producers in the study area were not produce for marketing purposes but consumption focus. They sold small amounts of their produce at the time of financial requirement especially at the moment of harvest time. Their selling practices were also time independent but at any time at required volumes in response to immediate financial requirement. Even though the amount, time, and type of marketing were ad hoc, the marketing practices of the community were affected by different factors including lack of awareness; inadequate infrastructures and distance to market among the major.

Though it was possible to overcome these parts of the problems, it needs the support of external intervention. Additionally, communities do not aware of the market opportunities, price margin among market place, demands and supply situation. These opportunities left mostly for other market actors than producers. Small producers were the first course of market chain which was the least beneficiary from market value.

Traditionally almost all family members participate in both production and marketing of their produce. However, there was certain area of comparative participation in production and marketing of their produce. Generally, cereal crop marketing was the controversial event in the livelihood of the community in study area due to small scale coupled with market constraints for what they have produced. This needs the integrated efforts of all stakeholders to role the community to market oriented production than subsistent concern production.

Therefore,

- To reduce the immediate after harvest selling practices of the community orchestrating a harmless and sound financial credit to finance their expenses during harvest time
- To enhance the benefit from market competitive, it is important to aware the community through scheming competitive strategies that enhance the beneficiary courage of the small producers with product supply with market demand match
- There should be a strategies that aware of the community to produce with purposes oriented than ad hoc
- There should an strategies and policy that enhance and imposes small producers to understand their family food stuff requirement to produce in sufficient in addition to production for market purposes with clear production objectives
- It is important to improve the market competitiveness of the small producers through group formation (either cooperative or producer group) to increase the competitive power to take the advantage over the market
- To provide greater equity and stability of market system, it is useful to develop research interventions that consider the market chain as a vital entity

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