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**ADDIS ABABA UNIVERSITY**

**SCHOOL OF GRADGUATE STUDIES**

**COLLEGE OF SOCIAL SCIENCE**

**OPPORTUNITIES AND CHALLENGES OF  
PROMOTING SHENO BUTTER AS A  
GEOGRAPHICAL INDICATION PRODUCT**

**BY: KASSAHUN TADESSE**

**JUNE, 2015**

**ADDIS ABABA UNIVERSITY**

# **OPPORTUNITIES AND CHALLENGES OF PROMOTING SHENO BUTTER AS A GEOGRAPHICAL INDICATION PRODUCT**

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**A Thesis Submitted to Addis Ababa University, School of Graduate Studies, in Partial Fulfillment of the Requirement for the Degree of Master of Arts in Geography and Environmental Studies, Specializing in Population, Resource and Development.**

**ADDIS ABABA, 2015**

## Declaration

I undersigned declare that this thesis which entitled “Opportunities and Challenges of Promoting Sheno Butter as a Geographical Indication Product” is my original work that has not been presented for any degree to any university and that all relevant sources used in the thesis have been due acknowledged.

Kassahun Tadesse Mekonnen

Addis Abeba, 2015.

**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF GRADGUATE STUDIES**  
**COLLEGE OF SOCIAL SCIENCE**  
**DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL STUDIES**

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## **ACKNOWLEDGEMENT**

Above all, I am grateful to God, my Creator and Author of my faith for the Grace, Peace and Mercies that have dominated my study period and entire life.

I would particularly like to extend my heartfelt thanks and appreciations to my advisor Dr. Yohannes G/Micheal (Ph.D) for his continuous guidance, devotion of his precious time, valuable suggestions, and constructive comment during my research work.

My sincere gratitude also extends to various experts and officials of Kimbibit Worda and Addadimato kebele for providing me necessary data and information I sought for my research. Enumerators Nassir Abedela, Mesfin Bogale and Yohannes Ayalew are also acknowledged for their efforts to get reliable information in time of interviewing farmers. I would like to extend my appreciation for all interviewed persons for giving me their time and permission to observe their plots.

It is not fair not to mention my gratitude I have for Ato Dilnesa Mekonnen, Ato Amechach Mekonnen and Ato Melakehail Yeshitela, Ato Wondowsen Hirpo and all my friends who are involved directly or indirectly for helping me until the very last day of finishing my studies and writing this thesis.

Finally yet importantly, I thank my entire family and my beloved Wubit Tesfahun in supporting me strive towards the realization of my potentials, initiation, encouragement and moral. I really could not have made it without your continuous support, encouragement and belief in me.

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## **LIST OF ACRONYMS**

ADLI	Agricultural Development-Led Industrialization
CSA	Central Statistics Agency
EIPO	Ethiopian Intellectual Property Office
EU	European organization
FAO	Food and Agricultural Organization
FDRE	Federal Democratic Republic of Ethiopia
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GIs	Geographical Indications
IP	Intellectual Property
MAID	Ministry of Agriculture and Rural Development
OLPs	Origin-Linked Products
TRIPS	Trade –Related Aspects of Intellectual Property Rights
USA	United States of America
USAID	United States Agency for International Development
WIPO	World Intellectual Property Organizatio

## **ABSTRACT**

*The overall objective of this study was to examine the possible opportunities and challenges of Sheno butter to be promoted as a Geographical Indication product for improving the socio economic condition of farmers. For this purpose, the necessary information were gathered through household questionnaire, focus group discussion, consumers and key informants interview and observation. Descriptive statistical analysis and triangulation method of analysis were utilized to present results and discussions.*

*The finding of the study revealed that butter production in the study area is characterized by traditional production system based on local resource. The study also identified taste, color, aroma and texture as commonly perceived origin linked characteristics of sheno better. Moreover, the study revealed that driven by scarcity of natural pasture feeds, farm extension experts advice arose from agricultural policy strategy and inputs related factors, butter production system in the study area seems to be changed and this change would be a probable trend to be observed in the short and long term future in the area. Therefore, the study conclude that given the observed changing trend in production system, Sheno butter has uncertain potential to be promoted as a Geographical Indication Product, and at this moment promotion of the product as GIs can not be best option for improving the socio economic condition of producers. Based on simulations of the finding, the study forwards some suggestions and recommendations for researchers, policy makers and development practitioners for future action.*

*Key words: Geographical indication, Livestock, Quality, Production system*

# CHAPTER 1: INTRODUCTION

## 1.1. Background of the Study

Livestock production as an integral component of rural development has an enormous contribution to Ethiopia's national economy and livelihoods of many Ethiopians. The subsector contributes about 16.5% of the national Gross Domestic Product (GDP) and 35.6% of the agricultural GDP. It also contributes 15% of export earnings and 30% of agricultural employment. The livestock subsector currently support and sustain livelihoods for 80% of all rural population (Metaferia, Cherenet, Gelan, Abnet, Tesfay, Ali and Gulilat, 2011).

Due to the pivotal role that agricultural production plays in the economy of the country the current government launched a national development strategy namely, Agricultural Development-Led Industrialization since 1994. Agricultural Development-Led Industrialization aims at boosting agricultural productivity and improving the rural standard of living, which in turn will increase the demand for goods and services and further lead to industrial development (ADLI, 1994). One of the impetuses to achieve the agricultural policy objective is improvement in the livestock sector by enhancing the quality and quantity of feed, providing improved animal feed and improved extension services, increasing livestock health services and improving productivity of local cows by artificial insemination while preserving the indigenous breeds (Benin, Ehui, and Pender, 2002). However, studies shows that considering the size of livestock genetic resources, existence of diverse agro-ecologies, rich natural and human resource of the country, livestock sector still do not achieve its full potential due to a number production system constraint related to genotype, feed resources and feeding systems, access to services and inputs,

low adoption of improved technologies, marketing and absence of clear policy support to the sector (Getachew, 2003).

Globally, consumer trend in various circle including in agricultural and food sectors indicate that there is increasing preference and added value on products that can be associated with a certain place and/or special means of production. consequently, over the past few decades geographical indications have become major intellectual assets in relation to a variety of goods, acting not only as a tool for protecting consumer's interests and reinforcing confidence in high-quality and local products, but also as a legal and economic tool for the development of rural areas and the preservation of cultural heritage (Daphne, 2008). As a result in various countries the development of food quality policies based on typical food products has shown a positive impact on the socio-economic conditions of rural regions. The positive results were achieved through the creation of a system of protection and promotion of original food products as GIs.

Ethiopia is richly endowed with immense biological diversity and unique terrain. Most of the diverse agricultural products produced in the different parts of the country may constitute important potential sources for GIs (Sileshi, 2011). Thus, considering the significant contribution of livestock sector for the economy of both at national and household level, it could be good opportunity for the country to develop a similar GI system to improve the social and economic well-being of rural areas. The extent to which such system can play these important roles in development, in a sustainable way; however, depend on the origin-linked quality potential of the products particularly the link between the product, the people and their place of origin. However, given the multiple crises and rapid degradation of natural resources faced like most by developing countries due to a number of environmental and policy related problems (UNP, 2010); as well as temporal shift in production system as result of increase in consumer demand

and technological advancement (Boyazoglu, 1998), it could be indeed great challenge to obtain the expected socio economic and environmental benefit derived through promotion and protection of agricultural products as a Geographical Indication. Thus, it is necessary to characterize production system and characteristics of a product from their place of origin for good understanding of the possible opportunities and challenges in promoting a product as Geographical Indication for the socio-economic improvement of rural areas; which has not yet been studied so far.

## **1.2. Statement of Problem**

Geographical Indication is new concept for Ethiopia. As a result, there are very limited studies conducted on the issue of GIs at national level. Even the available studies have merely addressed the issue from a legal perspective of reconciliation between alternative ways of granting protection to producers either by adopting specific GI legislation and/or existing laws like collective trademark. As a result, considering the economic, environmental and social benefit associated with protection of GIs, available studies suggest for adopting specific legislation at national level for protecting potential GI products (Sileshi, 2011).

Moreover, though researches have been conducted so far on characterizing livestock production system; in general, and dairy production, and processing system, in particular, they all tried to deal with the issue partially. They deal more on the spatial extent of livestock production system in their production performance ((Getachew, 2003), (Metaferia, Cherenet, Gelan, Abnet, Tesfay, Ali, Gulilat, 2011)). In addition, far from production performance of, opportunities and challenges for possible origin- linked quality attribute and potential of such products as a GI product has not yet been well characterized and documented.

Furthermore, considering national agricultural policy presumption relied more on the technological advancements and practical technical livestock interventions led to improved feed conservation, and feeding techniques, introduction of ‘new’ or ‘improved’ livestock breeds to improve livestock productivity and the socioeconomic condition of rural areas as well as global environmental problems related to climate change, land degradation, deforestation, land use change, population pressure, urbanization accompanied with change in production system, producers, stakeholders and policy makers need to be informed, through generation of information regarding the origin linked quality potential and challenges for possibility of improving the economy of rural areas through promotion and protection of origin food products.

In that context, the most important question would be: Does Sheno butter has origin linked quality and possible potential to be promoted and protected as a GIs to improve the socio-economic condition of producers?

### **1.3. Objective of the Study**

The overall objective of this study was to examine the possible opportunities and challenges of Sheno butter to be promoted as a Geographical Indication product for improving the socio economic condition of farmers.

Specifically, the study had the following specific objectives.

- A) To characterize recent trend of butter production system in the study area.
- B) To identify origin linked characteristics of Sheno butter as a Geographical Indication.
- C) To examine the linkage of butter production system with its place of origin.
- D) To analyze challenges for the possibility of Sheno butter to be promoted as a Geographical Indication Product.

## **1.4. Research Questions**

In order to achieve the stated objectives, the study tried to answer the following research questions.

1. What are the links between the product, the place and the people? Does butter production system have linkage with its place of origin? Does Sheno butter have specific origin-linked characteristics?
2. How is the trend of butter production and marketing system in the study area? Is there any observed change in production system? What factors are responsible for these changes? What constraints do farmers encounter in butter production and marketing?
3. To what extent that Sheno butter has possible potential to be promoted and protected as a GIs? Is there a potential for promoting the product in a sustainable perspective? Are there any challenges that obstacle the possible promotion of the product as a GI?

## **1.5. Significance of the Study**

This study can be of some value both from academic and policy points of view. Assessing the dynamics, opportunities and challenges could help policy makers regarding the issue for the possibility of adopting GIs system at the local, regional and national levels to improve the income of farmers through promotion and protection of origin linked products. Beside, the findings of this study could be used as inputs for future action that would be undertaken by governmental and non-governmental organizations working in the area. Furthermore, as GIs is new concept for the country, the study may also add information to the existing knowledge and be used as input for the researchers who desire to make future in depth studies on similar aspects.

## **1.6. Delimitation of the Study**

The paper concerned about the possible opportunities and challenges of Sheno butter to be promoted as a Geographical Indication product. Hence, the study was delimited spatially on one purposefully selected study site from the study area for in depth investigation. Beside, due to scarcity of organized data, the study also delimited temporally on examining ten years data on trend of butter production system in the study area

Though livestock includes varies animals like cattle, sheep, horse, mule, donkey etc which are domesticated and used by human being for different purpose, within the context of this research, livestock was concerned to cattle, produced within the study area. Farmers keep cattle for production of various products; however, within the context of this study cattle production was again delimited for milk and milk product. More specifically, as the study area has long been associated and referred by butter, it is delimited in characterizing ten years butter production and marketing system in the study area as well as constraints.

## **1.7. Organization of the Thesis**

The First chapter presents the rationality and overall aim of the study. Chapter Two presents review of literature on conceptualizing Geographical Indication, challenges and limitations of GIs, characteristics of livestock production system and its economic role at national level from different sources. Subsequently, description of the study area and methodologies are presented in Chapter Three. In Chapter Four, descriptive results are presented and discussed in detail. Chapter Five, summarizes the main findings of the study and draws conclusion and appropriate recommendations.

## **1.8. Definitions of Term**

**Livestock:** Within the context of this research, livestock will be limited to cattle and more specifically to milking cows within the Kimbibit woreda under different systems.

**Production system:** Within the context of this research, production system is concerned with butter production systems at household level in relation to farming practices, characteristics of the product, available resource bases and constraints for which similar development strategies and interventions can be applied.

**Quality:** Within the context of this research, is a social construction, which depends on producers and consumers' perception on the objective and subjective elements on Sheno butter on the basis of available information, linked with its place of origin.

**Geographical Indications:** is conceptualized as reflecting the linkage between a product and its territorial origin in that the product perceived of having unique qualitative characteristics from other similar product that drives by using in special way available local natural and human resources.

## CHAPTER 2: REVIEW OF RELATED LITERATURE

### 2.1. STATE AND ART OF GIs

#### 2.1.1. Concept and Definition of Geographic Indication

##### 2.1.1.1. Definition of Geographical Indication

A geographical indication(GI): -*“is an indication which identifies a good as originating in the territory of a member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin”* (WIPO, 2006). This definition of GI products is extremely far reaching and includes agricultural and food products but also industrial products.

In a broad sense, the term GI has historically been understood to include the so-called “appellations of origin” or “indications” of origin. Indication of source as defined in the Paris convention of 1883:- *“is any expression or sign that is used to indicate a product or service as originating in a country, region or specific place”* (WIPO, 2006). According to the definition Indication of source merely refers to the origin of a product without any indication of specific quality or characteristics linked to the origin of the product. An Appellations of Origin are also geographical indications and defined in the 1958 Lisbon Agreement as *“the geographical name of a country, region, or locality, which designates a product originating therein, the quality or characteristics of which are due exclusively or essentially to the geographical environment, including natural and human factors”* (WIPO, 2006). Appellations of origin can thus be regarded as a special type of indication of source in that it not only conveys the geographical

source of a product but makes a direct link between a product's quality and its geographical origin.

Moreover, Geographical Indications belong to the Intellectual Property (IP) family. Other family groups are copyrights, patents and trademarks, where trademarks can be understood as Geographical Indications' older brother. Thus, as an IP family; Geographical Indication (GI) is collective intellectual property rights, which identify a good as originating from a specific geographical region (Carina, 2005). In other word, Geographical indications (GIs), is a form of place-based intellectual property protection, emphasis an agricultural product's particular peculiar qualities associated to an identified geographical area (UCT, 2014). Hence, GI can be used to name different products. Because of the high reputation of GI products, they can be imitated and thus damage the reputation of the GI product and mislead the consumer. The monopoly right can therefore yield benefits to the society in excess of the costs that are incurred. Through granting protection to potential origin-linked products consumers can be protected from mislead by receiving information on a products geographical origin, at the same time as producers can signal the value of their product, which allow producers to gain price premiums for their products (Carina, 2005).

To conclude, as element of intellectual property, geographical indications can be protected by law to restrict their use and protect users as well as consumers. Fundamentally, two different approaches to protecting them emerged. The first relies on existing intellectual property and unfair competition laws. Certain countries, such as the USA, argued that geographical indications are sufficiently protected within this frame work. The second approach to protecting geographical indications is through legislation specifically designed for this purpose. The European Union, for example, argued that origin-linked products are not sufficiently protected

within existing trademark laws and thus demanded specific legislation for protection and the establishment of a multilateral register (Cerkia, Estelle and Kirsten, 2009). Various developing countries have now moved towards the protection of geographical indications through different legal approaches. India has, for example, adopted specific legislation which allows for the protection and registration of a geographical indication. Other developing countries, including South Africa, have thus far elected to protect geographical indications under trademark laws. The divergent approaches all differ with respect to the degree of government involvement, monitoring of use and enforcement.

#### **2.1.1.2 The Nexuses between Geographical Indication and Rural Development**

Literatures explain that through endogenous development approach; GI have the potential to generate positive economic, social and environmental impact on rural development. In line with endogenous development theory, GIs' ability to give rise to rural development processes derives from its strong link with the territory. Related to this, Pacciani and his colleagues (2001) argue that the ability of GIs to strongly signal locality leads to multi faced positive rural development.

As GIs are based on natural and cultural resources from the local area, they have also potential to generate positive outputs for rural economies by permitting local communities to use those resources to create value through the production of high quality food products. Where place of origin is used as an attribute, resources of the region are used to increase the value of the product (Sophie, 2009). As a result, Geographical indications could provide a mechanism by which rural producers can enter to markets and attempt to extract a special price, thereby contributing to improving their living conditions through increased incomes (Cerkia, Estelle and Kirsten, 2009)..

Furthermore, as the use of the GI is restricted to a specific area, GI also protects local communities from competitors. Regard to this Daphne (2008) describes that in the first instance, geographical indication will provide the right owners with the opportunity to get economic benefits from their geographical indication and with the right to exclude non-entitled users by creating a barrier to entry into a niche market segment (Daphne, 2008) .

Moreover, GI enable communities to continue producing their traditional products instead of finding alternative means for survival outside their traditional activities, GIs contribute also for the preservation of cultural heritage, a factor which strengthens regional identity and again reinforces the inter linkages in support of rural development (Kasturi, Tim, William, Bernard and May,2009). In addition, the collective dimension of the origin-linked product can also strengthens social linkages between local actors, not only through local organizations and greater equity in the production sector, but also externally, as all local stakeholders are involved (for example public actors, stakeholders of the tourism industry, schools, etc) (Daniele, Tim, William, Bernard and May, 2009).

As geographical indication draw from both natural and human resources located within the territory, thereby stimulating local people for wise use of natural resource. Therefore, the promotion of origin-linked products as a GI product can also generate positive impacts on sustainable use of natural resources through identifying the link between the product and the place that raises awareness of the importance of a sustainable use of local resources (Gusztáv, 2005).

Finally, origin-linked products are often linked to traditional production systems and extensive practice with lower environmental impacts compared to modern techniques and inputs. It has

been shown that traditional methods of production, which have been used to produce the GI products in the region for ages, tend to be more respectful of the local environment (UNIDO, 2010). As origin-linked products often use traditional, endemic or specific locally adapted species, varieties, and breeds, promotion of such products can help resist pressure towards increased degradation of resources, thus preventing the disappearance of habitat, typical landscapes and genetic resources (FAO, 2010). Thus, the promotion of origin-linked products can also generate preservation of biodiversity and genetic resources.

In general, the above explanation indicates that GIs have possible potential to lead to an endogenous and integrated development of a production area. It can also promote sustainable development of the region they are attached to due to the embeddedness of economic activities in the delimited area, to the higher and stable price of the product and to the use of a traditional method of production that can be more respectful of the environment.

### **2.1.1.3. Limitations and Challenges of GIs**

Though GIs activation process could brought the above identified social, economic and environmental benefits and then activate rural development, nonetheless, it is important to mention that GIs do not automatically give rise to positive development dynamics and that the impact depends on many factors and likely to vary from case to case. For instance, it should be noted that the effect of GIs on traditional knowledge is doubtful as the GI may in some instances adversely affect traditional knowledge. Related to this Hudes (2009) mentions that though GI marketing strategy has proven so successful that the pressure to increase production may actually lead to an adverse impact on the use of traditional knowledge. Where demand increases for emerging products there is the risk that producers will move

away from traditional production practices to more mechanized processes which may change the intrinsic quality of the product. Bowen (2010) states in this respect that moving from local to “extra local” markets can significantly change the way production is organized and the characteristics of the product.

Again it should be noted that GIs may lead to a significant increase in demand for the product which could place pressure on fragile eco-systems. GIs may further lead to “genetic erosion” in those instances where the GI product is derived from a specific resource to the exclusion of other species (UNP, 2010). Thus, in order to avoid the detrimental impacts of this, GI product standards should include sustainable production guidelines (Bown, 2010).

Despite of the above limitations of GIs there are also some challenges for successful implementations of GIs to achieve the desired objectives. For instance, literatures showed that Africa remains one of the most vulnerable continents with trends of degradation of natural resources. This arises from a combination of multiple factors. Land degradation, population pressure, Deforestation, desertification, water shortage and contamination, threat to biodiversity, and climate change are some of the many environmental problems that developing countries like Ethiopia experiences today (UNP, 2010). The combined effects of these multiple crises have serious consequences on natural resource base needed for agricultural production which will reduce the existence of potential GI products that required for the implementation of the system in one country. Besides, globally agricultural production system is highly dynamic as a result of various factors. Factors that have accelerated the development of various production systems include increased consumer demand for agricultural products and technological advances resulting from research (Boyazoglu, 1998) as well as by availability of resources such as land, labour, policy, capital, etc (Azage, Million, Alemu and Yoseph, 2012).

Furthermore, until recently policies in developing countries like Ethiopia intended to raise the standard of living of the poor often consist of disseminating knowledge and information about more efficient techniques of production. This was manifested in the agriculture intervention process that involves in encouraging farmers to try new crops, new production methods and new marketing skills. As a result, such technical interventions led to the introduction of hybrids, improved breeds and feeds, the green house technology, genetically modified (GMO) food, use of artificial fertilizers, insecticides, tractors and the application of other scientific knowledge to replace traditional agricultural practices (UNP, 2010). This may affect the specific origin linked quality potential of agricultural products. The above view is endorsed by Matunhu who pointed out that modernization is about substituting of traditional agriculture practices with something more recent (Matunhu, 2011). In addition to this, in the case of rural development, biodiversity dynamics around GIs are highly dependent on the policy environment. With respect to this Bowen (2010) mentions as GI is a new concept for developing countries like Ethiopia new legislations related to GIs is often not supported by clear policy objectives. She explains how this lack of a coherent policy approach leads to an increased risk of outside actors capturing the benefits of the GI dynamics. Thus, the procedures of the GI system and role of institutions should be aligned with these objectives. Related to this Cerkia (2011) saying that developing countries need to draw a clear action plans at the national and international level in order to consolidate the benefits of their own GI. Thus, governments should be clear on the policies behind GI strategies and ensure that these are in coherence with and support the broader policy objectives (Cerkia, 2011).

In general, as outlined in the literature it is undisputed on the significant developmental benefits attached to Geographical Indications. Achieving these dynamics is however not a simple process

and is dependent on how the process is implemented, protected and exploited. It should be noted that the socio-economic and environmental dynamics of GIs are highly context specific and that the impact of GIs is likely to vary from country to country and from product to product. Thus, the significant benefit of GIs vary greatly depending on the production process and that the impacts are highly heterogeneous across countries, regions and sectors. Therefore, while GIs present an interesting policy tool with potentially significant benefits, it is necessary to undertake careful analysis of the expected benefits and costs in their particular environment and for their particular products. It is also important to point out that those positive outcomes related to GIs depend on many factors (socio-economic, policy and biophysical factors), and the strict link between the product and its territory.

#### **2.1.1.4. Prerequisites for the Successful Use of GIs**

To get the best potential benefits from GIs, origin food products need to be properly identified and especially the link between these products, their place of origin and the people living in the area need to be evaluated. The stronger this link the more rural areas will benefit from the development of a GI product (FAO, 2010). As a consequence, in the process of using GIs as a tool for rural development, the first identification step should especially focus on the special quality of the products and on the local resources, both human and environmental, required to produce them. Here are some key issues to better identify the products potential that are more able to be promoted and activate rural development as mostly discussed in literatures.

- The product specific quality and its reputation should present some specific characteristics linked to a geographical origin that gives it a special quality or reputation on the market. Specific quality means that some characteristics differentiate the product

from the other products of the same category and consumers perceive it as such, regardless whether the market is local, national or international (FAO, 2010).

- The place of origin represents the geographical area that bears both the natural resources (physical and biological environment or milieu) and the human resources linked to the generations of inhabitants and producers. In other word, it can be the result of natural resources (climate conditions, soil, water, etc) or human resources (traditional know-how, recipes, etc). The term ‘terroir’ represents the capacity of this territory to confer, over time, specificity and typicity to the product (FAO, 2010). However, natural resources are often linked to human intervention, as the physical environment is also shaped by human choices and adjustments made to adapt production methods to the environment on the basis of a cultural heritage and local know-how. In this sense, the product belongs to the local community that created, adapted, preserved and passed on the specific environment, the local resources, the techniques and the culture required to reproduce it. As a result, it influences the quality characteristics of the product (Carina, 2005).
- The people represent the local people who are making this product. This can be regarded in terms of communality, which is reflected in the presence of multiple producers (farmers or processors) that share experience and practices and have similar perception and are ready to collaborate. (Meulen, 2007)

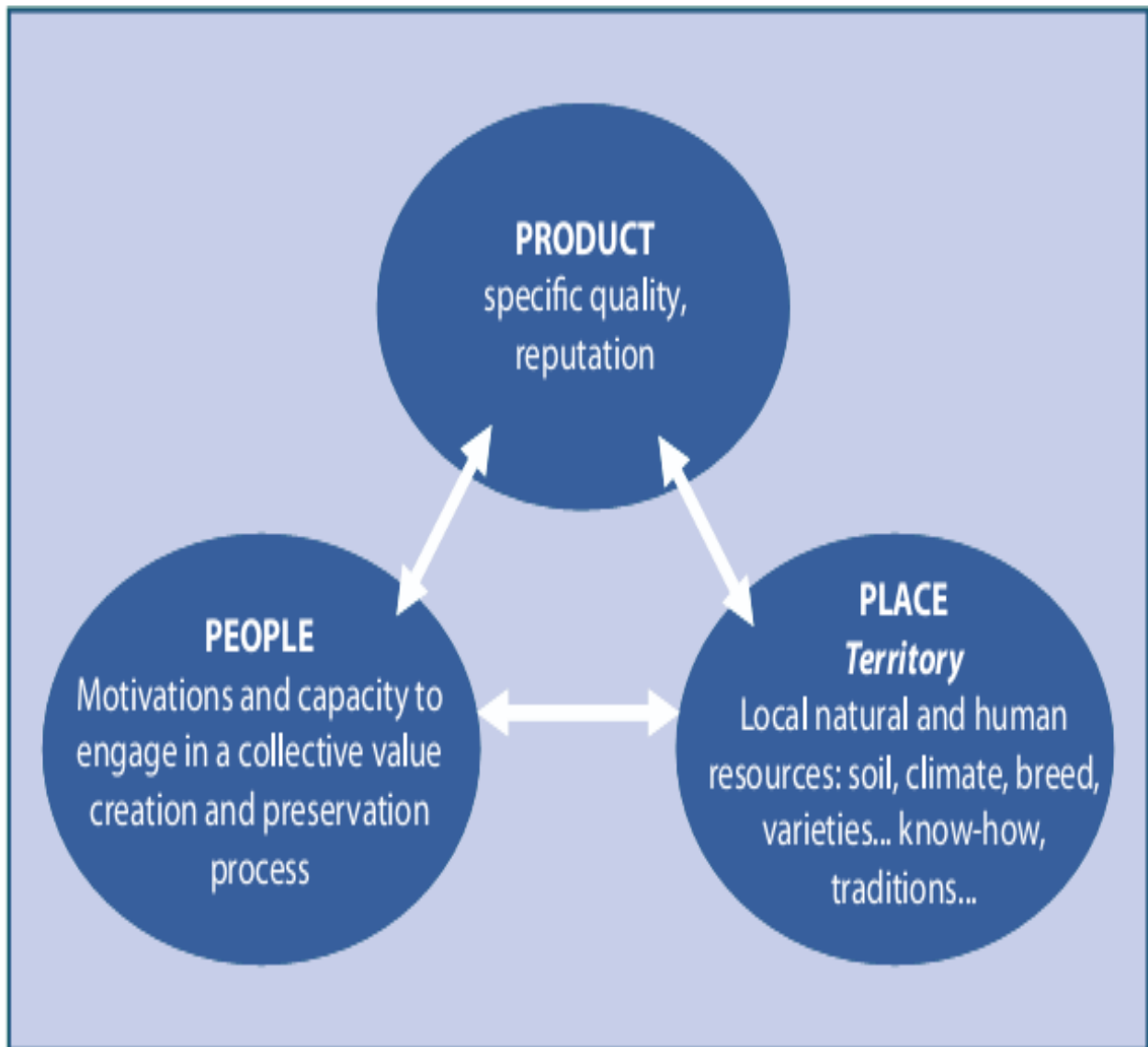


Figure 1 Interaction between people, product and place  
(Source: Adopted from FAO, 2010)

Then, according to Barjolle & Sylvander (2002), the success of GI products depends on the capacity of local stakeholders, especially producers and/or processors, to manage the GI-product collectively. Indeed, many actors are interacting around the GI products; they are represented in the following scheme. All those actors should be involved in the process of identifying potential GI product to get all relevant information concerning the product, its method of production and

preservation, the consumption habits, etc. It is also important that all actors set up the rules together so that everybody will respect them. (Barjolle & Sylvander, 2002)

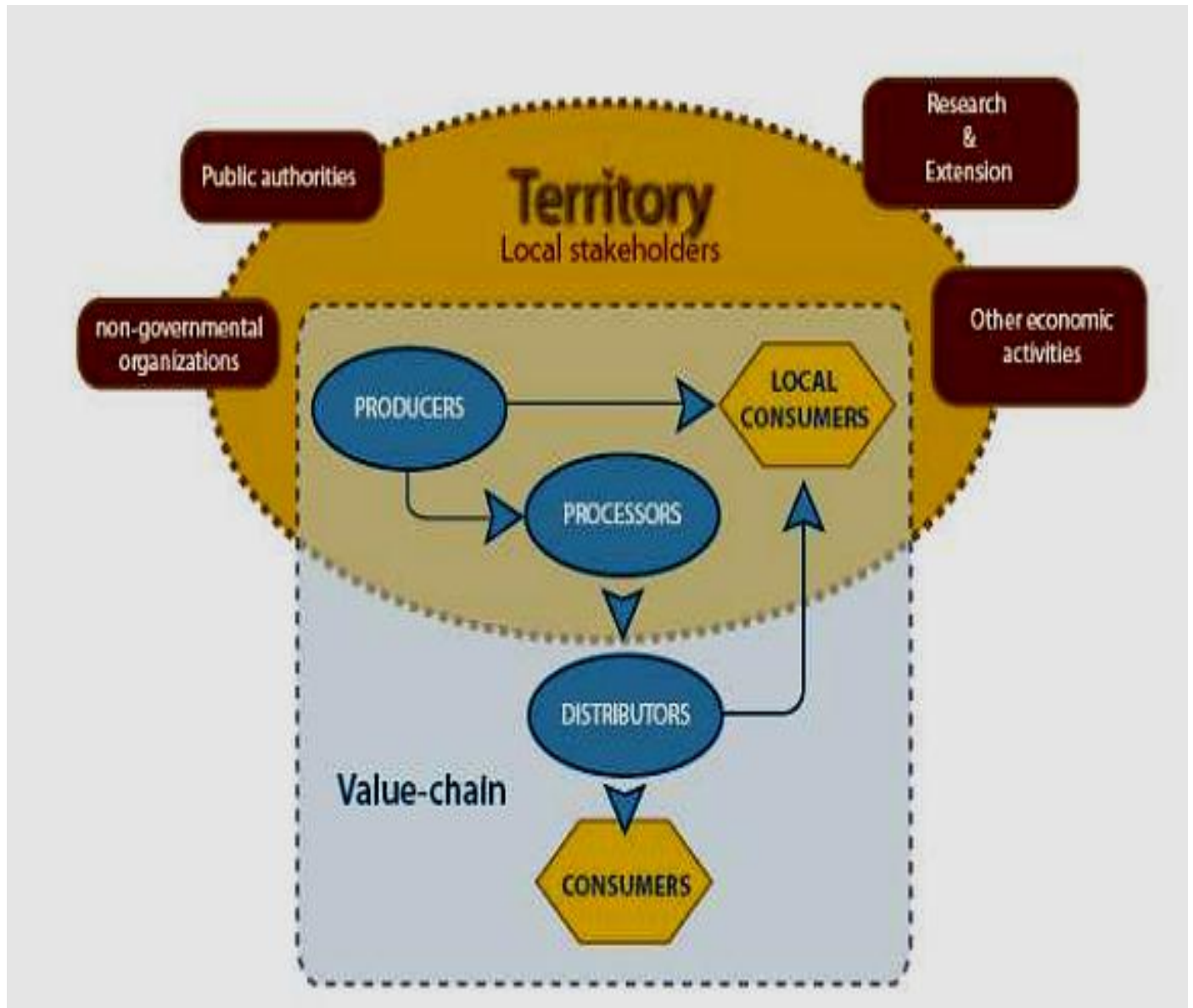


Figure 2: Main stakeholders involved in the GI process  
Source: Adopted from, FAO, 2010

Finally, public institutions can contribute to the creation of favorable conditions for the development of GIs and their policies at national and local levels can be determinant for rural communities to benefit from the protection of the GI (FAO, 2008).

In general, it can be said that through the promotion and development of GI products there is a possibility to activate endogenous, integrated and sustainable rural development strategies, but shown above, it depends mainly on the intensity of the link between people, place and products.

## **2.2. Overview of Livestock Sector in Ethiopia**

### **2.2.1 Characterizing Livestock Production Systems in Ethiopia**

Livestock production system in Ethiopia can be classified in to different based on various approach. Mekasha and Yosef (1999), based on a different approach (on farming systems, the principal ecological zones and the underlying livestock production systems) had identified five systems of livestock/milk production in sub-Saharan countries namely Pastoralism, Agro pastoralism, Mixed farming, Intensive dairy farming and Peri-urban milk production, which are also applicable to Ethiopia. The production system can also be classified using milk marketing as a criterion into urban, peri-urban and rural (Ketema and Tsehay, 2004). However, for the purpose of this paper the production system categorized based on agro-ecology characterization of the area, socio-economic structures of the human population and the species of livestock and type of breed used for milk production as the study focus is on milk and milk product. Accordingly, five categories can be distinguished, the traditional pastoral livestock farming, traditional highland mixed farming, the emerging smallholder dairy farming, urban and peri-urban dairy farming and the specialized commercial intensive dairy farming (Getachew and Gashaw, 2001).

Even though information on both absolute numbers and distribution vary, it is estimated that about 30% of the livestock population in Ethiopia are found in the pastoral areas. The pastoralist livestock production system which supports an estimated 10% of the human population covers 50–60% of the total area mostly lying at altitudes ranging from below 1500 masl (USAID, 2010). Pastoralism is the major system of milk production in the lowlands. Cows, camels and goats are the major dairy animals used for milk production by pastoralists. However, availability of milk is dictated by the shortage and erratic nature of the rainfall and fluctuations in availability of feed (Ketema and Tsehay, 2004). Pastoralists rely on milk for food and also use animals to generate wealth. Animals are consequently important in the social value system that promotes flexibility in resource use (Kedija, Azage, Mohammed, and Berhanu Gebremedhin, 2008).

The Ethiopian highlands possess a huge potential for dairy development. These areas occupy the central part of Ethiopia and cover about 40% of the country's land area (approximately 490,000 km) (Azage, Million, Alemu and Yoseph, 2012). In these areas agricultural production system is predominantly subsistence smallholder mixed farming, with crop and livestock husbandry typically practiced within the same management unit. In this farming system, the entire feed requirement for ruminant livestock is derived from endogenous pasture and the balance comes from crop residues and crop aftermath grazing. The main source of milk is from the cow. Milk is important source of cash income when sold fresh or as processed products such as butter and cheese. Milk from the traditional sector is produced mainly for subsistence farm household requirements. Here it is used widely for home consumption and converted into butter. Productivity of indigenous breeds for milk is low as a result of their inherent low genetic potential associated with poor traditional management. However, due to large size and

dependence of the smallholders on use of cattle this will continue to dominate the production sector especially in rural areas (Getachew, 2003).

Smallholder dairy farming has been introduced with the introduction of crossbred dairy heifers into the mixed farming system. This development of an integrated agricultural production using improved stock has proved successful in the highland regions of Ethiopia. The system is mainly located in the potential highland areas of the country where farmers in the peri-urban and some rural areas not located too far from urban centers practice market oriented milk production. They tend to be developed mainly in the Addis Abeba milk shed area and some other urban centers where a market for fresh milk is readily available. Due to limited land holding of the smallholders and the need to complement the crop production in increasing efficiency of agricultural production, the emerging smallholder dairy farming using crossbred and improved dairy stock will continue as important features in dairy development (Getachew, 2003). It is also labour intensive and supports substantial employment in production, processing and marketing. Thus, the intensification of smallholder dairy production system through the adoption of dairy production technologies is generally concentrated in areas with good infrastructure close to major markets, although less intensive production may occur in other, more distant areas (Walshe, Grindle, Nell and Bachmanu, 1991). These market factors, therefore, play a major part in determining the type of dairy production systems found in the tropics, and they are particularly important in influencing smallholder dairy development (Belete, Azage, Fekadu and Berhanu, 2010).

Urban and peri-urban system is developed in and around major cities and towns which have high demand for milk. In this system the main feed resources are grass hay, crop residues and agro-industrial by-products. In this system milk is a means of additional cash income. Herd sizes are

small due to urbanization and land size limitations and economic capacity. Most of the improved dairy stocks in Ethiopia are used for this production system. One of the largest sources of milk in Addis Ababa/regional towns is that from intra-urban milk producers. The producers deliver milk to consumers or consumers may collect it at the producers' gate. Studies indicate that in terms of volume, 71% of intra-urban producers sell milk directly to consumers (Belachew, Mahmud, Teferi and Lemma, 1994).

Intensive commercial system is a more specialized dairy farming practiced by state sector and very few individuals on commercial basis. These are concentrated in and around Addis Ababa and other regional capitals and are basically based on exotic high grade or purebred stock. Although these urban, peri-urban and intensive dairy farmers are important and regular suppliers of milk to major urban centers, they produce only 2% of the total milk production of the country (Getachew, 2003).

In general, based on various criteria livestock production system in Ethiopia differs from place to place and shifts between them occurred over time. The traditional small holder and mixed crop–livestock still makes up the largest part of the dairy production system. It is also this system that provides milk and dairy products to urban consumers and the nation at large through the informal marketing system. However, this production system is characterized by its low input, feeding and management requirement, traditional production system and use of indigenous genotypes. As a result of its less productive nature than conventional ones, in terms of physical and economic productivity, and producers can not be competitive in terms of volumes or prices but they could differentiate their products through specific and high value characteristics. This is the case for many specific breeds raised on local pastures, but the milk yields distinctive milk products like butter and cheeses produced according to local artisanal recipes (FAO, 2010).

### **2.2.2. Economic Role of Livestock Production.**

At national level, Smallholder agriculture is the most important sector of Ethiopia's economy. More than 80 percent of the population lives in rural areas, and their main source of income is agriculture. The agricultural sector accounts for about 45 percent of GDP, almost 90 percent of exports, and 85 percent of employment (FDRE, 2010). Livestock production as one component of agriculture plays an important role in the national economy. Beside, as a component of rural development, livestock subsector has an enormous contribution to Ethiopia's national economy and livelihoods of many Ethiopians, and still promising to rally round the economic development of the country. Livestock also plays vital roles in generating income to farmers, creating job opportunities, ensuring food security, providing services, contributing to asset, social, cultural and environmental values, and sustain livelihoods (Belete, Azage, Fekadu and Berhanu, 2010).

The contribution of livestock and livestock products to the Ethiopian economy is also significant. Earlier estimates indicated that the livestock sector contributes about 12–16% of the total GDP, and 40% of total agricultural GDP excluding the values of draught power, transport and manure, and contributes to the livelihoods of about 60–70% of the Ethiopian population (Winrock International, 1992). A recent IGAD study by Behnke(2010) and Metaferia (2011) showed that the subsector contributes about 16.5% of the national Gross Domestic Product (GDP) and 35.6% of the agricultural GDP (Metaferia, Cherenet, Gelan, Abnet, Tesfay, Ali, Gulilat, 2011). The livestock subsector currently support and sustain livelihoods for 80% of all rural population. It also contributes to 30% of agricultural employment (Behnke, 2010). The GDP of livestock related activities valued at birr 59 billion (Metaferia, Cherenet, Gelan, Abnet, Tesfay, Ali, Gulilat, 2011). These estimates, however, do not again consider the non-marketable values of livestock such as social, cultural, and religious values. Livestock and livestock products are also

important and significant sources of foreign exchange earnings. It contributes 15% of export earnings. (Behnke, 2010).

Livestock have also diverse functions in the livelihood of farmers in the mixed crop–livestock systems in the highlands and pastoralists and agro-pastoralists in the lowlands of Ethiopia. Livestock provide food in the form of meat and milk, and non-food items such as draught power, manure and transport services as inputs into food crop production and fuel for cooking. They are a source of income, which can be used by rural populations to purchase basic household needs and agricultural inputs (Belete, Azage, Fekadu and Berhanu, 2010).

### **2.3. Can GI be possible Alternative Developmental approach For Ethiopia?**

At national level, there is still no specific legislation in practice to protect potential geographical indication products. Related to this Sileshi (2011) describes that despite the fact that three Ethiopian coffee varieties have been protected under trademark laws in several jurisdictions, there remain questions as to what system is indeed in place to ensure the legal protection of GIs in the country. Available studies; however, recommend that various reasons seem necessary for the country to engage in this IP right by protecting potential origin-linked products. They mentioned that the economic and social benefit associated with protection of GIs that will accrue to the country as a whole necessitates legal protection in Ethiopia. Even if the economic value of GIs for export commodities depends on a continued effort in the development of reputation in the long run, there is an immediate economic need for protection in the domestic market. In addition to economic significance, protection of rural products through GIs creates job opportunities and reduces unemployment and the subsequent migration to urban areas, both of which are acute problems in Ethiopia. The role of GI protection in complimenting the

conservation of biodiversity and traditional knowledge can never be underestimated, despite the existence of separate legal regimes for both subject matters (Sileshi, 2011).

Nonetheless, as discussed earlier on this chapter, the positive benefit of GI system depends on many factors. Above all it requires clear identification on the originality of products and its linkage with its place of origin. However, various challenges seem difficult for the country to obtain the expected benefits of GI system. For instance, while looking at the current national development strategy; namely Agricultural Development-Led Industrialization, it seeks to bring about an improvement in the livestock sector by enhancing the quality and quantity of feed, providing improved animal feed and improved extension services, increasing livestock health services and improving productivity of local cows by artificial insemination while preserving the indigenous breeds (ADLI, 1994). Accordingly activities undertaken include: utilization of the potential adaptive genetic merit of animals, raising the quantity of the feed available to livestock, improving health service, breeding and husbandry services, encouraging the participation of private investors by improving income tax, improving the delivery of artificial insemination, developing and expanding efficient marketing system in remote areas and organizing farmers into milk producing, processing and marketing cooperatives (Getachew and Gashaw, 2001). As the policy aims mainly on increasing production and productivity, the government has engaged on disseminating similar technology and information on various agro ecology production areas. This implies that the policy seems to strive toward bringing uniformity of production rather than originality which would be strong challenge for the ongoing effort by the government to adopt a similar GI system to improve the socio-economic wellbeing of rural areas. Beside policy challenge, global trend of environmental problems faced most by developing countries like Ethiopia, related to land degradation, climate change, threat in biodiversity, population growth,

deforestation, technological advancement etc could affect the intrinsic values of origin food products which believed to have potential to be promoted and protected as a GI product

To sum up, considering the size of livestock genetic resources, existence of diverse agro-ecologies, rich natural and human resource of the country, it could be regarded as good opportunity for the country to implement a similar GI system to improve the economy of rural area through the promotion of potential origin-linked food product. However, observed global trend in environmental change and technological advancement and policy related problems could be a great challenge for the country towards gaining the full benefit of a GI system through promotion and protection of origin linked potential.

## CHAPTER 3: METHODS AND MATERIALS

This chapter presents description of the study area, site selection and sampling procedure, research methods employed in conducting the study. The research method section is divided into sub-sections-types as site selection and sampling Procedure, methods of data collection and method of data analysis.

### 3.1. Description of the Study Areas

According to the information obtained from the Woreda Administrative and Agriculture and Rural Development Offices, Kimbibit Woreda is one of the Woredas found in North Showa Zone of Oromia Regional State, Ethiopia. Kimbibit is bordered on the south by Berehna Aleltu, on the west by Wuchalena Jido, on the north by Abichuna Gne'a, and on the east by the Amhara Region. The Woreda is 80km from Addis Ababa. The administrative center of this woreda is Sheno; other towns in Kimbibit include Hamus Gebeya, and Kotu. The Woreda is strategically located on the way to different areas of southern Ethiopia from Addis Abeba, due to its strategic location and used as a break point for breakfast and lunch, the Woreda has access to potential markets in the area.

The total area of the woreda is 75,827ha. The Woreda is composed of 29 rural kebeles and 2 urban kebele with the total population of about 90,904, of which 45,246 are men and 45,658 are female. 15,780 or 17.4% of its population were urban dwellers. (Kimbibit administrative and communication office, 2012).

. The altitude of the area ranges from 2620-3020m above sea level (a.b.s.l) and predominantly has Dega (high land cold agro-climatic zone) climate. The annual rainfall is 1013mm and mean minimum and maximum temperature of the center are 23°C and 17 °C respectively. The major

land use system of the area is crop cultivation (40,563ha of total area), private grazing land (22,970 ha) is the second largest land use and land under forest (3571 ha) cover is also significant. The remaining part is settlement (2274.81ha) and degraded land (7939.19ha) (kimbibit agricultural and rural development office, 2014 ).

Crop production and livestock production are major livelihood activities. Mixed farming, like other areas of the zone, is the dominant type of production system in the area. The farming system of the area is limited to rain fed agriculture and characterized by traditional technology based entirely on animal traction and subsistence production. Crops predominantly cultivated include different varieties of barely, wheat, oat, pea, lentil and other types of crops.

Livestock production is the other major source of livelihood in the area. The common types of livestock reared include cattle, sheep, horse, donkey and poultry. Due to the predominant Dega agro-climate, the area is favorable for sheep and cattle rearing. Even though most of the cattle productions are done with endemic breeds, there are about 2644 improved breed cows obtained through artificial insemination in the area.

# Map of the study area

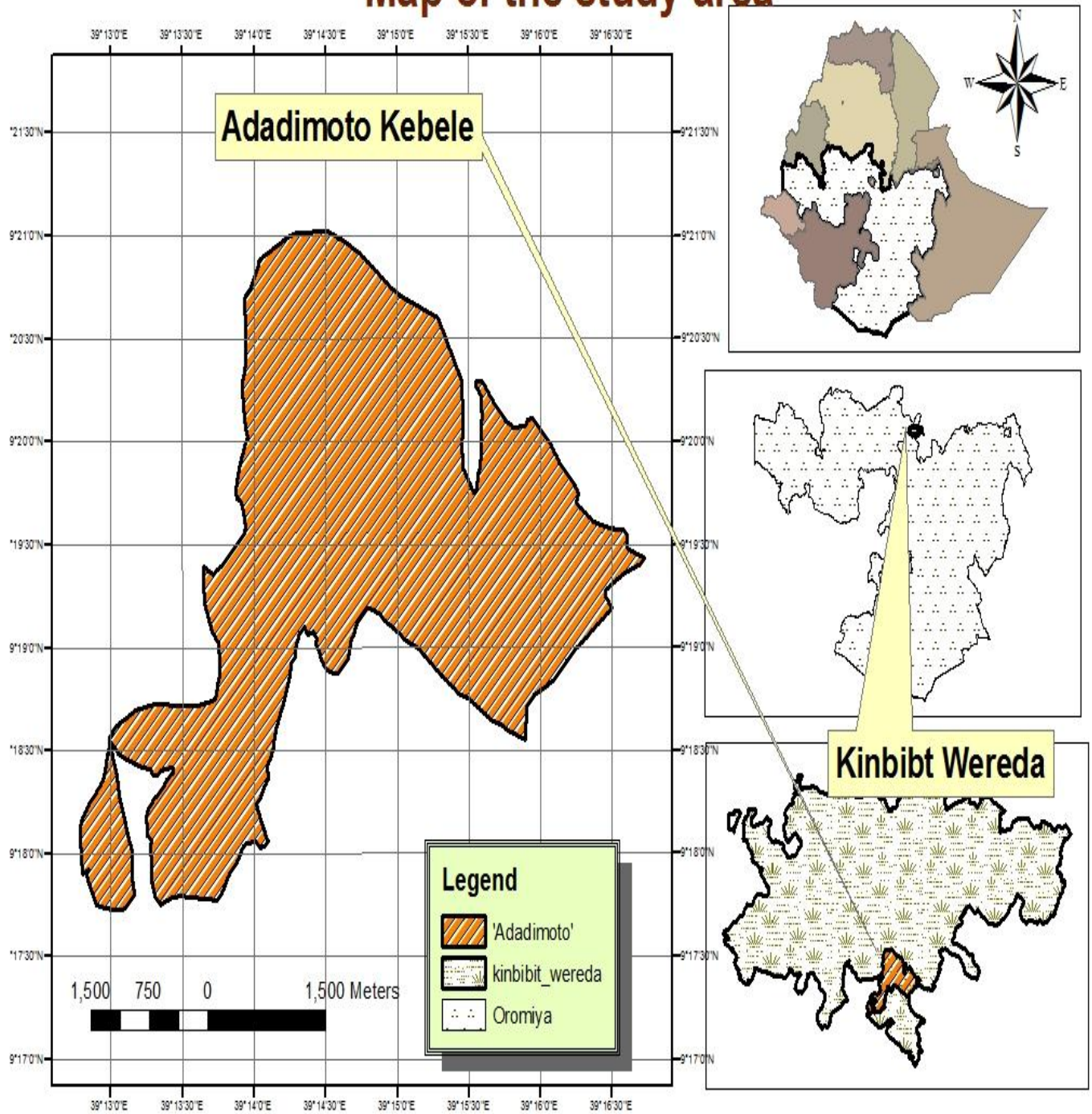


Figure 3: Location of the study area

Made by: The Researcher

## **3.2. Research Methods**

### **3.2.1. Site Selection and Sampling Procedure**

Purposive and random sampling techniques were employed to select sample Kebele and households surveyed, respectively. The actual site selection was undertaken with the consultation of local agricultural experts and development agents. To overcome logistical constraints one sample study site from the study area that has good experience in cattle production and butter production, access to road and market was selected purposefully. The sample site chosen is known as Adaddi Matto. A total of 190 households are found in the sample study site. From the total households, 110 respondents were selected using systematic sample random sampling for this study; this constitutes about 57.9 percent of the target population which enable to gain adequate representative sample for inclusion in the study.

The selection of the households was made first by stratifying total household head of the sampled study site based on their gender as male and female headed. This was so because the stratification enabled to identify the structure of household and to select the appropriate respondents for inclusion in the study. Since women are highly responsible in butter production and marketing in Ethiopia, in general and in the study area in particular, females were considered and included for this study.

The selection of sample interviewed consumers was done using purposive sampling techniques. This is because it enabled to manage the difficulty of getting samples in the absence of sample frame and helps to gather appropriate information from participants in a market situation. The selected market place was locally known as “Hamusite Gebya” which was a periodic market area on Thursday. As this market area is located along main road, both local resident consumers and

peoples from other places mostly appeared in the area which enabled to get more reliable and valid data related to origin linked characteristics of the product and provided an advantage to get supportive and complete information from consumers of different geographical area. This help the research to cross check and strengthen the information gathered from household survey. Consequently, a total of 30 sample consumers on top of selected sample household head; who appeared in the purposefully selected market area for purchasing during the period of data collection, were interviewed.

### **3.2.2 Methods of data collection and data sources**

#### **3.2.2.1 Sources of Data**

In order to get reliable and valid data that are relevant for maintaining the stated objective of the study both primary and secondary data sources are also used. The primary data were collected through questionnaire, focus group discussion, interview with consumers and key informant (agricultural experts and development agents) and observation.

Documentary sources were utilized to build the theoretical and empirical basis of this study. The search for literature and documents for this study was conducted using libraries and personal collections. Both published and unpublished documents as well as progress reports available in the study area were collected from local Administration, Agriculture and Rural Development Office.

#### **3.2.2.2. Data Collection Instruments**

The study employed different primary data collection instruments. This is because provides and advantage for generating rich and more comprehensive information. A draft questionnaire was prepared based on the research objectives and questions to get qualitative information from

sample households. The survey questionnaire was prepared first in English and then translated into Amharic with the help of experienced language experts. The initial research instruments were discussed with local officials and agricultural experts for further refinement in wording and inclusion of additional items. Then, the draft questionnaire was pre-tested on Sample study site. The period of pre-testing gave the researcher and enumerators practical experience in conducting interviews. After administering the pre-testing questionnaires, each item was examined and improved on wording and specification of research variables. The questionnaire was administered by the researcher and trained enumerators (Appendix D).

Additionally, three focus group discussions were held in the study site. The group members were selected purposively by the help of development agents. The groups comprised of five to seven household heads. In order to elicit different views and social perceptions of the participants, effort was made to include different section of the society, such as elderly, youth and women. A checklist of issues was prepared to ignite discussions and allow the participants to unravel and analyze their own situation in a way they do not feel influence from an outsider (Appendix E).

An interview was also carried out with consumers in order to make the information more complete and reliable mainly regarding to characteristics of Sheno buter, factors contributed for the attributes and dynamics on the product characteristics. For this purpose, semi structured questionnaires were used to enable them to express their perception on the issue raised. (Appendix F)

Beside, an interview was also conducted with Four Agriculture Office Experts and Three Development Agents in order to understand the tools they used in supporting farmers cattle production system and their awareness about GIs as well as their motivation. The researcher also

prepared observation check list which is helpful in identifying the problem as well as cross checking each survey questionnaire administered to informants. Open-ended questionnaires were used with appropriate time to express themselves on the issues raised. (Appendix G).

Observation was also done by the researcher in order to obtain visual data which can not be obtained through other methods of data collection. Observation data included site area, feeding resource, some materials used in production and market situation etc. Such information was obtained by using Photo Camera and organized in a way to support data analysis and discussion (Appendix H).

### **3.2.2.3. Method of data analysis**

Data which were collected from both primary and secondary sources were analyzed, summarized and presented via quantitative and qualitative method of data analysis. Questionnaire which is gathered from sample household is quantitatively analyzed and summarized using simple descriptive statistical methods. The analysis was done through Microsoft XL. The descriptive result (frequencies, average and percentage) is presented using appropriate presentations such as graphs, charts and tables.

The qualitative data collected through focus group discussions, interview and observation were triangulated in order to verify and increase the validity of the information gathered from these methods, and organized and narrated in a way to support finding extracted from the questionnaire.

## **CHAPTER 4: RESULTS AND DISCUSSIONS**

This chapter deals with the analysis and interpretation of the collected data. It discusses about the socio- economic characteristics of sample respondents, characteristics of Sheno butter and production system, challenges and opportunities for promotion of Sheno butter as a GIs product (breed type, feeding resource and method of feeding, production and production constraints), and marketing system and constraints in the study area.

### **4.1. Demographic and Socio-Economic Characteristics of the Study Population**

The sex category by sample household head constituted 63.64% male and 36.36 % female. Out of 110 respondents about 40% of respondents found in the age between 31 and 40 years and about 27% of sample respondent had age between 41 and 50 years. Where as, about 14%, 12% and 4% of the total respondents were in the age between 51 and 60, less than 30 and above 51 years, respectively. 93.6% and 6.4% Of the sample respondents were married and divorced respectively.

In developing countries like Ethiopia education is characterized by low level of education and high illiteracy rate. Accordingly, the survey result shows that about 41% of the total sample respondents were unable to read and write. Around 48% were able to read and write. Only about 6% and 5% of them have attended primary school (1-6 grades) and grade seven and above, respectively.

Regarding family size of the sample household the survey result shows that about 67% of the households had 4-6 members, where as 21% and 11% households had 7-10 persons pre household and less than 3 persons per household, respectively. The mean family size of the

sample household was 5.91%. The minimum family size is 2 where the maximum is 10. As livestock production is labour intensive activity, livestock production in general and production of dairy products like butter, in particular is a function of labour. Accordingly, the high mean of family size suggest that families with more household members tend to have more labor which in turn increase cattle production and then increase product market supply. Alternatively, as large family size need large amount of production for consumption, farmers may change their production system in order to satisfy family need. This might lead to degradation of production resource derived from such intensive production system.

Membership to any cooperatives enabled to set up rules on way to increase production both in quantity and quality and strengthen the relationship among the members. It also enables them to defend their interest collectively and improve understanding of members about market with market outlet choice decision of producers. Though there are two diary cooperatives at the woreda level, all of the respondents have not been a member of any cooperatives or associations. Beside, there are no farmer associations in the woreda uniting specifically producers of regional traditional diary products in the study area. GI requires collective farmers association of typical product to have collective right for people involved in the production area. The policy also gave emphasis on supporting farmers to organize themselves in the form of agricultural unions or association, but the absence of such farm associations in the study area implies the possible challenging for exercising collective right for the product.

#### **4.1.1. Land Holding**

Land is one of the most important household resources for dairy farming. The land holding size is crucial to cultivate, manage and produce agricultural products. Accordingly, as shown in Table 1, about majority of sample households (96.4%) owned over 1 ha where as the reaming owned

less than 1 ha of farm land. Only two (1.8%) of the total respondent do not have privately owned farm land. The total mean farm land holding of the sample households was about 1.9 ha with minimum and maximum land size of 0 and 8.40 ha, respectively. Farmers may allot the farm land either for cultivation of crops or grazing land or for both purposes depending on their objective. Accordingly, the survey showed that majority of respondents allotted their land both for cultivation of crops and for grazing as pasture land. (See table below)

**Table 1: Distribution of Respondents Land Holding Size**

Land Size in ha	Crop Land		Grazing Land		Total Owned Land	
	N	percent	N	percent	N	percent
Land less	4	3.6	8	7.3	2	1.8
0.01-0.5	9	8.2	29	26.4	9	8.2
0.51-1.0	39	35.5	20	18.2	26	23.6
1.01-2.0	47	42.7	44	40.0	20	18.2
>2.01	11	10.0	9	8.2	50	48.2
<b>Total</b>	<b>110</b>	<b>100</b>	<b>110</b>	<b>100</b>	<b>110</b>	<b>100</b>

Source: Survey Analysis, December 2014

In the sample study site there is no legally reserved land only for the purpose of communal grazing. Thus, farmer in the study site depended on private, rented and shared grazing land for natural pasture feeding. In general, despite of variation in land holding size, the result indicates that farmers in the study site allocate a plot of land around their homestead for animal feeds production. This might still offer an advantage to utilize natural pasture as a feed resource which can influence the origin linked quality of cattle products as GIs. Alternatively, the allocated land is possibly used for improved forage and fodder production which also influence product quantity and quality.

#### **4.1.2. Cattle Holding**

In the study area cows are considered as an important productive natural asset. Farmers in the study area rear varieties of livestock. Sheep, horse, chickens and Cattle are widely reared by the

community of the study area. General cattle herd size and distribution is indicated in Table 2. Mean total cattle holding size of the respondents is 9.90. The maximum and minimum cattle holding for the sample house hold were 6 and 19, respectively. From household survey about 66% and 27% of respondents owned 1 to 3 and 4 to 6 milking cows, respectively. Only 6.4% of respondents owned greater than 7 milking cows. The mean milking cows holding of sample household was 3.39 and the maximum and minimum milking cow holding for the sample household were 1 and 8, respectively. The households kept different cattle herd compositions. Hence, the response of the respondents on cattle herd composition per household indicated that mean cattle herd composition of sample household of calf, cow, ox, bull, and heifer was 1.45, 3.39, 2.93, 0.81, and 1.33, respectively.

**Table 2: Mean Livestock Holding Distribution of Sample Household.**

	<b>Type of livestock</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>
1	Calf	<b>1</b>	<b>3</b>	<b>1.45</b>
2	Total Milking cow	<b>1</b>	<b>8</b>	<b>3.39</b>
3	Local Milking cow	<b>0</b>	<b>7</b>	<b>2.87</b>
4	Cross Milking cow	<b>0</b>	<b>4</b>	<b>0.82</b>
3	ox	<b>1</b>	<b>6</b>	<b>2.93</b>
4	bull	<b>0</b>	<b>4</b>	<b>0.81</b>
5	Heifer	<b>0</b>	<b>4</b>	<b>1.33</b>
6	Total Cattle Size	<b>6</b>	<b>19</b>	<b>9.90</b>

Source: Survey Analysis, December, 2014.

Besides holding size, source of milking cow is crucial to manage, and produce diary products and also it has influence on kind of product gain from each milking cows. Means of milking cows is a kind of consensus made between the owner and the renter either in cash or as share product. This tradition is known as “Rebi”, which has been practiced as a culture in the study area for a long time. In this tradition a consensus is made between a farmer, who have good economic status, and his fellow farmer who faces economic problem or lack of milking cows.

This traditional system is commonly practiced in the study area as a tool for strengthening their social linkage and to solve their economic problem through utilizing the products as food and income source. Such tradition also imply the possible social advantages to share and exchange traditional know how in fostering formation of informal associations in the study area for the possible promotion of the product as GIs.

#### **4.1.3. Household Livelihood Characteristics and Means of livelihood**

Similar to many sedentary agricultural communities in Ethiopia, mixed farming is the dominant type of activity in the study area. The survey result showed that crop production and livestock rearing as major household livelihood activity that supports farmers both as source of consumption and income. Crops such as wheat, lentil, oat, barley etc were among the various cultivated crop types observed in the study site. Respondents also pointed out that selling of cattle products as other important household income source. More specifically, among various diary products produced by sample household milk and butter were identified as principal products that support the households' source of income (See Table 3 below).

**Table 3: Respondents Distribution by their first Rank of Diary product as Source of Income**

Type of Product	Count	Percent	Rank No.
Milk	72	65.5	1 <sup>st</sup>
Butter	34	30.9	2 <sup>nd</sup>
Cheese	4	3.6	3 <sup>rd</sup>
Total	110	100	

Source: Household Survey, December 2014

## **4.2. Characterizing Sheno Butter and Production System**

### **4.2.1. Producers' Perception on the Origin Linked Quality of Sheno Butter**

Promotion of origin linked products as GI to a large extent on local producers' perceptions toward the product quality, potential of specific local resources and the value of the product. Actually quality has both objective and subjective dimensions based on individual perceptions' related to the way of producing, preparing and consuming the product. Thus, as linked with the characteristics of Sheno butter, focus group discussion participants mentioned several aspects on the quality of the product. Specifically, they pointed out that Taste (original flavor), Aroma, color, Texture (soft and creamy) and medicine were the typical characteristics of Sheno butter that make the product unique and specific from other similar product. Quality of butter making is markedly influenced in the production process mainly by breed type and cow feed, material used for cleaning the equipments and production process. Participants of FGDs mentioned that quality of butter making is markedly influenced in each step in the production process starting from milking up to final production. Specifically, they pointed out that "Tosigne", which was used in the study area for variety of purpose had high contribution for the specific quality of the product. As it grows with grass it was used as cattle feed which provided good quality raw milk needed for butter production. In addition, farmers also used this species for washing of traditional milking and storage equipments. Focus group participants mentioned that as compared with other production equipments such as plastic and metallic made materials, home made traditional equipments used for production retained the taste of "Tosigne" and that gave the perceived specific quality of the product. Beside "weira" which is used for smoking of these materials also pointed out specifically as contributing factor for the specific quality of the product. Participants also mentioned that due to its high fat content local cow's milk was preferred for butter

production than cross cows milk which they believed to have profound effect on the mentioned specific qualities of the product. This indicates that breed type has also significant effect on the quality of the product.

**Table 4: Characteristics and Contributing Factors pointed out by Focus Group Participants**

<b>Specific Qualities of the Product</b>	<b>Contributing Factors</b>
✓ Taste	Animal feed – natural pasture mainly Tosigne
✓ Aroma	Breed type-----Local cow breeds
✓ Color	Production method and local recipes
✓ Texture	Traditional equipments used in production
✓ Medical quality	Material used for cleaning production equipments.....Tosigne and weira

Source: Focus Group Discussion

#### **4.2.2. Consumers’ Perception on the origin Linked Quality of Sheno Butter**

The possibility of activating GI system through promotion and protection of origin-linked products as a GI product also depends on the presence of some specific characteristics resulting in specific consumer demand. Accordingly, consumers believed that the product has substantial difference compared with other similar products. In fact, different objective or subjective specific characteristics can appeal to consumers for their perception on the quality of the product. They can relate both to intrinsic quality, and extrinsic attributes, related to subjective, material or symbolic assets. Similarly, they indicated that the product has substantial difference because it had specific quality, it is associated with the area, it is their cultural pride and it is popular. However, typicity of a product appears to be more important for consumers. As presented in the table below they pointed out the original taste, aroma, texture, color and shelf life time of the product as the specific quality of the product that determines the substantial difference of the product and influencing their purchase. On the other hand, Consumers mentioned that the

perceived specific qualities of Sheno butter was, associated with original inputs including local recipe of products ,traditional equipments, production/processing method, animal breed or varieties used in the production process that have long been practiced by farmers in the study area. Despite of the above argument, the consumers; however, mentioned that there has been an observable change in the perceived attributes of the product over time that is on taste and color.

**Table 5: Characteristics and Contributing Factors pointed out by Consumers**

<b>Specific Qualities of the Product</b>	<b>Contributing Factors</b>
✓ Taste	Traditional production method
✓ Aroma	Local recipes used in production process
✓ Color	Know how
✓ Texture	
✓ Long shelf life term	

Source: Consumers Interview

The finding showed that consumers and producers had similar perception on the specific quality and contributing factors for the perceived unique characteristics of the product. In fact, many people in the study area mostly eat products that come from their own farm or from the garden of relatives who live in the area. They also produced their own milk products. Thus, the perceived similarity on the characteristics of the product might be due to sense of belongingness as human being by nature did not need to undermine their own things. Alternatively this might be their common perception on it. Therefore, this question needs to be more deeply studied through the realization of a more specific marketing study and might also require further scientific test on it.

#### **4.2.3. Milk Processing and Butter Production method**

Milking system among respondents in the study area was entirely hand milking. Locally made traditional equipments was usually used for milking, storage and processing purpose. Among

them, “Elementuu” has been used in the study area for milking purpose. The equipment was woven from “Sibize” and “Sindedo” locally termed as “gitcha” and had various sizes. Out of these equipments used for storage/fermentation of milk, clay pot or “Ensira” which is locally known as “Etcho” was commonly used in the study area for butter making. All equipments used for milking and storage was washed before and after usage by local plants, mainly with “Tosigne” (*Thymus Serulatus*) and dried branches and barks of “weira” (*Olea africana*), respectively mainly to increase the quality of the product. (See Appendix A)

In the study area, the produced milk was traditionally processed to produce butter. Milk was fermented for 2 to 4 days in a clay pot (locally known as “Echo”). It has a capacity of holding about 4-10 liters of fermented milk. Butter is made from sour milk (ergo) which is thoroughly mixed by a stick with three finger-like projections at one end (locally called ‘Mesbekia’ in Amharic and ‘Erba’ in Oromiffa). About 7–10 litres of milk (2.5 girera—small gourd) is used in a single churn. Before churning starts, the Etcho or the clay pot was fully closed and covered with “keile and piece of cloth which are locally termed as “Buke” and “Langecha” to avoid wastage of milk during agitation. In order to prevent spontaneous break and crack of clay pot they placed the clay pot on comfortable straw case, then the sour milk is stirred for some time with “Mesbekia” and agitated by rocking the sour milk in the clay pot (Ensira) back and forth until milk fat is received in the form of butter which was checked either by the louder sound (a change in the pitch of sound) of the churn or opening the top cover of the gourd or clay pot. Formation of the butter grains is also checked through a hole (locally named “Tufisa”) made at the neck of the pot by inserting a piece of cloth and taking out a sample. About 1kg of butter is produced from 14 to 17 liters of milk, i.e. about 15.5 liters of milk is required to produce a kilogram of butter. The time taken to churn butter lasts from 90 to 120 minutes. After removing

the butter produced, the buttermilk is heated gently and slowly in a clay pot and is allowed to cool down and then separated into local cheese and whey. Whey is the last remaining residue in the traditional milk processing system which was used as a supplement to feeding calves.



Figure 4: Traditional butter making (Left) and traditional equipments- Right (“Elimetu” and “Etcho”)

*Source: Researcher Observation*

Despite, the fact that such traditional butter production method has been practiced for long period of time in the study area, focus group participants mentioned that there had been some changes in the production process. More specifically due to ease access for industrial made plastic and metallic equipments, producers substituted traditional equipment with these industrial by products and has now been widely utilized in the production process. Participants also mentioned that due to shortage of plant species mainly “Tosigne” that is required for cleaning equipments which was believed to be one of the significant local recipes for the perceived quality of the product is now substituted with other easily accessible materials like piece of clothe, sacks and sponges. During observation even in some farmers’ house it was further observed that some of important traditional instruments including “Eiecho” and “Eliemtu” were

kept out of use and hanged on the roof. Such changes further implies a probable change in the quality of the product as local recipes used in production process were one of the identified local resources that determine the perceived origin linked quality of the product and this would be again another challenge for the possible promotion of the product as GIs.

### **4.3. Opportunities and Challenges of Sheno Butter to be Promoted as a Geographical Indication Product: Current Status and Trend of Butter Production System**

#### **4.3.1. Cow Breed Type**

Local products often use traditional, endemic or specific locally-adapted species, varieties, breeds and micro-organisms. The promotion of such products as GI can help resist pressure towards the disappearance of genetic resources. In fact, the potential for engaging the value creation process depends on the availability of local resources, especially of the local production system that determine the origin linked quality of the product. One contributing factors in this regard is cow breed type as it determines both the quality and quantity of milk and milk products. Accordingly, most of the milk produced in the study area was both from Holstein Friesians crossbreeds and local cattle (Zebu) breeds. Holstein Friesians were the main breed for the cross breeds.



Figure 5 cross milking cow breed in the right and local breed in the left  
Source: Researcher field survey, 2014

As presented in table 6, Out of the total respondents, 63% and 85% of the households own one to three cross and local milking cow breeds, respectively and about 17% and 1% of them own four to six local and cross breeds respectively. The maximum cross and local milking cow per household is 4 and 7 respectively, while the minimum cross and local milking cows per household is 0.

**Table 6: Distribution of Respondents Milking Cow Holding by Breed Type.**

<b>Local Cows</b>	<b>Frequency</b>	<b>Percent</b>
Do not own	5	4.5
1-3	85	77.3
4-6	19	17.3
Greater than 7	1	0.9
<b>Total</b>	<b>110</b>	<b>100</b>
<b>Cross cows</b>		
Do not own	46	41.8
1-3	63	57.3
4-6	1	0.9
<b>Total</b>	<b>110</b>	<b>100</b>

Source: Researcher survey, December 2014

In terms of current possession of cows in breed type, the result indicate that local breed number holding dominates over cross breeds, on the hand, in the year between 1997 and 2006 E.c., the cross breeds in Kimbibit Wereda has increased by 40.5% due to modern extension service delivering while local cow number has increased by about 20%. Despite increase in number of both cow breeds, cross breeds milking cows almost increased twice. This is an indication for change of cattle breeds inclined more toward improved cattle species (See Figure 6 below). As it will be discussed latter in detail this has its own implication both in the quantity and quality of Sheno butter.

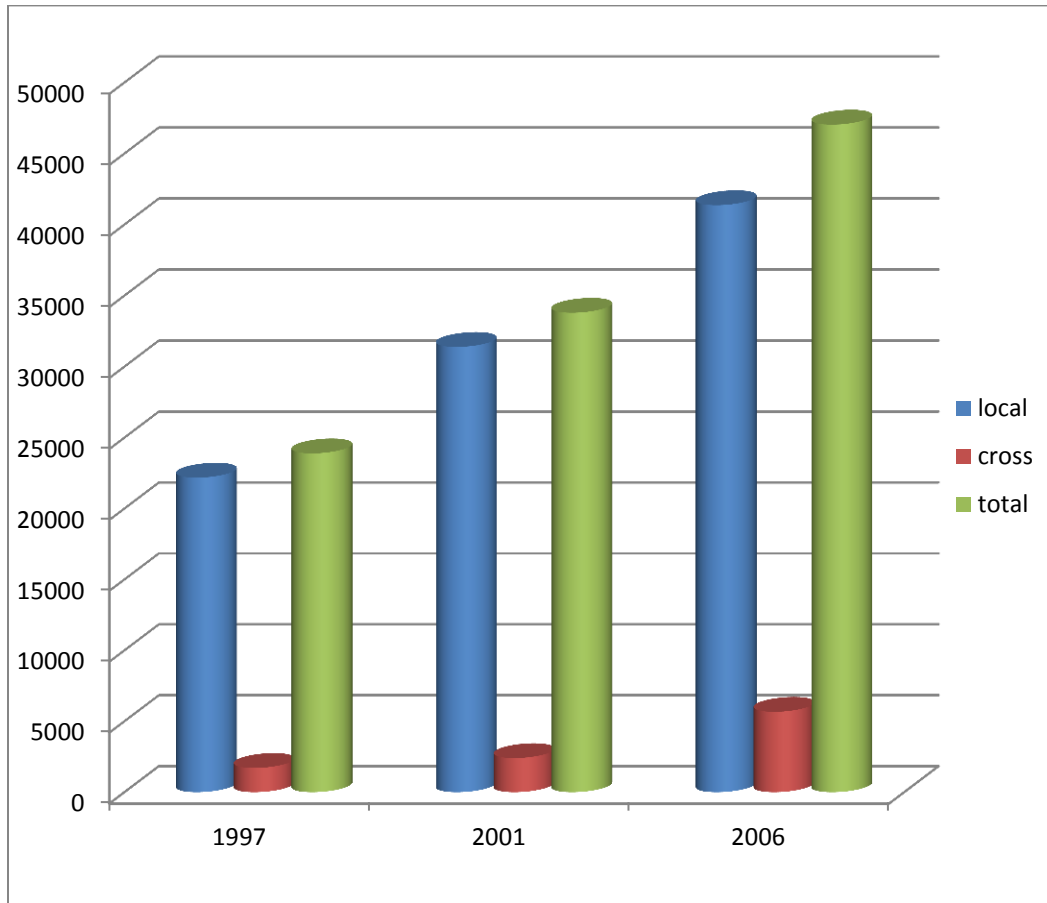


Figure 6: Trend of local and cross cow breeds number in Kimbibit woreda  
 Source of data: Kimbibit Agriculture and Rural development Office, 2014

One of the various strategy as expressed on agricultural led rural development policy is introduction of ‘new’ or ‘improved’ livestock breeds as a means to increase the productivity and production of livestock as the productivity of local breeds are low compared with cross or exotic breeds. Thus, farmers are likely to replace their less productive breeds (local), to more productive ones like the cross breeds. Actually, all respondents started keeping cattle with local breed; and reported that they have changed their local cows by cross breed since they kept. Reason for Changes of cow breeds have been driven by different factors based on their own objective.

Regarding the reasons for changing, as shown in the table below, to meet an objective of increasing amount of production was reported by 60% of the respondents as major factor for the change. Where as, 28.2%, 7.3%, 3.6%, of sample households reported that they were acting on advice from extension officers, disease prevalence and increase the quality of products, respectively.

**Table 7: Distribution of Respondents' Response of the Major Reasons for Change of Cow Breed**

<b>Major Reasons</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Advice from extension officers	31	28.2	28.2	28.2
Due to disease prevalence	8	7.3	7.3	35.5
To increase amount of production	66	60.0	60.0	95.5
Lack of labour	4	3.6	3.6	99.1
To increase the quality of products	1	.9	.9	<b>100.0</b>
<b>Total</b>	<b>110</b>	<b>100.0</b>	<b>100.0</b>	

Source: Researcher survey, December 2014

As a result, as indicated previously in table 8, farmers in the study area is now depends on both local and cross breeds for production of milk and milk products and this implies that the perceived qualities of Sheno better derived from local milking cow breed might be affected due to the inclusion of cross breeds for the specified reasons.

The implication on the reasons for the change in breeds related both on the quantity and quality of milk and milk products. It was noted that accompanied with advice from extension officers farmers are likely to replace and adapt more productive ones like the cross breeds toward achieving their personal objective of increasing amount of production and could possibly enabled both farmers and extension officers to achieve their objective. However, given the observed increasing trend of cross breed in the study area is likely to affect the quality of Sheno

butter as peculiarity of local breeds were perceived as one of the contributing local resource for the interstice quality of Sheno butter. The implication also goes on government agricultural policy which aimed at boosting productivity through introduction of exotic or cross breeds. Thus, as the success of GI required policy support, such emphasis of the policy on improved breeds contributed for the observed change in breeds and this could be great challenge for the possible promotion and protection of Sheno butter as it endanger the perceived origin linked quality of the product.

#### 4.3.2. Feeding Resource and System of Feeding

Feeding resources and system of feeding can also play an important role in determining the quality and quantity of livestock products. Table 8 shows major feed resources available in the study area. Natural pasture, crop residuals, Grass hey, cultivated forage and agro -industrial by products were pointed out by respondents as important available feeding resources.

**Table 8: Distribution of respondents by Type of Cattle Feed Resource**

<b>Feed Resources</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Agro industrial byproducts	10	9.1	9.1	9.1
Crop residuals	27	24.5	24.5	33.6
Cultivated forage	13	11.8	11.8	45.5
Grass hey	24	21.8	21.8	67.3
Natural pasture	36	32.7	32.7	100.0
<b>Total</b>	<b>110</b>	<b>100.0</b>	<b>100.0</b>	

Source: Survey Analysis, December 2014

Based on the availability, the majority of respondents use combinations of different feed resources. The feed resources used for cattle are natural pasture, crop aftermath and crop residues

(Wheat, “Teff”, maize, Pea, barley, etc.), crop aftermath, conserved fodder like grass hay, improved forages and agro industrial byproduct like “Fagulo” and “Sagatura”. In fact farmers in the study area produced feed either from own pasture, crop residues and crop aftermath or rent pastureland from other farmers either for free grazing and/or cut-and-carry feeding systems. Farmers also purchased feed from near by market like grass hey, oil seed cake and “Sagatura”. Though, improved forage production is not widely practice in the sample area, farmers also planted various forage species on crop land or around their homestead.



Figure 7: Hay transported to home from farming area  
Source: Researcher observation, 2014

Regarding feeding strategy, about 56% of the sample household practiced grazing only (free-range or tethered), about 38% mainly grazing with some stall -feeding (semi-grazing) and about

8% mainly Stall-feeding with some grazing. None of the respondents practiced zero-grazing (See Table 9).

**Table 9: Distribution of Respondents by Feeding System**

<b>Feeding System</b>	<b>Frequency</b>	<b>percent</b>
Only grazing	61	55.5
Mainly grazing with some stall feeding	41	37,3
Mainly stall feeding with some grazing	8	7.3
Only stall feeding	0	0
<b>Total</b>	<b>110</b>	<b>100</b>

Source: Survey Analysis

Change in cattle breeds have also been accompanied with change in feeding resource and feeding strategy in the study area. As the possible promotion of origin linked products as a GI depends on the availability and sustainability of local feed resource, one of the issues raised during focus group discussion was related with the trend of feeding resource and system. In the discussion it was indicated that farmers who have been doing only open grazing have changed their feeding system in to semi intensive methods of livestock feeding: mainly grazing with some stall feeding and stall feeding with some grazing. They had various reasons for these changes regarding feeding resource and system for keeping cattle. The focus group participants pointed out that change in livestock feeding strategies which are indirect indicators of livestock production systems has been due to pastures scarcity, decrease in decline in grazing land resulted from expansion of crop land, increased market demand and education or advice from extension officers. The implications for these changes on the production and product characteristics are many. Due to the increase in the number of farmers using grazing with stall feeding, there is a tendency to have more own farm production of fodder and increased use of forage. Farmers with

this system also display a great extent of crop and livestock integration hence can better replenish the nutrients in their farms through application of manure and growing of fodder. Change in feed resource and feeding system might also help in increasing production amount and productivity. However, the introduction of improved forage species as a result of farmers personal interest for increasing productivity and as alternative solution to overcome shortage of pasture scarcity as well as strict attention of farm extensions advice in line with the policy strategy for farmers on dissemination of improved species can endanger the specific feature of Sheno butter that derive from use of natural feed resource like “Tosigne”. In addition, due to the interest of farmers to diversify their income source through sell of “Tosigne” in the study area and the big demand of the species by consumers for medication endangered the species to extinct. For instance, it was observed that “Tosigne” which was perceived as one of contributing factor for the perceived qualities of Sheno is now disappeared from the study site. From this one can conclude that there is high possibility of farmers to practice and use other available resource and this would affect the perceived quality of the product and challenges the possibility of the product to be promoted as GIs.

#### **4.4. Respondents’ view on trend of cattle Production and Constraints.**

Milk is mostly used in a variety of ways as food and source of income: as fresh liquid milk, as yoghurt (Ergo), as butter (Kibe), as cottage cheese (Ayib), as buttermilk (Arrera) and as whey (Aguat). However there is variation among respondents on the objective to process and produce various milk products. As shown in Table 10 about 38%, 31%, 18% and 13% of respondents process milk for home consumption, for marketing (to increase the family income through sale), to increase shelf life of the product as limited milk marketing and due to surplus production of milk and to diversify products, respectively. From this it can be conclude that production of milk

and milk product has significant importance in the household livelihood both as home consumption and income generation.

**Table 10: Respondents Distribution by Major Objectives for Processing Milk**

Reasons	Frequency	Percent
For Consumption	42	38.2
To Generate Income	34	30.9
To Diversify Product	20	18.2
To Increase Shelf Life of the Product	14	12.7
Total	110	100

Source: Survey Analysis

The survey result showed that mean amount of butter production of sample household per week was 3.145kg. The maximum and the minimum of household amount of better production were 2kg and 4.5kg, respectively (See Appendix B). As indicated in the figure below, both milk and butter production in the year between 1997E.C. to 2006 E.C. has increased by 17.20 % each. This shows a parallel increment with the amount of both milk and butter production in the study area. The survey also showed similar result regarding to the trend of amount of household milk production. However, majority of respondents did not have similar view related to the trend of the amount of cheese and butter production. (See Table 11)

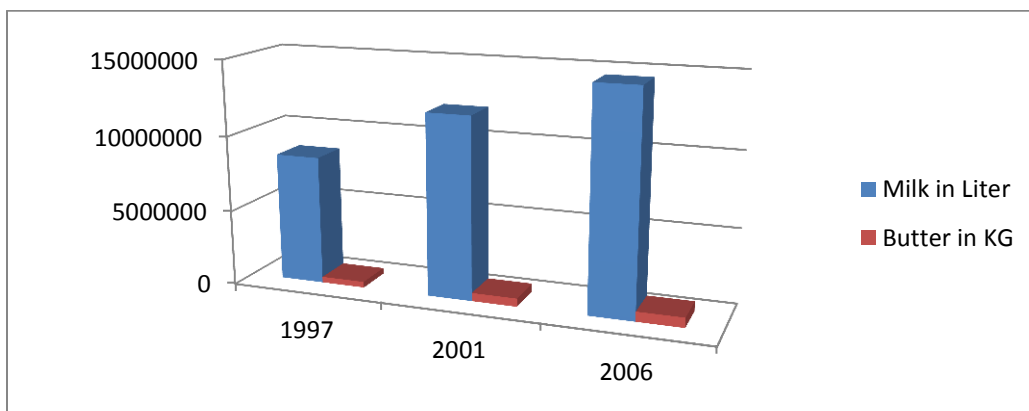


Figure 8: Trend of milk and butter production in Kimbibit woreda

Source of data: Kimbibit Woreda Administrative Office, 2014

The focus group discussion and interview participants mentioned technological interventions like change in breed, improved management of the dairy cattle, adaptation of improved forage and fodder production were among the factors which contributed for the increase of volume of milk production. However, due to recent practice of raw milk selling in the study site contributed to the reduction of processed milk products. Market related problems mainly expansion of counter fitted product that affected producers' initiation to produce butter also mentioned as other contributing factor for the perceived decline of butter production. This implies the expansion of alternative income generation from sell of raw milk could be a short cut means of income source for farmers as it gave relief for farmers from time consuming method of traditional butter production and to use labour and time for other activities. However, such trend might endangered the sustainability of traditional knowledge related to butter production in the future and might lead farmers to be limited and specialized more on raw milk and this in turn might damage the time memorial attachments of place name with Sheno butter for the sake of short means of economic benefit.

**Table 11: Respondents' View on Trend of Milk, Cheese and Butter Production**

Type of Product	Frequency			percent		
	Increasing	Decreasing	No change	Increasing	Decreasing	No change
Milk	93	9	8	84.5	8.2	7.3
Cheese	44	50	16	40.0	45.5	15.5
Butter	23	60	27	20.9	54.5	24.5
<b>Total</b>	<b>110</b>	<b>110</b>	<b>110</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Survey Analysis

Beside the above argument on trend of production of milk and milk product, respondents were further asked whether they are satisfied with the current amount of production of milk and milk

products. Accordingly, majority of respondents replied that they were not happy and satisfied with the amount of production. This was because livestock production in the study area is constrained by several factors. Related to this, respondents were again requested to distinguish the first most significant constraint for cattle production. (See Table 12) Similarly, respondents ranked grazing land scarcity as first major limiting constraints for cattle production. FGDs' participants' pointed out that population pressure, increase of livestock number, Conversion of grazing lands into crop farms and urbanization were factors contributed for the scarcity of grazing land. The overall total size of grazing land in the woreda has declined. It was noted that between 1997 and 2006, the land under pastures had declined by 7.7 % (See Appendix C) The total grazing land in the wereda in 1997 E.c. was 24,970, but during the survey period land covered with grazing was 22, 970 ha.

As grazing was main source of cattle feeding, scarcity of grazing land could be a limiting factor for provision of feed. In connection to this, respondents reported shortage of feed as the second major constraint for cattle production resulted mainly from grazing land scarcity. During FGD participants mentioned that the main feed resources for cattle production relied on private grazing lands. During field observation it was observed that feed resources were commonly managed in a traditional way and all species of livestock graze together and this could be additional contributing factor for the scarcity of natural pasture. This implies that the declining trend on grazing land and scarcity of cattle feed mainly natural pasture sources as it is one of the perceived determinants of quality of butter might push farmers to look for other available natural and improved feed resources and this would in turn affect both the quantity and quality of cattle products.



Figure 9: Cattle grazing in the study site  
Source: Researcher observation, 2014

Shortage of improved fodder/forage production improved dairy animals and disease prevalence were identified as other major problems by respondents. Insufficient land and lack of inputs such as forage seeds and high price of improved breeds were reasons mentioned as a limiting factors pointed by focus group participants for the perceived constraint related to shortage of improved forage production and improved dairy animals. Despite this, during field observation it was observed that different improved forage species were planted as pure stands or intercropped with crops in order to solve scarcity of food and increase production amount. Major observed improved forage species planted by farmers around their homestead and crop land includes Napier grass, “Wederbit” Guatumala grass, “Asendabo” Desho grass (*Pennisetum* spp. *Pedicellatum*), Elephant grass, and ott vago.

**Table 12: Distribution of sample household by number one reason for constraints of cattle production (N=88)**

<b>Major Constraints</b>	<b>Frequency</b>	<b>Percent</b>
Scarcity of land	33	37.5
Scarcity of feed	16	18.2
Shortage of improved fodder production	13	14.8
Shortage of improved animals	11	12.8
Animal health	8	9.1
Lack of working capital	7	8.0
Total	88	100

Source: Survey Analysis

In fact, similar to the benefits achieved from adaptation of improved dairy animals, improved forage species in the study area might brought significantly contribute for increasing amount of production in the study area. This might be regarded as positive consequence of such dissemination of technology as the current agricultural policy and local extension farmers strive toward increasing the production and productivity of livestock production. However, such strategy seems affect the perceived intrinsic origin linked nature of Sheno butter.

Moreover, the potential for engaging the GI system creation process depends on the will, motivation and capacity of the local community, and especially of the local production system, to coordinate their actions and promote the product collectively. In order to understand farmers' motivation and expectation on developing local product in the future, respondents were asked "do you want to further develop of traditional butter product production?" Accordingly, Despite the above identified cattle production constraints in the study area, all of respondents replied that they are ready to expend the production of their traditional local products they see it as a business opportunity there. This may also related with the economic importance that butter

production and selling have for household livelihood both as source of income and food. Respondents were further asked to specify available traditional/special elements for their expectation. Despite the observed dynamics in butter production system; particularly, cattle breed, feeding resource and strategy and local recipes which as discussed appeal most for the perceived specific quality and characteristics of “Sheno” butter, most respondents marked their perspective on the importance of the origin of raw materials to meet their expectation. As shown in the table below, about 39% and 36% of respondents specified traditional knowhow of production and breed variety (mainly local cows) as promising available resource, respectively. About 13%, 6% and 5% of them identified feeding resource peculiarities, cleaning materials and production equipments as other available resource for their motivation and interest for developing traditional butter production, respectively.

**Table 13: Respondents View on Available Resource for Developing Traditional Butter Production**

<b>Resources</b>	<b>Frequency</b>	<b>percent</b>
Peculiarities of traditional production technology	40	39.6
Peculiarities of local breed cattle	37	36.6
Peculiarities of original feed resource	13	12.9
Peculiarities of cleaning materials	6	5.9
Peculiarities of milking and storage materials	5	5.0
<b>Total</b>	<b>101</b>	<b>100</b>

Source: Survey Analysis

This indicates that though respondents mentioned on the availability of such resources for future production of traditional Sheno butter having its perceived qualities linked with its place of origin; however, taking in to consideration the dynamics in production system which would have

significant effect on the origin linked characteristics of the product would make difficult to say certainly that the product have such perceived origin linked qualities at this moment and will maintain to be in the future as well (See Table 14 below). Further more, even though the current agricultural policy recognized the importance of local resource and indigenous knowledge to meet the national objective of improving the life of rural areas on one foot on the ground principle, practically observed trend of dissemination of similar species for farmers found all over the country, however, implies the practical effort of the policy for bringing homogeneity on amount of yield at national level than providing support for promoting and protecting the originality of products linked with their place of origin. This could also be great challenge for associating the perceived qualities only with Sheno butter as such on size fit technological disseminations would be resulted in homogenization of all products characteristics. .

**Table 14: Identified Challenges and Factors that are Obstacle to the Origin linked quality Potential of the Sheno butter as a GIs.**

<b>Challenges</b>	<b>Contributing Factors</b>
Change in breed	Natural pasture and grazing land scarcity
Change in feeding resource and system	Expansion of crop farm land
Change in local recipes of production process	Extension farm advice
Change in traditional production equipments	Access to improved production inputs
Change in local plants used for cleaning	Ease access for industrial made equipments
Increased Use of production inputs( Raw milk and “Tosigin”)as alternative income source	Policy intervention strategy
Endanger of “Tosigne” to extinct	Need for increasing yield of production
Absence of farmers Association	Scarcity of “Tosign” species

Source: Researcher Data analysis

## 4.5. Characterizing Butter Marketing and Constraints in the Study Area

### 4.5.1. Characterizing Butter Marketing

The maximum and the minimum of butter amount allocated for sell by sample respondents was 4 and 2kg per week. The mean selling price of butter was 136.69 Birr per Kg with 130 and 145 Birr maximum and minimum selling price of the product, respectively (See Appendix B). In the study area women are responsible in selling the product at market places. Producers brought their product to the market places on specific days, namely Tuesday, Thursday and Saturday.

In the study area there are four main market areas. Of these market places “Hamusite Gebeya” is the nearby market for sample study site where most of the respondents sold their product. In the study area butter was sold simply on metal cup covered with a piece of leaf which is locally known as “Gulo”. But this can be difficult for consumers to differentiate these counter feited products from theirs which they believed have high reputation and specific quality.

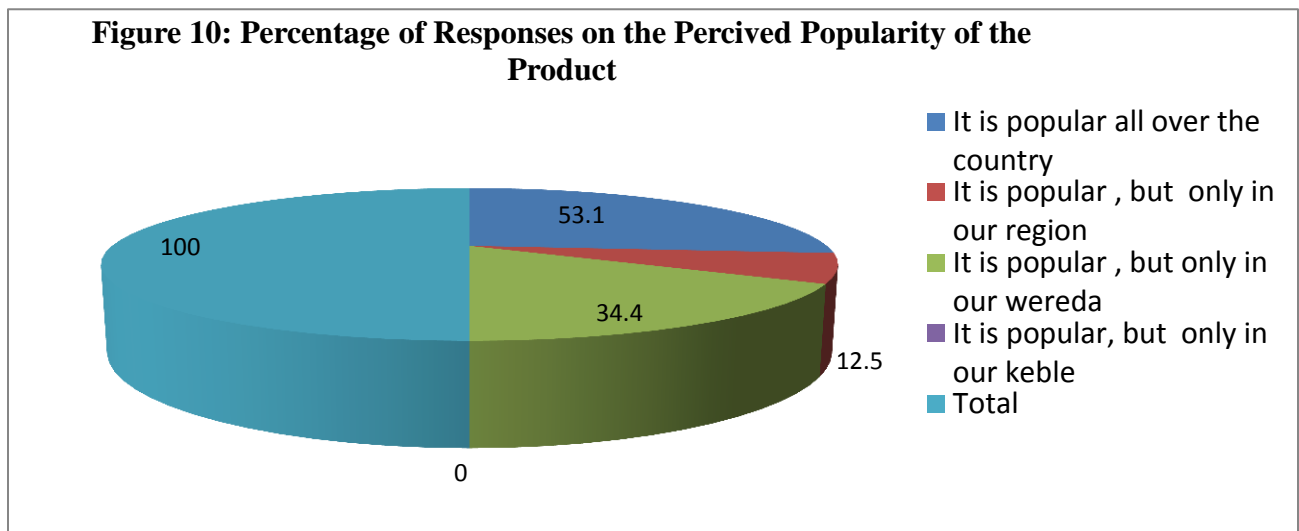
Majority of the respondents sold butter immediately to the market. Participants in the butter marketing chain in the sample area are collectors, producers, wholesalers, consumers and retailers. As indicated in table below, about 38%, 29%, 23% and 10% of the sample households sold their product directly to collectors, wholesalers, consumers and retailers, respectively.

**Table 15: Distribution of Respondent by Type of Product Recipient**

Product Recipient	Frequency	Percent	Valid Percent	Cumulative Percent
Collectors	42	38.2	38.2	38.2
Consumers	25	22.7	22.7	60.9
Retailers	11	10.0	10.0	70.9
Wholesalers	32	29.1	29.1	100.0
<b>Total</b>	<b>110</b>	<b>100.0</b>	<b>100.0</b>	

#### 4.5.2. Product on Market and Market Related Constraints.

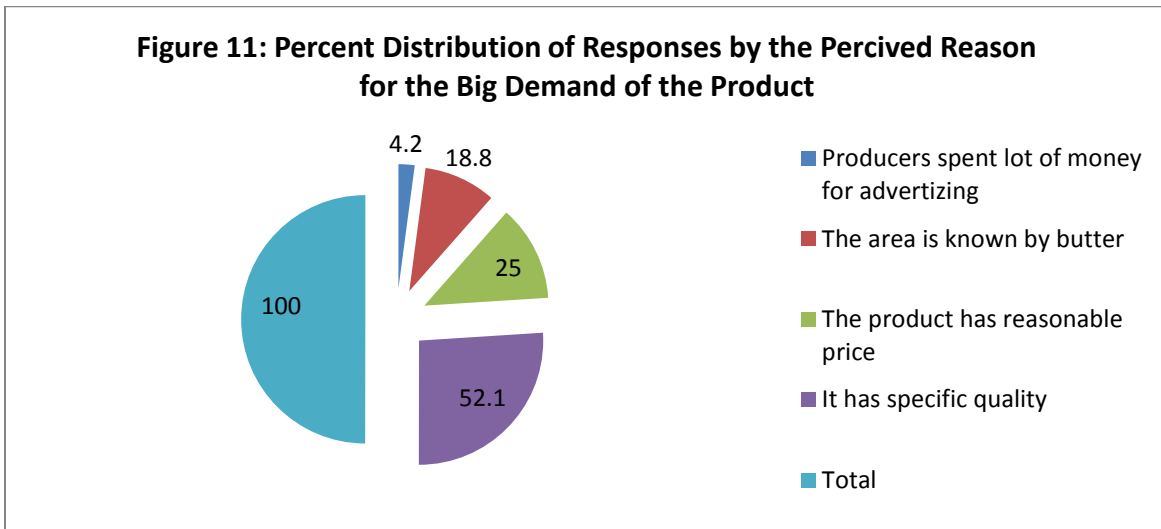
Perception on the product linked to its reputation and its recognition in the market is also important for the success of the product in the market. Related to this, the survey result showed that majority of respondents perceived that their product was popular and had great demand among consumers. Only 5 % of the total respondents did not so. Regarding to geography of popularity more than half of the respondents reported that the product was popular throughout the country. 34.4% of the respondents considered that it was popular but only in Kimbibit wereda. Where as 12.5 % of producers reported that the product was popular only at regional level. (See Figure 10) the difference in the perceived popularity of their product might be due to their personal exposure to varied customers.



Source: Survey Analysis

Respondents had various reasons for their argument on the popularity and big demand of the product among consumers. Answers to this question must be of particular interest for producers: (See Figure 11). Regarding the differentiation in the market, typicity is an important feature to consider; meaning in order to win popularity, the product must be of high quality. This opinion

was shared by 52.1% of respondent, whereas 25% of respondents considered price factor (affordability) as a guarantee for its demand. 18.8% of producers have marked that the area is known trademark by this product as a reason for high demand. Other factor was assessed as having less importance. And only slightly more than 4.2% of respondents think their own success is linked to successful advertising. Thus, their perception showed that specific quality of the product that resulted mainly from cattle breed variety and production technology provided high reputation and demand by consumers.



Source: Survey Analysis

All respondents were actually local small-holders who produced and sold their product in traditional way. Thus, constraints in butter marketing were also assessed using the semi-structured questionnaire. Accordingly, the survey result showed that respondents had different marketing problem (See Table 16). Out of the total respondents, 30% indicated that fluctuation of price between different seasons as the major problem. In FGDs participants pointed out that the price became more severe during and after fasting season and festivals.

The behavior of other producer can benefit or damage the reputation of a product on the market. It can be damaged by other producers using the name without respecting the principles that made the product typical and valuable. In connection to this, 45% of respondents' ranked expansion of counter feited product from different areas that are sold as Sheno butter as second major market problem.



Figure 12: Butter market on periodic Marketing Centre on Thursday  
Source: Researcher observation, 2014

Focus group participants also explained that they had more and more difficulties to sell their products at a reasonable price due to these counter-feited products. Other market related problem indicated by respondents includes lack of market information, lack of access to market and fluctuation of consumer demand.

**Table 16: Distribution of Sample Household by Number One Reason for Constraints of Butter Marketing.**

Major Constraints	Frequency	Percent
Fluctuation of price of product	34	30.9
Expansion of counter-fitted product	26	23.6
Lack of market information	21	19.1
Lack of access to market	17	15.5
Fluctuation of consumer demand	12	10.9
<b>Total</b>	<b>110</b>	<b>100</b>

*Source: Survey Analysis*

The above discussion on marketing in general implies that the traditional way of butter marketing system is characterized by several problems. Above all despite the producers' and consumers' perception about quality of the product and the determinant factor of it as the existing reputation on the market, farmers are really worried and have more and more difficulties to sell their products at a fair price because of the cheap counter fitted butter produced by other. This problem might be absence of any means used by producers to differentiate the product from other on the market and which affect its reputation. Such market constraints may suggest the need for informational campaign and market differentiating mechanism to solve the identified market related problems. In fact, spreading information about products as a GI could possibly influence volume of production, its demand, competitiveness and existing reputation of the products. However, such informational campaign would be best market mechanism only if the product can signal its origin linked quality attributes in the market. However, considering identified challenges and temporal dynamics in production input needed for butter production in the study area, GIs could not be best market mechanism for producers to differentiate their product on the market as the observed dynamics marked the uncertainty in the perceived origin linked characteristics to signal these attributes in a sustainable way in the market as a GI Product.

## **CHAPTER 5: CONCLUSION AND RECOMMENDATION**

### **5.1. Conclusion**

Geographical Indications become major concern of developed and developing countries as a legal and economic tool for the development of rural areas. Taking the economic and social benefit accrued associated with protection of GIs, available studies suggest for engaging in this IP right at national level. However, given multiple environmental crises and dynamics in production system, it is important to examine the opportunities and challenges of origin linked livestock products for the possible accrued developmental benefits of GIs. In light of this fact the study explored the opportunities and analyzed challenges of Sheno butter for the possibility to be promoted and protected as a Geographical Indication product. More specifically, as Geographical Indication is a new, less-explored and researched topic, the main questions were: Does Sheno butter has origin linked quality and possible potential to be promoted and protected as a GIs? Consequently, the major finding of the study are summarized and concluded in line with basic questions raised here under.

The study revealed that both consumers and producers had similar perception on the quality of the product linked with its place of origin. The study specifically identified that taste, color, aroma and texture were commonly perceived origin linked quality of the product, and that breed type (local cow breed), natural feeding resource (mainly Tosign), traditional production equipments (Etcho and Ellimetu) and materials used for cleaning and smoking (“Tosign” and “weira”) as well as traditional knowledge or know how in the production process were perceived as major contributing factors for attaining such unique characteristics. Despite of producers and consumers perception on the quality of the product, the study; however, revealed that due to

various factors butter production system in the study area seems changed. The major contributing factors identified in the study for the observed change in the production system are mainly associated with local farm extension expert support in line with the strong agricultural policy emphasis towards increasing dairy productivity through dissemination of improved technology accompanied with farmers own interest of increasing productivity and scarcity of production inputs including grazing land and natural feed resource and threat of “Tosigne” species, and that pushed farmers to utilize new production inputs. As a result of this butter production system in the area at this movement has lost its linkage with its place of origin, and these the perceived origin linked qualities of the product has significantly changed.

To conclude, literatures suggest that the economic rationale of protecting geographical indications derives from the fact that the presence of strict link between the people, the product and place of origin that may be captured as quality attributes. However, considering the existing policy emphasis directing towards increasing amount of production through dissemination of improved technologies and practically observed trend of dissemination of similar technology all over the country, such an intervention strategy led towards homogenizing of agricultural products both in terms of quality and quantity; there by blurring the perceived origin linked qualities of the product and challenges the possibility of Sheno butter to be promoted as GIs.

Furthermore, as discussed in the previous chapter, a group of producers is essential to convert a weakness in to strength and develop an efficient strategy to promote the products as GIs. Despite of producers’ motivation to promote the product collectively in the future, absence of collective association among butter producers at this moment; however, represents again a major obstacle for the possibility of promoting the product as a GI.

Generally, given the observed change in production system, local recipes used in the production process and lack of strong policy support, the study thus conclude that promotion of Sheno butter as a Geographical Indication appears uncertain at this moment and can not be best option for the sustainable socio-economic improvement of farmers in the study area. But this does not completely mean that the product do not need of using differentiating mechanisms to promote the product on the market. In fact, considering the existing reputation of the product and farmers' strong motivation, may be some other possible alternatives to GIs can be used as a differentiating mechanism for supporting the economy of producers. An example of an alternative could be collective trade marking. However, this question needs to be more deeply studied through the realization of the concept of collective trademark and more specific marketing study.

## **5.2. Recommendations**

In considering the findings of the study, it is important to bear in mind that the data collected for this research is based on a representative samples from one study site found in the study area. Therefore the results may not represent wider population of the study area. Nevertheless, as GI is a new concept in Ethiopia, this study can still give a relatively good first overview on the characteristics of butter production system in the study area and existing challenges for possible promotion of the product as Geographical Indications. Based on the findings of the study, it is recommended further scientific test to be carried out to in clarifying the specific contribution of these identified local recipes and resources as linked with each aspects of perceived origin linked attributes of the product.

Moreover, the study found out that dynamics in production system resulted from various factors including farmers' own interest to increase amount of production, agricultural experts' advice

derived from policy intervention strategy, ease access for industrial made production equipment, scarcity of natural pasture and grazing land etc. Thus, considering the effects of all these factors on eroding the origin linked quality potential of the studied product as GIs, it is; therefore, reasonable to recommend that adequate consideration and studies needs to be taken by research centers and policy makers for further understanding of these and other possible obstacle as well as challenges for adopting a similar GI system at national level as an effective developmental tool for improving the socio-economic condition of rural areas in a sustainable way.

Finally; the study further recommend that Ethiopian Intellectual Property Office should carefully analysis on cost incurred in association with the implementation of protection system for GI products and should work together with environmental protection and Agriculture and rural development offices for maintaining potential traditional origin linked products for achieving the full developmental dynamics of GIs. Technologies that not only increase yield but also substantially maintain and improve product quality are needed. Therefore, it is recommended to integrate the promotion of yield enhancing inputs together with conservation activities of origin linked qualities of products.

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## Appendices

### APPENDIX A: Perceived Reasons on production equipments and materials used for Cleaning

Reasons	Frequency	percent
To give the product unique flavor and aroma	81	73.6
It is the tradition of the society	17	15.5
To increase shelf time of the product	12	10.9
<b>Total</b>	<b>110</b>	<b>100</b>

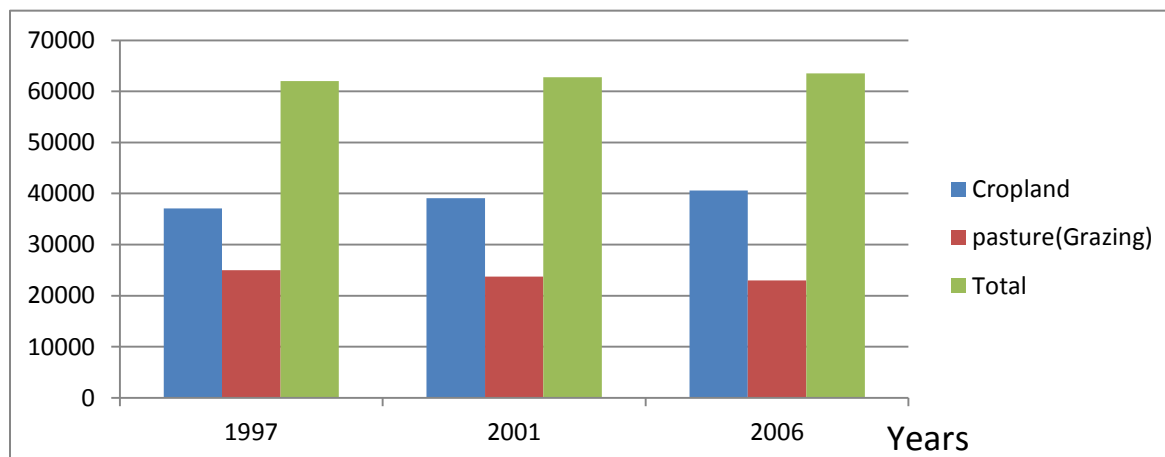
Source: Survey Analysis

### APPENDIX B: Mean Distribution by Amount of butter production, Selling Amount and Price

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Amount of Butter Production per Week	110	2.0	4.5	3.145	.6818
Amount of Butter allocated for Sell per Week	110	2.0	4.0	2.845	.6523
Selling Price of Butter per kilo	110	130	145	136.69	4.906
Total	110				

Source Survey Analysis

### APPENDIX C: Trend in the Number of Milking Cow and Cattle in Kimbibit Woreda



Source: Woreda Agricultural and Rural Development Office Official, 2014

**APPENDIX D**

**Household Questionnaire**

**Addis Ababa University**

**College of Social Science**

**Department of Geography and Environmental Studies**

Date \_\_\_\_\_

Personal Code No \_\_\_\_\_

Name of Enumerator \_\_\_\_\_

**Dear respondents,**

This questionnaire is designed to collect data that are intended to investigate the possible market-oriented opportunities and challenges for promoting Sheno butter as a Geographical Indication. To achieve this purpose your response to the questions presented below has great value. Thus, you are kindly requested to read and respond clearly and genuinely. Thank you in advance for your cooperation for giving your response.

- **Please give your response by encircling that you think is the most appropriate where it is necessary.**

**1. Demographic and Socioeconomic Characteristics of Respondent**

1.1. Sex: Male ----- Female -----

1.2. Age: ----- years

1.3. Marital status: 1, Single 2, Married 3, Divorced 4, widowed 5. If other please specify ----

1.4. Level of education: 1, illiterate (unable to read and write) 2, literate (able to read and write)

3, Primary (1 – 6) ----- 4, Junior (6-8) -----

5. High school (9-12) 6, college or university complete

1.5. Size of your household \_\_\_\_\_

1.6. What are /is the major means of household livelihood?

1. Crop production 2. Livestock production 3. Petty trade

4. On farm employment 5, off farm employment

6. If other please specify \_\_\_\_\_

1.7. Which of the following specific cow products contribute to your household income?  
Please rank them.

Type of product	Rank no.	product
Milk	1 <sup>st</sup>	
Cheese	2 <sup>nd</sup>	
butter	4 <sup>th</sup>	

1.8. Are you a member of any cooperative? 1. Yes 2. No

1.9. If your answer for Q.1.8 is “Yes”, what is the name of the cooperative \_\_\_\_\_

1.10. Do you have cattle? 1. Yes 2. No

1.11. If your answer for question 1.10 is ‘yes’, what type and number of cattle do you have currently? Please, fill your answer in the following table

	Type of livestock	Number		Type of livestock	Number
1	Calf		4	Heifer	
2	Milking cow		5	Bull	
3	Ox				

1.12. Do you own farm land? 1, yes \_\_\_\_\_ 2, no \_\_\_\_\_

1.13. If the answer for question number ‘1.12’ is ‘Yes’, please specify size of crop land you have currently? \_\_\_\_\_

1.14. If the answer for question number ‘1.12’ is ‘Yes’, please specify size of grazing/pasture land you have currently? \_\_\_\_\_

1.15. Did you have access to communal grazing land? 1. Yes, 2. No

## 2. Perceptions on Cattle production and keeping Practice

2.1. Which cow breed(s) did you keep first? 1. Cross breed 2. Pure breed

3. Local breed 4. Other specify \_\_\_\_\_

2.2. If yes, please specify number and type of milking cow breeds you are keeping now.

Type of breed	number
local breed	
cross breed	
Pure breed	

2.3. What is the source of milking cows you have? 1. Own 2. Rent 3. Shared

4. Other (specify): \_\_\_\_\_

2.4. Have you ever changed the breed(s) since you started keeping cows?

1. yes 2. No

2.5. What is your major reason for the change?

1. To increase milk production      2. Due to disease prevalence      3. Lack of labor  
 4. Shortage of feeds      5. Advice /education from extension officers  
 6. To increase the quality of milk and milk products  
 7. Other (specify) \_\_\_\_\_

2.6. What is your main system for keeping your cattle?

1	Only grazing (free-range or tethered)
2	Mainly grazing with some stall feeding
3	Mainly stall feeding with some grazing
4	Only stall feeding (zero grazing)

2.7. What is the major feeding resource of your cattle?

1. Natural pasture      2. Crop residuals      3. Grass hay  
 4. Improved forage/fodder      5. Industrial byproducts

2.8. How do you see the trend of amount of production of milk and milk product? Please indicate your response as you perceived whether it is increasing, decreasing or no change in the past 10 years in the table below

Cow product	Increasing	Decreasing	No change
Milk			
cheese			
butter			

2.9. If you answer for question 2.8 is 'increasing' for each product, please give your reasons for it?

\_\_\_\_\_

2.10. If you answer for question 2.8 is 'decreasing' for each product, please give your reasons for it?

\_\_\_\_\_

2.11. Are you satisfied with the amount of production of milk and milk products you produce now?      1. Yes      2. No

2.12. If your answer for question 2.11 is “No”, What cattle production constraints do you have on your farm? Please put your response in a rank in the space provided. (1= most severe, 2= second severe and etc.)

No.	Reasons	Rank
1	Shortage of improved diary animal	
3	Scarcity of animal feed	
4	Scarcity of pasture land	
5	Disease of animals	
6	Shortage of working capital	
7	Shortage of improved diary animal	
8	Other specify_____	

### 3. Butter production and marketing System

3.1. Do you process raw milk which you produce in to other product? 1. Yes 2. No

3.2 If your answer for question 3.1 is “Yes”, for what purpose do you process row milk? please select your most appealing objective.

1. For generating Income
2. For home Consumption
3. To increase shelf life of the product
4. To diversify products
5. other(specify)\_\_\_\_\_

3.3. What kind of material do you commonly use for milking, storage/fermentation and processing

1. Traditional equipment
2. Plastic equipment
3. Metallic material
5. If other, please specify\_\_\_\_\_

3.4. What do you use for cleaning the material you use for production and processing?

1. Local plants
2. Piece of cloth
3. Piece of sack
4. Piece of foam
5. If any please specify\_\_\_\_\_

3.5. Why do you prefer to use these materials you chose for questions “3.3” & “3.4”?

1. To improve the quality of milk and milk products.
2. To increase shelf life of the milk
3. It is the tradition of the society
4. I do not have special reason
5. If any please specify\_\_\_\_\_

### Percptions on Butter Marketing

3.6. How much killo of butter on average do you produce per week? \_\_\_\_\_

3.7. How much Kilo of butter did you sell per week from total production? \_\_\_\_\_

3.8. To whom did you sell most of your butter?

1. Consumers
2. Retailers
3. Wholesalers
4. Brokers
5. Institutions (hotels, Universities, etc )
6. Cooperatives
7. Exporters
8. Others (specify\_\_\_\_\_)

3.9. Where did you sell your product?

1. In market place
2. At home
3. In shop
4. At farm gate
5. Home to home
6. If any please specify\_\_\_\_\_

- 3.10. How much is your current selling price of butter per kilo? \_\_\_\_\_
- 3.11. How do you assess the trend of the price of butter per Kg in the past 10 years?  
 1. Increasing    2. Decreasing    3. No change    4. I don't remember
- 3.12. If you answer for question 3.11 is 'Increasing', what do you think is major reason for it?  
 \_\_\_\_\_
- 3.13. If you answer for question 3.11. is 'Decreasing', what do you think is major reason for it?  
 \_\_\_\_\_
- 3.14. What is/are the constraints of butter marketing problem you have? Please rank them as most constraint.
1. Fluctuations of the price of product                      3.Lack of access to Market  
 4. Lack of market information                                5. Expansion of counter-fit product  
 6. Fluctuation in consumer demand  
 10. Others (specify)\_\_\_\_\_

#### **4. Perception on Butter Characteristics**

- 4.1. Do you think that your product is substantially differing from similar products?  
 1. Yes, it is has substantial difference                      2. No, I don't think so

**N.B. Please, proceed to the rest of the question only your answer for question "4.1" is "YES, IT HAS SUBSTANTIAL DIFFERANCE"**

- 4.2. Why in your opinion the product is unique, specific?, It is because,
1. the area is associated and known by this product                      2. It is very popular  
 3. it is produced based on original local resource  
 4. It is a historical (cultural) pride of the area    5. It has high quality  
 6. if other, specify\_\_\_\_\_
- 4.3. What specific qualities does it acquire?  
 1 Taste    2. Color    3. Medical    4 smell    5. texture                      6. Shelf life term  
 7. if other please specify\_\_\_\_\_
- 4.4. What specific local resource resources do shape for the product specific character your product?  
 1. Cultural traditions, including recipe, production technology, etc.    2. Feed of cows  
 3. Climatic conditions                      4. Soil    5. Water quality    6. cow breed  
 7. if other please specify\_\_\_\_\_

- 4.5. Is the product also produced by other producers (having similar quality/specificity)
1. There are many other producers in the country
  2. There are producers in our Wereda
  3. There are many other producers even in neighboring areas
  4. There are producers only in our kebele
  5. I am the only producer of this product
  6. It is difficult to answer

4.6. Is there any union or association of product producers lobbying your interests?

1. Yes
2. I do not know any
3. No
4. There is an intention to create such union/association

4.7. If your answer for question 4.6 is yes please specify\_\_\_\_\_

### **Product characteristics on Market**

4.8. Do you think that your product is popular or have big demand among consumers?

1. Yes
2. No

4.9. If your answer for question 4.8 is “Yes”, how do you assess your product popularity?

1. Very popular, but in our kebele only
2. Popular all over Ethiopia
3. Very popular, but in our wereda only
4. Popular not only in Ethiopia, but also abroad
5. Popular, but in our region only

4.10. In your opinion why do consumers give preference to your product? Please choose the one that you think appeal most for the consumer?

1. Due to product quality
2. Our area is famous in butter
3. The product has reasonable price
4. I spent a lot of money for product advertising
7. Other (please specify)\_\_\_\_\_

4.11. In your opinion why do you think of the main reason for low demand of the product by consumers? Please choose the one that you think appeal most for the consumer?

1. Consumers have little information about this product
2. It is too expensive
3. It is not available as it is produced in small quantities
4. Consumers have doubts as to its quality
5. Other (please specify)\_\_\_\_\_

4.12. Would you like to expand your traditional butter production and selling?

1. Yes, it seems to be a promising business
2. No, I do not see any perspective in it

4.13. If your answer for Q.6.6 is “Yes”, please specify available special resource of your production technology?

- |  |  |
|--|--|
| 1. Original cattle feed resource       | 2. Modern system of production process |
| 3. Traditional production processes    | 4. Milking/Storage peculiarities       |
| 5. Peculiarities of cross breed cattle | 6. Local breed cattle                  |
| 7. If other, please specify_____       |  |

4.14. If your answer for question 4.13 is “No”, what are the obstacles?

\_\_\_\_\_

**THANK YOU!!!!!!!!!!**

## **APPENDIX: E**

### **QUESTIONS FOR FOCUS GROUP DISCUSSION**

#### **I. Cattle production system, Trend and Constraints**

1. Can you describe the over all condition of cattle production system?
2. What are your views on cattle feeding system? What was it like in the past 10 years? Do you believe that there has been change in the past 10 years? What are the major changes you observe and what do you think is/are reasons for the change?
3. What can you say in general about the major available cattle feeding resources? What were major feed resources in the past 10 years? Do you believe that there has been any difference in kind of feeding resource you provide compared with the past? What do you think the reasons for these changes?
4. Can you say about the trend of cattle number and breeds? Do you think that there has been change both in number and breed type? Why do you think are reasons for these change?
5. Can you tell me about the benefits you get from your cattle in terms of economic and social advantage? How do you describe about the amount of production milk and milk products? How do you see production amount in the past 10 years? And what are reasons for your observation?
6. Are you satisfied with the current amount of cattle production? Do you think that there are cattle production constraints? What are these constraints and why?

#### **II. Butter characteristics**

7. Can you describe about the characteristics of the product? (Ingredients, taste, shape, colour...)
8. Can you tell me about the method of butter production?
9. Do you think that your butter has substantial difference from other similar products? In your opinion what makes your product specific and unique? What do you think contributed for such characteristics of the product? Where did you get it from?
10. How do you see amount butter allocated for sell from total production? What about price of butter? Do you think there is change in the past 10 years? Can you describe about butter marketing and participants? What market constraints do you encounter and why?

11. Where do you sell your product? How are you promoting your product on the market? Do you have any means of differentiating your product from others in the market? If so, how?

### **III. Expectations and perspectives for the future**

12. What are your expectations for the future in terms of production? To develop your activity, sell more products, produce new products, to work collectively, etc?
13. Do you think you will reach your expectations? If no, why? Which obstacles do you think you will face? If yes, which resources are you going to use? (Original raw materials, production methods, labour, animal variety or breed...)
14. Do you know any other producer of such product? Are you collaborating with them (exchange of equipment, ideas...)? Is any association for dairy production? Are you a member of these associations? If yes, what are the name of association and its objective? Do you have any support from government?

***Thank you for giving me your time and valuable information!!!***

## **APPENDIX: F**

### **INTERVIEW GUIDE WITH CONSUMERS**

1. How many types of butter product do you know? Do you think that Sheno butter has substantial difference from other similar products sold on the market? Why?
2. Can you describe the specific qualities of Sheno butter? Why makes do you think the product to have such characteristics?
3. Do you usually use Sheno butter? Which quality attributes of the butter appeal most to you?
4. Have you observed any change in the product characteristics? Which ones? Why?
5. Is any thing you want to say about Sheno butter?

## **APPENDIX: G**

### **INTERVIEW GUIDE WITH WOREDA AND KEBLE ANIMAL EXPERTS AND DEVELOPMENT AGENTS**

1. Can you tell a bit about the mission and vision of your office?
2. What kind of support do you usually offer for farmers to improve livestock production?  
What have you done to promote cattle production in your woreda?
3. What are the contribution of your intervention in terms of quantity and quality of products? What constraints do you encounter?
4. What is your perception on the characteristics of Sheno butter? Many producers believe that “Tosign” has important role for cattle production, what do you think about it and its availability? Why?
5. Are you familiar with the concept of Geographic Indications?
6. What do you think about promoting the product as a GI product?
7. Is there anything you would like to say before we end up our discussion?

**APPENDIX: H**  
**OBSERVATION CHECK LIST**

Date of observation \_\_\_\_\_ Place of observation (Addadimato Keble) \_\_\_\_\_

Equipment used \_\_\_\_\_ Site code \_\_\_\_\_

**1. The over all condition of livestock feeding resource and system of feeding.**

- Cultivated forages species and type,
- natural pasture,
- grazing area,
- grass hay,
- crop after math

**2. Topography of the study site,**

**3. cattle housing and manure handling**

**4. The over all market situation in Hamusite Gebeya**

- Market condition
- Butter marketing system,
- system of dealing

**5. Butter production method**

- Original raw material for production
- Equipments used for milking,
- fermentation/storage, and
- Processing
- Amount of milk required for production
- Time taken for processing