

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
INSTITUTE OF REGIONAL AND LOCAL
DEVELOPMENT STUDIES

*LIVELIHOOD DIVERSIFICATION AND LIVELIHOOD SUSTAINABILITY IN
THE PASTORAL LANDS OF ETHIOPIA: THE CASE OF KARRAYU AGRO-
PASTORALISTS IN GOLA AND GALCHA KEBELES OF FANTALLE
WOREDA.*

BY:

SILESHI MENGISTU

JULY, 2009

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ACRONYMS

CCF	Christian Children's Fund
FGD	Focus Group Discussion
FTC	Farmers Training Center
NGOs	None Governmental Organizations
WPDO	Woreda Pastoral Development Office
SPSS	Statistical Package for Social Sciences

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Abstract

The main purpose of this study was to explore the contribution of livelihood diversification in constructing sustainable livelihood. The focus was to investigate the motivating factors of livelihood diversification, to identify the groups that are engaged in diversification and to examine the groups that achieved success. Thus, in conducting the study the researcher selected Gola and Galcha kabeles of Fentale Woreda as a study area. Seventy-one households were selected as the subject of the study. Questionnaires were administered to the seventy one households, interview were conducted with eight key informants who have been selected based on their background knowledge about the issue. Focus Group Discussion was held with four groups of male and female participants. In addition to that, personal observations were undertaken in the study. Percentage and descriptive analysis were used to analyze the data .The findings indicated that, in the study area livelihood diversification is undertaken as a risk minimizing strategy. Though, households in the poor, middle, and rich wealth group were found to be engaged in cultivation as livelihood diversification, they are those households in the rich wealth group that could generate additional income from cultivation and build the capacity to deal with and recover from stress and shocks. Natural resources degradation associated with Population explosion and the expansion of farming are found to be major threats for the sustainability of cultivation as a livelihood in the study area .Thus, in order to ensure the survival of the people and avert the degradation of natural resources, environmental relieving mechanisms have to be designed. Building the human and physical capital of the study area can contribute a lot in this regarded.

CHAPTER ONE

1.1 Introduction

1.1.1 Background to the Study

Food security has been in the public eye for a long time. Starting from the 1970s it has taken a center stage in the development debate and it remained to be so (Maxwell, 2001). Interest in food security has waxed and waned overtime in response to the evolution of thinking about development more widely, and because of changes in the nature of the food problem in the real world.

While the 20th century marked the systematic eradication of famine from its traditional homes such as Russia, China, India, and Bangladesh; most of the sub-Saharan African countries which were self-sufficient at the time of independence changed from a net-exporter of staples to reliance on imports and aid in less than 40 years (Devereux, 2001). Despite remarkable changes at this point of time in the areas of agricultural production, transport and communications infrastructure, and humanitarian support, the region could not eradicate food crisis and chronic hunger (Devereux & Maxwell, 2001). Rather it has become the only region where the food insecure people are increasing from time to time and with highest incidence of food insecurity (Degefa, 2005). Devereux and Maxwell stated that:

More than 840 million people were undernourished in 1992. A growing proportion of these people- 26 percent in 1992, up from 11 percent in 1971 live in Africa due to a combination of deteriorating food security in that continent and improvements elsewhere notably South and East Asia (2001: 2).

In View of this depressing statistic, together with recurrent famines in the horn and the constant threat of food crisis triggered by conflict or

drought in other parts of Africa, prioritizing food security as a major agenda is a convincing case.

As far as the causes are concerned, Tekola stated that “the causes of the food crisis in Africa are as wide and varied and as numerous and complex as the countries of the region themselves” (1990: 9). The failure of SSA countries to feed their population is attributed to climatic shocks, mainly drought and subsequent water scarcity, resource degradation, bad governance and inefficient policies, wide spread epidemics and technological stagnation (Degefa, 2005).

Ethiopia is one of the sub-Saharan Africa countries with the most precarious long term food situation. Out of some 44 famine catastrophes, the country faced the “great famine”, which occurred by the end of the 19th century swept almost the whole territory of Abyssinia and its consequences were so destructive that it killed one-third of the total population, and 90% of the cattle (Pankhust, 1987). The 20th century famines of 1973/74 and 1984/85 could also result in devastating consequences. To its worst, the 1984/85 famine affected some 10 million peasants and spread itself throughout the country (Dessalegn, 1990).

Famine and mass starvation which have been quite common in Ethiopian history has become more recurrent in this century than in previous ones. To this effect Devereux explains that:

Since the mid 1970s, the label ‘land of famine’ has resided exclusively in Ethiopia and Sudan, and the Horn of Africa remains the last corner of the world where a famine seems destined to occur at least once every year (2000:17).

On the basis of agro-ecology and the major sources of livelihood, there are two famine prone areas (Degefa, 2005). The highland regions dominated by sedentary mixed farmers which includes some parts of North Shoa, south Wollo, North Wollo zones, and some parts of Tigray

regional state; and the arid and semi-arid areas where pastoralism and agro-pastoralism are the main sources of survival. This covers some parts of North Shoa, the entire Afar and Somali regions, low lands of East Hararghe, Borana and Bale zones and some parts of southern Nations Nationalities and people's Region.

These arid and semi-arid areas, inhabited by the pastoral and agro-pastoral communities are the most food insecure environments where drought is the major recurring risk (Swift & Hamilton, 2001). In such an environment where uncertainty is the major problem, production of both crops and livestock is highly dependent on the ability to be flexible, to adapt to changes as they occur and to spread risks. However unlike their long history of environmental adaptation and endured survival, the Ethiopian pastoralists in general are facing acute food shortage (Tadesse, 2006). To use the words of Helland, "the once much admired, proud, self-contained and fiercely independent pastoralists are today conceptualized, particularly in the development lexicon as helpless paupers and perpetual famine relief clients" (2001: 13).

Studies on how poor households cope with food insecurity has highlighted the varied adaptations to changing environmental and social circumstances which households have at their disposal (Elliot, 2006). Livelihood diversification has been one of the mechanisms available to such households (Ellis, 1998).

In this regard pastoralists in general have long been involved in different economic activities and derive a significant portion of their subsistence from activities other than livestock rearing such as farming, migration to towns, wage labour, caravan trade, Crafts etc (Ayalew, 2001). In the case of Karrayu pastoralists, starting from the 1980s, they have been engaged in other non-pastoral and new types of economic activities which they resort to when household income falls below the viability threshold and they have to find other livelihood.

1.1.2. Statement of the Problem

Food insecurity is not only a matter of lack of surplus food production at national level rather it could also be caused by the inability of livelihoods to guarantee access to sufficient food at household level (Devereux and Maxwell, 2001). Thus, food security constitutes a system of broader livelihood security and sustainability (Degefa, 2005), in which the management of risk and vulnerability are critical elements. Livelihood diversification as a means of achieving sustainable livelihood depends on the interplay between different factors. These include: the capitals required and available, the contextual setting, and the institutional arrangements (Swift and Hamilton, 2001).

A complex processes including development projects and the changing condition of pastoralism has resulted in the diversification of the pastoral economy and the involvement of pastoralists in non-pastoral activities (Ayalew, 2001).

Though the Karrayu are one of those pastoral groups undertaking livelihood diversification, there is no much knowledge as to the way pastoralism is diversified and whether this diversification has brought livelihood sustainability or not.

1.1.3. Objectives of the Study

1.1.3.1. General Objective

The general objective of the study is to examine the ways pastoral livelihood is diversified and their contribution to livelihood sustainability in the case of Karrayu pastoralists living in Gola and Galcha kebeles of Fentale Woreda.

1.1.3.2 Specific Objectives

- ❖ To study the causes of livelihood diversification in the study area .
- ❖ To study the contribution of livelihood diversification in achieving livelihood sustainability in the study area.
- ❖ To study which group of the society diversified its livelihood in the study area.
- ❖ To study which group of the society benefited from livelihood diversification in the study area.

1.1.4. Research Questions

- ❖ What are the factors leading to livelihood diversification in the study area?
- ❖ Which group of the society engaged in livelihood diversification in the study area?
- ❖ Which group of the society benefited from livelihood diversification?
- ❖ Can the diversified livelihoods available to households bring about livelihood sustainability?

1.1.5. Significance of the Study

- ❖ It will assess the challenges and prospects of livelihood diversification as a way to livelihood sustainability in the study area.
- ❖ The finding of the research will serve as a stepping stone for development interventions in the area.
- ❖ The study will motivate other researchers to conduct further study on the topic

1.1.6. The Scope and Limitations of the Study

The scope of the study is limited to Karrayu pastoralists who are engaged in diverse livelihoods living in Gola and Galcha kebeles of Fentale Woreda.

As far as the limitation is concerned

- ❖ The remoteness of the area and shortage of the required time limited the effort to undertake intensive study.
- ❖ Since the researcher was a stranger to the study area he faced a challenge in accessing information within limited time frame.
- ❖ Since the researcher doesn't have the knowledge of the local language, the data collection process was dependent on interpreters

CHAPTER TWO

2.1. REVIEW OF RELATED LITERATURES

2.1.1. Conceptual and Analytical Framework

2.1.1.1. Pastoralism

Pastoralism can be defined as mode of perception as well as mode of production (Markakis, 1993). As a mode of production it can be defined as economic system in which livestock rearing is the dominant activity of the producers (Ali, 1992). In this system of production livestock and livestock related activities constitute 50% or more household gross revenue.

Pastoralism normally is undertaken in the arid and semi-arid regions, where rain-fed farming is unavailable due to shortage of rainfall (Sandford, 1983). Because of the climate, dispersed and scarce availability of resources like land, water and pasture the herding families are forced to move across regions and seasons (Ali, 1992). This pattern of movement varies among pastoral groups (Markakis, 1993). While some pastoralists move constantly and irregularly without any settlement, there are others who move regularly and seasonally, with permanent settlement.

This system of production has been affected by processes which include livestock marketing, diversification of pastoral economics, including expanded involvement of herders in wage employment and farming (Horowitz and Little, 1987).

2.1.1.2. Livelihood

The concept of livelihood has been used widely in contemporary works of poverty and rural development, but its meaning appears to vary in different sources (Ellis, 2000). The most cited definition states that “a livelihood comprises the capabilities, assets (including both material and

social resources) and activities required for survival” (Carney, 1998: 4). This definition emphasizes on the relation between the assets people have and the opportunities available to them to undertake a range of different activities (Toulmin et al, 2000). Thus, the definition overlooks the mediating factors that play a critical role in determining the livelihood activities and their outcome.

The following definition which is more comprehensive is adopted as the working definition for this study. It states:

A livelihood comprises the assets (natural, physical, human, financial, and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or the household (Ellis, 2000: 9)

This definition gives much emphasis to the notion of access and the role of social relations and institutions in determining the opportunity of households and individuals in their effort to achieve their living requirements.

2.1.1.3. Livelihood Diversification

In rural areas of low income countries since farming couldn't become a sufficient means of survival, households undertake livelihood diversification as an alternative way (Ellis, 1998). Rural livelihood diversification is defined as ‘the process by which rural households construct an increasingly diverse portfolio of activities and assets in order to survive and to improve their standard of living’ (Ellis, 2000: 15).

It is an attempt made by individuals and households to get new sources of income in addition to their primary activities which would enable them to ensure economic security and reduce the adverse effects of environmental risks (Hussien and Nelson, 1998).

Livelihood diversification can be undertaken by Individuals or households both on and off-farm activities to generate income additional to that of their main agricultural activities (Ellis, 1998). It may also take place when rural producers change the composition of agricultural products they produce, the good example of which is crop-livestock integration (Hussein and Nelson, 1998). This is a common practice for poor rural producers who are unable to invest in other non-agricultural area.

Thus, though households do not change the composition of their economic activities, they change the composition of the products they produce. In peasant societies mixed crop cultivation practices, and in pastoral societies rearing of different species of livestock like camel, cattle, goat, sheep etc are intended to spread risks and to exploit the existing environmental resources. However, in this study livelihood diversification is taken to mean the adoption of different portfolio of economic activities to improve the living standards of households.

Total household income can be classified in to different categories and sub-categories of sources of income or activities depending on the resources required to generate them (Ellis, 2000). They can be divided between natural resource and non-natural resource based (Ellis, 1998). While the former includes activities such as collection or gathering, food cultivation, cultivating export crops, pastoralism and other non-farm activities that depend on natural resources (such as brick making, weaving, thatching etc); the latter includes rural trade, rural services, rural manufacture, remittances, transfers (such as pensions derived from past formal sector employment). Distinguishing farm income from off-farm and non-farm income sources gives us a complementary way of looking at these different income sources (Ellis, 1998; Hussein and Nelson, 1998).

Farm Income

This refers to income raised from one's own engagement in farming, either from land occupied by the owner or accessed through cash or share tenancy (Ellis, 1998). It includes livestock as well as crop income, and comprises both consumption in kind of own farm output, and the cash income obtained from output sold (Ellis, 2000).

Off-Farm Income

This typically refers to wage or exchange labor on other farms. It may also include, income obtained from local environmental resources such as firewood, charcoal, house building materials, wild plants and so on (Ellis, 1998).

Non-Farm Income

This refers to non-agricultural income sources

. They are critically important activities in Africa (Hussein ad Nelson (1998). 30 to 50 percent of household income in rural sub-Saharan Africa as a whole, and 80 to 90 percent in southern Africa is obtained from these activities (Swift and Hamilton, 2001). General sub-categories of non-farm income that are identified include:

- Non-farm, rural wage or salary employment
- Non-farm, rural self-employment
- Rental income obtained from leasing land or property
- Remittances (arising from national or international)
- Other urban transfers (e.g. pension payments to retirees)

2.1.1.4. Motivating factors for undertaking Livelihood Diversification

For the question: what motivates rural people to diversify their livelihood, there are different answers forwarded depending on different contexts.

The farm household model states the motivation for livelihood diversification as follows:

With a given asset base, that is land plus farm infrastructure and equipment and a given total amount of labor time, the household makes comparisons between the return to usage more of that time on the farm or deploying it in off-farm or non-farm wage or other income generating activities. Factors that increase the return to time spent on-farm activities would tend to reduce the motivation to diversity. Conversely, a rise in off-farm or non-farm wage-rates, or greater opportunities to undertake remunerative non-farm self-employment would increase the motive to diversity (Ellis, 2000: 57).

According to this model, diversification is a function of farm returns to labor time compared to non-farm and off-farm activities. However, different researchers argue that livelihood diversification often is not an outcome of rational economic decision rather it is shaped by different contextual factors (Von Braun and Pandya Lorch, 1992; Ellis, 2000).

Another reason for diversification of livelihoods is divided between necessity and choice reasons (Ellis, 1998). Necessity refers to push or distress reasons that enforce households to diversity such as eviction from own land, fragmentation of farm holdings, natural or civil disasters, environmental deterioration. Choice by contrast refers to pull reasons which attract households to diversity such as searching or seasonal employment opportunity, educating children to improve their future prospect of obtaining non-farm jobs, investing income in non-farm jobs and so on.

Though the division of the determinants in these two branches is seemingly possible it is difficult to put the whole range of experiences in such clear demarcation (Ellis, 2000). Rather 'diversification obeys a continuum of causes, motivations and constraints that vary across individuals at different points in time' (Ibid, 56). It also varies according to agro-ecology, season, and years (Reardon, et al 1992). An activity

adopted by a given household or individual in a given season or year by necessity factors can be adopted by the same or another household or individual due to choice reasons or vice versa .

The common determinants discussed by different authors include: seasonality, risk coping behavior, labor markets, credit markets, and asset strategy.

Seasonality

It is a situation in which there is a gap between household consumption need and income flows (Ellis, 2000). In rural area seasonality is an inherent feature of livelihoods. The production cycles of crop and livestock enterprises are dependent by the onset of rains, their duration, and the length of their growing season, and temperature variations across the calendar year and so on .Poor and variable rainfall is cited as one of the reasons for diversification in Southern Mali (Toulmin et al 2000).

The rural households, especially those that are dependent on vulnerable livelihood for survival, face risks due to this income gap. Therefore, livelihood diversification in the form of seasonal or permanent migration to another agricultural zones or to non-farm occupations, are the possible options available to reduce these risks (Ellis, 2000).

Risk Strategies

Livelihood diversification is a rational decision when rural households face risks and uncertainties (Toulmin et al, 2000). Different works on income diversification understand diversification as a way of accumulating extra income in addition to the primary activity (Hussein and Nelson, 1999). However, risk is one of the major reasons to livelihood diversification. When ever households or individuals feel insecurity about

their sources of income, they diversify their activities in order to prevent the threat of welfare failure (Ellis, 2000).

This is particularly true of people living in semi-arid regions of Africa (Hussein and Nelson, 1998). In such region diversification helps to maintain livelihoods by providing flexibility among sources of income, incase primary activities fail. For example, in West Africa, the people living in Sahel region have been undertaking livelihood diversification so that they could build up wide portfolio of activities (Painter, 1994; cited in Hussein and Nelson, 1998). This is another way of saying that households who are dependent on vulnerable livelihood do not 'put all their eggs in one basket' (Ellis, 2000). Since different portfolio of activities are associated with different levels of vulnerability, livelihood diversification is a trade-off between higher level of income from one source with higher risk and lower level of income from different sources with lower risk (Toulmin, et al, 1992).

Coping Strategy

'Coping strategies are the bundle of producer responses to declining food availability and entitlements in abnormal seasons of the years' (Degefa, 2005; 74). In other words, it is a mechanism employed by households to survive when faced with unexpected livelihood failure (Ellis, 2000). Most of the time it is associated with natural and civil disasters like drought, floods hurricanes, pests and civil war.

In developing countries, household food security studies show that livelihood diversification strategies are part of coping strategies by the rural people (Hussein and Nelson, 1998). Searching for new sources of income is the primary response. However, it could be followed by enforced asset sales which change the future livelihood patterns (Ellis, 2000).

Labor Market

Labor markets also offer non-farm opportunities for income generation (Hussein and Nelson, 1998; Ellis, 2000). The economic reason of labor market for livelihood diversification is stated as follows:

When the marginal return of labor time in farming for any individual falls below the wage rate or the return to self-employment attainable for that person off-the farm, then leaving aside for the moment intra-household distribution issues, the household as a unit is better to off-switch that individual in to off-farm or non-farm activities (Ellis, 2000: 66).

Thus, in a given area if non-farm or off-farm activities provide better income than farming, households and individuals decide to engage these activities.

Credit Market

In rural areas because of the poor performance of financial markets credit funds are not easily accessible (Ellis, 2000). In this situation with the aim of utilizing funds generated from non-agricultural activities to purchase agricultural inputs, or farm equipments, households are motivated to diversify their livelihood.

In this regard remittances from migrants have been key elements in supporting agricultural productivity (Hussein and Nelson, 1998).

Furthermore, livelihood diversification may be undertaken to support the improvement of livelihoods, allowing surpluses generated in one activity is invested in a variety of other economic activities. These include buying more land, and financing the schooling of children, which facilitate achieving greater livelihood security in the future (Ellis, 2000). In this regard, poor producers cannot invest their income obtained from livelihood diversification for such investment purposes, but rather they

use it to support consumption and essential current express for survival purpose (Hussein and Nelson, 1998).

2.1.1.5. Food Security as a Function of Sustainable Livelihood

Sustainable livelihood as a concept has been in use since the 1980s following the shift in food security analysis from 'food first' to the 'livelihood perspective' (Degefa, 2005). Sustainable livelihood is defined as follows:

A livelihood is sustainable when it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets while not undermining the natural resource base (Scoones, 1998: 5).

The conventional conception of food security puts food at the top priority of human needs (Maxwell, 2001; Degefa, 2005).

Lower order needs are dominant until satisfied, where upon the higher order needs come in to operation... if you are starving, your needs for esteem or status will be unimportant, only food matters (Degefa; 2005).

However, this view has been challenged after observation of the experiences of the food insecure people. During the 1984/85 famine in Darfur region of Sudan, the main concern of the people under famine was preservation of asset in order to sustain their livelihood. (Maxwell, 2001). "People are quite prepared to put up with considerable degrees of hunger in order to preserve seed for planting, cultivate their own fields or avoiding having to sell an animal" (Degefa, 2005). This finding showed that hunger is not the policy priority of the people under famine rather they focused on long term objectives of sustaining livelihood, (Maxwell, 2001; Degefa; 2005)

Thus, food security constitutes a system of broader livelihood security and sustainability, in which the management of risk and vulnerability are critical elements (Maxwell, 2001). In the same manner, Oshaug argues;

A society which can be said to enjoy food security is not only one which has reached a food norm but which has also developed the internal structures that will enable it to sustain the norm in the face of crises threatening to lower the achieved level of food consumption (Maxwell, 2001: 18).

The ways livelihoods are changed, adapted or failed to adapt the challenges posed by the economic and ecological environment determines the food security status of the household (Swift and Hamilton, 2001). Food security is therefore explained by the sustainability of livelihoods adopted by households or individuals.

On the other hand the sustainability or vulnerability of livelihoods depends upon the interplay between access to various forms of assets, the existing context (history, trends and vulnerability, shocks), the mediating processes (institutions, organizations, and social relations), the activities, and the resulting livelihood strategies that a household pursue (Scoones, 1998; Carney, 1998; Ellis, 2000).

2.2. Sustainable Livelihood: Analytical Framework

Sustainable livelihood as a framework to understand poverty and food security emerged in the late 1990s and at the beginning of 21st century (Degefa, 2005). It seeks to improve our understanding of how people use the resources at their disposal to construct a livelihood (Swift and Hamilton, 2001). Many researchers agree on the holistic nature of the framework to examine livelihood and poverty (Scoones, 1998, Carney; 1998; Ellis, 2000; Masefield, 2001). In this regard Swift and Hamilton state that:

The distinctiveness of the approach is the attention it gives to contextual and institutional settings which frame livelihood options, its emphasis on the multiple types of capital available as resources out of which people construct livelihoods, and its understanding of livelihood strategies as multiple and dynamic, constructed by choices of actors in the light of the resources and constraints which they face (2001: 82).

For this reason many studies were undertaken based on the livelihood framework in several countries such as Ethiopia, Mali, Bangladesh, and Zimbabwe (Scoones, 1998). The framework can be applied at range of different scales from individual to household, to household cluster to extended kin grouping, to village, region or even nation, with sustainable livelihood outcomes assessed at different levels. In the present study I found the framework to be an efficient way to examine and understand the contribution of livelihood diversification for sustainable livelihood outcome.

In order to grasp the clear picture of the framework it is necessary to describe the components embedded in the framework. The description that follows is based on considering household as a unit of analysis.

2.2.1. Context

The contexts on which livelihoods are constructed are crucial part of the analysis (Scoones, 1998). Important aspects of the context include: the trends, shocks, and local cultural practices existing in the society. This attention to context arises from a conviction that development and change is path-dependent that previous events define and limit to some degree the options available for contemporary livelihoods (Swift and Hamilton, 2001).

2.2.2 Livelihood Resources (Assets)

The ability to pursue different livelihood strategies is dependent on the basic natural and social, tangible and intangible assets that people have in their possession (Scoones, 1998). Such livelihood resources may be seen as the 'capital' base from which different productive streams are designed, from which livelihoods are constructed (Ibid).

The capitals become resources for livelihoods as they are put to use, and can sometimes be substituted each other or capitalized on to generate

future resources (Swift and Hamilton, 2001). Five different types of 'capital' are identified which are defined as follows:

Natural capital: refers to land, water and biological resources that are utilized by people to generate their means of survival (Ellis, 2001; Carney, 1998). The environmental resources play a vital role in rural livelihood. Livestock rearing is determined by the availability of pasture and water, and some segments of poor populations directly rely on natural vegetation for their livelihood through selling fire wood and charcoal. Thus, the linkage between access to natural capital and food security of rural people is direct (Degefa, 2005).

Physical capital: comprises the basic infrastructure such as transport, health, water, energy and communication, and the production equipment and means which enable people to pursue their livelihoods (Carney, 1998).

Human capital: refers to the skills, knowledge, ability to labor and good health, and physical capability important for the successful pursuit of different livelihood strategies (Scoones, 1998; Carney, 1998).

Financial Capital: The financial resources which are available to people such as savings, supplies of credit, or regular remittances or pensions which provide them with different livelihood options (Carney, 1998).

In many societies, the absence of financial markets or distrust of such financial institutions as do exist, result in savings being held in other forms (Ellis, 2001). In rural sub-Saharan Africa, the keeping of livestock often plays a critical role as a store of wealth and as a buffer against bad times.

Households usually have highly differential access to resource and opportunities much of which is systematic and linked to ethnicity, gender, and ownership of assets, knowledge, networks and experience acquired over time (Toulmin et al 2000).

Social capital: refers to the social resources (networks, membership of groups, relationships of trust, access to wider institution of society) upon which people draw in pursuit of livelihoods (Carney, 1998). Of all the assets described above, social capital is clearly the most difficult to describe in other than broad qualitative terms (Ellis, 2000).

2.2.3. Mediating Processes (Institution, Organizations, and Social Relations)

The translation of a set of assets in to a livelihood strategy composed of a portfolio of income earning activities is mediated by a great number of contextual economic, social and policy considerations (Ellis 2000). Institutions, organizations, and social relations are critical mediating factors for livelihoods because they encompass the agencies that inhibit or facilitate the exercise of capabilities and choices by individuals or households.

Institutions are “regularized practices (or patterns of behavior) structured by rules and norms of society which have persistent and widespread use” (Scoones, 1998). They range from customary and local rule system, determining for example how one group of resource users relates to another in use of pasture or wells on a day-to-day basis, to formal laws and administrative procedures governing the use of forests (Swift and Hamilton, 2001). In general, they ‘link stakeholders to access to capital of different kinds to the means of exercising power and so define the gate ways through which they pass on the route to positive or negative livelihood adaptation’ (Scoones, 1998).

Government agencies, local government, community administrators, NGOs, associations at different levels, and private companies constitute organization (Degefa, 2005). The interaction between institutions (the rule of the game) and organizations (the players) is an important element of the frame work (Scoones, 1998).

Social relations refer to the social positioning of individuals and households within the society. This includes gender, caste, class, age, ethnicity and religion (Ellis, 2000).

These mediating processes in general impact upon livelihoods in such a way that they determine who gets what type of asset with what value, and which livelihood strategies are open and attractive (Carney, 1998).

2.2.4. Livelihood Strategies

The asset status of households mediated by social and contextual factors, result in the adoption and adaptation overtime of livelihood strategies (Ellis, 2000). Livelihood strategies are composed of activities that generate the means of household survival. Within sustainable livelihoods framework, three broad clusters of livelihood strategies are identified. These are:

- **Agricultural intensification /extensification:** while the former refers to the value of output per hectare of land or per animal is increased by the application of more labour, capital or technology; the latter refers to a situation where more land or animals are brought in to production at the same levels of labour, capital or technology (Swift and Hamilton, 2001).
- **Livelihood diversification:** where households diversify their economic activities away from reliance on the primary enterprise (livestock or cropping), typically seeking a wider range of non-and off-farm sources of income. This could be motivated by the need to accumulation and reinvestment or coping with temporary adversity or more permanent adaptation to livelihood activities, when other options are failing to provide a livelihood (scones, 1998).
- **Migration:** where people move away from their initial source of livelihood, and seek a living in another livelihood system (Swift and

Hamilton, 2001). This movement can be voluntary or involuntary (Scoone, 1998).

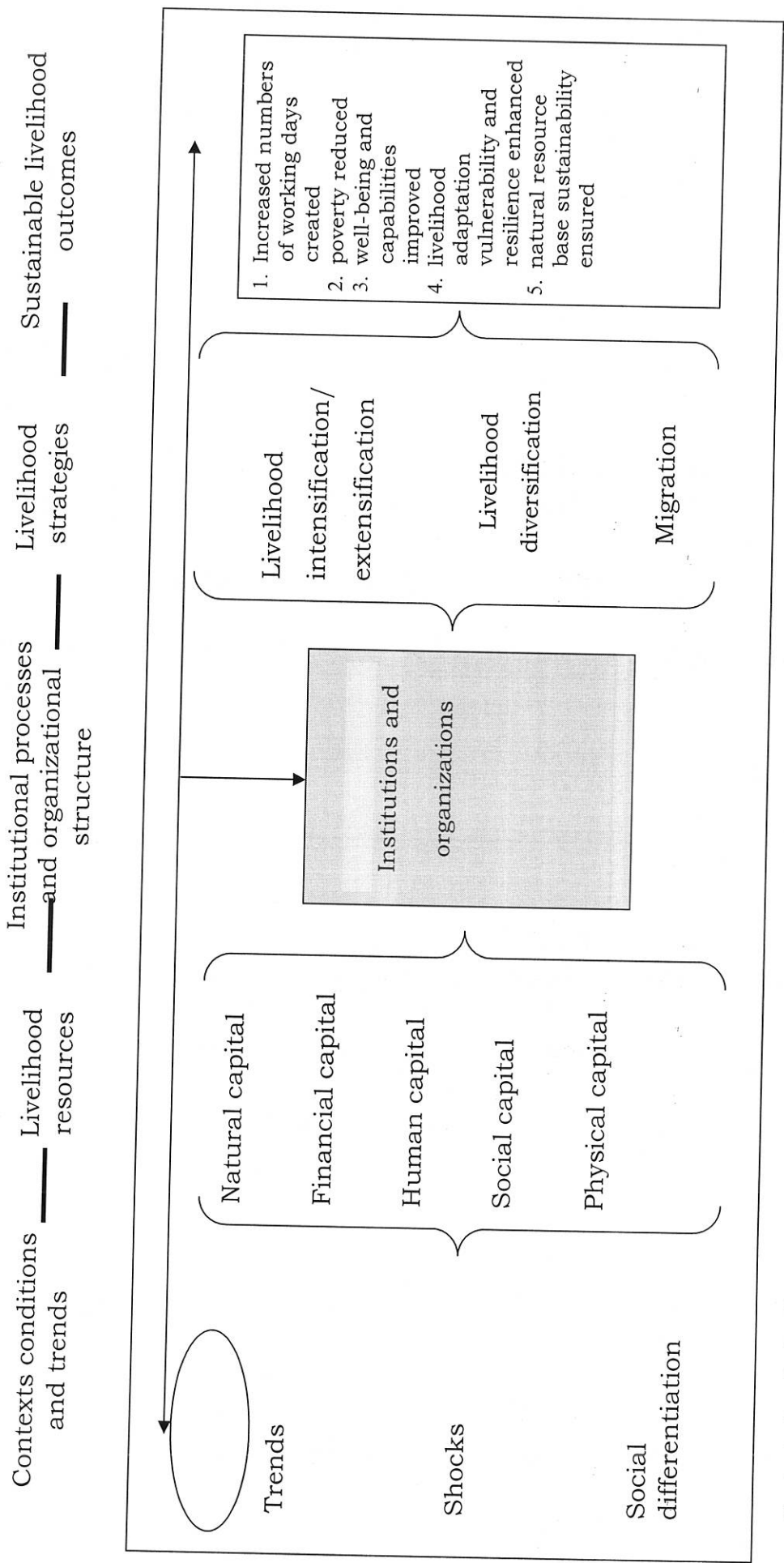
Although it is possible to make a conceptual distinction among these strategies, practically households undertake by combining two or more of them together or sequentially (Swift and Hamilton 2001). Livelihood strategies are accessible in different ways to different groups of households, using variable combinations of capitals and mediated through the multiplicity of institutions which shape individuals' and households' behaviors.

2.2.5. Livelihood Outcomes

Livelihood outcome is the end result of the interaction of various elements in the system. The outcome can be desirable or undesirable, sustainable or not (Degefa, 2005). Sustainability as a key quality of successful livelihoods shows both the ability of the livelihood system to deal with and recover from shocks and stresses, by means of coping and by adaptation, and also the ability of the livelihood system and the natural resources on which is constructed to maintain or enhance productivity overtime (Swift and Hamilton, 2001).

Scoones formulated five indicators of sustainable livelihood. The first three which focus on livelihoods include: creation of working days, poverty reduction, and well-being and capabilities improvement; the last two elements which add the sustainability dimension include; livelihood adaptation, vulnerability and resilience, and natural resource base sustainability (1998).

Figure 1: Sustainable rural livelihoods: a framework for analysis



Contextual analysis of conditions and trends and assessment of policy setting

Analysis of livelihood resources: trade offs, combinations, sequences, trends

Analysis of institutional/organizational influenced on access to livelihood resources and composition of livelihood strategy

Analysis of livelihood strategy portfolios and pathways

Analysis of outcomes and trade-offs

Source: Scoones 1998 and Carney 1998

2.3. Empirical Studies

Available evidence on rural household income portfolios witnesses the prevalence of livelihood diversification (Ellis, 1998). Between 30% and 50% of rural household income in sub-Saharan Africa, and 80 -90% in southern Africa is obtained from non-farm sources. Farmers in Burkina Faso obtain 25-50% of their income from non-agricultural activities which include small scale food processing, petty trade, and artisan activities (Delgado, 1989). "The agrarian nature of this region has been reduced due to long term historical trends and as a result of rural household livelihood strategies" (Bryceson, 1996).

There are different reasons that explain why rural people diversify, which are mostly dependent on contextual factors, and that livelihood diversification can lead to positive and negative outcome (Hussein and Nelson, 1998). The outcome is positive if it makes livelihoods secure, reduce the adverse impacts of seasonality, and helps to improve the living standard of poor households (Ellis, 1998). It is negative if it increases the vulnerability of households.

Different case studies conducted in different parts of the developing countries came up with a mixture of findings as far as the outcome of livelihood diversification is concerned. Thus, what diversification signifies, and whether it leads to more or less sustainable outcomes, can only be discerned from a detailed analysis of particular cases (Swift and Hamilton, 2001: 89).

Various livelihood diversification strategies employed by rural people highlights the fact that rural people who operate in a diverse, complex and risky environments are often able to construct productive strategies (Hussein and Nelson, 1998). In the arid and semi-arid regions, where food insecurity is a natural phenomenon, successful households are those who are able to diversify their economic activities (Swift and Hamilton, 2001).

In a case study conducted in semi-arid regions of Burkina Faso, for example, the capability of households to maintain food security in the face of recurring crisis of agricultural subsistence was found to rest mainly on diversification as a livelihood strategy (Reardon et al, 1992).

In three villages of southern Ethiopia, trading, which is the single most important diversification activity, had been carried out by women. With one exception the proportion of total income from non-farm activities is larger for poorer wealth groups in all sites, implying that diversification activities are particularly important for poorer groups (Carswell, 2000). The same study highlights the determinant factors of diversification which includes caste, household size, structure and gender of household head, wealth status, ownership access to assets, and access to transport, markets, and credit.

Some researchers argue that the opportunity to diversify and to accrue the positive outcomes of livelihood diversification is associated with the income level of households (Hussein and Nelson, 1998; Toulmin et al, 2000; Degefa 2001). In Mali, it was found out that there is an association between successful livelihood diversification and the wealth status of households. The evidence from the study supported the idea that poorer households diversify to ensure survival while richer households diversify to accumulate (Toulmin et al, 2000).

Another study undertaken in Eransa and Gabri communities, of Ethiopia showed that the outcome of livelihood diversification benefited the negligible proportion of relatively well-off peasant households who have been in a position to accumulate asset for a long period of time (Degefa, 2005). While these members of the society attain food security on a sustainable basis the majority of households survived under vulnerable livelihood situation.

This differential impact of livelihood diversification on different households is attributed to different reasons. A study in rural Tanzania showed that success or failure in undertaking livelihood diversification is dependent upon household

different management approaches, differences in timing of activities, location of activities or a capacity to estimate risks (Hussein and Nelson, 1998). It can also be due to inadequate endowments of all forms of capital, the social networks, and institutional restrictions by the poor through lack of self-organization (Swift and Hamilton, 2001).

CHAPTER THREE

3.1. Description of the Study Area and Research Methodology

3.1.1. Description of Fanatalle Woreda

Fantalle woreda is found in East Shoa Zone of Oromia Regional State. The capital town of the woreda called Matahara is located at 193 Km east of Addis Ababa on the main road to Djibouti is bordered by Boset Woreda in the West, West Haraghe Zone in the East, Afar region in the North, and Arsi Zone in the South. The total land coverage of the Woreda is estimated about 133963.66 hectare (WPDO, 2009).

The woreda lies in the lowland area located in the middle of the Rift Valley region. It is composed of flat land and big hills of volcanic nature with an altitude which ranges between 980 meters on the plains and 2007 meters at the peak of Mount Fantalle. The area is covered with barren hillsides, scanty bushes, and Acacia trees which are undergoing deforestation.

It is characterized by hot climate and dry land ecology. The mean annual rainfall of the Woreda varies between 560 and 631 mm with an average rainfall of 595.53 mm (WPDO, 2009). The Woreda has two rainy seasons; the major rainy season known as 'Gana' usually begins at the beginning of July and ends towards the mid of September. This is the period the Woreda receives maximum rainfall of the year. The other short rainy season known as 'Badhasa' begins in the middle of February and ends towards the end of March. It has short rainy season and erratic nature of rainfall distribution. The mean annual temperature of the woreda is 24.7°C and the daily temperature varies between 37 and 40°C (WPDO, 2009).

The Woreda is administratively divided into 18 rural kebles and the total population of the woreda is estimated to be 88,352. From this urban people and settlements associated with the plantation of Marti and different settlement camps make up 37,448. The rural pastoralists and agro pastoralists

make up about 50, 904. Of which 23, 859 are male and 25, 347 are female. While the area is dominantly inhabited by karrayy Oromos there are also groups like Ittu, Somali, Amhara etc.

The data obtained from Pastoral Development Office of the Woreda indicate that 342,932 livestock are reared in the woreda. It includes cattle (71, 48), goat (89,717), sheep (69,482), camel (97, 425), donkey (9208) mule (8), and poultry (4,466).

According to the Woreda Pastoral Development Office (WPDO), out of the 18 rural kebeles, 11 are Pastorals while 7 are agro- Pastorals. This indicates that the majority of the rural people are dependent on livestock for their food and as a source of income; the agro- Pastoral community undertakes farming at two levels. Those people who settled nearer to the banks of Awash River have access to use water from the outlet of the Matahara sugar cane plantation irrigation canal, and cultivate their land by using of traditional drainage system.

In areas where the people do not have access to the Awash River and the outlet of the sugar cane plantation canal, rain- fed farming is a common practice. This type of farming is usually affected by erratic rainfall and insufficient moisture for crop production. The major crops grown in the area include Maize, Teff, Tomato, Onion, Sweet potato and pepper.

Though they are insignificant the people undertake additional economic activities like rural trade (chat), guarding and daily labour in sugar cane plantation, fire wood and charcoal selling.

Socio-economic Service Provision

Education:

In the Woreda there are 8 kindergartens, 30 elementary schools, two high schools, and one technical school.

Table 3.1. Number of schools found in the woreda and their level

No	Level of schools	Total no of schools	Location
1	KG	8	Marti, Mathara and Haro-adi
2	1-4 grade	16	Rural kebels
3	1-8	14	Marti, Mathara Haro adi
4	9-10	1	Mathara
5	11-12	1	Marti
	Technique schools	1	Marti

Source: woreda education office, 2009

The table indicates that all the Kindergartens, elementary and high schools are concentrated in the towns of Matahara, Marti and Haro-adi. The rural kebels which are distant from these towns are accessible only to first-cycle schools which enroll only students of grade 1 to 4.

According to the Woreda educational office though education facilities and human resources available are insufficient in most of these schools they make 100% educational coverage of the area.

Health

Table 3.2. The Woreda Health institutions

No	Types of health institutions	Total number	Location
1	Hospitals	1	Marit
2	Health centers	3	Marit
3	Health posts	18	rural kebeles
4	Clinics	8	Matahara
5	Pharmacies	10	6 Haro adi and 4 Matahara

Source, woreda health office, 2009

Though the quality and standard of the health institutions are poor and below standard, these institutions make 100% coverage at urban area and 88% at rural area.

As far as veterinary service is concerned the woreda has only one veterinary service center that serves the whole kebeles.

Water Resources

In the rural areas of the woreda the main source of water for human and livestock is obtained from boreholes. Out of 9 boreholes available in the woreda only three of them are functional for water sources which are unpotable under normal condition because of its high concentration of fluorides. There are also 117 cisterns (rain water catchments) in the woreda which are seasonal and three permanent ponds. Though there is only one river (Awash) in the woreda, most of the pastoralists do not have access to the river due to the presence of sugarcane and fruit plantations along the banks of the river.