

# Approaches for Understanding Pastoral Response to Drought and Famine in Sub-Saharan Africa

Juma, Richard Otieno  
Murang'a University of Technology

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**Abstract :** *Drought and famine in Sub-Saharan Africa is among the leading contributory causes of vulnerability in pastoral communities. This paper discusses approaches that allow understanding of pastoral indigenous adaptive strategies to drought and famine. It is argued that understanding pastoral livelihood strategies requires a holistic approach. The paper focused on three key approaches namely: sustainable livelihood theory, the symbolic interaction theory and adjustments and the social exchange theory. These approaches are key in understanding the inherent potential of sub-Saharan African pastoralists to change their own livelihoods within their respective social and economic milieu in response to drought and famine, with a view to understanding the implications of these indigenous responses to adapt to drought and famine in pastoral areas in Sub-Saharan African region and any other pastoral areas in the World in the future.*

*Key words: Drought, famine, Pastoral, livelihood*

## 1. Introduction

Sub-Saharan Africa contains one-half of the world's pastoral people (Fratklyn, 2001). These pastoralists live in the marginal areas of the continent often with variable rainfall both in space and time resulting in low resource base or uneven and unpredictable levels of forage productivity. This environment offers limited opportunities for subsistence activities apart from keeping livestock (Lamprey and Yusuf 1981; Le Houerou 1980; Little, Mahmood, and Coppock 2001). The people raise domestic animals including cattle, camels, goats, sheep and donkeys, which are used for milk, meat, blood, transport and trade. Despite environmental challenges, African pastoralists practiced a relatively resilient and ecologically sound mode of production during the pre-colonial times (Bovin and Manger 1990; Gulliver 1951). Pastoralists were able to cope with ecological stresses by different strategies within their social networks, for example, diversification of activities, dispersion of animal and human groups, and forms of redistribution and reciprocity (Bonte 1975; Davies 1996; Gulliver 1951). Today, however, land degradation and competing land use practices put pastoral resiliency into jeopardy. The scenario is such that pastoralists appear trapped between the

advance of the desert and the onslaught of cultivators, agro-business concerns, ranchers and wild game conservationists. Several authors (Dietz and Salih 1997; Dietz 1987b; Glantz 1987; Haagsma and Hardeman 1998; Little 1984), also observe that the role of the state during the colonial and post-independence administrations and the historical processes of impoverishment and economic stagnation have given rise to an interesting phenomenon where pastoralists currently find themselves faced with serious adjustment problems caused by recurrent drought, diseases and famines. Therefore, the pertinent and persistent question addressed in this paper is that: Can Sub-Saharan African pastoralists adapt to their changing environment through their own practices?

## 2. Critical gap in response to drought and famine in Pastoral regions in Sub-Saharan Africa

According to (Baxter and Hogg 1990; Hendrickson, *et al.* 1998; Leach and Mearns 1996) African pastoralists are seen as primitive, arrogant, warlike, economically irrational, unresponsive to development, destructive to the environment, people who end up creating problems, as they can neither anticipate the consequences of a crisis such as drought and famine, nor develop appropriate livelihood strategies. These views also see African pastoralists as helpless victims in need of assistance. These stereotypes, while colonial in nature, have persisted to the present day and identify pastoralism itself as the primary source of herders' misfortunes (Hendrickson, *et al.* 1998). By and large, these assumptions about the nature of the African pastoralists and their limited production ability has led to the production based view that regular food shortages in pastoral lands are mainly caused by production failure. However, Cornwall and Scoones (1993) have argued that a production based view can only promote the policy of estimation of food requirements and improvement of food supply, but cannot lead to an appreciation of indigenous strategies for coping with food insecurity.

According to Leville and Crosskey (2006: 8) "what has been lacking for years is adequate attention to pastoral areas, a proper understanding of the needs

and potential of the pastoral communities, coupled with inadequate investment". This paper asserts that pastoral communities should be described in terms of their potential capacity to cope with uncertainties, risks or crises, rather than in terms of what they lack.

It is argued that there is need for an alternative approach to pastoralists livelihoods that starts with local peoples own practices. Thus, the focus in this paper shifts from the broad and the general to the local and the particular, allowing an understanding of differing indigenous responses at the local level. It is considered here that understanding the pastoralists' indigenous livelihood responses during crises and its implication to policy requires a properly conceived holistic framework. Within this broader framework, this paper places special attention on one of the five assets identified as constitutive of livelihood strategies in the pastoral areas in Sub-Saharan Africa: Social capital. The reason for choosing this particular asset is two-fold: First, social capital among pastoralists inheres in types of relationships that allow access, and is thus a critical precursor to the possible access of. Second, social capital as a livelihood asset in the pastoral areas is probably the least tangible, and therefore, the least understood.

The sustainable livelihoods approach therefore provides an important insight and a strong starting point to understanding the dynamics of pastoralists' livelihoods as it places a lot of emphasis on ownership of, or access to, assets which the pastoral people could use to construct their own routes out of food insecurity problems. The approach incorporates a view that integrates social capital directly into household livelihood analysis. However, for the purpose of this paper, the sustainable livelihood approach is too general and lacks the specificity to carry a detailed analysis of all the issues critical to understanding pastoral livelihood strategies. To improve its theoretical depth and make it more powerful analytically, the paper draws from two other approaches: symbolic interaction theory and social exchange theory. These theories have been incorporated on the basis of their applicability and add an important dimension. The three theories also share some features and highlight several variables which are critical to understanding capacities and ways in which pastoral people cope with drought and famine.

This paper initially reviews the three theories separately in order to operationalize and improve their theoretical depth. Finally, with special emphasis on drought, a framework has been formulated to analyze pastoralists' adaptation to the constraints imposed by dryland conditions. The framework illustrates an alternative scenario, by highlighting the

positive aspects of the livelihood situation in the pastoral regions by looking at what is possible, rather than, negatively, at how desperate things are.

### **3. Emergence of the Sustainable Livelihood Approach.**

As an academic discourse, the concept of sustainable livelihood approach became prominent in the middle of the 1980s as a reaction to the 'basic needs' development discourse of the 70's, and the 'top down' approaches that had been dominant within the development discourse for some time (Ellis 2000; Scoones 1998). Robert Chambers was one of the strongest critics of the 'top down' approach, and emphasized the need for enhanced focus on actors of development - the poor people themselves (Chambers 1983). The idea was to replace the 'top down' approach with action from below. The approach developed alongside other fields and approaches in the 1980s, and Chambers argues that "the sustainable livelihood thinking was formed by fusing the best environment, development, and livelihood thinking" (Chambers 1987: 5). This implies, respectively, a focus on sustainability, productivity and poor people's livelihoods. Various understandings of the concept are used. At its most basic, a 'livelihoods approach' is simply one that takes as its starting point the actual livelihood strategies of a people. Instead of starting with a grand theory, it looks at where people are and situated, what they have and what their needs and interests are (Chambers 1983). Modified interpretations of the livelihood approach are described by various authors and organizations (Cahn 2002; DFID 2001; Ellis 2000; Scoones 1998). Two widely used definitions of livelihoods are:

"A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base" (Scoones 1998: 5). According to (Ellis 2000: 10) "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 household".

However, it is difficult to discuss sustainable livelihoods or sustainability as such, without touching upon the concept of 'sustainable development'. The World Commission of Environment and Development (WCED) introduced this concept in 1987 in its well-known publication 'Our Common Future' which emphasized the importance of the link between poverty and environment. WCED defined sustainable

development as “Development that [...] meets the needs of the present without compromising the ability of future generations to meet their needs” (World Commission on Environment and Development (WCED) 1987). The term ‘sustainable livelihoods’ first appeared in a report in 1987, also prepared by the WCED, and became incorporated into their policy on sustainable agriculture (Cahn 2002). The concept of livelihoods was incorporated into Local Agenda 21 at the UN Conference on Environment and Development in Rio in 1992 (Schafer 2002). As an idea, sustainable livelihood approach has been gaining increasing currency in recent years and its emergence is now seen as fundamental to poverty reduction approaches around the world (International Institute for Sustainable Development (IISD) 2003). It has two major dimensions, which are both essential for rural livelihoods, namely the environment or ecology, and the social dimension. The former is concerned with the sustainability of the natural resource base, on which most rural livelihoods rely.

According to Scoones (1998: 6), some authors define this as “the ability of a system to maintain productivity when subject to disturbing forces, be it stress or shock”, and further defines the social dimension as relating to livelihood adaptation, vulnerability and resilience, and the ability of a livelihood to cope with and recover from stresses and shocks. According to the social dimension, the sustainable livelihood approach demonstrates that poverty reduction requires an understanding of how rural livelihoods are conducted and sustained, as the ability to move out of poverty, reflects the capabilities and assets and/or lack thereof available to the poor (Ellis 2000). This includes material assets such as access to land, other natural resources, financial capital and credit, tools, inputs into productive activities, and others. It also reflects human capabilities (the knowledge and skills of the family); social and political factors such as contact networks and the openness of government institutions (Ellis 2000).

Moreover, by understanding the dynamics of rural people’s livelihoods, we can begin to understand how they will be affected by shocks such as drought impacts, how they might respond with the resources they have, and how these conditions can be reflexively built to develop more successful coping strategies. This analyses of Pastoral livelihood situation in this paper relates to the social dimension which hence adopts the Ellis (2000) approach.

#### **4. Principles and Concepts of Sustainable Livelihood Approach**

The concept of sustainable livelihood approach provides a useful guideline for understanding survival strategies that households and individuals adopt during a crisis. The main guiding principles identified in the livelihood literatures which are relevant in this paper are: Firstly, that Sustainable livelihood approach literature categorizes the main livelihood strategies which households pursue into three broad groups:

i) Agricultural intensification, which refers to the strategies based on exploitation of natural resources (e.g. food crops, cash crops, livestock) including income from agriculture

ii) Livelihood diversification which occurs when rural households construct a diverse portfolio of activities and social support capabilities for survival in order to improve standard of living (Ellis 1998). This includes expansion of income from different sources (farm or off-farm).

iii) Migration: when one or a few family members leave and earn money somewhere else and contribute to the household economy. Migration can be seasonal, circular or permanent. Two of these livelihood strategies (e.g. livelihood diversification and migration) fit quite well in the analysis of how the Pastoral people adapt their livelihoods during a crisis as they represent strategies that are used to cope with drought and famine in the Pastoral regions. The Pastoral people are known to have diversified their livelihood activities even during the pre-colonial period by engaging in fishing, and hunting and gathering.

Secondly, Ellis’ (2000) definition of the sustainable livelihood approach places more emphasis on the social factors as crucial elements to understanding the implications of household livelihood strategies. This assertion is applicable to the Pastoral situation because food production in the pastoral regions in Sub-Saharan Africa is primarily, although not exclusively, reliant on local people’s social networks.

Thirdly, while acknowledging that social structures and processes at a macro level in society have an important impact on livelihoods, they are not the only critical factors. The macro level has to be linked to the micro level where actors operate and individuals and households take action for changes to take place. The sustainable livelihood approach in incorporate these different aspects. Fourthly, following Ashley and Carney (1999), this paper favours a sustainable livelihood approach which focuses on the household and its assets as a unit of social change and development. Here, it implies that looking at what people actually have, their strengths and capabilities, is more valuable than looking at

their needs or what they don't have. It is a way of thinking about objectives, range and priorities for development, in order to enhance progress in poverty reduction. It is a pro-poor approach aimed at helping poor people achieve enduring improvement against the indicators of poverty (Ashley and Carney 1999). Fifth, the sustainable livelihood approach places people and their priorities at the center of the analysis (Ashley and Carney 1999). This approach therefore creates an understanding of poor people's perspectives on the world and their situation, understanding their priorities and uncovering what they perceive to be the opportunities for and constraints to achieving a sustainable livelihood (Chambers 1983, 1987). In this paper, the Pastoral people's perception and definition of their situation is considered as well as the meaning they give to their situation. Sixth, the holistic character of the Sustainable livelihood approach entails an interdisciplinary and intersectoral focus (Freeman, Ellis, and Allison, 2004). By focusing on the entirety of the factors influencing the households, the sustainable livelihood approach differs from other approaches to developments which focus on aggregated objectives and indicators. The framework therefore provides the basis for examination of the livelihood strategies in a wider perspective and gives room for a consideration of diverse factors influencing livelihood sustainability. Finally, the sustainable livelihood approach used here recognizes the importance of resilience, adaptability, and sustainability (Scoones 1998).

To gain a better understanding of livelihood process and analysis, Ellis (2000) has developed a rural livelihoods analytical framework. It considers a wide range of factors determining the livelihood strategies of people in a particular setting and focuses on livelihood sustainability. It is structured mainly for coming to grips with the complexity of livelihoods, understanding influences on poverty and identifying where interventions can best be made to help poor people reduce poverty. The framework has been applied widely by development agencies, donors, and other organizations in formulating policies, informing strategic thinking and guiding participatory planning (Ashley and Carney 1999: 10).

Ellis' (2000) framework is presented here as Figure 1. This is a version of the 'assets-mediating process-activities' framework. The framework identifies entry points and critical processes, and assists with prioritizing catalysts for change. Readers may think that it is difficult for such a diagram to capture the dynamics of livelihood systems that, in practice, involve numerable feedback mechanisms and complex interactions between components. Here, the diagram is used as a pragmatic heuristic device to

organize ideas into manageable categories. Dynamic interactions are therefore under emphasized and boldly implied, rather than stated in the framework.

### **5. Explaining the sustainable livelihood approach framework.**

One of the key components of Ellis' framework, shown as Figure 1, is assets. Ellis regards the "asset status of poor individuals as fundamental to understanding the options open to [the rural poor], the strategies they adopt for survival and their vulnerability to adverse trends and events" (Ellis 2000:28). The assets can be understood as the tangible and intangible resources that the household is in possession of through ownership, control, claim or accession by other means, and can be used directly or indirectly to generate livelihoods. The greater and more varied the asset base, the higher and more durable the level of sustainability and security of livelihoods. Assets can be divided into different forms of 'capital'. The categories of assets that are used by Ellis are natural, physical, human, financial, and social capital. Natural capital refers to natural resource stocks such as land, water, trees, pasture, and wildlife, and environmental services such as hydrological cycle and pollution sinks, from which resource flows and services useful for livelihoods are derived (DFID 2001; Ellis 2000; Scoones 1998). The productivity of these resources may be degraded or improved by human management (DFID 2001; Ellis 2000). Physical capital is that capital created by the economic production processes. It includes infrastructure such as roads, canals, electricity supply, and water supply; and also producer goods such as tools and machinery. Financial capital consists of stocks of money or other savings in liquid form. It also includes access to credit and easily disposed assets such as livestock. Human capital is constituted by the quantity (number of productive individuals) and quality (what these individuals know and how hard they are able to work) of labour available at the household level; therefore it is determined by household size, and also by the education, skills, and health of household members. Social capital is the social resources such as contact networks, social claims, social relations, affiliations, associations, and mutual trust, upon which people draw when pursuing different livelihood strategies requiring coordinated actions (Scoones 1998; Ellis 2000; DFID 2001).

Figure 1: Framework for Micro-policy Analysis of Rural Livelihoods

A	B	C	D	E	F
Livelihood platform	Access modified by	In context of	Resulting in	Composed of	With effects on
<b>Assets</b> Natural capital, physical capital, financial capital, social capital	<b>Social relations:</b> Gender, Class, Age, Ethnicity  <b>Institutions:</b> Rules and customs, Land tenure, markets in practice.  <b>Organizations:</b> Associations, NGOs, Local administration and state agencies	<b>Trends:</b> Population Migration, Technical change, Relative prices, Macro policy, National economic trends, World economic trends.  <b>Shocks</b> Drought, floods, Pest, Diseases, Civil War.	<b>Livelihood strategies</b>	<b>Natural resources based activities:</b> Collection, cultivation (food), cultivation (non-food), livestock, Non-farm NR.  <b>Non natural based activities</b> Rural trade, rural manufacture, remittances	<b>Livelihood security:</b> Income level, Income stability, Seasonality, Degree of risk.  <b>Environmental sustainability:</b> Soil and land quality, water, rangelands, forests, biodiversity.

Source: Ellis (2000:30). Adapted from Scoones (1998:4) and Carney (1998:5)

The access to these assets is influenced by (1) social relations as class, ethnicity, gender etc., (2) institutions, which refers to formal and customary rules, conventions, and codes of behaviour, and (3) organizations, implying groups of individuals bound by some common purpose to achieve certain objectives. These endogenous factors are further affected by exogenous factors such as trends and shocks. The modified assets exist in a specific context, which form the livelihood strategies of a household. These livelihood strategies are sets of activities that are pursued by households to generate means of survival (Ellis 2000). Strategies are categorized differently by various scholars. For example, Ellis (2000) has classified strategies according to the nature of the resources used into natural and non-natural resource based activities, while Scoones (1998: 4) identified three broad livelihood strategies: agricultural (intensification of existing agricultural activities) diversification by adopting additional productive activities; and migration to develop productive activity elsewhere. It is important to note that these are not exclusive, and may be combined in practice.

These livelihood strategies determine the household's livelihood security, measured, for instance, by income level, seasonality, and degree of risk. The individual strategies, and thereby the activities occupying the household, also affect the environmental sustainability of the households' resources and the surrounding which they depend on (Ellis 2000).

### 5.1 Critique of the Sustainable livelihood approach framework

Although the sustainable livelihood approach framework assists in situating an analysis of Pastoral people's livelihood strategies within the wider context of change, this paper subjects it to a critique. A major weakness of the sustainable livelihood approach is that it is extremely broad and general, and covers aspects from the micro to the macro level by taking into consideration many factors affecting the livelihoods of poor people. Hence it may not be able to analyze the dynamics of relationships that emerge during calamities in the Pastoral regions in the endeavor to survive. For example, in the Pastoral regions, some livelihood behaviours remain dormant in times of plenty and

become observable in exaggerated forms only in times of need. The sustainable livelihood approach may not systematically analyze this behaviour change in a satisfactory manner. Evidence in the literature, indicates that Sub-Saharan African pastoralists depend on reciprocity and symbiotic relationships during a livelihood crisis. The sustainable livelihood approach framework does not easily highlight and critically analyze these variable aspects within its framework. The sustainable livelihood approach illustrates the major livelihood strategies (e.g. diversification, agricultural intensification, and migration), and the context in which they are applied does not have the capacity to show how and why people would choose those strategies.

The Pastoral people's choice of a livelihood strategy during drought or famine normally depends on their own perception or definition of their environment or situation, and the meaning the various strategies have for them. These issues seem to be beyond the scope of the sustainable livelihood approach. Cahn (2002) noted that it is unrealistic for Ellis (2000) to present the livelihood framework as linear, with no feedback or other relationships. This argument is applicable to this paper because the way Pastoral people achieve and maintain their livelihoods during a crisis has a feedback mechanism. These points are, however, met to a certain degree by the symbolic interaction theory and the social exchange theory.

#### **6. Symbolic interaction theory and Adjustments**

Social scientists who studied adjustment behaviours during earlier period of drought and famine extended livelihood analysis into the field of social psychology. This was necessary because, as Ben Wisner had noted: "Man (...) does not act directly from his surroundings but rather indirectly through a perpetual and cognitive filter composed of elements of culture, personalities, childhood experience, recent experience, and even immediate bodily states" (Wisner 1977: 119).

This approach views adjustment behaviour as taking place within a social context and influenced by taboos, ideology, group values as well as individual perceptions. It builds heavily on the symbolic interactionist theory.

Symbolic interactionist theory is a paradigm developed from the original work of the psychologist Mead (1964). The leading scholars of symbolism have been Blumer (1969) and Schutz (1970).

The basic tenets of the symbolic interactionist theory are that human beings act towards things on the basis of the meanings those things have for them in the course of interaction, and that definitions typically undergo revision and reconstruction in the process of interaction itself. The core of the theory is that in a changing situation, behaviour is never random and purposeless, but selective and purposeful. Unfamiliar environments call for their definition by the interacting individual to shape the frame of his act. Sheldon Stryker summarizes the theory in these lines.

"When one enters a situation in which his behaviour is problematic, that is, in which pure habit will not suffice, he must find some way to represent that situation to himself in symbolic terms. If he is not to behave randomly, if he is not to select arbitrarily from range of acts in his repertoire of possible actions, he must, in short, define the situation. The products of his behaviour are definitions of the situation" (Stryker 1973: 515-516).

Thus, humans live in a symbolic, physical, biological, and social world which acts as a stimulus to shape their behaviour. The concepts of 'role' and 'expectations' are crucial to this theory. As a person enters into an interacting system, he or she assumes a certain status position (role) and assigns certain other roles to members of their group, and by so doing invokes role expectations.

For people hungry enough, says Stryker, what may previously have been defined as inedible may be redefined as food and found quite nourishing. People have to redefine the changing situation as a basis for the rational selection of adjustment choices (Stryker 1973). Therefore, what people do in a crisis, and then depends on how hard hit they are and the choices available to them. In their detailed paper of the Polish migrant families in America, Thomas William and Znaniecki Florian found that Poles adjusting themselves to the new environment abroad had to give the situation in which they found themselves a definition which in the process moulded their adaptive behaviours (William and Znaniecki 1974). This example ties in quite well with this paper of responses to drought and famine in Pastoral regions in Sub-saharn Africa. From literature on pastoralism, pastoralists' adjustment behaviours take place within individual or group context. Therefore, their awareness and interpretation of the change situation is taken as the basis of their innovative behaviour. The situation definition gives individual or group consensus on the parameters of allowable adjustment choices. Evidence in the literature shows that pastoralists'

collective awareness of the economic hardship permits and even 'legitimizes' otherwise anti-social conduct such as hunting, farming, taking up paid (wage) employment, begging, and the pawning of women and children. These are definitely unusual behaviours, which, under normal pastoral conditions, are not allowed.

Although the symbolic interaction theory expands the analysis of adjustment behaviour, it does not capture certain aspects of pastoralists' adjustment strategies, like reciprocity and symbiosis. These aspects are addressed by the social exchange theory.

### 7. Social exchange theory.

Reciprocity is perhaps best explained by the social exchange theory of Homans (1961) and Blau (1964).

The social exchange theory is a utilitarian scheme for the paper of human behaviour. It assumes that people always behave rationally to maximize gain. It emphasizes the fact that people behave according to anticipated rewards, and, where faced with competing choices, they will choose the option which carries the higher rewards. The rewards could be material things, or they could be purely social and psychological such as acceptance, prestige, sympathy, praise or esteem.

As in all situations of social interaction, ideology (shared values), beliefs, goals, and expectations are the motivating factors. Motivation to act derives out of the probability that the interacting individual's goals will be realized, or interests served.

In pastoral communities, reciprocity is an important insurance system. It is established and maintained by the constant exchange of livestock gifts. Danny de Vries, et al. (2006) maintains that pastoralist hoard stock to enable them to oil reciprocal partnerships through the distribution of livestock gifts. Oba (2001) says that a Samburu man builds up his own affinal and bond partnerships which make up a network within which reciprocal interests are shared. Perhaps one of the most detailed accounts of reciprocity as an insurance system is that in Philip Gulliver's (1955: 196-222) Pastoral ethnography, 'Family herds': A paper of the two pastoral tribes in East Africa, the Jie and Pastoral. In this book, Gulliver carries out a comparative paper on pasture, water use, marriage, family life, and stock associateship.

The *tilia* institution among the Pokot of Kenya is another good example of a pastoral insurance system. Harold Schneider writes:

"A *tilia* partnership assumes many of the characteristics of clan ties. The partners support each other in the disputes, exchange small gifts such as goats, beer, and ornaments, and generally assume an intimate attitude toward each other" (Schneider 1957: 284).

On symbiosis, Kroeber (1948) once pointed out that pastoralism emerges as a sub-culture with ties linking it to sedentary populations, and that this is one of its distinctive characteristics. For their own survival, pastoralists develop inter-dependence relationships with neighbouring agricultural communities. Other studies lend supportive evidence to this pastoral sedentary interdependence thesis. Oba (2001) claims that pastoral Borana and Gabbra for example, need each other for their survival. These relationships benefit both parties and are most vigorously exploited in times of need.

Similarly, pastoral relationships exist between the Turkana and the Dassanetch, the Samburu and the Pastoral, the Gabbra and the Somali: all need each other for survival. Paul Spencer's (1973) book, *Nomads in Alliance* gives illustration of this. The study reviewed the Rendille camel-based pastoral economy as weak, unable to grow, and therefore vulnerable to stress, especially to rapid population growth. The society periodically ejects surplus labour which is then absorbed by the buoyant and resilient cattle-based Samburu economy. In the process, an intermediate economy of the Arial people has developed. The Arial are of mixed Samburu and Rendille blood, and their economy is based on mixed cattle and camel.

Elliot Fratkin (1991), while agreeing with Spencer on the symbiotic dependency between the Samburu and the Rendille, seems, however, to suggest that it is the Samburu cattle-based economy that is weak due to pressure on hilly grassland pastures. In this case, a number of Samburu opt out of the predominantly cattle based economy and into a mixed cattle and camel economy, to enable them to survive on the lowlands, which favour camels and some cattle. Thus, the drought-resilient Rendille camel based economy bolsters up the Samburu cattle-based economy. However, whichever is the case, the fact remains that pastoral communities are interdependent, one enhancing the survival chances of the other. It is a two way relationship that is mutually beneficial. However, what is the implication of these three theories (sustainable livelihood approach, symbolic interaction theory, and social exchange theory) to Sub-Saharan

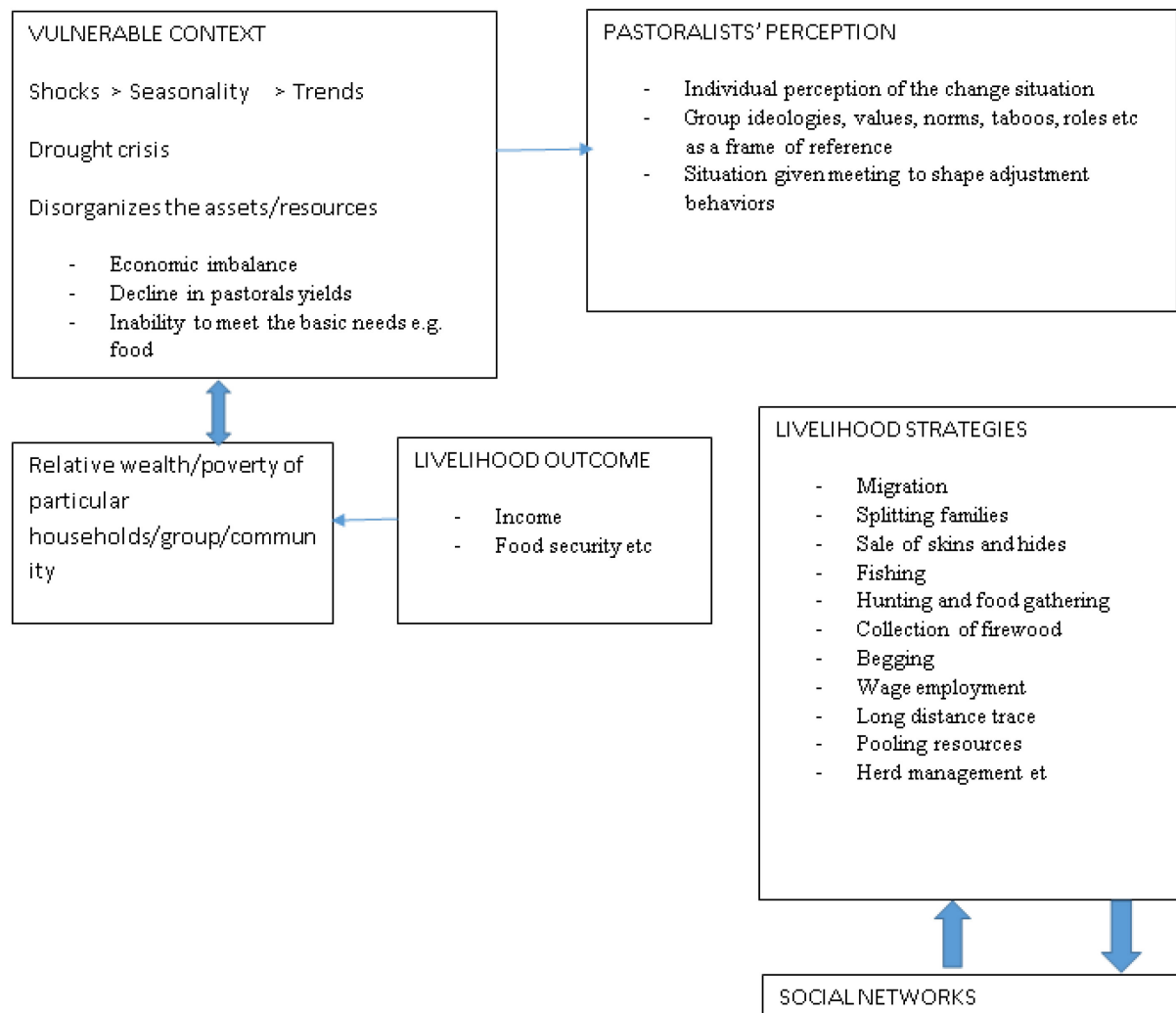
African pastoral people's adaptive strategies during drought and famine?

**8. Sub-Saharan Pastoralists' adjustment scheme during crises – a conceptual framework.**

To better understand how pastoralists adjust to crises, a framework is presented here in Figure 2. It draws from the general literature on pastoralists in Africa from my personal knowledge of the Pastoral situation. Theoretically, this has meant incorporating the sustainable livelihood approach, the symbolic interaction theory, and the social exchange theory. The model could be used to analyze pastoralists' adaptation to dryland situation with special attention to drought, and to one of its consequences - famine, and also to refine the

current livelihood approaches to crisis response in the Pastoral regions in Africa. It is pointed out in the model that Pastoral people's livelihood during crises needs to be understood in terms of two issues: access and transformation of assets for a better livelihood; and capabilities of the local people to make their living more meaningful.

As discussed, this paper dedicates special attention to the significance of social networks as a mediator through which Pastoral people are able to widen their access to other resources during crises. Therefore, the framework portrays the critical role of social networks in the Pastoral livelihood configuration during crises in general, and during drought and famine in particular.



**Figure 2:** A framework for analyzing pastoralists' adaptation to a dryland situation with special response to drought.



While focusing on drought and famine crises in this framework, the paper begins with the hypothesis that famine in Pastoral regions in Africa is the result of interactions of various determinants. Drought is one of these, but to stimulate an appropriate policy response that will reduce food insecurity and strengthen the Pastoral people's own capacity to cope with difficulties, drought must be understood in a broad context of vulnerability (see Figure 2). Here, the phrase 'vulnerability context' draws attention to the complex configuration of influences that are, directly or indirectly, responsible for many of the hardships faced by the Pastoral people. Therefore, the context is the external environment in which Pastoral people exist, and widely condition access to assets and livelihood strategies.

According to the livelihood framework suggested by DFID (2004), vulnerability consists of trends (population, resource, technological change etc), shocks (natural shocks, economic shocks, and conflict), and seasonality (of prices, health, and employment). On the other hand, Scoones (1998) observes that vulnerability covers a range of historical and current socio-economic trends, such as policy setting, politics, history, climate, and socio-economic conditions. Recent studies in the Pastoral regions shed more light on the major causes of vulnerability in that particular area and supports Scoones (1998) line of thought. Therefore, this paper assumes the context given by Scoones (1998).

Generally, in this framework (Figure 2), drought among other factors is seen to change the resource flows critical for livelihood sustainability in the Pastoral regions in Sub-Saharan Africa by profoundly disrupting the local pastoralists' assets or resources. Practically, the focus of this paper centers on the idea that Pastoral people, either as individuals or groups, do not think of their livelihood strategies immediately as crisis strikes. They first define the problem they face on the basis of their world view (e.g. values, norms, taboos, and roles), and give it a specific meaning before adopting a relevant livelihood strategy.

The literature on livelihoods distinguishes between 'coping', which involves temporary adjustments to livelihoods in the face of crisis, but does not necessarily bring a change in livelihoods, and 'adaptation' which involves a longer term shift in the conventional practices and informal or formal rules pursued by households and communities in order to secure their livelihoods and to minimize the risk of lives (Scoones 1998; Sinclair and Ham 2000). According to De Waal (1994), it is the local coping strategies that are the most important

component in pastoral people's survival in many crisis situations.

Ellis (2000) observed that adaptive strategies determine the household's livelihood outcome, that is, the goals that people are trying to achieve through their livelihood pursuits. The outcomes contribute to the livelihood security and sustainability of natural resources (DFID 2001; Scoones 1998). Outcomes, conditioned by the assets status and the mediating process, result in positive or negative effects on the poverty status of the household; it is possibly feedback on assets and hence the further development of livelihood strategies. For instance, in the Pastoral areas in Africa, as represented in the framework, the economic relationship between livelihood strategies and livelihood outcomes during drought or famine has either positive or negative effects on the wealth or poverty status of Pastoral households.

The framework (Figure 2) further highlights the way in which this economic relationship between livelihood strategies and livelihood outcomes in the Pastoral regions occurs. The idea is to identify opportunities for strengthening the Pastoral people's own capacities. It draws from local people's own views that the relationship is predominantly embedded in various types of social networks being activated during crises. Pastoralists believe that social networks acts as an insurance system during crises hence increases their resiliency and adaptability towards natural hazards such as drought.

The literature on pastoralism reveals that in the past, several types of social relationships used to be exploited by pastoralists for survival in times of an economic hardship. They were kinsmen, affines within the pastoral communities, reciprocal partnerships, symbiotic relationships with neighbouring agricultural or non-pastoral communities, and finally, relationships with outsiders such as traders, state officials, missionaries, employers, and the sedentary population in general. These are the kind of social ties that form the core of this framework.

Therefore, this is a holistic framework which builds on the Pastoral people's strengths to address food insecurity during crises. It has the potential to provide a sounder analytical basis on which to ground interventions, given the problem associated with simple focus in the delivery of famine relief food in response to immediate life-saving needs in the Pastoral regions. The framework is more nuanced and informs theoretical debates about

drought and famine in pastoral areas in general, and in Sub-Saharan Africa in particular.

## 9. Conclusion

The discussion in this paper has explored the theoretical framework in which the relationship between drought and famine, and Sub-Saharan Africa pastoral household responses in terms of livelihood adjustments could be examined. A framework for the analysis of livelihood strategies, as formulated by Ellis (2000) forms the basis and provides a strong starting point and a wider context for analyzing both the changes that have taken place in pastoral regions and the manner in which these have influenced livelihood strategies in relation to both livelihood security and environmental sustainability. The focus in this approach, however, is an understanding of what pastoral people have (or have access to), and how they use what they have to construct their livelihoods. Therefore, the sustainable livelihood approach guided the identification of relevant factors affecting livelihoods in the pastoral areas. However, as discussed in the pastoral literature, an important process on how pastoral households earn a living during crises is somewhat overlooked by the livelihoods framework. In tailoring the sustainable livelihood approach to how the pastoral people survive during crises, components of symbolic interaction theory and social exchange theory were incorporated. This enhanced the usefulness of the sustainable livelihood approach in guiding the identification of the pertinent process of livelihood sustainability in the pastoral regions in Sub-Saharan Africa.

For instance, a close examination of household livelihood responses as conducted by Blumer (1969) and Schutz (1970) expands the sustainable livelihood analysis, showing that households normally define the situation and gives it a meaning before deciding on a particular livelihood strategy. The social exchange theory by Homans (1961) and Blau (1964) includes the concept of reciprocity in the analysis of livelihood strategies. The three theories have been used to formulate a framework for analyzing pastoralists' adaptation to the dryland situation with special response to drought and famine as in Figure 2. In the framework, drought is analyzed within the general vulnerability context so as to understand the inherent fragility of pastoral peoples' livelihoods which makes them less able to cope with stresses. Of great concern to this paper is how pastoral people respond to crises by drawing on social networks that act as an insurance system. Therefore, the framework provides a lens through

which the pastoral people's livelihood during drought and famine could be understood, and is a useful heuristic tool for guiding researchers on pastoral livelihoods.

## 10. References

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