

Vulnerability to Drought Risk and Famine:
Local Responses and External Interventions
among the Afar of Ethiopia, a Study on the
Aghini Pastoral Community

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Vulnerability to Drought Risk and Famine: Local Responses and External Interventions among the Afar of Ethiopia, a Study on the Aghini Pastoral Community

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Glossary

<i>absuma</i>	cross-cousin marriage
<i>ada/maada</i>	customary law
<i>ama</i>	reconciliation
<i>amoliay</i>	salt block
<i>ari</i>	afar traditional hut
<i>bakal</i>	goat kids
<i>balabat</i>	was the title for the clan head (<i>kedo abba</i>) and it literally means ‘notable’
<i>billu</i>	case involving murder
<i>bitwoded</i>	was the most senior title of the imperial government of Ethiopia and it literally means ‘the beloved’ in Amharic;
<i>burra</i>	family/household unit
<i>burra-Abba</i>	household head
<i>chat</i>	<i>catha edulis</i>
<i>chika-shum</i>	was the title for the lineage head and it is equivalent to ‘village chief’
<i>daar-edola</i>	council of elders/clan elders
<i>dagu</i>	afar traditional information exchange systems
<i>dahla</i>	extended family/ family settlement
<i>dasiga/dahsiga</i>	is an afar term that denotes sharing meat in the bush
<i>diat</i>	compensation for murder
<i>eddo/addo</i>	a team of range scouts
<i>edola</i>	council of elders
<i>eerena-abba</i>	deputy/assistant for <i>fimaa</i> leader
<i>feentu</i>	leader of <i>Fimaa</i>
<i>fimaa/finaa</i>	sanction-executing unit
<i>finna-t-abba</i>	a principal leader of <i>fimaa</i>
<i>ganda</i>	a large cooperative residential settlement
<i>gebere mahbar</i>	peasant association
<i>gulub/dahla/dulaa</i>	lineage
<i>hantilla/hantita</i>	milk stock loan
<i>homa</i>	main/permanent settlement
<i>karma</i>	main rainy season (July - September)
<i>kataysa</i>	friend/non-afar friend
<i>keda deben</i>	“great famine”
<i>kedo/kedho</i>	clan
<i>Mabilo</i>	elders council/assembly
<i>mable</i>	litigation
<i>magida/magda</i>	temporary camp/settlement
<i>makaban/makabantu</i>	clan chiefs/chief
<i>malokti</i>	officials assigned by the sultan
<i>maro</i>	a session to be held in a circle-like manner under a tree shade
<i>sugun</i>	short rain
<i>wazir</i>	chief assistant of the Sultan in Aussa

Abbreviations

ADLI	Agriculture Development Led Industrialization
ALF	Afar Liberation Front
ANDP	Afar National Democratic Party
ANLM	Afar National Liberation Movement
ANRS	Afar National Regional State
APDO	Afar Peoples Democratic Organization
ARDUF	Afar Revolutionary Democratic Unity Front
AVA	Awash Valley Authority
CBS	Capacity Building Strategy
CFW	Cash for Work
CIDA	Canadian International Development Agency
CIF	Community Investment Fund
CSA	Central Statistical Authority
DFID	Department for International Development (UK foreign aid ministry)
DHS	Demographic and Health Survey
DPCF	Disaster Preparedness and Contingency Fund
DPPA	Disaster Prevention and Preparedness Agency
DPPC	Disaster Prevention and Preparedness Commission
EEA	European Environmental Agency
EFSA	Emergency Food Security Assessment
EFSR	Emergency Food Security Reserve
EGS	Employment Generation Schemes
EHNRI	Ethiopian Health and Nutrition Research Institute
EPA	Environmental Protection Authority
EPRDF	Ethiopian Peoples Revolutionary Democratic Front
EW	Early Warning
EWS	Early Warning System
FAD	Food Availability Decline
FDRE	Federal Democratic Republic of Ethiopia
FED	Food Entitlement Decline
FEMA	US Federal Emergency Management Agency
FFW	Food for Work
FSS	Food Security Strategy
FYDP	Five Year Development Plan
IDP	Internally Displaced Person
IFRC	International Federation of Red Cross and Red Crescent Societies
IISD	International Institute for Sustainable Development
IPCC	Intergovernmental Panel in Climate Change
ISDR	International Strategy for Disaster Reduction
LDCs	Less Developed Countries
LMB	Livestock and Meat Board
MAADE	Middle Awash Agricultural Development Enterprise
MCE	Metaferia Consulting Engineers
MoA	Ministry of Agriculture

MoFA	Ministry of Federal Affairs
MoLA	Ministry of Land reform and Administration
NARs	Net Attendance Ratios
NDPPF	National Disaster Prevention and Preparedness Fund
NERDU	North-East Rangelands Development Unit
NGO	Non-Government Organization
NMSA	National Meteorological Services Agency
NPDPM	National Policy on Disaster Prevention and Management
NRC	National Research Council
OAS	Organization of American States
OLF	Oromo Liberation Front
ONLF	Ogaden National Liberation Front
OSSREA	Organization for Social Science Research in Eastern and Southern Africa
PAR	Pressure and Release
PCDP	Pastoral Community Development Project
PDRE	People's Democratic Republic of Ethiopia
PFE	Pastoralists Forum Ethiopia
PRS	Poverty Reduction Strategy
RDPS	Rural Development Policies and Strategies
RRC	Relief and Rehabilitation Commission
SAP	Structural Adjustment Programme
SDPRP	Sustainable Development and Poverty Reduction Program
SERA	Strengthening Emergency Response Abilities
SLDP	Second Livestock Development Project
SLF	Sustainable Livelihood Framework
SNNPR	Southern Nation, Nationalities and Peoples Region
SORDU	South Rangelands Development Unit
SPSS	Statistical Package for Social Sciences
TLDP	Third Livestock Development Project
TLUs	Tropical Livestock Units
TPLF	Tigray People Liberation Front
UMV	Upper Middle Valley
UN ISDR	United Nations International Strategy for Disaster Reduction
UNDHA	United Nations Department of Humanitarian Affairs
UNDP/DHA	UNDP Department of Humanitarian Affairs
USAID	United States Agency for International Development
VCAAs	Vulnerability and Capacity Assessments
WB	World Bank
WDPC	Woreda Disaster Prevention Committee
WFP	World Food Programme
WISP	World Initiative for Sustainable Pastoralism.
WMO	World Meteorological Organization

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Abstract in English

In East African countries drought-related famine has been a number one risk. Ethiopia is among those countries that are repeatedly stricken by recurrent famine. Agricultural and pastoral households have increasingly become vulnerable to famine. The successive Ethiopian governments attributed the recurring famine and hunger to natural events, particularly to droughts. However, though drought triggers famines, it does not necessarily lead to famine disaster in every context. This is the current tone of literature in disaster causation. Each famine has its own specific causes in each context and this requires exploring the causal factors thereof. This study in the Afar region, in north-east Ethiopia, attempts to explain the root causes of vulnerability to famine, and assess the local and external responses.

The central argument of the research is that pastoralists' vulnerability to famine and food crisis has increased overtime because of the complex interplay of multiple factors such as environmental or ecological degradation, socio-economic destabilization, and political processes. It is also stated that despite efforts of internal and external actors, vulnerability of the pastoral groups to famine has increased over time. In that respect the study attempts to explain how these factors have led to an increase of vulnerability and livelihood insecurity among the Afar pastoralists. Three specific arguments are addressed through analyzing both secondary and primary data. These are:

- (i) The Afar pastoralists' vulnerability to famine has increased over the past decades because of the combined effects of drought, ecological crisis and external pressures (encroachments, loss of key pastoral resources, violent conflict and political instability).
- (ii) Pastoral households/communities are currently less able to cope with stresses through their traditional coping and adaptive strategies.
- (iii) Consequently, pastoral households/communities have become more dependent on public transfer (food aid) to cope with recurring food crisis.

The empirical research used both qualitative and quantitative data in addressing the basic research questions. The outline of the research is structured to suit an approach of presenting discussions at macro and micro levels. An assessment of factors both, at macro (regional/national) and micro (community) levels, is made on the basis of secondary and primary data respectively. Accordingly, factors related to ecological degradation, socio-political processes and recurrent droughts, etc. are examined. The extent of these problems at the macro level is assessed mainly based on secondary data, while the magnitude of these problems at micro (community) level is assessed on the basis of primary data gathered through a household survey, and individual and focus group interviews.

The main focus of the analysis at the community level is on the local people's perception about livelihood resources, well-being trends and risk factors which affect their traditional subsistence. This research has also dealt with the examination of traditional early warning systems, indigenous responses, and risk communication among local people and to external actors. In this respect an attempt is made to identify indigenous early warning systems and to assess external interventions and disaster responses with emphasis on the local people's view on state responses in times of food crisis. Moreover, an attempt is made to show how the local people have shaped and reshaped their adaptive responses and coping mechanisms over time. In this connection analyses of traditional adaptive responses to the variable environment, ecological changes and of coping mechanisms to food crisis are made using mainly the primary data gathered from the local pastoral community.

Based on the analyses of both primary and secondary data the research attempts to answer the question why the Afar pastoralists' vulnerability to famine has increased over time and how the local and external actors have responded to recurring famine. The search for explanations of vulnerability to

famine focuses on highlighting the interplay of multiple causal factors at different levels within historical socio-political and economic processes overlapping with ecological crisis and recurrent drought. Accordingly the research highlights the major factors that have created vulnerability to famine. These include:

- (i) External pressures which include state intervention, land alienation, encroachment by cultivators, loss of dry season/drought retreats, curtailment of mobility and unfavourable terms of trade.
- (ii) Stresses which include frequent drought, conflicts, political instability, weakening mutual support systems, lack of trust in formal government institutions due to non-participatory, lack of commitment, patron-client relationship, and corruption.
- (iii) Ecological/environmental crises which are reflected in terms of loss of key pastoral resources (grass, natural fodder vegetation, and water).

The research also attempts to assess the local and external responses to famine. The local people are highly aware of the drought-related famine, degradation of rangelands and mounting conflicts. Thus pastoral households gradually began to incorporate into their livelihood activity some response strategies such as trade, wage labour and growing food crops. There are further adaptive responses stimulated by drought consequences and ecological crisis. These include adjustment in the composition of stocks, forging stock alliance, enhanced mobility and seeking external support, etc. These responses constitute risk management strategies. However, the extreme dryness and prolonged drought periods combined with external pressures, conflict and political destabilizations have undermined pastoralists' adaptive strategies (mobility) and weakened traditional coping mechanisms. Therefore, prolonged and frequent droughts and their consequences within the context of political and economic marginalization, conflict and political instability have put pastoralists at risk of famine disaster. In this respect famine can be understood as a peak point to the long-term process of marginalization that has led to the failure of traditional coping mechanisms. This goes with perception of local people who often referred to the inability of their traditional strategies to overcome recurrent severe food crisis. Consequently, external support has been vital to save life, whenever pastoral communities are hit by a drought, as it often triggers food crisis that may lead into famine disaster.

Government representatives usually attribute famines to drought and/or failure of rainfall that have led to crop failure and livestock mortality. Therefore, famine disaster has been theorized mainly as failure of food availability because of natural events (drought, pest). Accordingly, the government's and NGOs response to the famines has been emergency response (food aid) to save the lives of victims. Inappropriate theorization of famine causation and insufficient studies have resulted in ineffective external interventions or responses which so far mainly focus on emergency food aid without considering livelihood protection. Therefore, the recovery and development aspects, and livelihood protection are missing. There was no single year, when there was no food crisis in the last two decades. At the country level every year about 5-6 million people were in need of food assistance. This indicates the structural vulnerability of rural households to food crisis. Therefore, external actors have so far not addressed the root causes of vulnerability to famine.

The conclusion of the research is that famine and the increase of vulnerability are not primarily the consequences of drought, but of external domination and uneven development. This suggests that the genesis of food crisis (famine) must be understood as an interaction of institutional, economic and political variables. Natural events like droughts don't necessarily lead to famine in all contexts. It is only when livelihood assets are eroded, opportunities are constrained and people are not well-prepared that the consequences of natural events develop into famine or food crisis. This suggests that production or yield failures caused by drought do not become famines unless other conditions are propitious. Therefore, the current approach in social science research with regard to disaster causation is to look at the interrelationship between natural risks and social vulnerability.

Zusammenfassung in Deutsch (Abstract in German)

In Ostafrikanischen Ländern sind mit Dürre einhergehende Hungersnöte ein großer Risikofaktor. Äthiopien gehört dabei zu denjenigen Ländern, die wiederholt von periodischen Hungersnöten betroffen sind. Auf Landesebene benötigten jedes Jahr etwas 5-6 Millionen Menschen Nahrungsmittelhilfe. Landwirtschaftliche und pastorale Haushalte sind stärker verwundbar gegenüber Dürren, was zu Hungersnöten führt. Mehrere äthiopische Regierungen haben für die wiederkehrenden Hungersnöte natürliche Ursachen verantwortlich gemacht, insbesondere Dürren. Jedoch führt dürreinduzierter Hunger nicht notwendig zu einer Hungerkatastrophe. Jede Hungersnot hat ihre spezifischen Ursachen und die Gründe dafür müssen jeweils untersucht werden. Diese Studie der Afar-Region im Nordosten Äthiopiens versucht die grundsätzlichen Ursachen der Vulnerabilität für Hunger zu erklären, und möchte die lokalen und externen Reaktionen auf Hungersnöte aufdecken.

Das zentrale Argument der Forschung ist, dass die Vulnerabilität von Pastoralisten gegenüber Hungersnöten und Nahrungsmittelkrisen als Folge des komplexen Zusammenspiels von multiplen Faktoren wie Umweltzerstörung oder ökologischer Degradation, sozio-ökonomischer Destabilisierung und politischer Prozesse zugenommen hat. Zudem wird dargelegt, dass diese Zunahme trotz Anstrengungen internationaler und externer Akteure stattgefunden hat. Die Studie versucht zu erklären, wie diese Faktoren zu einem Anstieg von Vulnerabilität und Livelihood-Unsicherheit bei den Afar-Pastoralisten geführt haben. Drei spezifische Argumente werden durch die Analyse sekundärer und primärer Daten angesprochen. Das sind:

- (i) Die Vulnerabilität der Afar Pastoralisten gegenüber Hungersnöten hat in den letzten Jahren durch die kombinierten Folgen von Dürren, ökologischer Krise (Verlust von pastoralen Schlüsselressourcen) externem Druck und Stressfaktoren (Übergriffe, gewaltsame Konflikte, politische Instabilität u.a.) zugenommen.
- (ii) Parstorale Haushalte/Gesellschaften sind gegenwärtig schlechter in der Lage anhand ihrer traditionellen Bewältigungs- und Anpassungsstrategien mit Stressfaktoren umzugehen.
- (iii) Infolgedessen sind pastorale Haushalte/Gesellschaften stärker von externer Unterstützung (Nahrungsmittelhilfe) abhängig geworden, um der immer wiederkehrenden Nahrungsmittelkrise zu begegnen.

Die empirische Arbeit basiert auf qualitativen sowie quantitativen Daten und zielt darauf ab, Diskussionen auf der Mikro- und Makroebene zu erfassen. Weiterhin werden zentrale Faktoren der ökologischen Degradation, Dürren und damit in Verbindung stehende sozio-politische Prozesse auf nationaler, regionaler und kommunaler Ebene anhand von Primär- und Sekundärdaten analysiert. Wohingegen zur Analyse der Makroebene vor allem Sekundärdaten verwendet wurden, wurde die Mikroebene (Kommunen) insbesondere anhand einer Haushaltsumfrage, individuellen Interviews und Fokusgruppen untersucht.

Das zentrale Anliegen der empirischen Untersuchung auf kommunaler Ebene ist die Wahrnehmung der lokalen Bevölkerung hinsichtlich der vorhandenen livelihood-Ressourcen, Wohlstandsveränderungen (well-being trends) und den Risikofaktoren, die ihre traditionelle Subsistenzwirtschaft beeinflussen. Darüber hinaus setzt sich die Arbeit mit traditionellen Frühwarnsystemen, indigenen Antworten darauf und der Risikokommunikation zwischen lokalen und externen Akteuren auseinander. In diesem Zusammenhang wird versucht, indigene Frühwarnsysteme zu identifizieren, sowie externe Interventionen als Reaktion auf Katastrophen zu bewerten. Im Zentrum steht dabei die Perspektive der lokalen Bevölkerung auf die staatlichen Eingriffe in Zeiten von Nahrungsmittelknappheit. Weiterhin werden die unterschiedlichen und sich im Laufe der Zeit verändernden Strategien der lokalen Bevölkerung im Umgang mit Katastrophen und ihre

Bewältigungsmechanismen untersucht. Dabei werden die Anpassungsmechanismen an eine sich verändernde Umwelt, der ökologischen Wandel und die Bewältigungsmechanismen von Nahrungsmittelkrisen auf Basis der empirischen Ergebnisse aus der lokalen pastoralen Gesellschaft miteinander in Verbindung gestellt.

Auf Grundlage der primären und sekundären Daten, beschäftigt sich diese Arbeit mit der Frage, warum die Vulnerabilität der Afar Pastoralisten bezüglich Hungerkatastrophen mit der Zeit zugenommen hat und wie die lokale Bevölkerung sowie externe Akteure auf wiederkehrende Hungerkatastrophen reagiert haben. Die Suche nach der Erklärung von Vulnerabilität konzentriert sich dabei vorrangig darauf, das Zusammenspiel zahlreicher Kausalfaktoren auf unterschiedlichen Ebenen im Kontext von historischen, sozio-politischen und wirtschaftlichen Prozessen aufzuzeigen, und in Verbindung mit ökologischen Krisen und Dürreereignissen zu stellen. Entsprechend werden wesentliche Faktoren, die die Vulnerabilität gegenüber Hungerkrisen beeinflussen, hervorgehoben.

- (i) Externer Druck bestehend aus staatlichen Interventionen, Landumverteilungen, Beeinträchtigungen durch sesshafte Bauern, Verlust von Rückzugsräumen bei Trockenheit, Mobilitätseinschränkungen und nachteilige Handelsbedingungen.
- (ii) Stressfaktoren bestehend aus häufigen Dürren, gewaltsamen Konflikten, politischer Instabilität, der Schwächung lokaler Solidaritätssysteme, Vertrauensverlust in Regierungsinstitutionen, Patron-Klient-Beziehungen und Korruption
- (iii) Ökologische Umweltprobleme, die sich in dem Verlust von pastoralen Schlüsselressourcen wie Weidefläche und Wasser ausdrücken

Im Rahmen der Auseinandersetzung mit den lokalen und externen Reaktionen auf Hungerkrisen ist festzustellen, dass die lokale Bevölkerung sich des Zusammenhangs zwischen Dürre, Hungerkrise, der Degradation von Weideland und den Nutzungskonflikten bewusst ist. Im Laufe der Zeit wurden daher Anpassungsstrategien, wie der Einstieg in Handel, Lohnarbeit und der Anbau von Nahrungsmitteln in die Aktivitäten zur Sicherung des Lebensunterhalts integriert. Darüber hinaus können die Anlage von Lagern, zunehmende Mobilität und die Suche nach externer Unterstützung u.a. als weitere Strategien des Risikomanagements gesehen werden, mit Hilfe derer versucht wird, sich auf Dürreereignisse einzustellen.

Jedoch haben extreme Trockenheit und anhaltende Dürreperioden in Kombination u.a. mit externem Druck, Konflikten und politischer Destabilisierung pastorale Anpassungsstrategien (Mobilität) untergraben und damit traditionelle Bewältigungsmechanismen geschwächt. In dieser Hinsicht kann Hungersnot als der Höhepunkt eines langfristigen Marginalisierungsprozesses verstanden werden der letztlich zum Zusammenbruch traditioneller Bewältigungsstrategien geführt hat. Dies geht auch mit der lokalen Wahrnehmung einher, welche oft auf die Unfähigkeit ihrer traditionellen Strategien verweisen, die immer wiederkehrenden Nahrungsmittelkrisen zu überwinden. Infolgedessen wurde externe Unterstützung unerlässlich zur Überlebenssicherung wenn pastorale Gemeinschaften von einer Dürre betroffen sind, da diese oft Nahrungsmittelkrisen auslösen, die zu Hungerkatastrophen führen.

Regierungsvertreter führen Hungersnöte oft auf Dürren und/oder das Ausbleiben von Regen zurück, die zu Ernteausfall und hoher Viehsterblichkeit führen. Deshalb wurden Hungerkatastrophen hauptsächlich als Zusammenbruch von Nahrungsmittelverfügbarkeit als Folge von natürlichen Ereignissen (Dürre, Schädlinge) gesehen. Dementsprechend war die Reaktion von Regierungen und NGOs auf Hungersnöte Nothilfe zu geben, um das Leben der Opfer zu retten. Unangemessene Theoretisierung der Ursachen von Hungersnöten und unzureichende Studien haben ineffektive externe Interventionen zur Folge gehabt, die sich hauptsächlich auf Nothilfe konzentrierten, ohne den Schutz von Livelihoods in Betracht zu ziehen. Deshalb fehlen Aspekte von Wiederherstellung (recovery) und Entwicklung, sowie der Schutz von Lebenshaltungssystemen (livelihoods) bei Interventionen. In den

letzten zwei Jahrzehnten kam es jedes Jahr zu Nahrungsmittelkrisen und dazu, dass Menschen auf Nahrungsmittelhilfe angewiesen waren. Dies weist auf die strukturelle Vulnerabilität ländlicher Haushalte in Bezug auf Nahrungsmittelkrisen hin. Externe Akteure haben bisher die grundlegenden Ursachen der Vulnerabilität gegenüber Hungersnöten nicht berücksichtigt.

Zusammenfassend ist das Ergebnis der Forschung, dass Hungersnöte und eine Zunahme von Vulnerabilität nicht in erster Linie die Konsequenzen von Dürren sind, sondern von externer Vorherrschaft und ungleicher Entwicklung. Nahrungsmittelkrisen (Hungersnöte) müssen somit als das Zusammenspiel von institutionellen, ökonomischen und politischen Variablen gesehen werden. Naturereignisse wie Dürren führen nicht notwendiger Weise zu einer Hungersnot. Nur wenn "livelihood assets" erodiert sind, sind die Möglichkeiten eingeschränkt und die Menschen schlecht vorbereitet, so dass sich als Konsequenz von Naturereignissen Hungersnöte oder Nahrungsmittelkrisen entwickeln können. Ernteeinbrüche durch Dürren werden nicht zu einer Hungersnot, so lange die anderen Gegebenheiten günstig sind. Deshalb muss sich ein sozialwissenschaftlicher Ansatz zur Untersuchung von Katastrophenursachen mit dem Zusammenhang von Naturrisiken und sozialer Vulnerabilität befassen.

Chapter One

Introduction

1.1 Overview

Countries of East Africa have been faced with hunger and recurrent food crises (famines) since the 1970s. The failure of these countries to feed their population is attributed to a number of factors such as drought, disease epidemics, ecological crisis, land degradation, poor governance, inappropriate national policies, civil unrest, political instabilities, etc. Ethiopia is one of the countries that has been facing most of these problems, of which drought-related famines, hunger (food insecurity), increased poverty, population pressure, conflicts and civil unrest remain the most prevalent ones since the 1960s (Webb *et al.*, 1994; 1992; Markos, 1997; Mesfin, 1999; Degefa, 2005; Fassil, 2005).

The most severe and well-documented famine¹ years included the 1829, 1888-1892, 1958, 1965-1967, 1973-1974, 1984-1985, 2002-2003 (Fassil, 2005, Lautze *et al.*, 2003; Webb *et al.*, 1994; Pankhurst, 1985). Some of these famine years indicated that the history of drought and famine goes back to 19th century. But it is mainly in the past three to four decades that the country has tragically been trapped by recurrent famines (Fassil, 2005:19, 25; Pankhurst, 1985). The 1984-85 famine alone killed about 800,000 people² (Hareide, 1991).

The 20th century has gone with severe famine memories, and the 21st century has greeted Ethiopia with alarming food crisis. Famine persists, and just at the dawn of the new century (i.e. 1999-2000) more than ten million people received relief assistance (Fassil, 2005:28; Maxwell, 2002:48). In general, cycles of drought, famine and pestilence have always characterized Ethiopia's past and present (Lautze *et al.*, 2003, Dereveux, 2004).

In spite of all the efforts made by the government, international agencies and NGOs³ since the 1973-74 famine, the recurrent famines have been debilitating the country's natural resource base, economy, and human resource (Fassil, 2005:32-45, Degefa, 2005; Markos, 1997). These problems coupled with a myriad of social, political, economic and ecological crises have made the country dependent on foreign relief food aid and development assistance since the 1980s (World Bank, 1999 as quoted by Stephen, 2004:104).

In recent decades the number of rural population affected by drought-related famines or food crisis has increased. Various researchers indicated that vulnerability to famine and chronic food insecurity in the country is increasing from time to time especially in severely degraded localities of highlands and peripheral lowlands (Mesfin, 1991:192, Lautze *et al.*, 2003; Markos, 1997, Sharp *et al.*, 2003; Hareide, 1991; Degefa, 2005). There is evidence that the level of destitution in rural Ethiopia has increased in recent decades (Sharp *et al.*, 2003).

¹For the details and chronology of earlier droughts and famines see Webb *et al.*, 1992:20; Fassil, 2005:18-24.

² According to some sources, number of deaths ranges from 590,000 to 1 million (e.g. cited in Dereveux, 2000:6).

³ Instances of such efforts included Food Security Programs, Rural Development Programs, and other income generating activities (FFW/CFW, EGS, etc).

The Ethiopian government, NGOs and international agencies/donors have long recognized the problem and taken some measures in response to this crisis. At various times huge resources, particularly in the form of relief assistance have been transferred to the country. However, both the past and the current intervention strategies have remained insufficient to avoid recurrent food crisis among the rural communities. The external interventions were mainly short-term transfers (i.e. relief assistance) during crisis. Thus they lacked comprehensive conceptualization of the causes of the problem and often focused on curing symptoms rather than addressing the root causes of food crisis (Devereux *et al.*, 2002:10; Mesfin, 1991).

Moreover, approaches used to study and explain famine disasters were more of subject-centred searching for a single factor in natural resources or economic sector (Hogg, 1997a:17). Thus, previous studies have not fully addressed the multifaceted nature of famine causation (i.e. socio-cultural factors, entitlement and political economy)⁴ and prevention. In other words the vulnerability situation of the people (social groups) and their livelihood systems have not been adequately addressed. Consequently, they were unable to come up with context-specific disaster prevention strategies.

In the current literature, the term vulnerability appears as a catch-all concept in disaster-related studies (Blaikie *et al.*, 2004; Bankoff *et al.*, 2004; Alwang *et al.*, 2001; Moser, 1997; Ribot *et al.*, 1996). It has emerged from researches on natural disaster and famine (hunger) putting emphasis on the social dimension of disasters, and trying to explain the socially differentiated impacts of disaster (Davis, 2004:128-144). There is also a shift from 'impact analysis' to 'vulnerability analysis', which provides a basis for tracing social causality. While the former is a way of looking at a range of the consequences of an event, the later examines the multiple causes and critical outcomes rather than the multiple outcome of a single event (Ribot *et al.*, 1996). Regarding disaster response, the current direction is from the 'culture of reaction' to 'prevention' (Annan, 1999). In this case, vulnerability analysis is the first step for moving towards potential responses and durable policy, since it enables us to trace the root causes of climate-related crises in social and political-economic relations and processes (Ribot *et al.*, 1996).

The means of risk reduction or coping with crisis are material stocks, assets as well as formal and informal safety nets which can be mobilized by individuals, groups or communities. Therefore, households' or communities' capacity to buffer against shocks or disasters is highly dependent on availability of and access to productive resources and informal/formal safety nets. The resulting distribution of material stocks and of access to income opportunities, assets as well to formal and informal social security arrangements spells out the material and social conditions circumscribing vulnerability for some households/communities and security for others (Ribot *et al.*, 1996:12). This also suggests the importance of capacity (resilience) and livelihood strategies where the livelihood approach fits in.

In general the main argument in the literature is that the underlying causes of famine are primarily rooted in social and political-economic relations and processes, but not in weather

⁴Some works (e.g. Abdul-Mejidi, 1976:9; Mesfin, 1986:129-143; 1991:192; 2004:1-7; Degefa; 2005:351) looked at some aspects of political economy of famine/food crisis in Ethiopia.

extreme events (e.g. droughts). Weather extreme events (droughts) can trigger subsistence crises. But such crises come at the confluence of historical processes as well as actions and events that make households and communities vulnerable (Ribot *et al.*, 1996:12). The concept of vulnerability is used to understand the social, political and economic events that make agricultural and pastoral households vulnerable to recurrent food crisis/ famine.

Vulnerability to hunger/famine results from the dynamics of the social system in which agricultural and pastoral households are located. Therefore, vulnerability is shaped by historical and ongoing processes of social differentiation and marginalization, within a specific social history of access to productive resources (assets), formal and informal safety nets; state development policies; conflicts, etc. (Ribot *et al.*, 1996:12). Accordingly this research is guided by the theoretical orientations drawn from political economy and livelihood framework.

1.2 The Study Area

Between 250 BC and 1994, about 40 periods of famine were identified in Ethiopia. Most of these crises occurred within the past 200 years (the period for which most detailed records exist), some lasted just a year or two and others apparently persisted for more than a decade (Webb *et al.*, 1994). Areas that were hit hardest by famines during these periods included the central and north-eastern highlands, which stretch from northern Shewa through Wello up to Tigray. Although the most known area for its drought and famine history is the north-eastern highland of Ethiopia (i.e. the present southern and central Tigray zones; Waghemira zone; south and north Wello zones), famine crisis has expanded its horizon and has been affecting nearly many parts of the country, particularly since the 1980s.

The most often affected areas include the severely degraded highland areas and the lowlands that are inhabited by farm and pastoral populations respectively. Following the 1970s and 1980s famines, the Ethiopian Government, international agencies and NGOs have been striving to provide food aid to prevent drought-related famine crises. At the same time, both the problem of recurrent famine and the efforts to tackle it have attracted many studies on famines, public response and indigenous coping mechanisms (Dessalegn, 1991; Hareide, 1991; Markos, 1997; Webb *et al.*, 1994; Fassil, 2005; Mesfin, 1986). Most of the studies, however, have largely focused on highland areas and peasant households, although the peripheral lowlands and pastoralists are equally affected by recurrent famines. Therefore, historical famines that have swept through pastoral communities have remained hidden, except some incomplete records of impacts of rinderpests in pastoral areas (Pankhurst, 1985 cited in Lautze *et al.*, 2003).

Moreover, pastoral areas have been neglected in terms of development/investment and are characterized by different types of conflicts which have influences on peoples' mobility and their livelihoods, natural resource base and access to resources (Gamaledin, 1992, 1993; Ali, 1996, 1997; Getachew; 1997, 2000a; 2001a; Ayalew, 1997, 2001). Besides, the formal early warning systems have remained inactive in pastoral areas. Especially, pastoral traditional early warning systems providing early indications of crisis have been overlooked and/or ignored by a range of formal early warning and surveillance systems (Lautze *et al.*, 2003; Maxwell, 2002:53).

The Afar Region is one of the pastoral areas that has been threatened by drought-related famines, marginalization, negative impacts of development schemes, environmental crisis, ethnic and resource conflicts and political instability (Getachew, 2001a; Ayalew, 1997, 2001; Ali, 1996, 1997; Gamaledin, 1992, 1993; Bekele, 2006). Given the above-stated lacuna, the selection of the Afar pastoralists as subject of the study merits priority and is relevant to study vulnerability to famine crises; adaptive responses and coping strategies that have evolved in shaping Afar pastoralists' livelihood system.

The case study area is located in the interface zone between pastoral area and sedentary area where pastoralists and cultivators interact. The study has taken up one sub-clan group of Afar called Aghini for in-depth study. The Aghini clan has its own traditional territory and historical relation with the neighbouring Oromo, Amhara and Argoba ethnic groups. Therefore, this makes possible to discern the economic and social relations of the Afar with their neighbours as well as inter-ethnic cooperation and conflict at the buffer zone. In general this community has been selected at least for four reasons:

- i. The clan group is one cohesive community residing in the interface of highland and lowland where pastoralists/agro-pastoralists and crop cultivators interact for various reasons. This has given an opportunity to elucidate relations between these livelihood systems.
- ii. Since it is difficult to cover large area in terms of cost and time, taking one clan has an advantage to make an in-depth study of changes emanated from internal factors and external inferences.
- iii. The Aghini clan has its own district administration which is established on the bases of clan and clan territory. Administrative units and social units have overlapped in space. This has made easier the collection and organization of both primary and secondary data.
- iv. The last reason, but not the least, is that the clan group is a transhumance pastoral community which the researcher is interested to study.

1.3 The Research Problem in Context

1.3.1 Background to the Problem

Ethiopia is frequently threatened by drought-related famines. The rural people suffer from chronic hunger and undernutrition⁵. Both peasants and pastoralists have been stricken mainly by recurrent droughts, which in many cases triggered famines and chronic hunger. In response to these crises, the government, international agencies, and NGOs have been striving not only to save lives, but also to prevent famine disaster. However, external responses have been

⁵ The terms like *famine*, *hunger* and *undernutrition* might be defined in many ways by various authors. In this study relevant definitions given by Webb *et al.* (1992, 1994) are adopted:- (i) *Famine* is a widespread and extreme hunger that results for individuals in a drastic loss of body weight and increase in morbidity, and at the community level in a rise in death rate and massive social dysfunctions and dislocation; (ii) *hunger* is defined as the condition resulting from an individual's inability to eat sufficient food, to lead a healthy and active life; and (iii) *undernutrition* is defined as measurable nutrient deficiencies in a diet that can lead to illness (lack of energy, retardation, blindness).

limited mainly to short-term transfers (e.g. emergency relief assistance) when crises are apparent. Furthermore, no significant effort has been made to investigate the underlying causes of vulnerability to famine disasters and the preventions thereof. In fact there is progress in terms of preparedness to avert famine since the 1990s. And yet the structural vulnerability of the rural households to chronic food insecurity is not addressed.

Furthermore peoples' assets and coping mechanisms have not received adequate attention (Maxwel, 2005:53). This suggests the need to understand people's capacity or resilience. Communities and households have their own methods of crisis anticipation, risk management and coping strategies (Dessalegn, 1991; Ahmed *et al.*, 2002:30) which vary from household to household and community to community over time (Yared, 1999). Despite these, very few area-specific studies have been conducted on coping strategies especially in crop dependent areas (Yared, 1999, Dessalegn, 1991). Particularly, studies on the underlying cause of vulnerability to famines; local peoples' perception of risk; coping strategies; and social capital are few with regard to pastoral areas.

Both policy makers and researchers have given minimal attention to people's risk perception, local/traditional early warning systems and coping strategies. As a result, development policies and strategies failed to consider local level crisis forecasting and coping mechanisms and people's capacity. Such gaps, therefore, generate the need to know about sources of pastoral vulnerabilities, local indicators of impending stress, social capital, indigenous support systems, and alternative sources of subsistence during crises. Because improved understanding of these issues help for risk reduction and for mitigating effects of drought through strengthening local capacity.

Nowadays, the direction in famine disaster studies has been to view famine primarily as social rather than natural phenomenon (Blaikie *et al.*, 2004:11,119). However, in Ethiopia the state and practitioners alike hold the view that famine is caused by climatic events (e.g. drought)⁶. But more than three decades have elapsed since such a view has been challenged (Abdul-Mejidi, 1976; Sen, 1981; Mesfin, 1986, 1991; Webb *et al.*, 1994). There are ample situations where the occurrence of drought does not necessarily lead to famine. Rather, it is the failure of social and economic organizations to absorb the shock that leads to famine and chronic hunger. The sources of disasters are more related to social, economic, political and environmental processes than the vagaries of nature (Blaikie *et al.*, 2004).

In Ethiopia the resource poor farming and pastoral communities are forced to live under constant vulnerability to famine, chronic hunger, dislocation and material losses. Their vulnerability to famine is not caused primarily by climatic events, but by various forces that shape the ability of peasants and pastoralists to produce and develop. For instance, the 1973-1974 famine was notable in the north-eastern and southern parts of Ethiopia. According to

⁶ In fact the role of drought in Ethiopian famines is high, but mainly as triggering factor. The underlying factors for persistent famines are rooted in socio-political processes (political systems, 'exploitation') in which silence or late action was envisaged be it either due to lack of information/competency or deliberate action of the then governments. There are some evidences (especially about 1984 famine politics, see Clay, 1991:160&169; Watts, 1991:48-49; Mesfin, 1986:25, and 115-116; Devereux, 2000: 22; Devereux *et al.*, 2002:4) that the two severe famines of 1973/74 and 1984/85 occurred primary due to silence or inaction of the then Ethiopian governments and very late international community action, both of which actions were driven by political considerations.

Sen, famine occurred then regardless of reduction of food production and no/little price increase (Sen, 1981). Thus Sen related the 1973-74 famine to excessive entitlement failures of various farm and pastoral populations.

Regarding pastoralists that were stricken by famine, Sen and other authors further argued that the pastoral communities of the north-east and southern parts of the country were not merely affected by drought but also by expansion of commercial agriculture, dislocation from traditional dry season grazing lands and unfavourable terms of trade of animals for grains (Sen, 1981; Ali, 1997). These factors that had been induced mainly by external forces heightened the impacts of drought by threatening the capacity of pastoral community to cope with consequences of the drought. This implies that vulnerability can be created by various factors, and natural risks are reinforced and lead to a disaster at the end.

While looking at the history of droughts in lowland areas of Ethiopia, climatic extremes or shocks have been the expected features of arid and semi-arid areas. The local people also learn from past events and current situations about the frequency and the likely consequences of various shocks, notably drought. Thus, the local people do not sit and wait for death to come. Rather they tend to reshape their livelihood systems to buffer against potential catastrophic events. They prepare themselves with all means at their disposal and with whatever any external opportunity is available.

However, livelihood systems, and communities/socio-economic groups vary in their capacity to prepare, and cope or recover from the aftermath. Therefore, in the current literature (e.g. Ribot *et al.*, 1996:1) various questions have been raised: Why are some livelihood systems and socio-economic groups more vulnerable than others? Why are they less able to prepare for or recover from? What shapes their exposure to disasters and resilience? What shapes their vulnerability in the face of recurrent crises? In the light of the aforementioned general questions, this study tries to investigate the relationships between recurrent famine (food crisis) and Afar pastoralists' vulnerability, and the evolving coping strategies and adaptation systems they have pursued.

1.3.2. Statement of the Problem

Studies on pastoralists' vulnerability to famine have been very limited in Ethiopia, and even the existing ones focused on either climatic events or adaptation or on external responses. Apart from lack of adequate treatment of vulnerability analysis in the face of recurrent crisis, previous studies failed to integrate the three issues together (i.e. process of vulnerability, indigenous adaptations and external responses). The author argues that the problem of recurrent famine/chronic hunger, which has taken up permanent residence in Ethiopia since the 1980s persists, and the vulnerability of pastoral societies is increasing over time. Thus improved understanding of the underlying factors for persistence of food crisis is significant for strengthening public action in risk reduction. Moreover, given the recurrent nature of drought-related famines (food crises), it is imperative to investigate indigenous responses or adaptive mechanisms that are adopted by pastoralists. While this is related to local adaptive mechanisms, it is also equally crucial to look at the external responses and assess the degree to which they are based on local specific situations, indigenous knowledge system, and their

responsiveness to local needs. In brief, the basic issues of pastoral areas worth investigating include trends and changes in livelihood systems of pastoralists; historical process of pastoralists' vulnerability and their resilience to shocks; and external responses to persistent famines and food crises.

1.3.3. Hypotheses

This study is not primarily focusing on theoretical aspects. Rather it is an empirical study but grounded on the current theoretical debates focusing on social vulnerability factors, which have not been given adequate attention in disaster studies. Given the background to the research problem, the present research is guided by the following working hypotheses:

- i. The severity and frequency of drought is increasing in the pastoral community. In spite of efforts made so far, vulnerability to food crisis/famine has increased primarily caused by changes in the natural environment and by external pressures namely social, economic and political processes and conflicts.
- ii. The frequency and the likely consequences of extreme events are not new phenomena to the pastoralists who experienced them in the past four to five decades. Thus pastoral communities have been constantly reshaping their livelihood systems, modes of adaptation and coping strategies to buffer against risks or survive crises.
- iii. Though pastoral communities and households have their own risk perceptions, and indigenous adaptive and coping strategies that have evolved in the face of environmental changes, extreme events and livelihood shocks, external actors have not yet incorporated or utilized or anchored in the indigenous early warning systems and coping strategies due to communication barriers between them and the local actors.

1.4 Scope and Objective of the study

Previous studies took up aspects of pastoralism as their main focus. This study draws on comprehensive framework or perspective of social vulnerability whereby underlying vulnerability factors, modes of adaptation, and coping strategies or communities' resilience can be better captured. The central tenet of this study is that the pastoral communities' vulnerability has been increasing primarily due to socio-political processes, mounting resource and ethnic conflicts, environmental pressures and external encroachments. Consequently pastoralists have been responding by reshaping their livelihood systems, adaptive responses and strategies. These modes of adaptation in turn have led to changes in resource management systems; pastoral mobility, way of life and settlement patterns, social institutions, etc. Therefore, this study aims at understanding and explaining such changes which have resulted from multiple causes and processes taking place at different levels.

The time framework for the study covers the past four to five decades and present. This is because it has been during these decades and now that the Afar pastoralists have been experiencing more external pressures and extreme natural events. Accordingly the study

attempts to record and analyze historical processes, and events (disasters, conflicts, disease outbreaks, external interventions, environmental changes, etc.) that have occurred in the study community.

Based on the research problem stated in section 1.3.2, this study has the following specific objectives:

- i. To investigate the livelihood systems of the study community.
- ii. To explore the root causes of vulnerability to famine/food crises, and examining how they are perceived at local level.
- iii. To identify local peoples' adaptive responses and coping strategies and investigate their trends.
- iv. To explore traditional early warning systems and risk communication in the study community.
- v. To analyze vulnerability factors, and responses of communities to extreme events and external pressures.
- vi. To discern ideas that could serve for improving risk reduction strategies.

1.5 Definitions of Concepts, Conceptual Framework /Approach of the Study

1.5.1 Conceptual Framework /Approach

In Chapter 2, a general review of theories, theoretical concepts and frameworks used in disaster studies and vulnerability researches has been provided. Drawing on this literature review, this section presents the approach to the present study and the operational definitions of concepts.

In Chapter 2, I have also discussed the existing "theories" of famine causation and other related frameworks/models. These include neo-Malthusian, environmental 'supply side' explanations, economic theories and the political-economy approach. Each of these approaches is described in section 2.4 of Chapter 2. In the light of arguments established in the research problem in section 1.3 above, this study has adopted a broad theoretical orientation (i.e. political economy) which considers socio-political processes in its arguments for vulnerability of societies or social groups. Therefore, this research has attempted to examine social, political, and environmental processes and extreme events that create vulnerability to famines/food crisis in the study community. At the centre of the discussion are also natural risk (drought) and conflict; livelihoods; local resources and access; social structure (relation between individuals and groups); social capitals (networks, trust, transfers); state-society relations (government views, attitudes and policy towards pastoralists); perspectives of external interventions towards pastoralists and their livelihoods; local people's attitudes towards external actors and local formal leadership (governance). Key concepts used in this study are defined in section below.

1.5.2 Definitions of Concepts

i. Vulnerability: As indicated in section 1.1, the concept of vulnerability has been an important analytical tool to understand underlying causes leading to disaster. It has emerged from researches on disasters, with a view of putting emphasis on social dimension of disasters and trying to explain the socially differentiated vulnerability to disaster. In the area of disaster response, the current direction is also from the ‘culture of reaction’ to ‘prevention’. Thus the first step for moving towards potential responses and durable policy has to be analysis of vulnerability which helps trace the root causes of disasters. Accordingly, in this study the concept of vulnerability is used to understand pastoral communities’ vulnerability to famine crisis and their responses.

Various writers and users have defined vulnerability in very many ways by focusing on households’ or groups’ or social systems’ proneness to a certain shock or crisis (see box 2.3 in Chapter 2). For the purpose of the current research vulnerability is defined in terms of *households’ and communities’ exposure to famine crisis, and insufficient capability to avoid drought risk or rebound from the consequences of the crisis.*

ii. Coping strategy: People/social groups at risk or ‘disaster victims’ act within the limits of their resources (capacity) to cope with adverse events; and resources can be both physical and social means of gaining livelihoods and access to safety (Blaikie *et al.*, 2004). Resources may include labour, land, tools, livestock, cash, jewellery, market, skills, entitlement rights, claims, networks, etc. Within the limits of their resources people employ a range of strategies to avoid disasters or survive adverse events. In general terms all coping strategies for adverse events often consist of actions before, during and after the event. In relation to this Davies (1996) makes distinction between these actions: as ‘coping strategies’ and ‘adaptive strategies’. The former are “the bundle of producers’ responses to declining food availability and entitlements in abnormal seasons or years”, the later means “a permanent change in the mix of ways in which food is acquired irrespective of the year in question” (Davies, 1996:45; 55). Elaborated theoretical discussion on coping and adaptive strategies is given in section 3.2.3.1 (Chapter 3). In this research *coping strategies are defined as local people’s responses to survive famine or food crisis.*

iii. Adaptive capacity/Resilience: Adaptive capacity/response is equivalent to resilience. The concept of resilience is central to the understating of vulnerability (IISD, 2003:6), as it considers not only the capacity to respond or to absorb the impacts, but also essential and non-essential elements of community systems able to adapt and survive the shocks. Vulnerable people are not simply passive, and they “possess significant capacity as well” (Blaikie *et al.*, 2004:14; Morrow, 1999 cited in Wisner, 2004:188). The concept of resilience is an important tool to understand community’s capacity to adapt and survive shocks. Resilience varies from one social group to the other, and is determined by assets that communities possess, and services provided by external infrastructures and institutions. Assets embrace knowledge and labour in a household; physical and financial capital; social relations and access to natural resources. Services comprise infrastructure, transport and communication, credit services, markets, emergency relief systems, etc (IISD, 2003). This indicates that resilience is the characteristics of local asset base and external services or supports. Social capital and collective action are also property of resilience. In this research

emphasis is given to social capitals/networks which are characteristics of social resilience. For the purpose of this research resilience/adaptive capacity is defined as *ability of social groups to adapt to trends and shocks absorbing them while maintaining function*.

iv. **Livelihood:** When it comes to the understanding of vulnerability and resilience, the concept of livelihood⁷ is central and can be subjected to various interpretations. A livelihood “comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. It is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in future, while not undermining the natural resource base” (Carney 1998:4). In this definition of livelihood, assets are central and determine household resilience. Assets are the basis on which individuals/households and communities can build their livelihoods or use them in their livelihood activities. In the context of this study livelihood is defined as *a means or a series of activities through which households or groups gain income and meet their basic needs and it includes the ability to exploit common resources for pastoralism or to farm for crop cultivation*.

1.6 Methodology and Data Collection Instruments

1.6.1 The Study Approach and Units of Data Collection

Communities and households are basic units of study and analysis for development works and researches. Though communities and households vary enormously according to the relationships, economic and political factors, they are often used as study units and analytical tools. This study is mainly a micro level research that considers a pastoral community and households as sampling units⁸. It has used both quantitative and qualitative data.

i. **Household:** Household or family is the basic production and management unit in the study community. Decision making, labour division, household resource management and allocation are made at household level. Therefore, information obtained from households is essential to understand individual and/or group vulnerability, access and control over productive assets, livelihood strategies and coping mechanisms pursued by pastoral households. In order to obtain household level information structured household survey was conducted in selected villages (for data collection questionnaire see appendix 4).

ii. **Villages (sub-clan groups)**⁹: They are the next unit in social structure of the study community. It is a major part of the Afar social and political structure. It is through this structure that collective action is pursued. Clan group and clan territory are important to individual members, households and groups in different social, economic and political

⁷ The livelihood concept, depending on its usage, may embrace the assets mentioned as characteristics of resilience. But here it is used mainly to elucidate the livelihood systems of households and groups in the study community, and how the local people view the viability of existing livelihood system in the future given the environmental changes, and external pressures.

⁸ While simple random sampling is applied for selecting household survey interviewees; purposive or judgment sampling is used for selecting participants of individual and group interviews. Informants were chosen on the basis of their knowledge, social positions and roles in their community.

⁹ Villages or settlements are mainly organized on the basis of lineage and kinship relations.

contexts. Therefore, sub-clan groups and villages/settlements are used as unit of data collection and analysis.

iii. The local formal leadership and staffs of sector offices: Data collection was also made through group and individual interviews with local leaders and staffs from the sector offices. These groups and individual informants responded to questions relating to local level problems, development activities, early warning system, physical infrastructures and services, clan leadership, inter and intra-clan conflicts, relation with neighbouring ethnic groups, etc.

1.6.2 Data Type and Collection Process

In this research data sources involve both secondary and primary information. While secondary data are extracted from study reports, government documents, journals and books, the primary data have been generated through qualitative and quantitative data collection methods. The primary data are collected at households, community and formal institutions levels. Household and community are used as the main units of data collection and analysis. The process of data collection is described in the following paragraphs.

i. Secondary data: This body of data is of two types and provided by government and non-government organizations, international organizations and research institutes. The first type of data material on Afar society was obtained from government and non-government agencies. This body of material included project documents, technical study reports, periodic evaluation reports, and situations assessment reports, regulations and policies pertinent to pastoral sector (see ANRS, 2004a, 2004b; World Bank, 2001; MCE, 2002; USAID, 2003; Sharp *et al.*, 2003; Melaku, 2000; Tafesse, 2001; Mohammed, 2003; Beruk, 2003; FDRE, 2002a, 2002b). The second type of data was obtained from empirical researches (sociological and anthropological ones) done by various scholars on pastoral areas and communities. These materials are available in published journals and books, theses, and proceedings (see Ayalew, 1997, 2000, 2004; Getachew, 1997, 1999, 2000, 2001a, 2001b, 2004; Ali, 1996, 1997; Assefa 1995; Kelemework, 2000; Mitiku *et al.*, 1999; Ayele, 1986; Fekadu *et al.*, 1984; Voelkner, 1974).

The secondary sources were found useful for gaining knowledge on pastoral societies; grasping theoretical knowledge and acquaintance with debates on pastoralism and pastoral societies; understand government views and attitudes towards pastoral sector; identifying research gaps with regard pastoralists' vulnerabilities; designing the study and the data-collecting instruments; and supplementing the primary data in addressing research questions. In general the survey of secondary sources and literatures has provided essential information on theoretical perspectives and for designing the study. (See references for general literatures).

ii. Primary data collection: Before launching the actual fieldwork, the researcher made two types of field visits. The first was made at regional level focusing on the potential research localities which experienced extreme events (drought, flooding) and socio-economic and political process (external development interventions and encroachments, conflict, political instability, militarization, etc). The objective was to have an overview of Afar pastoral communities in the Afar Regional State. During the first fieldwork regional officials, experts from sector offices and research institute, and some district administrators were consulted. In

general the first trip was an environmental assessment whereby issues like socio-economic development issues, commercial farms, food insecurity, pastoral mobility, settlement pattern, environmental issues, conflict areas, were looked into. Combining the preliminary knowledge extracted from secondary sources and the regional level assessment, the second round fieldwork, which focused on limited areas, was conducted from 25th August to 8th September 2004. The second round fieldwork covered some parts of zone 3 of the region that has a long history for commercial farm development, and zone 5 that is located at along the interface zone between pastoral areas and peasant area. During this fieldwork more time was spent in zone 5 from which the case study Woreda¹⁰ (district) called Telalak was selected and this study was pursued latter. Then I held five rounds of fieldworks in order to generate both qualitative and quantitative data from the case study community. In total the data collection process took six months. While the qualitative data were organized into notes (protocols)¹¹, the quantitative data were coded and fed into the computer and processed using SPSS software.

1.6.3 Data collection Instruments

In data collecting, combining several methods and data sources, which some authors called it “triangulation” (Patton 1990, Babbie, 2001) is crucial as it yields many advantages than single method could have provided. ‘Triangulation’ refers to “asking different questions, seeking different sources and using different methods” (Babbie, 2001:277). In this research both qualitative and quantitative methods and data sources are employed to address the research problem. The data gathering instruments include *focus group interviews*, *individual interviews (key informant interviews)*, *household history/life stories*, *observation and survey interview*. Focus group interviews and individual interviews¹² were iterative, i.e. in most rounds of the fieldwork the “basic process of data gathering, analyzing it, winnowing it and testing” (Babbie, 2001) has been repeated to come to clear understanding of issues. In the following, a brief description of the data collection instruments is given.

i. Focus Group Interview: This method has been widely used in generating data. Authors like Patton (1990) suggest it as advantageous for generating data in homogenous groups of participants. Therefore, focus group interview was found appropriate as the subjects of study are homogenous - clan group residing in one district. Clan and sub-clan leaders and individual clan members were interviewed in various villages or clan settlements. They were asked to respond to questions relating to causes of famine/food crisis; risks and constraints to livelihood; coping strategies; traditional early warning systems; local problems, needs and preferences, priorities, etc. Each group interview was guided by structured checklist, of course allowing some flexibility in raising questions. Since I used an interpreter¹³, I conducted as

¹⁰Woreda is a local government administration next to Peasant or Pastoral Administration.

¹¹The qualitative data are organised into seven protocols. (pro-1 with 7 pages; pro-2 with 63 pages; pro-3 with 53 pages; pro-4 with 51 pages; pro-5 with 151 pages; pro-6 with 17 pages and pro-7 with 61 pages). Likewise the quantitative data is organized and converted into descriptive statistics (frequency, percentages, averages, etc).

¹² Focus group and individual interviews were also conducted in neighbouring non-Afar communities in order to investigate their social, cultural and economic relations and inter-ethnic conflicts. The result of these interviews have been analyzed and incorporated in the relevant chapter (see Chapter 6).

¹³ The interpreter, Mussa, was involved not only in interpreting but also as research assistant and key informant particularly in investigations of socio-cultural issues.

many as group interviews to triangulate responses of the same questions and to avoid the danger of distortions and misinterpretations. The group interview was found more appropriate, since the clan group exhibit more homogeneity and members tend to reflect their ideas in group.¹⁴ It also allowed group dynamics and some quality control since they hear each other's responses and stimulate one another. Note taking and tape recording¹⁵ were used during focus group interviews.

ii. Depth Interview of individual Informants: This method was conducted in two settings and in two ways. One is guided by *general interview guide* (checklist questions) in prearranged locations, and the second is *informal conversational interview* conducted spontaneously and in informal setting. In the first case checklist questions were used and the topics treated include, individual's life history, challenges and experiences, inter-household relations, mutual-support networks, trends in livestock population, grazing land, resource management, changes in the environment, disaster history, recurrent drought and consequences. The kinds of informants include elders, religious leaders, clan leaders, widows, youths, animal traders, migrant workers, shop keepers, etc.

Individual informants were also interviewed in informal settings and spontaneously. This method became very easy once I established good rapport and relation with local people and sub-clan leaders in the pastoral settlements. As I repeatedly visited their locality with a native interpreter, they have developed confidence and shown willingness to discuss various issues. Moreover in the local community, there is a traditional information communication method called *Dagu*. This practice has helped me to meet individual informants spontaneously in informal settings. While walking to settlements or anywhere in the locality, I was mostly accompanied by my interpreter. According to the traditional information exchange system (*Dagu*)¹⁶ anyone who comes across with another person on his/her way has to greet and converse about what he/she has observed on his/her way, about his/her community, grazing land, health conditions, local problems, any encounters, etc. This is a common way of exchanging information among the Afar. Therefore, my interpreter as an Afar member has to conduct *Dagu* whenever we met anyone in our way. This allowed me to conduct informal conversational interviews in many informal settings. Most of the individual interviews were also recorded with tape-recorder and latter transcribed into notes.

¹⁴ As I observed many occasions during many rounds of my fieldwork visits, deliberation, debate, consensus and collective action/decision are the common ways of handling cases and issues in the study community. I had one encounter which goes with this idea. "While I was filling the survey questionnaire, a 60 year old man was listening to what I was asking my interviewee through my interpreter. He was one of my individual interviewee in my previous field visit. When I finished interviewing, he asked through my interpreter, if I am willing to hear his suggestion. Then I agreed to hear. He said "You asked me last time and I also saw you many times in our area and in the town (Woreda capital) asking many people. Still you keep on asking many persons. Why are endeavouring so much for which you can not get any different responses. Afar is Afar; his word is one and same. If you get answers for your questions from one Afar or two Afar, that is enough. If you go from one corner to the other, you will get the same answer. Even it is not our culture for that matter. And yet we are hospitable, feel free and continue until you feel tired through this harsh environment".

¹⁵ Tape-recording was made with full consent of the participants.

¹⁶ A detail about *Dagu* is given in the chapter 6.

iii. *In-depth interviews with local officials, sector experts¹⁷ and non-Afar migrants:* Local level officials and experts who lived and served longer in the locality, and seasonal migrants (daily labourers) were interviewed in order to generate data on local level development problems, intervention programmes; inter-and intra clan relations; development of settlement, services and physical infrastructures, food crisis, and conflicts, local peoples relation with non-Afars, livestock mobility, businesses, etc. The informants include district administrators, heads of sector offices (e.g. agriculture and livestock, health, education), traders, non-Afar migrants, etc.

iv. *Life history narrative:* Case histories of selected individuals that are typical and/or representative were recorded. The case study individuals were heads of households which included both men and women. They were given the opportunity to recount their personal histories, experiences, challenges (the ups and downs) that they have encountered in their life particularly during crisis times. They were also asked to narrate about their households, relations with other households, mutual support networks, coping strategies, etc.

v. *Observation:* The author gathered general information through observation on marketing, settlement patterns, division of labour, cultivation practices, grazing land, water points, natural resources, social and economic services, various occasions and rituals relating to beliefs and traditions (feasts, wedding, funeral ceremonies, reconciliation meetings), and Afar and non-Afar individual encounters, etc.

vi. *Structured Questionnaire Interview of Household Heads:* As the fieldwork progressed, I became familiar with different pastoral settlements and neighbourhoods in the study community. This also enabled me to probe into some of the questions intended to be incorporated into the structured questionnaire interviews. Then I proceeded to the designing of a structured questionnaire to conduct household heads interviews into two settings: in selected pastoral villages and in the large settlement which is regarded as town¹⁸. I conducted the household survey at the 5th round of my fieldwork, before I completed the ongoing qualitative data collecting process. It was done with intention for triangulating some the qualitative data to quantitative ones; for standardizing some quantitative questions and for identifying data gapes. Therefore, I was able to fill data gaps during the final round of my fieldwork.

The household survey was conducted in five pastoral villages¹⁹, and in the Nemelifen settlement which is considered as town by the local people. (For the location of sites see appendix 1). In total 60 households were randomly selected and interviewed. Care was taken in selecting settlements to represent the two sub-clans (Megenta Aghini and Bahire-Aghini) residing in the pastoral villages. With regard to Nemelifen settlement, the residents are mix of

¹⁷ Local officials and experts from neighbouring non-Afar districts (i.e. Bati, and Dawa Cheffa Woredas) were interviewed in order to understand inter-ethnic cooperation and conflict along the interface zone.

¹⁸ Household survey was conducted at the 5th round of my fieldwork (i.e. before I completed the qualitative data gathering). I did this with intention of triangulating some the qualitative data to quantitative ones before I finished the whole data collecting process.

¹⁹ The household survey schedule coincided with the period where the local people faced fodder problem due to inadequate rainfall and began moving their livestock to Cheffa. Thus I had to conduct the survey in neighbourhoods where permanent villages or settlements are available.

the two sub-clans and samples were taken from the total households residing in the town. In both settlements (villages), fresh list was established so that simple random sampling technique was applied to select samples.

Structured questionnaire interview was employed to generate baseline information on the general socio-economic conditions of the study community, assets, trends in resources and food security. The specific topics include household livelihoods/activities; asset (livestock holding and access to land); risks and livelihood constraints; changes in livestock number; grazing land and herd movement; crop cultivation; human and social capital; informal and formal transfers; current food security and consumption, self assessment of households' well-being in the past three decades, etc.

1.6.4 Data Analysis and Presentation

Initially at each round of data collecting, notebooks and tape recorder were used. A checklist with broad and specific topics was used as a guide. This guide has facilitated the recording of information systematically and then for transcribing the information into English using word processing.

The information collected through various instruments was recorded and analyzed separately. Then the whole data was grouped into qualitative and quantitative data sets. Finally the perspectives and insights from the interpretations of qualitative and quantitative data are integrated to handle the research problem. In the following, the process of data recording and analysis are briefly described.

i. Qualitative data: The information collected through focus-group and individual interviews; case history narratives and observation were recorded into notebooks and/or tape recorders. All the notes taken were translated into English. Tape recorded data were first transcribed and then entered into the computer. All the qualitative information gathered during each rounds of fieldwork was transcribed, and written down in English and then entered into the computer using word processing. Finally a protocol or a note, which amounted to 408 pages, was produced, and reorganized under broad and specific themes²⁰ or headings for analytical convenience. Finally the entire qualitative information is interpreted and analyzed separately.

ii. Quantitative data: This data set acquired through structured questionnaire interview was processed and analyzed in different way. In the survey questionnaire most of responses were pre-coded, and very few open-ended questions were reorganized and coded latter. Then the responses were fed into the computer using SPSS software. The analysis and presentation involves descriptive statistics like averages, percentage and mean. The analysis results are frequency distributions and percentages depicted in tables and logical arguments in relation to hypotheses developed in the research.

²⁰ The themes in fact were mainly headings of interview-guides and categories that emerged from the interviewing processes themselves.

Chapter Two

Review of Concepts, Theories and Approaches

Introduction

Societies of the world are vulnerable to different types of hazards or disasters which, depending on time and space, include natural, technological, and wilful events. Some societies face single risk and others 2-3 types of hazards and still others face multiple risks. The number and impacts of disasters is increasing overtime. For instance the total of number of reported disasters in the world has risen from 368 in 1992 to 712 in 2001. In the same period, the number of affected population has doubled, rising from 78,292,000 to 170,478,000 (Walter, 2002, quoted in Bankoff, 2003:18). Moreover, the patterns and landscapes of hazards and disasters can change over time and space, and new ones²¹ could also emerge as a result of demographic trends and settlement patterns, technological changes, environmental crisis or degradation, etc.

On the other hand the capacity of societies to mitigate hazards or to absorb and cope with disasters and recover from their impacts also greatly varies depending on the degree of exposure, and variations in societies' or groups' resilience/capacity. In spite of advances in technological and institutional capacities, people, however, continue to suffer from increasing disasters and their impacts. As a result, today more than ever in the past, the need for understanding the root causes of specific disasters and designing risk reduction strategies have been the main concern of various actors.

Accordingly various stakeholders or actors (disaster researchers, academics, and disaster response agencies) have developed various approaches in order to explain or understand causes of disaster and to design mitigation measures, emergency response and recovery. Countries of the world which are prone to specific disaster risks are also making various efforts to prevent societal hazards, and risk associated disasters. Social sciences (such fields as geography, sociology, political science, psychology, economics, anthropology, public health) have made continuing contributions to the development of knowledge about societal responses to hazards and disasters. Researchers are engaged in a continued production of new theories, models, explanatory themes and analytical tools to explain better the root causes of specific disasters.

This chapter deals with the review of the literature on some relevant concepts, conceptual frameworks and theories (approaches) developed to understand disaster causation. Key concepts used in disaster study and management and vulnerability research; and approaches or theories developed to understand disaster causes are in the center of this review.

First, attempt is made to survey the definitions of key concepts that are present in the literature. This is followed by discussions on debates about conceptual clarification of key

²¹ Biological hazards, biogenetic engineering mishaps, toxic chemicals, ozone depletion, climate change, terrorism and HIV-AIDS are being regarded as emerging hazards/risks since the second half of 20th century (Oliver-Smith, 2004:21; Quarantelli, 1995:225).

concepts (e.g. disaster, hazard and risk). Secondly, the main famines theories (explanations) given from the perspective of various disciplines are presented. Thirdly, relevant disaster research frameworks and theories (approaches) are treated. Finally, analytical tools (e.g. vulnerability, resilience/adaptive capacity) and how these conceptual tools being utilized in the general literature are discussed.

2.1 Theoretical Definitions of Concepts

In undertaking disaster and hazard studies and vulnerability researches a number of terms and concepts are used by various disciplinary fields which give their own definitions to the concepts. Concepts that appear widely in various disaster research literatures and disciplinary fields include disaster, hazard, risk, vulnerability, resilience, adaptation, coping, capacity, crisis/catastrophe, mitigation, marginality, poverty, entitlement, coupled human-environment systems, etc. Indeed this work does not intend to apply to all these concepts. Rather it attempts to apply selected concepts which are most relevant to the present study.

In this section the definitions of and debates on terms like disaster, hazard, risk, vulnerability, coping, resilience and adaptation are reviewed. These terms are used across various disciplines and have been a conjecture of many sciences. As a result, there are differences as well as some overlaps and even confusion in definitions of the concepts²². Most, if not all, theoretical concepts are defined in many ways in which they are handled. In the following I present theoretical definitions of some selected concepts drawing on the review of literature.

i. Disaster: A range of meanings from various contexts and perspectives are given to the term disaster. There is no general consensus on definition of disaster due to the complexity and relativity of processes. In this case Quarantelli (1998) made this remark: “I cannot define disaster, but I know it when I see it”. Despite more than half a century tradition and experience in hazard and disaster researches, there is no universal definition of disaster as various criteria are used for definition of disaster. Researchers define disaster in a way that best fits their purposes or objectives. In this section only some examples of definitions of disaster are given in Box 2.1 below. Obviously the concept of disaster depends on the perspective of the person (academics, institutions, practitioners).

The definitions given in Box 2.1 below indicate the conceptual development and various conceptualization of disaster. Earlier works in disaster studies applied the concept of disaster to major physical disturbances (i.e. earthquake and flood) which were traditionally considered as ‘Acts of God’²³. Then gradually disasters came to be viewed as physical agents and their effects as outside attacks to social systems. At that time thus disasters were blamed on

²² For instance differentiating risk from hazard; vulnerability from capacity/adaptive capacity; vulnerability from sensitivity, resilience and resistance (Kelly and Adger, 2000; Füssel, 2005 cited in Ifejika Speranza, 2006:13), and differentiating crisis, disaster, catastrophe (Alexander, 1993; Quarantelli, 1998 cited in Ifejika Speranza, 2006:13).

²³ The word etymologically entered the English language from a French word (desastre), which in turn was a derivation from two Latin words (dis, astro) which combined meant, roughly, formed on a star. So in its early usage, the word disaster had reference to unfavourable or negative effects, usually of a personal nature, resulting from a star or planet. In time, the word disaster was applied more to major physically disturbances such as earthquakes and floods, or what came to be traditionally as ‘Acts of God’ (Quarantelli, 1987:8).

processes of physical world, and ‘root causes’ to destructions were attributed to extremes of nature. As researchers’ understanding has increased, they have seen greater complexity in natural hazards. Then they tended to seek causes in human social organizations than in nature. As a result, disasters came to be seen as social constructs (i.e. understanding disasters in terms of social action).

Box 2.1. Some Academic and Organizational Definitions of Disaster

1. **Disaster:** any event “concentrated in time and space, in which a society of a relatively self-sufficient subdivision of society, undergoes severe danger and incurs such losses to its members and physical appurtenances that the social structure is disrupted and the fulfillment of all or some of the essential functions of the society is prevented” (Fritz, 1961:655).
2. **Disasters:** “are unmanaged phenomena. They are the unexpected, the unprecedented. They derive from natural processes of events that are highly uncertain. Unawareness and unreadiness are said to typify the condition of their human victims” (Hewitt, 1983: 10).
3. A **disaster:** “proceeds from an event ...when (i) it is extreme in magnitude, (ii) the population is very great, or (iii) the human-use system is particularly vulnerable” (Burton *et al.*, 1993:232).
4. “A **disaster** is...an event associated with the impact of a natural hazard, which leads to increased mortality, illness and/or injury, and destroys or disrupts livelihoods, affecting the people or an area such that they (and/or outsiders) perceive it as being exceptional and requiring external assistance for recovery” (Cannon, 1994: 29).
5. “**Disasters** are...rare events and, for most people, their only source of information is likely to be the media. The media are, therefore, in a very powerful position to influence what events are regarded as disasters” (Horlick-Jones, 1995, 310).
6. “**Disasters** are non-routine events in societies or their larger subdivisions (e.g. regions, communities) that involve social disruption and physical harm. Among the key defining properties of such events are (i) length of forewarning, (ii) magnitude of impact, (iii) scope of impact, and (iv) duration of impact” (Kreps, 1998: 34).
7. **Disaster:** “...a process/event involving the combination of a potentially destructive agent(s) from the natural, modified and/or constructed environment and a population in a socially and economically produced condition of vulnerability, resulting in a perceived disruption of the customary relative satisfactions of individual and social needs for physical survival, social order and meaning” (Oliver-Smith, 1998: 186).
8. “A **disaster:** occurs when a significant number of vulnerable people experience a hazard and suffer severe damage and/or disruption of their livelihood system in such a way that recovery is unlikely without external aid” (Blaikie *et al.*, 2004:50).
9. A **disaster:** is “an event in which a community undergoes severe losses to persons and/or property that the resources available within the community are severely taxed” (Drabek, 2005:3).
10. “The German Red Cross...defines **disaster** as an “extraordinary situation in which the everyday lives of people are suddenly interrupted and thus protection, nutrition, clothing, housing, medical and social aid or other vital necessities are requested” (Katastrophen-Vorschrift 1988 as quoted by Dombrowsky, 1995:241).
11. **Disaster:** is “a serious disruption of the functioning of society, causing widespread human, material, or environmental losses, which exceed the ability of affected society to cope using only its own resources” (UN Department of Humanitarian Affairs, 1992; and European Environmental Agency/EEA/, 2006).
12. **Disaster:** is defined as “an occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, and/or multiple injuries” (US Federal Emergency Management Agency /FEMA/, 1996).

According to some writers (e.g. Dombrowsky, 1998; Gilbert, 1998), works which have first contributed to this shift in thinking included the works of Carr (1932), Quarantelli (1985, 1987) and Hewitt (1983)²⁴. Although there is such shift in perspective, there is no universal

²⁴ Carr’s conclusion signifies that disasters are the results of human activities, not of natural or supernatural forces (as quoted by Dombrowsky 1998: 24-25); Quarantelli first brought about a change in thinking about

definition of disaster as the varied definitions given in box 2.1 illustrate. And yet, debates for the need of an agreed definition are going on. Some discussions on the lack of conceptual clarity in disaster research are presented in section 2.3 below.

ii. Hazard: Hazard includes both natural and technological processes/events which may threaten human life, property, activity and the environment. The concept of hazard is also defined by different users in various ways. Some examples of definitions of hazard given in box 2.2 illustrate this.

Box 2.2 Some definitions of Hazard

1. **Hazard:** “A condition with the potential for harm to the community or environment” (Drabek, 1986).
2. **Hazard:** is “the probability that in a given period in a given area, an extreme potentially damaging natural phenomenon occurs that induces air, earth or water movements, which affect a given zone” (Maskrey, 1989:1).
3. **Hazard:** “a threatening event, or the probability of occurrence of a potentially damaging phenomenon with a given time period and area” (UN Department of Humanitarian Affairs, 1992).
4. **Hazard:** “a naturally occurring or human-induced process or event with the potential to create losses, i.e. general source of danger” (Smith, 1996:5).
5. **Hazard:** “refers to an extreme natural event that poses risks to human settlements” (Deyle *et al.*, 1998:121).
6. **Hazards** are defined “as threats to a system, comprised of perturbations and stress (and stressors), and the consequences they produce” (Turner *et al.*, 2003:1)
7. **Hazards** are defined “as a potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation” (Yamin *et al.*, 2005:4).

iii. Risk: The term risk is used in many ways to convey different senses (i.e. in terms of probability of loss, source of danger, actual loss or consequences, perception of sources of risk). These applications suggest that risk can be objectively defined in terms of probabilities and loss quantification, or subjectively in terms of perception, capacities and loss²⁵ (Ifejika Speranza, 2006:16). Thus risk does not only arise from physical processes but it is also socially constructed to help human beings understand and cope with the dangers and uncertainties of life (Slovic and Weber, 2001:4; Ifejika Speranza, 2006:16).

These multiple uses of the term imply the existence of various definitions, and sometimes overlap with that of hazard. Risk sometimes is considered to be synonymous with hazard, and

disasters, by removing the focus from the event to its intersection with society and its effects (as quoted by Gilbert, 1998:13); and Hewitt (1983) castigated hazard researchers for the overwhelming attention given to geophysical processes and neglect of social forces.

²⁵ Blaikie *et al.*,(2004:18-19) noted that “the writings on risk are distributed along the continuum of epistemological positions”, (i) at one end, a realist approach that takes risk as an objective hazard that can exist and can be measured independently of social and cultural processes and theories and methods associated with this approach are techno-scientific, statistical and actuarial; (ii) moving across the continuum, there are what could be termed ‘weak constructionist’ approaches, where risk is an objective hazard but is always mediated through social and cultural process; (iii) the strong constructionist approach where nothing is a risk in itself but it is a contingent product of historically, socially and politically created ‘ways of seeing’.

thus “hazard (or cause) may be defined as potential threat to humans and their welfare, and risks (or consequences) as the probability of a specific hazard occurrence” (Smith, 1996:5).

Hazard is the potential threat to human welfare, while risk is the probability of a hazard occurrence, its severity and consequences. Hazard also relates to the harm (actual or potential) which depends also on the vulnerability/sensitivity of exposed unit and its capacity/resilience (Ifejika Speranza, 2006:16). These various meanings of risk often cause problems in communication and have led to some confusion (Slovic and Weber, 2001:4).

However, regardless of definitions, some writers suggested that “the probabilities and consequences of adverse events and hence the “risks” are typically assumed to be objectively quantified”²⁶ (Slovic and Weber, 2001:4). On the other hand, many social analyses reject such notion claiming that it is incomplete and misleading²⁷ (Douglas and Wildavsky, 1982 cited in Henry, 2005:4). Instead such social science approaches focus on effects that risk outcome distributions have on the people who have experienced them (Sandman, 1987, cited in Douglas, 1999:2). In other words risk is seen inherently as subjective²⁸. Thus risks are viewed according to their perceived threat to familiar social relationships and practices, and not simply by numbers alone (Douglas, 1999:1). Smith (1996:5) also noted that, people and what they value are the essential point of reference for all risk assessment and for all disasters.

Risk is also a function of perception. This is to say that actors in societies make decisions and take action on the basis of their perception of risk than on some objectively derived measures of threat. Many actors perceive the quantitative aspects of risk as less important than the qualitative attributes of that risk (UNDP/DHA, 1994 noted in Ifejika Speranza, 2006:17). Perception of risk can vary among groups based on individual characteristics and knowledge about hazard. Factors that affect perception of risk include individual interests; level of exposure and frequency of hazard occurrence; knowledge, education and personal experience; availability of and access to information; verbal folklore, oral history, etc. According to the “cultural theory of risk”²⁹ the characteristics of the perceiver, rather than the risk itself, is central to the understanding of risk perception (Douglas, 1999:1). Increased access to factual information can increase perception of risk thereby activating actions for vulnerability reduction. High levels of perceived risk are usually associated with desires or actions to reduce risk (Ifejika Speranza, 2006:17). Therefore, perception of risks is crucial for understanding peoples’ action or inaction to reduce their vulnerability. This suggests the need for not only theoretical clarity at conceptual level but also actor’s level perception of risk.

²⁶ This is meant “the nature of harm that may occur, the probability that it will occur, and the number of people who may be affected” (Groth, 1991 quoted by Douglas 1999:2)

²⁷ Douglas and Wildavsky (1982) noted that scientific ratios that assess levels of risk are incomplete measures of the human approach to danger, since they explicitly try to exclude culturally constructed ideas about living “the good life” (as quoted by Henry, 2005:4).

²⁸ This is to say subject to value judgment i.e. “more concern for broader, qualitative attributes such as whether risk is voluntary assumed; risks and benefits are fairly distributed; risk is controllable; risk is a necessary or avoidable; risk is a familiar or exotic; risk is the natural or technological in origin” (Sandman, 1987 quoted by Douglas, 1999:2).

²⁹ It is one “theory of Risk Communication which is an interactive process of exchange of information and opinion among individuals, groups and institutions” (Douglas, 1999:1).

iv. Vulnerability: The vulnerability concept is used in human ecology, development studies, and in research on hazard, disaster, environmental and climate changes. In these fields and across other disciplinary fields the term is also defined in different ways (i.e. in terms of physical exposure; as measure of socio-economic status (endowment and entitlement); in terms of differential ability to cope; and in terms of regions at risk. As with disaster, vulnerability has no common definition. Various users define it in the way that best fits to their usual practice. Some definitions of vulnerability extracted from various sources are given in box 2.3 to show these contexts.

Box 2.3 Some Definitions of Vulnerability

1. **Vulnerability** is defined as “the degree to which a system or part of a system may react adversely to the occurrence of a hazardous event” (Timmerman, 1981:21).
2. **Vulnerability** is described as “defencelessness, insecurity, and exposure to risk, shock, and stress” (Chambers, 1989).
3. **Vulnerability** is defined as “risk that household’s entitlements failure to buffer against hunger, famine, dislocation or other losses” (Downing, 1991).
4. **Vulnerability** is defined as “multi-layered and multi-dimensional social space, which centers on the determinate political, economic and institutional capabilities of people in specific places at specific times” (Watts and Bohle, 1993).
5. **Vulnerability** is defined as “an aggregate measure of human welfare that integrates environmental, social, economic, and political exposure to a range of harmful perturbations” (Bohle *et al.*, 1994:37-38).
6. **Vulnerability** is “the condition of susceptibility shaped by exposure, sensitivity and resilience” (Kasperson, *et al.*, 1996 quoted in IISD/IUCN/SEI, 2003:6).
7. **Vulnerability** is defined as “the extent to which a natural or social system is susceptible to sustaining damage from climate change” (IPCC, 1997:1).
8. **Vulnerability** is “the degree to which a system, subsystem, or system component is likely to experience harm due to exposure to hazard, either a perturbation or stress/stressor” (Turner *et al.*, 2003:1)
9. **Vulnerability** may be defined “as an internal risk factor of the subject or system that is exposed to a hazard and corresponds to its intrinsic predisposition to be affected or to be susceptible to damage... [or]... **Vulnerability** represents the physical, economic, political or social susceptibility or predisposition of community to damage in the case of a destabilizing phenomenon of natural or anthropogenic origin” (Cardona, 2004:37).
10. **Vulnerability** is defined as “the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard- an extreme natural event or process” (Blaikie *et al.*, 2004:11).
11. **Vulnerability** is defined “as exposure of communities or social systems to hazards” (Ifejika Speranza, 2006:17).

These wider uses of the concept imply the existence of many definitions of vulnerability in various contexts. This raises a concern that the concept of vulnerability is losing its meaning, as it is being used for different analytical contexts (Ifejika Speranza, 2006:21). Some writers argued that its application across many disciplines enlarges it; or its broad use is meant everything. In this case, Timmerman had indicated earlier that “vulnerability is a term of such broad use is to be almost useless for careful description at the present, except as a rhetorical indicator of areas of greatest concern” (Timmerman, 1981:17). And yet, the increased use of the concept of vulnerability has spread across various disciplinary fields, development

studies, disaster researches, and risk assessment. In relation to this some authors remarked that definitional diversity must be welcomed. Firstly, it represents the divergent realities and interests in society. Secondly, the notion of vulnerability holds a certain promise by providing a much-needed conceptual and practical focus that could direct and improve ongoing efforts at disaster prevention, mitigation and reduction (Frerks and Bender, 2004:205)³⁰. This suggests that the definition of vulnerability depends on the user and its role in society.

At practical level, the concept of vulnerability is considered as a key for interpreting and mitigating disaster³¹. At the conceptual level it is seen as essential link in the nexus between the environment, society and culture, (under)development and poverty,³² and disaster (Frerks and Bender, 2004:195). The emphasis on vulnerability is associated with a shift from seeing disaster as an event caused by an external agent to a more sociologically (as well as politically, environmental and economically) constructed process. Thus vulnerability analysis encompasses different relationships, disciplines, time frames and geographical and institutional levels. Heterogeneity is caused by differential patterns of vulnerability linked to household, gender, socio-economic and local or regional variations (Frerks and Bender, 2004:194). In fact this in turn results in complexity of vulnerability that defies attempts at formulating a general theory or reaching simple solution. And yet the social vulnerability approach has wider space in theoretical and practical terms. The evolution of social vulnerability approach and its various uses are further elaborated in sections 2.6.1

v. Coping, Resilience and Adaptation: The analysis of various definitions of vulnerability also indicates that most definitions share two common elements - ‘negative impact or loss’ which systems or social groups suffer, and ‘capacity’ that help recover or cope with effects. Vulnerability is dynamic in space and time, and it involves the conjecture of physical and social processes; exposure to coping, collapse of livelihoods, and dependency on external support. However, the affected or exposed systems or groups are not passive recipients of impacts or losses. They have also some degree of ‘capacity’ to be mobilized in order to cope with and mitigate risk, to recover or/and adapt via learning from the experiences and past practices and living with changes and uncertainties, and using the existing opportunities created. In other words the other side of vulnerability is “adaptive capacity- the ability to absorb stresses and disasters and avoid unacceptable consequences (Thomalla *et al.*, 2006:46). Therefore, a holistic vulnerability analysis draws also on *resilience*, *coping* and *adaptation*. Thus these concepts are also important in disaster research and vulnerability analysis. They are related to the concept of vulnerability and are used in different ways by different disciplines and policy communities. How they are theoretically related to vulnerability is discussed in section 2.6.3. In this section only some of the definitions are provided in box 2.4 to illustrate the various contextual definitions of the concepts.

³⁰ The same authors, in fact, noted the need to opt for a more limited focus and scope in practice, since not all potential factors are relevant from an action perspective (Frerks and Bender, 2004:205).

³¹ The growing use of vulnerability assessment tools such as VCAs (Vulnerability and Capacity Assessments; Hazard Mapping and Profiling during the 1990s have transformed vulnerability reduction from a concept into a practice (OAS, 1990; IFRC, 1993; Anderson and Woodrow, 1993 cited in Frerks and Bender, 2004:195)

³² Poverty is not the same as vulnerability, though the two concepts have some relations. Vulnerability doesn't mean lack of want, but defencelessness, insecurity, and exposure to risk, shocks and stress (Chambers, 1989).

Box 2.4 Some Definitions of Resilience, Coping and Adaptation

1. **Resilience:** “the measure of a system’s, or part of a system’s capacity to absorb and recover from the occurrence of a hazardous event” (Timmerman, 1981:21).
2. **Resilience** is defined “as a property that allows a system to absorb or *utilize* (or even benefit from) change” (Blaikie and Brookfield, 1987, quoted in Davies, 1996:25).
3. **Resilience** is “the buffer capacity or ability of a system to absorb perturbations, or the magnitude of disturbance that can be absorbed before a system changes its structure by changing the variables and processes that control behaviour” (Holling *et al.*, 1995, quoted in Adger, 2000:349).
4. **Social (resilience)** is defined “as the ability of groups or communities to cope with external stresses and disturbances as a result of social, political and environmental change” (Adger, 2000:347).
5. **Resilience:** is “the ability of an actor to cope with or adapt to hazard stress” (Pelling, 2003).
6. **Resilience** is defined as “the amount of change a system can undergo and still retain the same control on function and structure; the degree to which the system is capable of self-organization; and the degree to which the system expresses capacity for learning and adaptation” (Walker, B. 2003:12).
7. **Resilience:** is defined as “the measure of the rate of recovery from a stressful experience, reflecting the social capacity to absorb and recover from the occurrence of a hazardous event” (Smith, 1992:25 cited in Blaikie *et al.*, 2004:85).
8. **Resilience** refers to “the capacity of a system, community or society potentially exposed to hazards to adapt by resisting or changing in order to reach and maintain an acceptable level of functioning and structure” (Yamin *et al.*, 2005).
9. **Resilience:** “is the capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase this capacity for learning from past disasters for better future protection and to improve risk reduction measures” (UNISDR, 2005).

10. **Coping:** refers to “the potential of a system to forestall (prevent) and reduce the impacts from stresses or perturbations” (Ifejika Speranza C., 2006:26).
11. **Coping:** is “the manner in which people act within the limits of existing resources and range of expectations to achieve various ends.... Coping can include defence mechanisms, active ways of solving problems and methods for handling stress” (Blaikie *et al.*, 2004:113).
12. **Coping (strategies):** are “the bundle of producers’ responses to declining food availability and entitlements in abnormal reasons or years” (Davies, 1996:45).

13. **Adapting:** “means a permanent change in the mix of ways in which food is acquired” (Davies, 1996:55).
14. **Adaptation:** is “the degree to which adjustments in practices, processes or structures can moderate or offset the potential for damage or take advantage of opportunities created, due to a given change in climate” (IPCC, 1997:1).
15. **Adaptation:** is “the ability to respond and adjust to actual or potential impacts of changing climate conditions in ways that moderate harm or takes advantage of any positive opportunities that climate may afford” (IISD/IUCN/SEI, 2003:5).

In this section attempt is made to review some sample definitions of selected concepts in order to illustrate their contextual applications, meanings and uses in the literature. As can be seen in box 2.1 to box 2.4 above, the concepts of disaster, hazard, risk, vulnerability, resilience, coping and adaptation are defined in many ways by different writers and users. The implication is that the existence of various definitions and undifferentiated uses of the

concepts may lead to confusion and create a problem for data analysis. Clarification of concepts and definitions are crucial as they determine framework and methodology of a study. The diversity of definitions comes from the multitude of theories and perspectives involved. Therefore, one first needs to gain clarity about the theory one finds appropriate for the questions to be studied. The usages and the perspectives of each concept have to be clarified in each work. Accordingly the definitions concepts used in this research are given in Chapter one.

2.2 Discussion on Conceptualization of Disaster, Risk and Hazard

Debate over what is a disaster has been both energetic and heated, and definitions vary considerably (Quarantelli 1985, 1995 quoted in Bankoff, 2003:22). As stated above conceptual clarity helps grasp the premises (debates) of various paradigms and perspectives advanced to explain disaster causations. Especially in endeavour for defining the concept of 'disaster', some writers like Quarantelli (1995:224) argue for greater clarity and the need for minimum rough consensus on the central referent of the term 'disaster'.

As shown in box 2.1 above various writers and users define the term disaster in their own way and in terms of role they want to attach to the term³³. But the debates on conceptual clarity are focused on the need for obtaining minimum consensus on defining features i.e. characteristics of the phenomena, the conditions that lead to them and the consequences that result (Quarantelli, 1995:225). Quarantelli noted that conceptual clarification is also required either to include or exclude new social happenings from the rubric of disaster, given a wide range of stresses or crises looming in societies over time and space.

In general, some writers argue for general consensus in defining disaster (e.g. Quarantelli 1998), while others acknowledge the diversity of definitions noting that lack of consensus on definition of concepts or having a diversified definition is not different to the concept of disaster³⁴. The later groups of writers are not bothered by this lack of consensus claiming that it should not be too surprising or too alarming. Lack of common definition of some terms exists in various disciplinary fields. For instance on the terms like 'community', 'alienation', and of course 'disaster' among sociologists; the meaning of 'power' among political scientists; definition of 'culture' among anthropologists; the meaning of 'memory' among psychologist, etc (Kroll-Smith and Gunter 1998:163). And yet Quarantelli (1987:22) argues that "what is important is not consensus on one definition - an impossible goal - but clarity of the term 'disaster' and its referent on the part of various users".

The following description³⁵ of the concept, disaster, can be relevant to point out debates centered on the conceptual clarity and perspectives for hazard and disaster researches. The

³³ See for instance Burton *et al.*, 1993:232; Cannon, 1994:29; Kreps, 1998:34; Oliver-Smith, 1998:186; Hewitt, 1983:10; EEA, 2006, etc. in Box 2.1.

³⁴ In this case NRC (2006) notes that definitions of core subject matter necessarily are matters of intellectual discussion and debate within any science, thus studies of hazards and disasters are no different. Another author (Perry, 1998, 2005 cited in NRC, 2006) stated that there is more agreement than disagreement on definitional fundamentals.

³⁵ This description draws on the historically rich tradition of hazard and disaster studies within social sciences, most notably since the post World War II era (for detail citation of sources, see NRC, 2006:13).

description provides heuristic tool for examining a wide range of environmental, technological and willful events.

“Disasters are non-routine events in societies or their larger subsystems (e.g. regions, communities) that involve conjunctions of physical conditions with social definitions of human harm and social disruptions.the phrase “non-routine events” distinguishes disasters as unusual and dramatic happenings from everyday issues and concerns. The dual reference to “physical conditions” and social definitions means that each is individually necessary and both are collectively sufficient for disasters to occur in social time and space. The designation “societies or their larger subsystems” means that human harm and social disruption must have relevance for larger social systems.... Poverty, hunger, disease, and social conflict are chronic societal concerns. Economic depressions, famines, epidemics and wars are disasters as defined above. Global warming and ozone depletion have become defined objectively and subjectively as environmental hazards or risk. The possible disastrous consequences of these hazards...remain matters of scientific and public debate....” (Kreps, 2001:3718 quoted in NRC, 2006:14)

The above definition of disaster draws on rich works of social scientists that have been engaging in disaster research in the last half of the past century. Hazard and disaster research communities embrace scholars and experts from a wide range of disciplines of social and natural sciences. For instance disciplines from social and behavioural sciences, which are actively involved in disaster and hazard researches/studies, include geography, sociology, anthropology, political science, psychology, economics, regional science and planning, management, etc. This disciplinary background suggests that various perspectives and meanings of disaster, hazard and risk are to be expected. This is mainly because “social sciences are not homogenous disciplines either theoretically or empirically; and these constructs are of interest to scholars nationally and internationally” (NRC, 2006:15).

Rather the need for making clear distinction between hazard, risk, and disaster has been emphasized. In this case, Cutter underlines the importance of making distinctions among the three terms as follows:

The distinction between hazard, risk, and disaster is important because it illustrates the diversity of perspectives on how we recognize and assess environmental threats (risks), what we do about them (hazards), and how we respond to them after they occur (disasters). The emphasis on hazard, risk and disaster is also reflective of different disciplinary orientations of researchers and practitioners (Cutter, 2001:3 quoted in NRC, 2006:14).

In addition, Cutter acknowledges the complex nature of hazards, risks and disasters, and the integration of hazard researches and management. He, thus notes that

...as the nature of hazards, risks and disasters became more complex and intertwined and the fields of hazards research and management more integrated, these distinctions ...[among these concepts]... became blurred as did the differentiation between origins as “natural”, “technological” or “environmental” (Cutter, 2001:3 quoted in NRC, 2006:14).

Indeed Cutter's emphasis on the importance of distinctions has contributed to breaking down of historical barriers between hazard research and disaster research³⁶. And this positive development has been affirmed by works of sociologists (Tierney and Perry) and social Psychologist (Lindell), who called for broader perspective to address the issue of complexity (NRC, 2006:12). In this case Tierney *et al.* (2001) suggest that,

... more compressive perspectives are needed that consider both events and the broader structural and contextual factors that contribute to disaster victimization and loss. While functionalist approach that characterized classical disaster research mainly addressed the fact of disaster, not the sources of disaster vulnerability, other work has sought to better understand the societal processes that create vulnerability; how vulnerability is distributed unequally across societies, communities, and social groups; how vulnerability changes over time, and how and why these changes come about (Tierney et al., 2001:22 cited in NRC, 2006:14-15).

The above quotation indicates that *disaster risks* are the product of *disaster events (hazards)* and the degree of *vulnerability* of human community. The destructive power of events is influenced by physical characteristics and the degree of exposures to impacts. However, the physical force of a disaster event is insufficient to explain risk, as communities experienced equivalent levels of physical forces of a given event have varying levels of risks. It is the concept of vulnerability that explains why, with the equivalent of force of disaster event, people and property are at different levels of risk (NRC, 2006:217). This occurs due to unequal vulnerabilities in human communities. And the difference is rooted in social and economic entitlements. Therefore, vulnerability consists of various social, economic, and natural and environmental indicators of societal development that represent the capability of communities to adapt to shocks and/ or cope with disaster events.

The discussions over the conceptual clarity and the need for adoption of broader perspective are aimed at searching for better explanation of disaster causation, societies' vulnerability and disaster responses. In this case it is useful to briefly review the evolution of approaches of disaster in the past half a century. Since the nature of disasters, as mentioned above, is complex and various disciplinary fields are involved in studying hazards and disasters, the diversity of approaches is expected. This review of approaches considers those perspectives falling under the arena of social sciences. The following sections present a brief account of the history of the 'social theory of disaster' and 'disciplinary perspectives of disaster'.

2.3 Approach of Social Sciences to Disaster

2.3.1 The History of Social theory of Disaster

The issue of disaster in the arena of social sciences gained attention at mid-20th century during which the US government showed interest in understanding the behaviour of the population in case of war (Quarantelli, 1988, quoted in Cardona, 2004:42). Then a "social theory of disasters"³⁷ came to life, and this approach involves a series of studies about reactions, and

³⁶ While the core topics of "hazard research" embrace mainly "hazard vulnerability and mitigation", "disaster research" focuses on "emergency response and recovery" (NRC, 2006).

³⁷ Gilbert, C. (1995:232-234) named this approach "*patterns of war approach*". In this approach disasters were viewed as situations likely to elicit the reactions of human beings to aggressions and to allow an adequate test of

individual and collective perceptions. The focus of social sciences studies and research has been on responses/reactions of the people in case of emergency, and not strictly on the study of risk. However, this “paradigm of war pattern approach” has been challenged by writers like Quarantelli (1970 quoted in Gilbert, 1995:232-234) who argued against “the unnecessary linkage between destructive factor and the community as it emerged from the notion of panic”. In relation to this Quarantelli pointed out that “there was no mechanical relation between these two factors, and thus there was greater autonomy in reactions of people to panic”. Thus Quarantelli’s work contributed to the emergence of new modes of approaching disaster. And the relevance of social factors within communities for the understanding disasters has been recognized. By the 1970s social science researchers in USA had made shift in conceptualizing disaster, and they have recognized that “disaster has to be studied within the human group involved in it, and not as the result of an exclusive external factor” (Gilbert, 1995:234). This critical analysis, in fact, rigorously pursued and enhanced by European scientists. This has led to emergence of new approach to disaster which Gilbert calls it “disaster as social vulnerability”.

Contributions from geography and “ecologist school” from the 1930s had also led to the conception of social-environmental perspective that subsequently inspired the approach of applied sciences. Its emphasis on the notion that “disaster is not synonymous of natural events and the need to consider the capacity for adaptation or adjustment of a community when faced with natural or technological events was the springboard for vulnerability concept” (Cardona, 2004:42).

Since 1980s and especially in the 1990s, in Europe and in certain developing countries (Latin America and Asia), social science researchers have critically discussed natural and applied science approaches, and “their approach suggests that vulnerability has a social character and is not limited to potential physical damages or to demographic determinants” (Cardona, 2004:42).

Initially disaster or hazard studies were dominated by disaster-centered interest and by searching for technological responses. In the 1950s and before this period, disaster studies were dominated by two paradigms - the behavioural and structural paradigms. The former combined hazard-centered interest with the idea that people had to be taught to anticipate it. Therefore, this approach emphasized monitoring and predicting hazards; explaining people’s behaviour in response to risks and disasters; and developing early warning systems and disaster preparedness schemes. In general, this approach is technocratic and hazard-centered approach to disasters (Hilhorst, 2004: 53). Some authors remarked that this perspective, referred as “dominant approach”, is based on Western science which considered nature and society as separate. The premise was that natural hazards can be controlled, and disasters be avoided through technology and modern administration. This suggested that less-developed countries suffered disasters than developed ones, since they lacked that necessary technologies and the required modern administration.

them. War has long been the subject of exploration by social scientists and social analyses have easily found war patterns. The paradigm of “war patterns” strongly reflects the circumstance and the place where it first emerged (i.e. in USA at the height of cold war). At the time government institutions provided research funds primarily for studies relevant to understanding the reactions of people to possible air strike.

However, in the 1970s and especially in the 1980s, social scientists began to question the explanatory power of such “dominant approach”. During these periods the relationship between human actions and the effects of disaster (socio-economic dimensions of vulnerability) was increasingly documented and argued by many writers. For instance Hewitt came up with a landmark work called “*Interpretations of calamity from the view points of human ecology*”, and argued that “disasters were not primarily the outcome of geographical processes. Especially in developing countries, structural factors such as increasing poverty and related social processes accounted for peoples’ and societies’ vulnerability to disaster” (Hewitt, 1983 quoted in Hilhorst, 2004:53). This has been a new development over the “dominant paradigm” and brings better conceptualization of disaster through connecting hazards and vulnerability where their interaction leads to disaster. This relation is portrayed by the formula of risk = hazard X vulnerability (Blaikie *et al.*, 2004:49). The scrutiny of the approaches, and further empirical work have inspired the development of subsequent perspectives which give attention to environmental processes and impacts of anthropogenic activities. Therefore, an alternative view, described as “social vulnerability approach” has got space in different disciplines and policy communities. This approach will be elaborated in section 2.6.2. The following section presents a brief assessment of relevant disciplinary perspectives on disaster.

2.3.2 Disciplinary Perspectives on Disaster

In the past half a century social sciences researchers from fields such geography, sociology, anthropology, economics, public health, regional planning , etc have made contributions to the development of knowledge and understanding in disaster study and research. In doing so, they have advanced their own disciplinary perspectives to understand disaster causes and peoples’ perceptions and responses to disaster impacts. This section presents the main disciplinary perspectives on disaster study.

Having reviewed the general literature on disaster, Alexander (1993) identified six schools of thought on natural hazards and disaster studies (Alexander, 1993 cited in Nasreen, 2004). These include the geographical, anthropological, sociological, the development studies, the disaster medicine and the technical approaches. In the following the main focuses and the substantive areas of each disciplinary approach are briefly described.

i. The Geographic Approach: This approach is represented initially by the works of geographers like Barrows (1923) and White (1945) (cited by Nasreen, 2004; Bankoff, 2003). It deals with the human ecological adaptation to the environment. It focuses on the “spatial-temporal” distribution of hazard impacts, vulnerability and people’s choice and adjustment to natural hazards. Geographers perceive disasters to be the product of natural phenomena that are rendered hazardous precisely because human societies have failed to sufficiently adapt to them (Smith, 1996; Chapman, 1994; and Alexander, 1993, quoted in Bankoff, 2003:23). Thus population are subsequently assessed as to whether they are “at risk”, a notion determined by the degree of hazards and their level of vulnerability (Alexander, 1997:291, quoted in Bankoff, 2003:23).

iii. Anthropological Approach³⁸: In this approach the works of Oliver-Smith (1979, 1986, 1994, 1996); Hansen and Oliver-Smith (1982) are worth mentioning (cited by Henry, 2005; Nasreen, 2004). This approach emphasizes the role of disasters in guiding the socio-economic evolution of populations and it searches for reasons why communities, especially in ‘third world’ fail to provide basic requirements for their people’s survival. It also expounds on marginalization of disadvantaged groups in developing countries. Henry (2005) summarized the main concerns of anthropological approach to disasters as follows:

...in studying disasters, [...anthropology...] calls attention to how risks and disasters both influence and are products of human systems, rather than representing simply isolated, spontaneous, or unpredictable events. [...the special concern...] is how cultural systems (the beliefs, behaviours, and institutions, characteristic of a particular society or group) figure at the centre of that society’s disaster vulnerability, preparedness, mobilization, and prevention. Understanding these cultural systems, then, figures at the centre of understanding both the contributing causes to disasters as well as the collective responses to them (Henry, 2005:1).

Oliver-Smith (1996:303) developed three general topical areas as major trends in anthropological research on disaster: (i) a behavioural and organizational response approach; (ii) a social change approach; and (iii) a political economic/environmental approach focusing on the historical-structural dimensions of vulnerability to hazards, particularly in the developing world. Oliver-Smith contends that disaster in the developing world occurs at the interface of society, technology, and environment and is fundamentally the outcomes of the interactions of these characteristics. Anthropological approach attempts to focus on the complex interrelationships between humans, culture, and their environment, and examines human actions that may cause or influence the severity of disaster.

iii. Sociological Approach: Disasters have long been objects of study by sociologists (Dynes, 1970; Quarantelli, 1978; Mileti, Drabek and Haas, 1975; Drabek and Boggs, 1968; Drabek, 1986, as cited in Drabek, 2005). Indeed prior to the 1980s the research literature was dominated by sociologically oriented analyses, followed by geographers (Drabek, 2005:2). The sociological approach focuses on impacts of disasters upon the patterns of human behaviour and the effects of disaster upon community functions and organization.

For many years sociologists have studied mainly community responses to and impacts of disasters (Quarantelli and Dynes, 1972, 1977; Quarantelli, 1978, 1984; Dynes *et al.*, 1987, Drabek *et al.*, 1983 quoted in Blaikie *et al.*, 2004:114 and in Drabek, 2005). Sociologists have argued that disasters may expose the key values and structures that define communities and the societies they comprise. Thus core behaviour patterns and social factors are considered in the study of disasters. And cultural differences are found to be associated to substantial variation in responses. But studies examining ‘root causes of disaster’ have been very limited as compared to post event assessments (Drabek, 2005). Sociologists are concerned almost exclusively with the structures, functions and activities of formal human organizations and the

³⁸ Within anthropological approach, Henry (2005) also identified two approaches from the works of other authors: (i) a typological approach, categorizing disasters by their logical type, such as drought, flood, cyclone, earthquake, chemical disaster, etc. (Franke 2004), and (ii) a “processual” approach, which highlights that pre-disasters, disasters, and relief are continuous events which serve as instigators of social interactions, transformations, and reorganization (Hoffman and Lubkemann 2005) (as cited in Henry, 2005:1) .

impact of disasters upon them; and generally accorded the environment only a minor role (Quarantelli and Dynes, 1977 quoted in Bankoff, 2003:23). They eschew the idea of vulnerability and favour instead definitions that frame disasters in terms of human behaviour at a spatially specific moment and location (Bankoff, 2003:23). In this context disasters are often reduced to “an array of socially derived effects” (Oliver-Smith, 1999:4 quoted in Bankoff, 2003:23).

Some writers (Nasreen, 2004:1; Quarantelli, 1994:5) argued that application of sociological approach to disaster research is very limited, even though the current sociological paradigm is that disasters are inherently social phenomena, and that the source of disaster is rooted in the social structure or social systems. Quarantelli (1994:6-13) added that these notions are not taken as seriously as sociologists should, because:

- i. in looking at the temporal and spatial aspects of disaster, the concepts of social time and social space³⁹ are not used,
- ii. lack of conceptual clarity (e.g. disaster),
- iii. failure to take larger social context into account (despite massive social changes in political, economic, familial, cultural, educational and scientific areas),
- iv. the dysfunctional assumptions (i.e. belief in the “badness” of disasters is very widespread);
- v. the ignoring the relevant basic theoretical orientations. Despite many theoretical models and frameworks, sociologists in disaster study area have used very few of them (e.g. symbolic interactionism).

In general despite this rich and expansive legacy, it is noted that sociologists have done little in theorization of disaster, conceptual clarification, application of existing theories and scope of coverage. Citing such scholars as Pelanda (1982) and Gilbert (1992), Dombrowsky (1995:242) also noted that “from European perspective there is still lack of sociology in sociological disaster research”.

Therefore, in recent works some authors (Stallings, 2002; Quarantelli, 1994) suggest the suitability of some sociological theories for guiding sociologists engaged in contemporary disaster studies. These include “Weber’s political sociology”, “symbolic interaction”, “construction theory of social problems” (Stallings, 2002:300); “attribution theory”⁴⁰, “diffusion theory” “chaos theory” (Quarantelli, 1994: 14-15); “social capital theory” (Dynes, 2002). For instance Stallings suggests that Weber’s work, in particular political sociology can

³⁹ This is to say (i) instead of talking about chronological time space and geographic space, to use sociology of time framework in order to explore how past events surrounding a disaster were reconstructed to have meaning and utility for the present. Disaster recovery will be better informed if we take the general notion that it is not the passing of chronological time or the placement in geographic space crucial in the process, but that of social time and social space; (ii) in linking disasters to development processes (or disasters rooted in social changes) and to better explain the sources and locus of resistances to disaster mitigation measures,... the social dynamics and processes of communities/societies are where answers should be sought, rather than looking at the psychological make-up or attitudes of realtors, community planners or policy makers (Quarantelli, 1994:5-6).

⁴⁰ This theory says that practically everyone commits the "fundamental attribution error," that is, explaining the behaviour of others on the grounds of personal disposition to behaviour in particular ways across a variety of situations, rather than - as we interpret our own behaviour - as a response to circumstantial and contextual pressures Quarantelli (1994:3).

be relevant for guiding sociological researches on disaster as it represents: (i) the core concern of the discipline, (ii) a complement to traditional research approaches, and (iii) compatible with recent emphasis on inequality and its consequences (Stallings, 2002:299).

In summary the key issues confronting sociologists who are studying disaster pertain to conceptual clarification of the concept 'disaster' (i.e. what it constitutes and what to include or exclude under the rubric of disaster concept) and to the paradigm shift or adoption of appropriate theory for sociological disaster research. Most sociologists do not elaborate the theoretical perspectives that might be guiding their fieldwork, although elements of functionalism, structuralism, and symbolic interactionism frameworks can be identified. This calls for more work in the disciplinary perspective⁴¹ with regard to concepts, models and theories to take sociology as scientific enterprise (Quarantelli, 1994). Moreover, in disaster studies some authors have proposed a paradigm shift reflecting a focus on the concept of vulnerability (Blaikie *et al.*, 2004). Some reasons for this shift include, (i) we have control over vulnerability, not natural hazard; (ii) vulnerability occurs at the intersection of the physical and social environment, (iii) variables of vulnerability exhibit distinct patterns (Mileti, 1999; Geis, 2003 quoted in Drabek, 2005:5). This suggests that there seems consensus on 'social vulnerability approach' or paradigm which differs from "the dominant view" of disasters, and social vulnerability perspective focuses on socio-economic and political factors rather than the physical processes of hazard and the goal is to reduce vulnerability rather than damage. The key notion of this approach is that "social systems generate unequal exposure to risks by making some people more prone to disaster than others and that these inequalities in risk and opportunities are largely a function of the power relations operative in every society" (Bankoff, 2003:6). The premise of this approach is compatible with Weber's political sociology⁴², as Stallings (2002:300) suggested, it can be anchored in the future disaster research.

iv. Development Studies Approach: It has been concerned with the problems of distributing aid and relief resources particularly to developing or "third world" countries. The approach focuses on such activities like refugee management, health care and avoidance of starvation (Nasreen, 2004:3).

v. The Disaster medicine and Epidemiological Approach: This approach focuses on the management of mass casualties. It entails the treatment of severe physical traumas and other diseases which may occur after disaster (Nasreen, 2004:3).

vi. The Technical Approach: This is mainly dominated by natural sciences such as seismology, geomorphology and volcanology. It focuses on geophysical approaches to

⁴¹ Quarantelli (1994:3) noted that some researchers from fields of anthropology, geography and public administration are bringing their disciplinary perspectives to bear on their studies. Quarantelli remarked that it is not to say that maintaining territorial boundaries or claiming for supremacy of some disciplinary, or downgrading what sociologists have done so far. Rather disciplinary perspective allows one to see much and brings with it a depth of understanding.

⁴² Stallings (2002) notes that Weber's political sociology offers sociologists a framework for investigating how inequalities in class, status, and power (Bendix and Lipset, 1966) affect disaster victimization and recovery that avoids both the reductionism of Marx and the tendency toward tautology in newer frameworks such as vulnerability analysis (e.g., see the cautionary reminders in Blaikie *et al.*, 1994:12–13).

disaster and seeks engineering or technical solutions. This approach seeks structural remedial measures (e.g. building embankments for flood and, for earthquakes and seismic events introducing building codes and standards) to cope with disasters (Nasreen, 2004:3).

As can be seen in above section each disciplinary field focuses on its area of concern. However, the fact that the concepts of 'disaster' and 'vulnerability' are too complex, their understanding goes beyond the disciplinary focuses and perspectives. Moreover, disasters are the conjuncture of social and environmental processes or natural events. This calls for holistic approach that considers social and natural systems to explain disasters. Oliver-Smith described the complexity of disaster as follows:

Considering the multiple use of the terms vulnerability and disaster, and the multidimensionality of their expression, today it has become ever more challenging to develop theory that has application or relevance to the ever expanding concerns they encompass. The occurrence of interactions between natural and technological hazards increases, making disasters more complex. The multidimensionality of disasters is at the crux of the problem. Disasters exist as complex material events and, at the same time, as a multiplicity of interwoven, often conflicting, social constructions. Both materially and socially constructed effects of disasters are channelled and distributed in the form of risk within society according to political, social, and economic practices and institutions (Oliver-Smith, 2004:10-11).

Oliver-Smith's description suggests that disasters are complex and integral parts of both environmental and human systems. Thus disasters are viewed as the consequence of a process that involves a potentially destructive agent (risk) and a population in a socially produced condition of vulnerability (Hoffman and Oliver-Smith, 1999 quoted in Bankoff, 2003). Therefore, Oliver-Smith states that vulnerability is fundamentally a "political ecological concept" or "conceptual nexus that links the relationship that people have with their environment to social forces and the institutions and the cultural values that sustain or contest them" (Oliver-Smith, 2004:10). Oliver-Smith suggests that vulnerability provides a theoretical framework, since it encompasses the multidimensionality of disasters and translates that multidimensionality into the concert circumstances of life that account for a disaster.

Citing Oliver-Smith's works (1996, 1999), Bankoff (2003:23) noted that "as distinct from geographers and sociologists, anthropologists regard disasters as embedded in the daily human conditions and define them in terms of a seamless web of relations that link society to environment to culture". In recent years, thus, "the interplay between environmental and social systems has been widely accepted by practitioners from all disciplinary backgrounds"; and the debate is more often to do with the relative weight accorded to the various key social and environmental factors rather than to substantive divergence over what constitutes the definitional nature of disasters (Oliver-Smith, 1999 quoted in Bankoff, 2003:23).

Oliver-Smith (2004:12) stated that disasters come into existence in both the material and the social worlds and, perhaps in some hybrid space between them. Thus according Oliver-Smith, to have way of theorizing that hybridity is a "theoretical challenge" to researchers in disaster study. Then Oliver-Smith suggests that the concept of vulnerability may prove to be a key in this effort for meeting that challenge.

In the preceding section attempt has been made to discuss theoretical concepts, general disaster theories and disciplinary perspectives based on literature survey. The review of literature has revealed that concepts are defined in numerous ways by different users, and various approaches/perspectives have been developed to understand disasters in general terms. As indicated earlier disasters vary in type and pattern both spatially and temporally, and their causal factors as well. Therefore, the current direction is to apply the “theory of social vulnerability” for explaining disasters and preventing risks.

The present research is concerned with vulnerability to famine/food crisis in drought prone pastoral community. Thus it is important to review “famine theories” present in literature. The subsequent sections discuss relevant famine theories, disaster study frameworks and (social) vulnerability approach.

2.4 Famine Theories

Famine, the most damaging of all disaster types, has a long record in human history⁴³. It can be stated that no aspects of social, economic and political lives are untouched, when a famine occurs (Blaikie *et al.*, 2004:127). Apart from death tolls, it brings livelihood insecurity, impoverishment of natural-resource base, destitution, displacement, trauma, social disorganization, political instability, which may endure for post-famine periods (Davies, 1996:8; Blaikie *et al.*, 2004:127). The nature, degree or severity and causes of specific famine disasters vary over time and from one context to another. Whereas there is general understanding on types of its direct impacts and consequences, there have been various debates about its causes. Accordingly various perspectives have been developed in searching of explanatory factors.

The current literatures show that famines persist, and affect severely some regions of the world, particularly the African countries. Location of famines has shifted, and in fact the supposed causes have changed overtime, and famines have become more complex (Devereux, 2000:3; Devereux *et al.*, 2002:2-3; Blaikie *et al.*, 2004:127-128). Traditionally famines have been attributed to drought, and sometimes to flood or epidemics. But as it is stated earlier attributing famines to natural factors has been challenged since the 1980s claiming that drought and sudden-onset ‘natural causes’ are less capable of acting as causes of famines. This notion has stimulated more academic debates on famine causation and led to development of various disciplinary perspectives to explain famine causes.

As it is mentioned above this study focuses on investigating vulnerability to famine in the study community. Thus it is relevant here to review the main famine theories which have been developed in the past four decades. Some authors (Blaikie *et al.*, 2004:133-134) have categorized famine theories into four main strands:⁴⁴ (i) neo-Malthusian; (ii) environmental

⁴³ If we turn back only 200 years back, famine was a threat to nearly every country in the world (Hareide, 1991), and in the last two decades of 20th century it remains firmly entrenched in some regions of the world for instance the Horn of Africa and some Asian countries (Devereux, 2002).

⁴⁴ Other writers have grouped famines theories or perspectives in different ways [e.g., neo-Malthusians (demography); ‘entitlement failure’ (economics); Complex emergencies (politics), Devereux, 2002]. In deed all these theories are contributions from various social sciences’ perspectives, mainly from demography, economics,

supply-side explanations; (iii) economic theories of famine; and (iv) political-economy and human right. In the following each of these theories are briefly discussed.

2.4.1 Neo-Malthusian

This theory gets its root in Malthus's thesis (i.e. *Essay on Principle of Population, 1798*). Malthus's principle of population was based on the idea that population, if unchecked, increases at geometric rate whereas food supply grows at arithmetical rate. Malthus's thesis suggests that population grows at exponential rate, while food production increases at arithmetic rate which would lead to food shortage, and ultimately resulting in hunger. In its simplest form, the thesis demonstrated that population could not continue growing indefinitely in a world of fixed natural resources (Devereux, 2002:17). Malthus assumed famine as "natural check" on population growth. According to Malthus famine would act as natural check on population growth, equilibrating the demand for food with supplies.

In general terms, Malthus's thesis has been criticized and rejected on many grounds. First, viewing famine as 'natural check' on population growth control is abhorrent. Secondly Malthus failed to "foresee the 'fertility transition' to small families as living standard rose" and the "exponential increases in agricultural productivity" owing to technological advances which "pushes production beyond the consumption needs of the global population" (Devereux, 2002:17).

And yet Malthus's line of argument is still pursued by neo-Malthusians. These days, a relatively rapid population growth as principal cause of famine lingers among the neo-Malthusians (Fassil, 2005:51). The neo-Malthusian approach is "focused on potential famine-inducing consequences of rapid population growth outstripping the limits of global and regional food production" (Blaikie *et al.*, 2004:133). This approach emphasizes the supply side and rapid population growth which exceeds the means of subsistence. In other words population growth exceeds the capacity of natural resources which provide means of subsistence (i.e. carrying capacity)⁴⁵. Thus in the light of 'carrying capacity' debate, demographers and environmentalists blame the persistent of famine on 'overgrazing' in Africa and on 'overpopulation' in Asia (Devereux, 2002:17).

However, neo-Malthusian approach is also criticized heavily. Like Malthus's crude argument, neo-Malthusians failed to take into account the role of technology in increasing food production. Moreover, 'mass mortality famines' ('natural check') does not act as population control. Rather fast population growth has been witnessed in countries which were afflicted by various famine episodes in the past (Devereux, 2002:18). There is also evidence that

and political sciences. Therefore it is for convenience of presentation that they are categorized in way presented in this work.

⁴⁵ Some writers argue that rapid population growth as cause of famine is more pronounced in areas where severe environmental degradation prevail, and the mere population growth may not result in famine. For instance Salih (1997:206) noted that "in societies where technology, and where land and labour productivity has not kept pace with population, carrying capacity analysts can not be absolutely right nor absolutely wrong either". Most likely what these arguments remind us is that the contextual importance of factors in famine causation or food insecurity explanation.

“excessively *low* population densities *increase* vulnerability to famine by inhibiting investment in basic economic infrastructure and agricultural technologies” (Boserup, 1983, quoted in Devereux, 2002:17).

Though Malthusians perspective is implicitly indicated in some contemporary analysis of famine, its theoretical foundation has been challenged. Firstly, technological progress has allowed enormous increase in food production outstripping population growth. Secondly, famine has not acted as the ultimate and powerful check of population growth (Fassil, 2005:57). Therefore, neo-Malthusians perspective has remained inadequate to explain famine causation.

2.4.2 The Environmental ‘Supply-side’ Explanations

This approach considers drought (sometimes floods) and recently climate change factors in the explanation of disruption or reduction of food output. This approach focuses on environmental limitations on food output, mainly through drought. It looks primarily at supposed ‘natural causes’ which reduce the capacity of the natural resources to provide adequate food supply (Blaikie *et al.*, 2004:133-134). This approach, however, is criticized on the basis that natural events (like drought, flood and climate change) can act as triggers, rather than causing famines. Because increased risks are caused by human actions, and relate to social vulnerability and to pre-existing ‘normal’ level of hazards. In other words human action is responsible for both the generation of peoples’ vulnerability and the increased level of hazard (Blaikie *et al.*, 2004:136).

2.4.3 Economic Theories of Famine

In this economics perspective, there are three main economic explanations of famine based on different sets of causal explanations (Blaikie *et al.*, 2004:137). They are (i) Food Availability Decline (FAD), (ii) ‘Market Failure’ to supply food, and (iii) Food Entitlement Decline (FED). In the following each of these explanations is described.

i. Food Availability Decline (FAD): FAD approach states that famine occurs when adequate food is not produced in an area. This is just a balance sheet of available food (production) and population. This approach is related to “neo-Malthusian explanations, which focus on potential famine inducing consequences of rapid population growth outstripping the limits of food production” (Blaikie *et al.*, 2004:133). FAD approach focuses on supply side of the picture and population growth which exceeds the means of subsistence. FAD is criticized at least for two reasons. First famine can occur in an area where there is no decline in aggregate production. Secondly some areas, which do not produce food at all, can have access to food through purchasing food from elsewhere. Thus critiques of FAD argue that distribution of and access to food matter more than the aggregate production in a specific area. Therefore, FAD has a limited power to explain famines which would occur with or without it.

ii. ‘Market Failure’ to Supply Food: In this approach famine is seen as being caused by imperfect markets which fail to supply food to meet the demand for food. In this view the problem is not a fall in the aggregate regional production, but a market failure is not enabling

the satisfaction of effective demand. In other words a functioning market, which should be capable of supplying the food that is in demand, is not able to operate (Blaikie *et al.*, 2004:139).

In a classical economic thought, famine was attributed to interference of government in the market (i.e. in fixing price of grain). In times of food shortage where the government orders the dealers to sell grain at a price that it determines, dealers tend to withhold supply sometimes causing famine. Anticipation of food shortage can lead to speculation and hoarding. Likewise, excess supply to the market at lower prices fixed by the government would encourage increased consumption, which ultimately leads to higher prices quickly resulting in famine again. Therefore, according to the classical thought, in a situation where free commerce and trade prevails; the effects of seasonal conditions are not powerful forces to result in famines (Fassil, 2005:50).

In relation to classical economic thought, some writers (Ravillion, 1996; Fassil, 2005) stated that contemporary analysis of famine causation still retains the main elements of classical thought. Ravillion (1996:4) added that the new emphasis is, therefore, to understand the circumstances of individuals in famine-vulnerable settings, and how those circumstances interact with economy-wide variables. The traditional emphasis on food availability and population growth to explain famine has been challenged. And the debate among scholars for better explanation of famine causation has been continued in the past five decades. In relation to this, the landmark work of Sen (1981) who introduced the concept of ‘entitlements’ has stimulated debates among contemporary economists in search of broader perspective to understand famine.

iii. Food Entitlement Decline (FED): On the basis of case studies in Africa (i.e. Ethiopian 1973/74 famine) and in Asia (Bangladesh famine of 1974), Sen established his theory of ‘entitlement’ to explain famine causation in broader perspective than FAD approach did. In his seminal work Sen has challenged the notion of ‘food availability decline’ as primary cause of famine. He attributes famine primary to the loss of ‘entitlements’. In arguing for the “loss of entitlements” as cause of famine, Sen explains as follows:

... the temptation to see (famine) as invariably associated with a large and sudden drop in food production and availability is strong, but famines have occurred without such a drop both in Asia and Africa. Sometimes famines have coincided with years of peak food availability, as in the Bangladesh famine of 1974. Since food and other commodities are not distributed freely, people’s consumption depends on their entitlements, that is, on the bundles of goods over which they can establish ownership through production and trade, using their own means. Some people own the food they themselves grow, while others buy them in the market on the basis of incomes earned through employment, trade, or business. Famines are initiated by severe loss of entitlements of one or more occupation groups, depriving them of the opportunity to command and consume food. [...] something very like this happened in the Wello famine in Ethiopia in 1973, with impoverished residents of the province of Wello unable to buy food, despite the fact that food prices in Dessie (the capital of Wello) were no higher than in Addis Ababa and Asmera. In deed there is some evidence of some food moving out of Wello to the more prosperous regions of Ethiopia where people had more income to buy food (Sen 1990, quoted in Fassil, 2005:52-53).

Sen's explanation of famine causation is broader framework than FAD. Devereux (2000:19-20) and Edkins (2002:13) noted that Sen's entitlement approach has shifted the analytical focus away from food availability towards the inability of groups of people to acquire food. The approach has made two contributions to famine literature: (i) a general analytical framework for examining all famines (the entitlement approach), and (ii) a new theory of causation (exchange entitlement failure) Devereux (2000:19-20).

And yet some authors (Ravillion 1996:4; Devereux, 2000) criticized the entitlement approach. Some critiques questioned "whether those only people facing entitlement failure will go hungry, because there are evidences that some poor people with ample entitlements prefer to go hungry at certain times rather than sell their assets" (Ravillion 1996:4)⁴⁶. Still some writers criticized it claiming that the 'entitlement' approach is "a long-standing explanation of famine dressed in new garb" (Srinivasan, 1983; Rangasami, 1985; Clay, 1991 quoted in Ravillion 1996:7). Others also argued that Sen underestimates the importance of aggregate food availability (Devereux, 2000:20; Bowbrick, 1986 cited in Ravillion 1996:6).

Devereux (2001:258) further identified four limitations of entitlement approach that include, (i) the failure to engage with social relations and power inequalities (i.e. social vulnerability); (ii) inability to explain collective outcomes of social crisis (hunger related and communicable diseases) and economic crisis with regard famine mortality; (iii) inapplicable in contexts (e.g. in common property regimes where resources are controlled collectively and rights or claims are mediated by non-market institutions; and (iv) unable to explain the violations of entitlement (e.g. withholding food, looting grain, raiding cattle) and deliberate starvation or use of famine as weapons.

In general the main limitation of entitlement approach is its failure to engage with famine as both a social process and a political crisis. The entitlement approach is mainly an economic analytical framework which gives attention to economic aspects of famine excluding the social and political aspects. Devereux summarized the limitations and inadequacies of Sen's entitlement approach in the following terms:

... a failure to recognize individuals as socially embedded members of households, communities and states; and the failure to recognize famines as political crises as much as they are economic shocks or natural disasters. As a result an elegant framework which privileges the economic aspects of famine and excludes the social and political: the importance of institutions in determining entitlements (at intra-household and community level), famine as a social process (mortality due to communicable diseases), and violations of entitlement rules by others (war and complex emergencies). Without a complementary social and political analysis, the entitlement approach can illuminate only a small part of a very complex phenomenon (Devereux, 2001:259).

Indeed in a later work (*Hunger and Public Action*), Dreze and Sen (1989 cited in Watts and Bohle, 1993) have addressed poverty and hunger equation, primarily in terms of command over food. In their view famine and hunger are defined by 'entitlement collapse' and the

⁴⁶ Ravillion again has faced counter-critique from Devereux (for detail see Devereux, 2000).

socially circumscribed distribution of entitlements over basic needs. They also prescribe state action for ‘entitlement protection’ and ‘entitlement promotion’. And yet Watts and Bohle (1993:117) argue that though Dreze and Sen view “entitlement as embracing broader domains of wellbeing i.e. not only food intake (biology), but also health and education (the social environment), they have less to say about ‘capacity’, and totality of rights which secure basic needs. Devereux (2001:261) also contends that Sen’s policy prescription (i.e. technocratic bias) in preventing famine, privileges public action over political action to empower the poor.

On the other hand, having recognized the strength of entitlement approach in relating poverty and hunger, Bohle and Watts (1993:117) suggested ideas for broadening the entitlement approach for famine analysis. According to them a famine analysis based on entitlements must account for:

- i. the particular distribution of entitlements and how they are reproduced in specific circumstances;
- ii. the larger canvas of rights by which entitlements are defined, fought over, contested, and won and lost (empowerment and enfranchisement); and
- iii. the structural properties [... crisis proneness...] of the political economy which precipitates entitlement crises.

These suggestions for consideration are similar to what Devereux has identified as limitations of the entitlement approach. In general in addition to its theoretical contribution to famine theory, Sen’s theory of entitlement has invoked a wide range of heated academic debates, and invited various critiques and counter-critiques in the past three decades. These in turn have further inspired other explanations which give attention to social, political and institutional factors in theorizing famine causation. This leads us to consider the political economy approach to famine causation.

2.4.4 The Political Economy Approach and Human Rights

This approach emphasizes on the political economy and human rights, and the emerging complexities of contemporary famines⁴⁷. This approach attributes famine occurrence, whatever the economic or natural shocks, to governments’ incompetence and lack of commitment at best, or to a deliberate action or inaction at worst. The positions of writers, ranging from moderate to radical, are subsumed under the political explanation of famines (Fassil, 2005:57).

Some writers hold the ideas that despite excess food somewhere in the world, famines occur in other parts of the globe due to denial of access to food resulting from lack of political commitment. Moreover, despite much rhetoric for ensuring food security, donor nations and

⁴⁷ War, conflict, political instability and the concomitant results (e.g., displacement, death), and their interaction with climatic extreme events gave rise to the idea of complex emergencies, ones where the root causes of vulnerability lie in a variety of relational exchanges (Alexander, 1997 cited in Bankoff, 2003). The emphasis of the ‘idea of complex emergencies’ is the interconnectedness of factors that lie behind the disaster (famine) (Bankoff, 2003:24).

international organizations have channelled very limited resources for food security efforts in particular, and for development in general. A case in point is the steadily decline in the flow of financial aid into Africa (Cheru, 1989; Adedeji, 1991; Mengisteab and Logan, 1995 quoted in Blaikie *et al.*, 2004:75-76).

Other writers argue that donors also set preconditions which negatively affect the policies of receipt countries. Such precognitions compounded with globalization (world economic system) and structural adjustment policies have undermined households' food security and affected national food production (Devereux, 2002:9; Blaikie *et al.*, 2004:76).

Many writers also attributed famine to political conflicts which take different forms like civil strife, ethnic conflicts, border wars, etc. These conflicts, both historically and currently, are known for their adverse impacts on systems of food production and distribution. Of 21 famines occurred since 1970, 15 had war as a causal trigger, either alone or in combination with drought (von Braun, *et al.*, 1998:3,176)

Some authors also considered famines as consequences of government action or inaction. They ascribe the responsibility for famine causation primarily to the political regime. Historical famines which were attributed mainly to failure of then political regimes of the respective countries included the Soviet famines of 1921 and 1932/33; China's Great Leap Forward famine; the 1990-91 famine in Sudan (Devereux, 2000; 2002); the 1973-74 and 1984-85 Ethiopian famines (Devereux, 2002; Fassil, 2005:57; Mesfin, 1986). These examples indicate that even in earlier times, famines always had political dimensions⁴⁸.

Still some writers even went to the extent of considering the occurrence of famine as violation of the right to food, crime against humanity and an instrument of mass murder (Macus, 2003; de Waal, 1989 cited in Fassil, 2005; Devereux, 2000:26; Edkins, 2002:17). In this case Edkins took extreme radical position with regard famine causation. Edkins stated his argument in the following terms:

Any definition of famine that sees it as failure of some sort is missing the point. Whether famine is seen as failure of food supply, a breakdown in food distribution system, a multi-faceted livelihood crisis, the outcome is the same. These concepts blind us to the fact that famines, and the deaths, migrations or impoverishments that they produce, are enormously beneficial to the perpetrators: they are a success not a failure, a normal output of the current economic and political system, not an aberration (Edkins, 2002:17).

Edkin's argument is that "allocating responsibility to rulers or those groups in power for an inadequate response is merely a first stage". He further contends that it is important to avoid conclusion that "democracy prevents famine" and "framing anti-famine contracts as simple measures against governments that fail to respond quickly enough to emergency crises". Then Edkins concluded that,

.... 'famines occur because they are *made* to happen'. There is a need for a new language that talks of mass starvations, which, like mass killings, are regarded as a

⁴⁸ Early 20th century famines in China and Soviet Union and recent Korean famine could be described as "state failure famine" (Devereux, 2002:25-26).

crime against humanity.... [...famines...] are not caused by abstractions - climate, food supply, entitlement decline, war - they are brought about through the acts or omissions of people or groups of people. These people are responsible for famine and mass starvation - they should be held accountable (Edkins, 2002:15, 17).

Devereux also shares Edkins' notion with regard to famine causation. He stated that "famines occur because they are not prevented: they are allowed to happen. Most food crises have a long gestation period, not days or weeks, but months or years, so failure of public action must be incorporated in the causal analysis of all famines" (Devereux, 2000:27).

A very recent view related to the above famine explanations is absence of democratic government and free press. This view is provided by Sen (1999) and he argues that institutions like democracy and free press play a role in preventing famines through influencing government to make serious efforts to prevent famines.

Despite all endeavours in the past half of the century for famine theorizing, there is not one single agreed upon theory on famine explanations. The existing famine theories/explanations focus on one or a couple of casual factors (natural, or economic, or social, or political). None of them can claim superiority over the other. In relation to this Blaikie *et al.*, (2004:147) noted that "no single theory is dominant; each may have certain advantages over the others", and the "choice of explanations is governed by ideological and discipline based preconditions".

Devereux (2000:24) stated that two strands are currently competing for 'paradigm dominance'. The first strand, which is "dominated by economists, views famine as a natural disaster or economic crisis resulting from failures of government policy, early warning, markets, or relief interventions", and the second which is "dominated by political scientists and human right activists, views famine as a political pathology which should be analyzed in terms of local power struggle, state repression of afflicted population groups, and a refusal by international humanitarian communities to enforce the fundamental human right to food" (Devereux, 2000: 24).

Devereux further argues that most works of the economists (Ravillion 1996; Sen, 1981; von Braun *et al.*, 1998) have emphasized natural and economic factors excluding political issues and violation of human rights in their famine explanation. Having reviewed the explanatory power of demographic, economic and political theories, Devereux (2000:2) suggested that each of these theories "embodies the reductionist perspective of disciplinary specialization, and tends to look for 'technocratic' and 'technological' solutions to end famines". But according to Devereux, despite enhanced technologies and institutional capacity, various famines are allowed to occur due to lack of 'political will' where the main factors lie.

Therefore, Devereux proposed a 'taxonomic approach' to famine analysis as reconciliation of recent debates on famine causation: "not to deny the complex interactions between multiple contributing factors, but recognizing that different elements play dominant roles in different context" (Devereux, 2000:26). Yet the same author noted a criticism against this approach too, stating that identification of a dominant explanatory variable implies still reverting to the reductionism of mono-causal theories and this blurs important distinctions between triggers and structural vulnerabilities which are both needed for holistic analysis (Devereux, 2000). In this case Devereux further suggests an "alternative approach (empiricist rather than

theoretical) which would be to examine each famine individually in terms of [...] - economic, natural, political, and social [...] - and to assign causality to a proximate trigger in one category exacerbated by structural vulnerabilities in one or more of the four categories” (Devereux, 2000:26). Devereux’s proposal implies the need for empirical research and contextual analysis of contributing factors for a better understanding of famine causation.

2.4.5 Summary

The above review of literature shows that the ‘naturalness’ of disasters has been refuted by various researchers through empirical researches on vulnerability that began since the 1970s. Currently there is a general consensus that disasters are outcomes of interplay between environmental factors/processes and social systems. In other words, disasters are viewed as the intersection of hazard events and vulnerable human systems. Thus, there seems to be no substantive divergence over what constitutes the definitional nature of disaster.

The current literature reveals the complexity of famine and the dynamic nature of social and economic processes that contribute to vulnerability to specific famine. Nowadays the trend in famine explanation is to view famine first as an outcome of interaction of multiple causal factors, of which a category of factors may play significant roles in creating vulnerability in specific context. The review of famine theories also suggests that an improved understanding of specific famines needs to consider politics which are overlooked by traditional famine explanations/theories (i.e. demographic, social and economic). With regard to famine theorization Blaikie *et al.*, (2004) also noted as follows:

...the task of building theories of famine is particularly difficult because of the complexity of each specific case. [...] there is always a series of contextual events peculiar to each famine... [...] therefore narrative of each event will be important element in the explanation of particular famines, and it is always advisable to maintain a flexible analytical approach (Blaikie *et al.*, 2004:148).

As stated earlier, during the 1970s and especially the 1980s the relationship between human actions and the effects of disasters - the socio-economic dimensions of vulnerability - was increasingly well documented and argued. From the late 1980s many conceptual frameworks were developed to provide frameworks for understanding vulnerability to disasters. The perspective of social vulnerability has been gradually an important conceptual tool in disaster research. In the late 1980s and early 1990s there emerged important frameworks or models to understand vulnerability to various disasters and livelihood shocks. In the following some important frameworks of disaster risk and vulnerability are briefly described.

2.5 Frameworks and Models of Disaster Risk and Vulnerability

From about the 1980s and early 1990s important conceptual frameworks have been developed for understating vulnerability to disaster, reducing vulnerability and for discerning livelihoods’ vulnerability to shocks. These include (i) Capacity and Vulnerability Assessment (CVA) (Anderson and Woodrow, 1998), (ii) Pressure and Release/Access Models (Blaikie *et al.*, 1994), (iii) Sustainable Livelihoods Framework (SLF) (DFID, 2000; Carney, 1998), (iv)

The Causal Structure of Vulnerability (Watts and Bohle, 1993). In this section the first three are briefly discussed, as they are more relevant to this research.

2.5.1 Capacities and Vulnerabilities Analysis (CVA)

The basis of CVA framework is a simple matrix for viewing people's vulnerabilities and capacities in three broad, interrelated areas which are physical/material, social/organizational and motivational/attitudinal. Each of these areas covers a wide range of features (Hareide, 1991:23; Twigg, 2001:2-3).

i. Physical/material vulnerability and capacity: This includes land, climate, environment, health, skills and labour, infrastructure, housing, finance, and technologies. Poor health, poor land, poor infrastructure, low level of technology etc show physical/material vulnerability (Hareide, 1991:23). Poor people suffer from crises more often than people who are richer because they have little savings, few income or production options, and limited resources. Therefore, to understand physical/material vulnerability, we have to ask what made people affected by disaster physically vulnerable. Was it their economic activities, geographic location, or poverty/lack of resources? (Twigg, 2001:2-3)

ii. Social/ organizational vulnerability and capacity: Societies or social groups with better ways of organizing social and economic activities, and with an established and dynamic leadership and social coping system can withstand and recover from disasters better than those which are divided and with little or no organization. Therefore, how a society or community is organized, its internal conflicts and how it manages them are as important as the physical or material dimensions of vulnerability. To understand this aspect we have to ask what the formal and informal structures were before the disaster, and how well they served the people when disaster struck, and what impact disaster has on social organizations (Twigg, 2001:2-3).

iii. Motivational/attitudinal vulnerability and capacity: This includes how people in a society view themselves and their ability to affect their environment. To understand this we have to look at the attitudes of the people, their sense of agency, faith and strength. Groups that share strong ideologies, or belief systems or have experience of cooperating successfully may be better able to help each other at times of disaster than groups without shared beliefs or those who feel fatalistic or dependent (Hareide, 1991:23). Crises may stimulate people to make extraordinary efforts. To understand this we have to explore what people's beliefs and motivations are, and how disasters affect them (Twigg, 2001:2-3).

In general VCA framework links many different aspects of vulnerabilities and capacities. It covers livelihoods which fit within the physical/material category. The physical category includes hazards, but when applied in practice VAC tends to underestimate the significance of natural hazards by concentrating on human aspects of disasters (Twigg, 2001:3).

2.5.2 Pressure and Release/Access Models

The authors of 'At Risk' contend that the 'hard' science analysis focusing on natural processes or events is very partial and inadequate to understand how disasters occur when

natural hazards affect people. Therefore, there should be a conceptual framework which depicts how people or social groups get them in particular vulnerabilities in exposure to actual hazards⁴⁹. The authors have presented two related models to understand disaster risk in terms of vulnerability analysis in specific hazard situations. These models are not theories; rather they are research frameworks suggested for organizing empirical researches to understand disaster causation (Blaikie *et al.*, 2004:121). The two linked disaster study models can be seen as vital in bridging a theoretical gap of a single famine theory and incorporating many dimensions.

The premise of PAR and Access Models is that disaster is primarily the result of human actions rather than the natural factors which only have a triggering role. The crux of the argument is that it is the social process that puts people or social groups at a particular vulnerability into the face of hazards. In the light of this argument Blaikie *et al.*, (2004:11) emphasize the ‘human factor’ and ‘vulnerability’ in disaster studies via “rejecting the traditional views of ‘modernization theory’, environmental determinism, deterministic approach rooted in the political economy alone, and the notions which identify vulnerability with general poverty and definitions of vulnerability that focus exclusively on the ability of a system to cope with risks or loss”⁵⁰. In the following the two frameworks are briefly described.

i. PAR framework: Pressure and Release model (Blaikie *et al.*, 2004:50) states that disaster is “the intersection of two opposing processes: the processes generating vulnerability on the one side, and physical exposure to hazards on the other”. Increasing pressure arises from either side. According to the authors in order to relieve the pressure, vulnerability has to be reduced. The PAR model suggests the progress of vulnerability at three levels (Blaikie *et al.*, 2004:51):

1. *Root causes:* These entail the underlying causes and the most remote influences such as economic, demographic and political processes within a society. The processes also embrace global ones. These processes at different levels mediate and reflect the distributions of power in a society, and are associated to the functioning and power of state.

2. *Dynamic pressure:* It channels the root causes in particular forms of insecurity that have to be considered in relation to the types of hazards facing vulnerable people or groups. These include reduced access to resources as a result of the way regional or global pressures work through to localities. People or social groups are not equally able to access resources and opportunities. Whether or not people have enough land, access to water, or decent shelter are determined by social factors including economic and political processes at local and macro level.

3. *Unsafe conditions:* are specific forms in which a population’s vulnerability is expressed in time and space in conjunction with hazards. People (individuals or social groups) are not equally exposed to hazards due to social processes which play significant roles in determining who is most at risk from hazards. Thus some people are forced to live in dangerous locations;

⁴⁹ In fact the authors acknowledged that vulnerability approach to disasters began in the 1970’s and 1980’s (e.g., Emel and Peet 1989; Oliver-smith, 1986a; Hewitt, 1983a as cited by Blaikie *et al.* (2004).

⁵⁰ The authors argue that these notions lack explanations how one gets from very *widespread condition* (e.g. poverty) to very particular vulnerabilities.

being unable to afford safe buildings, having engaged in dangerous livelihoods, having minimal food entitlements, etc

The above mentioned factors are very dynamic, and they interact with each other in complex ways and the outcome can also be unpredictable. According to the PAR model “disaster risk is a combination of the factors that determine the potential for people to be exposed to particular types of hazard, and it depends on how social systems and their associated power relations impact on social groups” (Blaikie *et al*, 2004:7). Therefore, to understand disaster we must not only to know hazards, but also socially differentiated vulnerability which is determined by social systems and power, not by natural forces.

The PAR model, however, has limitations or weaknesses as the authors themselves have acknowledged (Blaikie *et al.*, 2004:87). First it does not provide a detail and theoretically informed analysis of precise interactions of environment and society at the ‘pressure point’ where and when the disaster starts to unfold. PAR framework separates hazards from social processes which should not be the case in practical world where nature forms a part of social framework of society in the use of natural resources for economic activities. Hazards are also intertwined with human systems in affecting the patterns of assets and livelihoods among people. Secondly the framework is static without suggesting or accounting change, either before the onset of a disaster or during and after a disaster. Therefore, the authors proposed the ‘access model’ to avoid the separation of hazards from social systems, and to account for details of the progression of vulnerability to the ‘pressure point’, and through the unfolding of the disaster. In the following this complementary model is briefly described.

ii. Access Model: The second linked framework, the ‘access model’ unpacks the principal factors given in the PAR model that relate human vulnerability and exposure to physical hazards (Blaikie *et al.*, 2004:92). It attempts to show how vulnerability is initially generated by economic and political processes, and what then happens as a disaster unfolds. The model also provides details how conditions need to change to reduce vulnerability and thereby improve protection and the capacity to recover. In general the access model tries to depict how unsafe conditions arise in relation to the economic and political processes that allocate assets, income and other resources in society (Blaikie *et al.*, 2004:94). Access model embraces factors like access to resources (material, human and social capitals) and opportunities, livelihood strategies (risk mitigation and survival mechanisms) and the mediating factors like social and economic relations including power relations among social groups that play a significant role in determining access and use of resources by individuals or social groups. The pattern of wealth and power are in turn the major determinants in the creation and distribution of impacts of disasters.

The access model takes livelihood strategies as the key to understand the way people cope with hazards. Access entails the ability of individuals, family, class or community to use resources to secure a livelihood. Individuals’ or social groups’ access to resources is based on social and economic relations (i.e. the social relation of production, gender, ethnicity, status and age). Access to resources varies greatly between individuals and groups and this affects their relative resilience to disasters. Those with better access to information and cash; rights to means of production, tools and equipment, and social networks to mobilize resources from

outside are less vulnerable, and are generally able to recover more quickly (Blaikie *et al.*, 2004:93-94).

However, after the first edition of '*At risk*' (Blaikie *et al.*, 1994), new developments have taken place with regard to conceptual frameworks⁵¹, and scholars have made criticisms⁵² to the Access model. Limitations of the model as it appeared in the first edition include (Haghebarret, 2001, 2002 as noted in Blaikie *et al.*, 2004:97):

- i. the model appears to be designed to analyze general livelihood process than to investigate specific disaster related process, and the issues of safety are not well defined,
- ii. non-tangible assets, such as creativity, experience and inventiveness (i.e. human agency) are underemphasized,
- iii. the model does not link up with political and socio-economic processes.

The authors of '*At Risk*' have accepted these criticisms and tried to incorporate the first one in their access model which appeared in the second edition (see Blaikie *et al.*, 2004:97). On the other hand they found the rest two criticisms difficult to accommodate in the access model claiming that the model is 'economistic', implicitly quantitative, and thus it has been difficult to find regularities in "human agency, inventiveness and political-economy processes" to model them (Blaikie *et al.*, 2004:97). Rather the authors suggest that human agency, inventiveness can be treated in qualitative manner, and the access model together with PAR can provide analytical link with political and socio-economic processes. And yet the Models' data requirement is so high that it constrains their operationalization in practice. In nutshell the major gap in the frameworks is the limitation to address the Psychological and cultural aspects, and human agency.

In general terms the two models are improvements over the previous frameworks, though each has its weaknesses as mentioned above. For instance the PAR and Access model fill the gaps of HR (Hazard and Risk) model and they direct the attention on unsafe conditions leading to vulnerability and emphasize socially differentiated vulnerability. The PAR and Access model frameworks are primarily to explain vulnerability to disaster in order to identify strategies for disaster risk reduction. Therefore, depending on the context or situation, these frameworks can be employed separately or in combination to organize empirical research on vulnerability to disaster. In fact they require a great deal of data collection and analysis, since many variables are involved in the frameworks, especially in the Access Model.

2.5.3 Sustainable Livelihood Framework (SLF)

Sustainable Livelihoods Framework is developed in the area of development studies to provide framework for disaster managers and development practitioners. It seeks to understand how persons or groups derive their livelihood by drawing on/combining five types of capitals (human, social, financial, physical and natural). The framework starts with the

⁵¹ One of these new conceptual frameworks is 'sustainable livelihoods (SL) approach promoted by UK aid ministry (Department for International Development).

⁵² The authors acknowledge criticisms as constructive (Blaikie *et al.*, 2004:97)

vulnerability context (shocks, trends, seasonality) in which people live their lives, and the *livelihood assets* (human, natural, financial, social and physical capitals) that they possess. Then it looks at how *transforming structures* (public sector, private sector, civil society organizations) and *processes* (laws, policies, culture, and institutions) generate *livelihood strategies* that lead to *livelihood outcomes* (more income, increased wellbeing, reduced vulnerability, sustainable use of resources etc) (DFID, 2000; Carney, 1998). SLF is a very similar and a parallel innovation with Access Model regarding the types of capitals (assets) involved in the model (Blaikie *et al.*, 2004:96). Though SLF is not developed for analysis of disaster, it is significant framework to understand livelihood bases of communities and vulnerability to shocks or stresses which affect communities' wellbeing.

2.5.4 Summary

The above overview of frameworks shows that the perspective of vulnerability has been one of the most important achievements in the disaster research and disaster management/risk reduction. The previous traditions in vulnerability research can be categorized into two: 'vulnerability research to hazards' and 'vulnerability research to livelihoods and shocks' (Adger, 2006:271). While the development of the PAR and Access models is a progress in former case, Sustainable Livelihoods Framework approach is an advance in the later one. This is elaborated in section 2.6.1 below.

Pressure and release/Access Models have appeared from the environment of political economies or neo-Marxism. In Pressure and release model 'risk is presented as the result of the occurrence of some conditions of vulnerability and of some possible threats. Vulnerability is obtained from identifying the social pressures and relations from global through to local' (Cardona, 2004:43). These are called at global level 'root causes' (i.e. social, political, economic structures); at intermediate level 'dynamic pressures' (e.g. population growth, urban development and population pressure, environmental degradation, and absence of ethics; and at local level 'unsafe conditions' (social fragility, potential harm or poverty). According to this model disaster prevention is perceived as relieving the pressure through risk reduction at each level (Cardona, 2004:43). The PAR and Access models consider various levels of analysis for understanding disaster causation and for reducing vulnerability.

The access model shares similarity with SLF and with 'entitlement approach' in some respects. Its argument is that individual or social groups face different levels of risk from experiencing the same potential physical damage or event due to differential access to resources and capacity to cope with. In other words, when faced with an equivalent hazard, risks could be different depending on the capacity of each individual or social group to absorb the impact. Thus in this model vulnerability refers to lack of capacity to protect oneself and to survive a calamity (Cardona, 2004:44). The SLF, though it is not developed in context of disaster studies, has been an essential tool for understating the capacities, livelihoods and opportunities of individuals or social groups. The Capacity and Vulnerability Assessment/Analysis (CVA) also provides disaster managers or practitioners with framework for understanding vulnerability to disaster risks /shocks and for risk reduction.

Currently practitioners have begun to use the concept of 'vulnerability' as a tool for understanding communities' vulnerability to various disaster risks and for reducing them.

Thus the concept of vulnerability becomes an important analytical concept and tool for investigating exposure to risks at community level (Blaikie *et al.*, 2004: 84, Wisner, 2004). The current research is aimed at understanding vulnerability to famine and coping strategies of the study community. Therefore, attempt has been made to employ some factors from PAR and SLF⁵³ frameworks. Some key variables such as root causes, dynamic pressures, unsafe conditions, extreme events (drought, violent conflict) are drawn from PAR to investigate the vulnerability situation. And the “five types of capitals” from the SLF are used in order to understand how the study community draws their livelihoods. In fact the adoption of the variables is on the basis of research hypotheses and questions set for investigation in chapter one. Moreover the main theme of this research is to understand the vulnerability of the study community to famine and their coping strategies and adaptive responses in the face of famine crisis. The following sections present theoretical discussions on “theory of social vulnerability” and on other related concepts (resilience and adaptation).

2.6 Vulnerability Perspective

2.6.1 The Evolution of Approaches to Vulnerability

As discussed earlier, various perspectives have emerged in the literature and have been configured in many ways by various authors in order to further the understanding of disaster causation. Initially there had been a tendency to view disasters as “natural” and to blame natural events such as drought, floods, earthquakes, etc. as primary causes of disasters. For instance, famine disaster was often attributed to drought or other natural events. This approach related a natural hazard directly to an actual disaster, which can not necessary be the case. It also focused on characteristics, patterns of infrastructures, and people’s location and their irrational response or maladaptation in order to explain effects of hazards. Such approach was labeled as “dominant approach” (Maskrey, 1989:2).

However, it has been gradually recognized that a mere occurrence of a hazard could not always lead to a disaster. As the work on ‘vulnerability’ began in the 1970s and progressed in the 1980s, the ‘naturalness’ of ‘natural disaster’ has been questioned (O’Keef *et al.*, 1976 cited in Blaikie *et al.*, 2004:19). And an alternative approach -‘political economy approach’- has emerged as critique of the ‘dominant approach’ (Maskrey, 1989:2). When vulnerability began to be viewed as effects of social and economic processes, the limitations of the dominant approach have been revealed. In other words the dominant approach is unable to explain how individual decisions are influenced by social and economic constraints. Alternatively the political economy approach tries to address social processes, organization and change (Maskrey, 1989:2). And yet concerning the political economy approach, Maskrey also warned against the danger of losing sight on the local specificity of vulnerability in areas which suffer different hazards. Hence, Maskrey and other authors maintained that “the analysis of specific risks to a given hazard and the analysis of socio-economic processes are not mutually incompatible; ...both are necessary to explain people’s vulnerability and their actions in the context of that vulnerability” (Maskrey, 1989:3; Wisner, 1993:13). Therefore,

⁵³ Since the Access model is more quantitative and economic that requires a great deal of quantitative data, the researcher has preferred to use PAR in combination with SLF. Moreover SLF is nearly similar to the Access model with regard to variables (e.g. the five capitals).

since the 1980s a significant advance has been made in thinking and research perspective concerning disaster causation. The primacy of natural hazards in explaining the causes of famine have been challenged. Hence, it has been stated that “the explanation of disasters should rest more fully on a social analysis of the processes which create the conditions under which ‘exceptional’ natural events can act as the ‘trigger’ for a disaster” (Hewitt, 1983 cited in Blaikie *et al.*, 2004:129).

In this case the human geography and human ecology have, in particular, theorized vulnerability to environmental changes (Adger, 2006:269). In fact a number of traditions and disciplines, from economics and anthropology to psychology and engineering use the term vulnerability (Adger, 2006:269; Wisner, 2004:183). These disciplines have made contributions to the present understanding of ‘socio-ecological systems’, while the related insights into ‘entitlements’ grounded vulnerability analysis in theories of social change and decision making (Adger, 2006). Accordingly Adger identifies two relevant theories that relate to human use of environmental resources and to environmental risks: (i) the *vulnerability and related resilience research on socio-ecological system* and, (ii) the separate literature on *vulnerability of livelihoods to poverty*. Adger stated that “these two research traditions in vulnerability acted as seedbeds for ideas that eventually translated into current research on *vulnerability of social and physical systems* in integrated manner”(Adger, 2006:270). This is further elaborated in the following paragraphs.

i. PRA and Access Models: Bridging the Gap between Hazard Study Approach and Human/Political Ecology Approach: In the mid-1990’s Blaikie *et al.* (1994) came up with two complementary models or frameworks (PAR and Access Models) to show how vulnerability to specific hazard or stress can be created in space and time. The basis for the development of the models has been an effort to incorporate the natural and social causes (factors) of disasters in one organizing framework. In this case Adger stated that the PAR model bridges the traditions in hazard studies and human/political ecology approach, and the model spans the space between hazards and political economy approaches (Adger, 2006:270). The two complementary models are improved frameworks that can guide empirical researches, and help analyze and interpret results. Thus the models seem fine at least theoretically in terms of a social vulnerability approach. However, the practical problem is that the cross-disciplinary nature of the candidate factors or concepts that are used in developing the models. And if so, how can it be possible to achieve interdisciplinary cooperation to apply a model in one specific area concerning a specific hazard, say a drought or a flood. Moreover each discipline has its own orientation or preoccupation, concepts, methodology, ideology, etc. For instance, if we take each box in Access model, each can be a subject area of one or more disciplines.

And yet the models are more comprehensive than ever presented in organizing previous research traditions. Among the efforts made in the 1990s to address these gaps of the approaches, PAR model has synthesized social and physical vulnerability and has, for instance, successfully bridged, the two traditions of hazard research - vulnerability to hazards studies and political ecology approaches which currently leads to “vulnerability of social and ecological systems” perspective (Adger 2006:271-2).

ii. *Vulnerability of social and ecological systems perspective*: The traditions in vulnerability study have shown a conceptual advance in analysis. The two research traditions - “analysis of vulnerability as lack of entitlement” and “analysis of vulnerability to natural hazards” are the seedbeds for ideals that translated into the current research on vulnerability of *social and physical systems* (Adger, 2006:272). According to Adger the hazard tradition is delineated into three overlapping areas - human ecology (or political ecology), natural hazards, and pressure and release model. The other current frontier of research is “sustainable livelihoods and vulnerability to poverty” perspective that is the successor of “vulnerability as absence of entitlements” approach (Adger, 2006:270-271). Adger describes how traditions on vulnerability research have developed over time in the following manner:

.... *Entitlement approach* to analyzing vulnerability to famine underplayed ecological or physical risk, while it highlighted social differentiation in cause and outcome of vulnerability.... In contrast the *hazard tradition* attempted to incorporate the physical science, engineering, social sciences to explain the linkages between system elements. the *human ecology/political ecology* attempted to incorporate the political and structural causes of vulnerability and [...] to explain why the poor and marginalized have been most at risk.... The ‘*pressure and release model*’ bridged the two hazard traditions (i.e. human ecology and natural hazard) and ... the analysis captured the essence of vulnerability from physical hazards traditions while identifying the proximate and underlying causes of vulnerability within a human ecology framework. PAR model also prescribed actions and principles for recovery and mitigation of disasters that focused explicitly on vulnerability reduction. Operationalising PAR necessarily involves typologies of causes and categorical data on hazard types, limiting the analysis in terms of quantifiable or predictive relationships. the successor of hazard research traditions is ‘*research on vulnerability of social and physical systems*’ (i.e. vulnerability, adaptation and resilience of social-ecological systems). the successor of ‘*vulnerability as entitlement failure*’ is ‘*sustainable livelihoods and vulnerability to poverty*’ which, within the development economics, tends not to consider integrative social-ecological systems; ... but it complements the hazards-based approaches through conceptualization and measurement of the links between risk and well-being at the individual level (Adger, 2006:271-272).

The above quotation implies two frontiers of research perspectives on vulnerability. These are livelihood vulnerability and vulnerability of coupled social-ecological systems. In relation to this Adger suggested that cross-fertilization of development economics with vulnerability, adaptation and resilience research would yield better insight on social-ecological systems’ vulnerability, adaptation and resilience (i.e. vulnerability of coupled systems). The application of these concepts in vulnerability analysis, and the conceptualization of human-environment systems exposed to hazards, requires vulnerability analysis to be comprehensive to address the coupled systems. In this case Turner *et al.*, (2003:4) also suggest that the usefulness of vulnerability analysis increases, when it:

- i. directs attention to vulnerability anchored in the condition of the coupled human-environment systems;
- ii. identifies some of complexity, interconnectedness, and iterative nature of components giving rise to and comprising vulnerability;
- iii. illuminates the nested scales of the vulnerability problem but provides an understanding of the vulnerability of a particular place;

- iv. draws attention to the potential dynamics within the coupled system that give rise to new hazards,
- v. facilitates the identification of critical interactions in the human-environment system that suggest response opportunities for decision makers;
- vi. is open to the use of both quantitative and qualitative data and novel methods to derive and analyze information; and
- vii. assists in the development of metrics, measures, and models for implementation.

Turner's suggestion is to portray vulnerability as property of social-ecological system, and to analyze the elements of vulnerability (exposure, sensitivity and resilience) of a bounded system at a particular spatial scale rather than focusing on multiple outcomes from a single physical stress (cited in Adger, 2006:272). The above discussion has shown how "traditions on hazard researches" and "political ecology approaches" have been conceptualized, advanced and developed into "vulnerability of socio-ecological systems perspective".

iii. Sustainable livelihoods and vulnerability to poverty: As stated earlier "sustainable livelihoods and vulnerability to poverty" perspective is the successor of "vulnerability as absence of entitlements" approach (Adger, 2006:270-271). As discussed in the theoretical review of famine causation and chronic poverty, we have seen that there is no single theory powerful in explaining famine or hunger or poverty. Rather nowadays, there seems to be a theoretical agreement to examine the relationship of poverty, hunger and famine instead of looking at causal factors. This is an agreement on the locally and historically specific configuration of poverty, hunger and famine. This is within the premise that understanding the social, political, economic and structural-historical processes that may lead to poverty, hunger or famine. This is what Watts and Bohle (1993: 117-118) call a "social map or space of vulnerability".

Poverty-hunger equation is addressed by works of Dreze and Sen (cited by Watts and Bohle, 1993:117) and famine and hunger are defined by "entitlement collapse" and the "socially circumscribed distribution of entitlements over basic necessities". Watts and Bohle (1993) argued that though Dreze and Sen's entitlement approach is relatively broader and includes not only food intake but also access to health care and education, the "capacity and the totality of rights", which secure basic needs, are not addressed. Therefore, Watts and Bohle suggested that entitlements have to be broadened not only in social or class sense but also politically and structurally. Accordingly they point out three elements that famine analysis must account for. These include: (i) the particular distribution and redistribution of entitlements in specific circumstances, (ii) the larger canvas of rights by which entitlements are defined, fought, contested, and owned or lost (i.e. empowerment) and, (iii) the properties of political economy which precipitate entitlement crisis (Watts and Bohle 1993:117-118). Then Watts and Bohle concluded that the totality of these processes define the "space of vulnerability".

Moreover, poverty is not equated to vulnerability. Though it is mainly poor who suffer from hunger and malnutrition, not all poor are equally vulnerable to hunger. In addition to income, there are many factors which codetermine whether individuals go hungry. Indeed poor people are usually among the most vulnerable by definition, but understanding of vulnerability should rest on a carefully disaggregation of the structure of poverty itself (Watts and Bohle, 1993:117). Though vulnerability as concept doesn't rest on a well developed theory, and lacks

widely accepted indicators and methods to measure it as indicated above, elaborated discussions, definition and models/approaches on vulnerability are provided by many authors in the literature (Chambers, 1989:1; Wisner *et al.*, 2004; Blaikie *et al.*, 2004). For instance Chambers (1989:1) defines vulnerability as “the exposure to contingencies and stress, and difficulty in coping with them. Vulnerability has thus two sides: an external side of risks, shocks and stress to which an individual or household is subject; and an internal side which is defencelessness, meaning a lack of means to cope without damaging loss.”

Therefore, according to the above definition, the concept of vulnerability embraces three conditions of a system or area or individual or a group: - risk of exposure to shocks or stresses, inadequate capacity to cope with stress and severe consequences which limit recovery. This suggests that a system or individual or group with such characteristics can be the most vulnerable to perturbation (Watts and Bohle, 1993:118) This disaggregation of vulnerability further suggests what a response should embrace is to reduce vulnerability (i.e. reducing exposure, enhancing coping, strengthening recovery potential and bolster damage control). All these approaches and descriptions of vulnerability might be said theoretically. But the task of identifying conditions and factors which govern vulnerability, and define specific coordinates of exposure, capacity and potentiality is a complex one that falls across various fields. In fact the elaborated definition and discussion of vulnerability provided by Chambers (1989), Watts and Bohle (1993) have highlighted the complexity of the application of the concept for empirical examination of vulnerability. It is a multi-layered and multi-dimensional social space determined by political, economic, social and institutional capabilities of people in specific places at specific times (Watts and Bohle, 1993:118).

In general the evolution of approaches to vulnerability has confirmed that the concept has found space in both theoretical and practical terms in a wide range of disaster risk reduction discourses and in some interventions. Since the 1980s where many people began to distinguish disasters from hazards, the concept of vulnerability has gradually become an important tool for understanding disaster causation and risk reduction (i.e. disaster discourse). In relation to this Alexander (1997 cited in Bankoff *et al.*, 2004:194) noted that “the emergence of the notion of vulnerability is one of the most salient achievements in the field during the last decades”. The following section further elaborates the conceptual advancement of ‘social vulnerability’ and its current application in disaster discourse and risk reduction interventions.

2.6.2 The Theorization of Social Vulnerability

The origin of the vulnerability approach can be traced back in the 1970s, when some authors began to question the “naturalness of natural disaster” (O’Keef *et al.*, 1976 cited in Blaikie *et al.*, 2004:19). Its application in disaster research has been more frequent in the 1980s with writings about disaster. At the time, however, it was not used in specific situations to identify vulnerable groups and, its application was in general terms and was simply identified with poverty (Wisner, 1993). The concept was not utilized in a manner to understand socially differentiated impacts of and responses to disasters. This resulted in attributing vulnerability to certain kinds of production systems, or to social organizations, or to certain spatial scales (town, region, zones). Consequently planners and activists were unable to articulate the

socially differentiated vulnerabilities and to formulate disaster mitigation plans (Wisner, 1993).

The above description of vulnerability implied the narrow theoretical and practical utility of the concept before the 1990s. The ideals and thinking about natural hazards, disasters and vulnerability also varied greatly before the 1990's, and the approaches to disasters studies were subject-oriented. But in the 1990s a convergence of ideas and thinking has been observed among different ideas and approaches with regard to hazard, disaster and vulnerability (Wisner, 2004; Blaikie *et al.*, 2004).

In his recent work Wisner (2004) has thoroughly reviewed how the term 'vulnerability' has been used in disaster research and management. In order to match with respective disciplinary focuses, the concept of vulnerability has been preceded with adjectives (e.g. structural engineering vulnerability, lifeline infrastructures vulnerability, macro-economic vulnerability, regional economic vulnerability, commercial vulnerability, social⁵⁴ vulnerability). All these have 'one common core notion' of the 'potential for disruption or harm' (Wisner, 2004:183).

The concept of vulnerability has been advanced from its narrow theoretical and practical utility to broader application in disaster research. In an article on '*assessment of capacity and vulnerability*' Wisner (2004:185-7) illustrates this through examining its application in four main approaches (demographic, taxonomic, situational, and contextual and proactive). It has been summarized as follows:

.... *demographic approach* "tends to consider human beings as one of many 'elements' at risk (e.g. structural vulnerability of buildings, bridges, health care systems *and* people). This approach does not conceptualize the social vulnerability of groups or people, and it lumps people with things and seeks to minimize the vulnerability of systems and things. Thus it fails to refer to social groups which may or may not experience increased vulnerability. The '*taxonomic approach*' - as an advance over previous and conventional use of term vulnerable - focuses on vulnerability of social groups and the causes of vulnerability. It also breaks down vulnerability into different elements (social, economic, environmental and informational) and identifies vulnerable groups (women, children, the elderly, ethnic or racial groups) on the basis of empirical studies. Practically it makes 'visible' the vulnerable groups to planners and service providers. And yet the taxonomic approach is not analytically strong. One can fairly argue that not all women or other groups are always socially vulnerable in all contexts. '*The situational approach*' tries to go beyond identifying the kind of groups and looks into the nature of their daily life and their actual situation. It recognizes three contingencies: social vulnerability is not permanent property of a person or group but changes in respect to a particular hazard; the constantly changing daily, seasonal and yearly circumstances of person's situation regarding access to resources and power; and contingency born of the complex interactions of particular overlapping identities and forms of empowerment or marginality. Therefore, apart to listing of vulnerable groups, situational approach has recognized complexity, change and contingency thereby provides a more sensitive tool of analysis. The last approach presented by Wisner is a '*contextual and proactive approach*' whereby communities and groups would use the concept of vulnerability as a tool to enquire their own vulnerability

⁵⁴ The adjective social is more explicit and large domain embracing political, economic and cultural factors as well. (For more see Wisner, 2004:183, Blaikie *et al.*, 2004: 8, and 11-12)

situation. For Wisner this is a new approach to assessment of social vulnerability and tool in a struggle for resources that are allocated politically.

The above description indicated that the development of vulnerability assessment approaches nearly matches with the progress from “disaster study” to vulnerability research. It has shown how approaches in disaster study and vulnerability have been advanced over time and highlighted the strengths and weaknesses of each approach in terms of conceptualizing social vulnerability. It also revealed how the concept of vulnerability has gradually emerged as significant tool to understand differential vulnerability to disasters, and to involve “people at risk” or ‘disaster victims’ in risk assessment.

Wisner also noted that the first three approaches to vulnerability are structuralists⁵⁵ which mainly represent western discourse on reality (i.e. disaster discourse). He added that disaster researchers and practitioners who adopt social vulnerability are doing a bit different i.e. “the break out of the hegemonic ‘development’ and ‘disaster’ discourse by providing space for alternative subaltern stories and voices” (Wisner, 2004:189). Thus works on social vulnerability try to give attention to local capacity (coping), social capita, local knowledge and perception.

From practical perspective, disaster response agencies also use the concept of vulnerability to analyze processes and conditions that lead to disaster and identify disaster responses (Heijmans, 2001:1). Moreover in some parts of the Latin America, Africa and Asia, employees of NGOs, professional planners or employees of governments and academics utilize the concept of social vulnerability as a tool to conduct community-based vulnerability assessments in which community members define their own vulnerabilities and capacities, and decide which risks are acceptable to them and which are not (Wisner 2004:187-88; Blaikie *et al.*, 2004:43). Thus (social) vulnerability analysis enables outsiders to explore people’s perception of risks, and social capitals (i.e. local knowledge, networks, coping mechanisms, etc). Moreover, the concept of vulnerability is also applied across different disciplines⁵⁶.

What can be concluded from the above discussion is that the application of the concept of (social) vulnerability has found more space in both theoretician and practical terms. Therefore, despite the limitations of theory, data and methods (measurement), it can be said that enough is known about vulnerability to provide robust information to decision-makers. Other concepts related to vulnerability analysis are coping, resilience and adaptation. In the following these concepts and their role in vulnerability analysis are briefly described.

2.6.3 Resilience and Adaptation

The other side of vulnerability is the capacity of individuals/social groups or social systems to cope with stress or/and resilience to bounce back when a disaster unfolds. The development

⁵⁵ In fact Wisner (2004:188) recognized the contribution of post-structuralist approach, particularly in the area of environmental social science.

⁵⁶ For its application in different disciplines see Alwang *et al.*, 2001.

of vulnerability analysis thus draws on the concepts such as entitlement, coping through diversity, and resilience (Turner et al., 2003).

Different social systems have different level of sensitivities to shocks or stresses. This characteristic of individuals or social groups is linked to *entitlements* (i.e. legal and customary rites to exercise command over food or other necessities). This is evidenced that modern famines (new famines)⁵⁷ occurred not due to insufficient food stock, but because of inability of certain groups of people to command food access through legal or customary means (i.e. in Sen's word lack of access to bundles of entitlements). The implication of this is that understating entitlement helps explain why certain groups are differentially at risk or vulnerable to specific disaster. In general the concept of entitlement enables us to understand socially differentiating causes and outcomes of vulnerability.

On the other hand social groups or communities at risk are not passive receivers of effects of adverse events or shocks. They have different capacities to respond to harms or avert the potential harm of a hazard via myriads of *strategies* which may include mobilizing entitlements, social capitals (societal safety nets), certain endowment (assets), diversification of livelihood systems, etc. These strategies form coping mechanisms or adaptive responses to normal constraints and/or extreme events. Individual coping or adaptive strategies emerge with different constraints provided by the natural environment, or economic systems or political systems or both, and the concomitant opportunities and constraints available within them.

Social vulnerability is the exposure of groups of people or individuals to stress as a result of the impacts of environmental changes, socio-economic-situations (lack of income and resources), war, civil strife and other factors. Stress encompasses disruption to groups' or individuals' livelihoods and forced adaptation to the changes and uncertainties (Adger, 2000). Social groups or systems experience various stresses and disturbances emanated from the increased environmental changes and socio-political processes. Vulnerable social groups are not passive recipients of stress, external disturbances and changes (Blaikie *et al.*, 2004; Wisner, 2004:189, 191). Communities or social groups have their own inherent capacity to adapt, cope with stresses and to bounce back. Thus it is here that resiliency is important to absorb disturbances and to continue functioning without showing qualitative change or compromising future sustainability.

The concept of resilience emerged in interdisciplinary research mainly via component of 'adaptive capacity' (i.e. the flexibility of economic systems and the ability of social systems to learn in response to disturbances). In ecology the resilience concept was used in the analysis of ecosystems in order to understand the capacity of natural systems (properties) to function without showing qualitative change in the face of external disturbances (Bolling *et al.*, 1995 cited in Adger, 2000:349). Then the analogy from the ecological systems is being applied to understand the resilience of communities and their social institutions to physical and social stresses emanating from external disturbances and environmental changes. The resilience concept has been adopted in social sciences which are engaged in vulnerability

⁵⁷ The history of 1984-1985 and 2002 famines in Ethiopian and the 1984 and 2002 famine in Sudan are instances of such famines as some studies documented about them (Devereux *et al.*, 2002).

researches. It has found space across disciplines, especially in the 1980s where the concept of vulnerability has turned up as a rich tool for analysis of social vulnerability.

Resilience increases the capacity to cope with stress and hence a loose antonym of vulnerability (Adger, 2000:348). But resilience is about people's capacity far beyond the minimum of being able to cope. This suggests the need for looking beyond capacity to respond or to absorb the negative impacts and thus considering the essential and non-essential elements of community systems able to adapt to survive shocks (Manyena, 2006). The concept of (social) resilience is sensitive to the institutional context to be observed in a meaningful manner. Because of this social resilience is defined at the community level rather than being a phenomenon pertaining to individuals. Hence it is related to social capital of societies and communities (Adger, 2000:349). The social capital of communities is here to mean the existence of integrating features of social organization such as trust norms and networks.

In some case studies (e.g. Bollig, 2003:9) it is stated that "the concept of resilience is analytically useful, but difficult to handle in complex socio-cultural, historically embedded settings". Therefore, finding convincing indicators for resilience in human systems, which allow a comparison of communities, and of different time horizons within a given community, are needed. In relation to this, exploring institutionalized buffering mechanisms to lower vulnerability is suggested (Bollig, 2003). Then a result of analyzing buffering mechanisms is that resilience is a socially generated, collective good. In this case Bollig (2003:9) concluded that "it is exactly this social process (the creation of resilience) that should become a formidable field for comparison". Bollig considered three buffering mechanisms in analyzing resilience in two African herder societies (the Himba of Namibia and the Pokot of Kenya). These included economic diversification (herd diversification), network of livestock exchange, and institutionalized resource protection and management.

In recent works there is a tendency to define resilience into two broad ways- "as a desired outcome (s)" and "as a process leading to desired outcomes" (Kaplan, 1999 cited in Manyena, 2006). Resilience is now gradually conceptualized as process-oriented, as it suggests focusing on building something rather than just reducing something, which is the case when talking about poverty or vulnerability reduction. A close look at the definitions in the box 2.4 above reveals the gradual refinement of conceptualizing disaster resilience from more outcome-oriented to more process-oriented. Accordingly disaster resilience is seen as the shock-absorber or buffer that moderates the outcome to ensure benign or small scale negative consequences (Manyena, 2006).

Nowadays resilience is being applied in a number of fields, especially in disaster management, and increased attention is paid to what affected communities can do for themselves and how best to strengthen them (IFRC, 2004). There is a new move to focus on resilience as a new way of tackling disaster. Cases in point are the "Hyogo Framework for Action 2005-2015, known as Hyogo Declaration" (UNISDR, 2005) and the "IFRC Report on World Disaster: Focus on Community Resilience" (2004). These agencies call for shift in disaster relief thinking from identifying what is missing in a crisis (needs, hazards and vulnerability) to identifying the strengths, skills and resources that are already in place within the communities. Building resilience through nurturing diversity, self-organization, adaptive

learning and constructive positive feedback loops is consistent with these calls (Tidblom and Krasny, 2007).

In general concerning the concepts of vulnerability and resilience, two views emerged. One sees them as factors for each other, while the other sees them as more separate entities. Vulnerability signifies a low level of (rather than lack) of disaster resilience, limiting capacity to recover. Each system has some degree of resilience. This suggests that disaster resilience could be viewed as the intrinsic capacity of a community or a society predisposed to a shock or stress, and survives by changing its non-essential attributes and rebuilding itself (Manyena, 2006:442-4). Many definitions given in the box 2.4 above show that resilience is not the opposite of vulnerability. Therefore, it is important for development and relief industry to identify and map resilience. Further more increased awareness of and emphasis on resilience does not necessarily mean abandonment of support for infrastructure. It rather suggests the need to mainstream resilience building through people at the centre of disaster risk and recovery (Manyena, 2006).

2.6.4 Summary

The concept of vulnerability has been used as a key to understanding disaster risk and identifying responses to risk reduction. The traditional view that ‘disasters are purely physical happenings requiring technological solutions’ has been challenged and has given ground to the alternative notion that ‘disaster events are primarily the results of human action’. In other words while hazards are natural, disasters are not (Blaikie, *et al.*, 2004; Cannon, 1994). This suggests that social systems or arrangements matter in facing low or high exposure to disaster risks, than the mere happening of hazards. This is because social systems generate unequal exposure to risks by making individuals or social groups more prone to disaster risk than others. These variations in proneness to risks, and opportunities to cope or recover are determined by power relations operating in every society. Therefore, understanding of the ways in which human systems place people or groups at more or less risk in relation to others and to their environments is critical for discerning the nature of disasters. This can be best understood in terms of individuals’ or groups’ or societies’ vulnerability. Vulnerability is a ‘complex characteristics produced by a combination of factors derived from social relations (class, gender, and ethnicity, occupation, health age, social networks, etc) and economic and environmental processes. In general the concept of vulnerability has been an important analytical tool to understand disasters⁵⁸.

The use of concept, however, is not limited only to understanding or explaining disasters; it is also employed by disaster response agencies to analyze processes and conditions which lead to disasters and to identify disaster responses (Heijmans, 2001:1). Nowadays, the increasing number and impacts of disaster has given rise much concern about vulnerability reduction. Vulnerability assessment has been recognized as essential tool to analyze various factors and processes underlying the impacts of disasters on society.

⁵⁸ Though some writer claimed that the concept of vulnerability is too broad encompassing everything and would be unusable for analytical purposes, it is engaged more and more in disaster researches and disaster management across various disciplines.

The appropriateness and effectiveness of disaster responses also depends on proper conceptualization of analytical tools. In this case, the concept of *vulnerability* has been the key to analyze disaster causation and identify response. However, as stated in section 2.2 (iv) it does mean that all stakeholders (researchers, disaster response agencies, people at risk) share a common understanding or definition of vulnerability. Heijmnaas (2004:116-117) identified the existing three views on causes of disaster and the supposed strategies for vulnerability reduction. These are summarized as follows:

i. Nature as a cause: This view blames nature and natural hazards as causes of people's vulnerability which results from hazards (intensity) and risk (exposure to events). According to this view strategy to reduce vulnerability is 'technological, scientific solutions (prediction of hazards and technology to enable human structures to withstand disaster impacts)'.

ii. Cost as cause: 'In spite of increasing technological and scientific capacity, people continue to suffer because prediction and mitigation technologies are so costly. This view suggests 'economic and financial solutions, in that vulnerability will be reduced if national governments adapt safety nets, insurance, calamity funds, and provide financial assistance to build up people's assets'.

iii. Social structures as a cause: This view recognizes socially differentiated vulnerability, and it argues that 'it is not only the exposure to hazards that put people at risk, but also socio-economic and political processes in society that generate vulnerability. This view suggests political solutions (changing the processes that put people at risk) i.e. 'transforming the social and political structures that breed poverty and the social dynamics and attitudes that serve to perpetuate'.

In practice, however, more than one of these three views can be held by policy makers and implementers working for an organization. Most disaster agencies combine the first two in their analysis and actions, while the third is supported by activists and environmentalists (Heijmnaas, 2004:116). Vulnerability reduction is related to social order and politics. If disaster risk has to be reduced, the social and political origins of disasters have to be addressed. For many countries and donors, 'vulnerability reduction is too political' (Bender 1999 cited in Heijmnaas, 2004:117).

The above description presents how external actors (researchers and disaster response agencies) view disaster risk and vulnerability reduction. It is also important to examine how people at risk understand disasters and their vulnerability. Though local people are unfamiliar to concepts such as 'disaster' and 'vulnerability', 'they have their own way of disaster *risk perception and communication*. Many authors argue that without theorizing and conceptualization, the local people can analyze risk, and identify solutions using their own *capabilities* (experience, skills and traditional knowledge and techniques). The local people have knowledge about their locality, history of local disasters, and how vulnerability to disasters has changed over time. Understanding people's perception of risk and their vulnerability is essential for effective disaster *risk reduction*. Therefore, vulnerability assessment (analysis) can be an important tool to explore people's perception of disaster risk and vulnerability conditions. Equally important are community *resilience and adaptation systems* in vulnerability analysis.

In this chapter I have presented general discussions on concepts, theories, and frameworks/perspectives used in disaster studies and vulnerability researches. Drawing on insights from literature review, this study adopts a broad theoretical orientation (i.e. political economy) which considers socio-political processes in creating vulnerability situations. Accordingly in the next chapter, I attempt to identify and examine the social, cultural, political and environmental processes that create vulnerability to famine in the pastoral societies of East Africa.

Chapter Three

Pastoralism, Development Approaches and Drought/Famine in East Africa

The preceding chapter has presented a theoretical overview on how individuals or social groups are more or less vulnerable to various disaster risks. As the theoretical discussions in Chapter 2 showed, the current tone of theoretical literature is that various historical and contemporary socio-political processes and environmental factors are the prime factors putting communities or social groups in a situation of vulnerability to disaster. In the light of this theoretical orientation, I will present my own empirical study in Chapter 6. The current chapter attempts to review the general literature and some earlier empirical researches on East African pastoralists. This chapter mainly focuses on the current discourse on pastoralism; development policies and their consequences on pastoral groups; risk factors such as drought/famine, external encroachments, violent conflicts, political instabilities, state neglect, etc. First, pastoralism is briefly described in general terms. This is followed by an assessment of national governments' policies and approaches to pastoral development and their consequences on pastoralists. Thirdly, various risk factors and pastoralists' coping and adaptive strategies are discussed. Likewise an attempt is made to discuss the general condition of the pastoral groups in Ethiopia. Generally the main objective of this chapter is to see the research problem in the context of East African pastoral societies in general and in Ethiopian context in particular.

3.1 General Background to Pastoralism

3.1.1 Pastoralism: Definition and Classification

Pastoralism is one of the main production systems in the drylands⁵⁹ of the world. It uses rangelands for livestock production. Pastoral production takes up some 25% of the world's land area; produces some 10% of the meat used for human consumption; and supports some 20 million pastoral households (Blench, 2001: iv).

Pastoralism is defined in many ways or has many definitions⁶⁰. Many of its definitions are honed in the issues of extensive ruminant livestock production, characterized by some form of mobility (WISP, 2006). Some examples of definitions of pastoralism are given in box 3.1 below.

⁵⁹ Drylands are conventionally defined in terms of water stress, as terrestrial areas where the mean annual rainfall (including snow, fog, hail, etc) is lower than the total amount of water evaporated to the atmosphere. Drylands can be found on every continent and cover extensive areas of land. They stretch over 41% of Earth's land surface (World Initiative for Sustainable Pastoralism/WISP, 2006).

⁶⁰ Pastoralism "can be described as both a means of production and a mode of subsistence. 'Means of production' is the act of production based on animals; 'mode of subsistence' is a configuration of productive strategies and social relations allowing the exploitation of natural resources and reproduction of the social groups involved" (Cribb, 1984, cited in Abdi, 2003:398).

Box 3.1 Definitions of Pastoralism/Pastoralist

- **Pastoralism:** “may be defined as dependence upon domestic herd animals held and bred as capital” (Chang and Koster, 1986 cited by Abdi, 2003:389).
- **Pastoralism:** “is a mode of production which depends on natural forage. In the arid regions this requires constant or periodic movement in search of pasture, a factor that differentiates this form of livestock production from those practised by farmers and ranchers” (Markakis, 1993:1).
- **Pastoralism** is “the predominant form of economic activity characterized by maintenance of herds all year round on a system of free-range grazing, periodic mobility within the boundaries of specific grazing territories, or between these territories, and the orientation of production towards the requirement of subsistence” (Khazanov, 1994:16).
- **Pastoralism:** “is a mode of production concerned with the exploitation of domestic animals” (Abdi, 2003:389).
- **Pastoralism:** “often refers to extensive husbandry of herds of different species (cattle, sheep, goats, camels, equines) requiring periodic migration to access pasture” (WISP, 2006).
- **Pastoralist households** are “those in which at least 50% of household gross revenue (including income and consumption) comes from livestock or livestock-related activities” (Swift, 1998 cited in IUCN/WISP, 2006).
- **Pastoralist:** “often describes an entire ethnic group, irrespective of whether all members actually keep livestock or not” (Baxter, 1994 cited in WISP, 2006).

Some of the important terms used for describing pastoral production strategies are contentious and can be described differently by different people. Many writers have also made different categorization of pastoral production system. Broadly speaking pastoral production is split into “extensive enclosed systems” (in North America, Australia and parts of South America), and the “open access systems” (in Africa, the Andes, Asia and Siberia). While the former is practised mainly in the developed countries using fenced ranges and the later is largely the domain of “traditional producers” in the developing countries (Blench, 2001:iv, 7).

There is no generally accepted classification of the different forms of pastoralism. Various scholars have made different classification of pastoralism. The criteria used for classification may include degree of sedentarism, distance of pastoral migration, composition of herds or species, management system, organization of labour involved in herding activities, geographic distribution, ecology, etc. (Khazanov, 1994; Blench, 2001; Abdi, 2003). The most common classification is based on the herd size, duration and distance of livestock movement, and organization of labour (Abdi, 2003:398; Blench, 2001:11; Wilson, 1982 cited in Ayalew, 1995). Moreover, other factors such as the degree of dependence on livestock products for the foodstuff of households and various types of agricultural activities, and foraging activities associated with livestock are also considered in classifying pastoral systems (Blench, 2001; Khazanov, 1994). In general three pastoral systems can be distinguished: nomadism, transhumance and agro-pastoralism⁶¹. Each of these forms of pastoralism is briefly described as follows.

⁶¹ For details on classification see Khazanov (1994:17-25).

i. Nomadism: is a type of pastoral system in which pastoralists are “exclusively”⁶² livestock producers who do not grow crops and thus simply depend on sale or exchange of animals and their products. In this system herders movement is opportunistic and follows the pattern of pasture resources. Forage availability has a direct impact on the movement of herds; and mobility pattern is highly irregular (Blench, 2001; Rass, 2005). However, the idea of exclusive reliance of pastoralists on livestock products is disputed, as pastoral society may practice both pastoral means of production and agricultural means of production, or a pastoral mode of subsistence may coexist with an agricultural mode of subsistence (Abdi, 2003). Another author (Scholz, 1995 cited in Merkle, 2000:1) defines nomadism as “a region specific, temporally and spatially ubiquitous survival strategy that was based on subsistence, and coexisted as an alternative to the sedentary cultures of agricultural and urban societies”. Pastoral groups may also rely on trade with sedentary communities for grains and other products to supplement their livelihood (Chang and Koster, 1994). This suggests that societies known to be ‘pastoralists’ do also practise some agriculture or trading.

ii. Transhumance: This system involves the ‘regular movement’ of herds among the fixed points in order to exploit the seasonal availability of resources. It is a “specialized form of (mobile) pastoralism that is still based on settlements, but involves seasonal movement of the herd between pastures with some use of campsites” (Abdi, 2003:398). Transhumance pastoralists have a permanent homestead or base camp where older members of the community remain the whole year. Herd splitting is the characteristics of transhumance. Herders take most of the animals to search for grazing, while some especially among lactating animals are kept at homestead. Weak animals or work animals are also left behind in the permanent camp (Blench, 2001; Ayalew, 1995).

iii. Agro-pastoralism: where pastoralists are permanently settled and engaged in agriculture as their major economic activity. In this pastoral system agriculture constitutes the subsistence base, and agro-pastoralists derive the bulk of their subsistence from crop production. Producers depend on their own or hired labour for crop cultivation, and invest more on housing and infrastructure (Blench, 2001). In such societies pastoralism occupies an important place in their value system and its social reproduction is maintained.

Concerning the relationship between agriculture and pastoralism some authors suggested that “most societies known to be ‘pastoralists’ do also practise some agriculture; as a result, no pastoral society subsists exclusively on the products of livestock. Therefore, the combination of pastoralism and agriculture can be viewed as a continuum with ‘pure’ pastoralism and ‘pure’ agriculture respectively as the logical extremes” (Brandstom et al., 1979 cited in Ayalew, 1995:8). Similarly another author states that “pastoralism occurs in a continuum from fully sedentary (village-based herding) to fully mobile (nomadic) pastoralism” (Abdi, 2003:398).

Regarding forms of pastoral systems Blench also remarked that “any classification must be treated as simplification; pastoralists are by their nature flexible and opportunistic and can

⁶² Currently, however, the notion of exclusive dependence of pastoralists on livestock products has been challenged, as producers shift between herding and cultivation depending on the economic and ecological conditions.

rapidly switch management systems as well as operating multiple systems in one overall productive enterprise” (Blench, 2001:11). Khazanov (1994:16) also states that “forms of pastoralism are not absolutely static; on the contrary they merely point to the parameter of a changeable economy which is capable of transformation”. In relation to this, on the basis of findings of economic and social history of nomads in the Old World Dry Belt, Scholz (2001:1) noted that given the right conditions, nomadism, termed as a socio-ecological mode of culture, was able to appear and disappear at any place and any time. In general the above description of pastoralism shows the change and continuity of pastoralism, disappearance and reappearance of its various forms in specific contexts and conditions, and the coexistence of pastoralism and agriculture. However, given the current rapid modernization and mounting external pressures, mobile pastoralism has currently faced challenges to continue in its traditional way. Therefore, it is here important to review the existing debates on pastoralism. The following sections present the current discourse and perspectives to pastoralism.

3.1.2 Discourse on Pastoralism

3.1.2.1 The Future of Pastoralism

Both archaeological evidences and earlier literary records show that pastoralism is an ancient mobile livestock production that survives into the 21st century by overcoming various historical catastrophes. Its inherent flexibility, dynamism, and adaptability to economic and ecological circumstances allow it to continue as one way of life in human history (Blench, 2001). Some authors described pastoralists’ inventiveness and adaptability in the following terms:

Past efforts by social scientists to define pastoralism were defeated by the inventiveness and sheer variety of pastoralist forms of adaptation to the demands of their environment. Nowadays, it is accepted [...] that ‘pastoralism is a mode of perception as well as mode of production’. Basically pastoralists define themselves. They know who they are. And there are those, of course, ‘who are sedentarized but plan to resume herding’ (Baxter and Hogg, 1990; De Bruijn and van Dijk, 1993 cited in Markakis, 2004:14).

On the other hand many anthropologists, sympathetic to pastoral people warned of the imminent end of pastoralism. In fact, the worry of the “crisis scenario” has not been without reasons. The reasons as stated include (i) the trend towards integration of herding with cultivation is interpreted as loss of resources necessary for pastoral survival, (ii) post-colonial development policy bias favoring arable cropping in terms of jurisdictional, technical and economic assistance, (iii) national governments’ official endorsement to restrict pastoral mobility and associated settlement programmes and thus, (iv) ‘traditional’ systems of pastoral production and resource management were posited as one of crisis (i.e. crisis in survival) (Babiker, 2002:1). Also the “recurrence of droughts and famines in recent decades has lent greater support to the prediction that pastoralism is on verge of extinction” (Baker, 1977; Carr, 1977, Morton, 1988, 1993 cited in Babiker, 2002:1).

It is true that pastoralists have historically experienced many cycles of herd growth and collapse, good weather and bad weather and, high and low prices for their products (Barfield,

1992 cited in Babiker, 2002). And yet they have proved remarkably resilient in the face of both natural and man-made disasters and there is no reason to believe that the end of pastoralism is near (Hogg, 1992 cited in Babiker, 2002). The recent years' situation of pastoral groups in China and Mongolia can serve as illustrative instance. These countries have seen the revitalization of pastoralism after decollectivization and decentralization since the 1990s. For instance in Mongolia after the economic and political reforms, urban wage earners who were no longer employed by state bureaucracies or enterprises moved back to the country side to join their pastoral families (Fratkin, 1997:248). Similar developments have been witnessed in China and Tibet after decentralization and privatization processes which brought communal grazing rights accompanied by tenure security and adequate support services.

Furthermore, some writers (e.g. Babiker, 2002) questioned the methodological foundations of the "crisis scenarios" with regard to pastoralism in East Africa. Babiker identified two major hurdles in the progress of our understanding of the dynamics of human adaptation in East African drylands. These are "the persistence of 'crisis' scenarios and the insistence on 'herder/farmer' dichotomy when the future of pastoralism is problematic in the context of a resource competition and conflict" (Babiker, 2002:2). Accordingly Babiker further argues that there are methodological problems in much of literature on African drylands. These as stated include (Babiker, 2002:3-6):

- (i) the making of assumptions about the future of pastoralism based on short-term observations and taking these as evidence of long-term trends;
- (ii) the tendency for a general preoccupation with the *fate* of the pastoralists rather than the *future* of pastoralism- the collective future of traditional pastoralists is at risk in East Africa;
- (iii) the crisis scenarios relates the use of the term pastoralism to designate a *way of life* rather than an *economic activity* and this designation bears a danger of misleading non-specialists into the belief that animal production and husbandry (herding) is all that pastoralists do (emphasis in the original);
- (iv) the general tendency for research to focus on 'a herder/farmer' dichotomy, whereas there is ample historical and anthropological evidence that groups, individuals within the same group have shifted between pastoralism and cultivation when conditions demanded and allowed.

Therefore, Babiker (2002) suggests the need for balance outlook on these processes, i.e. not viewing them as constraints but equally as opportunities that generate differential, but purposeful responses on the part of individuals and as well as groups of pastoralists. Blench (2001:17) also argues that "considering the present crisis as signal for final demise of pastoralism is a mistake in development literature". He further states his argument in the following manner:

... pastoralists and settled cultures establish dynamic relations and while pastoralism has certain ethnic component, it is *above all a way of life appropriate to particular economic and ecological circumstances*. [...] it may disappear briefly, but will always make its return because the settled need the mobile, to trade, to breed animals and to open up areas remote for agriculture (Blench, 2001:17).

The above description reflects the inevitable aspect of nomadic production systems, frequent catastrophic collapses and recoveries (Blench, 2001:20). Hogg (1997a:1) also states that, “pastoralism as a way of life has endured for thousands of years”. The point is that the apparent flexibility of nomadic pastoralism, in that even the dissolution of pastoralism may not be permanent. A seminal work by Scholz (1995 cited in Merkle, 2004) found out that given a certain regionally specific, ecological and socio-political setting, nomadism as strategy developed repeatedly in new and original forms, in variety of settings. The existing literatures show changes between a sedentary lifestyle and a nomadic lifestyle, and these changes are mainly attributed to economic or political crises. For instance, for the Turks of southern Kazakhstan, it was common for a nomad to settle down and farm after loss of livestock, and a rich farmer to buy livestock and again shift to nomadism (Merkle, 2000:4)

Therefore, with regard to the future of pastoralism, the tone of literature is that pastoralism as a way of life, in one form or another will survive (Hogg, 1997a). In this case Blench also argues that “climatic extremes and disease can cause terminal livestock losses, while prosperity and stability in nation-states lead to agricultural encroachment on pastoral land, but history makes clear that flexibility and opportunism allows pastoralism to be constantly resuscitated” (Blench, 2001:20). This has been evidenced by adaptive responses of various pastoral societies to various socio-political processes and environmental changes. Yet their adaptive strategies are under pressure, particularly in East African countries due to internal and external forces which include alienation of pastoral resources, ecological changes, war, civil conflict, frequent droughts and famines. The Somalia crisis can be illustrative of the current predicaments of pastoralists in East African countries. (The Somalia case is elaborated more in section 3.2).

Indeed it is admitted that pastoralists currently face more threats and pressures to their livelihoods than at any time in the past. Some authors (Dahl, 2001:1; Merkle, 2000:7) stated that contemporary pastoralists almost universally suffer from a continuous process of vital land losses. The natural resource base is declining rapidly worldwide, while population pressures on the overall available agricultural and pastoral land are increasing (Merkle, 2000). Moreover, pastoral production is also undergoing serious structural changes through technological reforms or due to recent rapid modernization. This signals serious threats to nomadic pastoralism as mode of life (Merkle, 2000; Dahl, 2001).

Nowadays, therefore, nobody would disagree with the predicaments of a pastoralist way of life, its transformation and as well as its continuity. Probably the difference among scholars and planners might be positions on what should be done with tribulations facing pastoralist societies. In the vast literature it is stated that nomadism is the optimal means to utilize the ecologically fragile dryland ecosystem. Under the changed conditions described above and the negative impacts of primarily market-oriented development projects, loss of vital pastoral land resources, rapid modernization, and technological reforms, etc what are the possibilities or preconditions for sustainable pastoral management of the drylands? Taking into account changes and ongoing processes in drylands and on the basis of traditional modes of appropriate uses (e.g. informal institution of *Hema* in Saudi Arabia), Scholz (1995: cited in Merkle, 2000:7) proposes a “modern form of mobile livestock keeping” whose success depends on three preconditions to be recognized by policy makers and planners. Priority has to be given to (i) subsistence rather than market-oriented production, (ii) job security rather

than increases in productivity, (iii) resource conservation rather than increasing yields. In the light of the above debates on future of pastoralism, the following section discusses the changing perspectives to pastoralism.

3.1.2.2 Changing Perspectives to Pastoralism

As indicated earlier, the discourse on crisis of pastoralism is not a recent issue. From early period, the literature is rich with articles and books analysing the crisis of nomadism or the problems of nomads' experience (Blench, 2001). Yet it is in the late 20th century that a new up-welling of writing on pastoralism has been seen. Research on pastoral societies took off in the 1970s and 1980s, particularly from Africa and Mid-east. Increased droughts and famines during the 1970s and early 1980s, particularly in West and East Africa led to major discussions about the future of pastoralists (Fratkin, 1997:236). The writings are both "sentimental and aggrieved, regretting its inevitable demise and blaming pastoralists for their failure to respond to vagaries of climate and international economic systems" (Blench, 2001:6).

Broadly it can be said that earlier discussions on pastoralism have been dominated by romantics (often by anthropologists) who idealized the pastoral way of life, and pessimists (mainly range ecologists and economists) who considered overgrazing, range degradation and desertification as the inevitable consequence of a pastoral way of life (Hogg, 1997a:1; Blench, 2001). "The main anthropological progress in understanding pastoral production was reached in the 1960s and 1970s in a conjunction of interest from cultural ecology, Marxist Materialism and Barthian Action Theory. Later on many anthropological studies have mainly been propelled by an advocacy urge in defense of pastoralists accused of causing desertification" (Dahl, 2001:1).

In the past pastoralists were blamed for destroying the environment. Their resource management system was viewed as inefficient and their livestock accumulation as irrational. Particularly the two theses - the "cattle complex" (Herskovits, 1926) and the "tragedy of the commons" (Hardin, 1968) had influenced the earlier conceptions of pastoral production (Amaha, 2002:3). The "cattle complex thesis" viewed pastoralists as irrational in their herd accumulation. Pastoral practices, including individual herder's tendency to maximize herd size, were viewed as promoting desertification. Hardin's thesis upheld that common property resources shared by pastoralists are not controlled, and thus led to overgrazing and environmental degradation (Fratkin, 1997:240). The assumptions of these paradigms shaped most of the policies and development plans pursued with regard to pastoralists and pastoral areas until the 1980s. At the time international donor communities supported large-scale development projects informed by the "tragedy of the commons" thesis that emphasized privatization of the range, commercial ranching, and sedentarization of nomads, especially in Africa (Fratkin, 1997; Tafesse, 2001; Amaha, 2002).

However, development projects failed and brought negative consequences to pastoral ways of life and to the environment. The perceived failures of many projects and the linking of livestock to a spectrum of environmental damage led to a major retreat from supporting pastoralism/pastoral programmes. Many works of anthropologists described the effects - often negative- of development efforts on pastoralists. Many writers criticized development policies

using the models of political encapsulation, hegemony of the nation state, and decline of pastoral autonomy and mobility (Doornbos, 1993:100; Bruijn and Dijk, 1993:140; Fratkin, 1997:236; Abdel Ghaffar, 2001; Getachew, 2002a; Markakis, 2004).

The ecologists' view of the "new range ecology" was the starting point for a critical debate, with implications for management and policy decisions. Ecologists argue that pastoral systems are able to respond to fluctuating and patchy resources with cultural behaviours that include flexibility, mobility and diversity of species (Hjort 1981, Homewood and Rodgers 1991 cited in Fratkin, 1997; Ellis and Swift, 1988). The assumptions that pastoral practices and pastoral land management led to degradation of resources have been challenged. Pastoral resource management systems are found to be complex systems that have evolved from pastoralists' successful adaptation under harsh conditions of arid and semi-arid rangelands (Dahl and Hjot, 1976; Dyson Hundson, 1980; Bekure et al., 1991 cited in Fratkin, 1997). Moreover, herd growth cannot be indefinitely maintained due to drought and diseases. The idea of equilibrium model has been challenged arguing that rangelands are inherently unstable, because of large climatic factors. Accordingly development efforts that were based on the idea of equilibrium model was criticized, and development should enhance traditional pastoral practices, as they are more appropriate for arid ecosystems than those based on ranch management paradigms (Ellis and Swift, 1988). Thus the non-equilibrium model developed by Ellis and Swift (1988) is taken as appropriate to describe complex dynamics of arid and semi-arid lands.

Cultural ecology framework was the dominant perspective in pastoralist research, and anthropologists and ecologists sought to understand how pastoralists responded to drought and environmental changes (Fratkin, 1997). The focus of range ecologists is on direct inter-relationships between the natural environment and human adaptation that directly depend on that specific environment. However, pastoralist groups are also affected by outside factors like social, economic, political events (Abdel Ghaffar and Abdel, 1996). Moreover, it has been clear that the human-livestock-land interactions are explained less in terms of 'carrying capacity' or 'desertification', but more in terms of loss of common property rights, increasing economic differentiation and social stratification, incorporation and domination of tribal pastoral groups by larger state systems (Fratkin, 1997:236). Pastoralists' predicaments are not dependent solely on the state of range and their animals, rather on a series of dynamics that reach far beyond the limits of the pastoral communities. Therefore, in addition to factors of climatic and ecological changes, external economic and socio-political processes are also major issues that should be dealt with (Manger, 1996; Abdel Ghaffar and Abdel, 1996).

Pastoralists in the pursuit of adaptation to the changing environmental conditions are influenced by factors and actions far away from the immediate physical environment. Individual adaptiveness to natural environment can emerge within different constraints. The contexts in which adaptations operate are also man-made and have to be studied within their own terms. The various contexts for decisions are not given. Different people have different interests, and pursue different goals in their choice of adaptation. They have different strategic positions to reach their goals. Thus it is necessary to examine the working of such contexts. This implies a political economy - a type of analysis in which one can find the sources of constraints operating (Manger, 1996). This perspective focuses on political processes of internal organization and dealings with other groups, particularly larger state structures

(Fratkin, 1997). In this case the focus is not on adaptation per se, but on the economic, political and historical events, some of which contain the exploitation of local people by indigenous or foreign groups. Other factors include levels of pastoralists involvement in market relations, national market and economic policies, national policies towards pastoral sector and other sectors, effects of wars and conflicts, etc (Abdel Ghaffar and Abdel, 1996). All these constrain adaptive processes and must be incorporated in the study of adaptation (Manger, 1996).

One aspect of the wider societal frame is the relationship between the state and the society. The political economy approach emphasises state-pastoral society relations, and pastoral-sedentary relationships. Pastoral groups often face difficulty in interacting with state and its structures when a state pursues formal exercise of control, through law and coercion, over a community and state control of social organizations (Fratkin, 1997; Nori *et al.*, 2005). Pastoralists have experienced difficulties in articulating or representing their interest in national political context and governance. State authorities have often clashed with the interests and the practice of pastoral groups. The clashes are often on agricultural and land use policies, border arrangements, and state control on social organization (Nori, *et al.*, 2005:10). Pastoral-sedentary relations are often ones of conflict, particularly because the aims and objectives of pastoral groups are at variance with neighbouring land users. Moreover, the history of pastoral-sedentary relation is one of encapsulation of pastoral communities rather than incorporation (Fratkin, 1997:239). Moreover, states have often favoured urban and settled population. Land tenure arrangements support farmers, settled agriculture and intensive land use. Such state policy biases and failure to respect pastoral tenure rights serve to curtail herders' mobility and access to vital pastoral resources (Nori *et al.*, 2005).

As stated above, the time between the 1970s and 1980s was a period of vast body of research and development projects, both technical and social (Blench, 2001). Thus the theoretical understanding of development has moved from cultural ecology to political ecology. To understand forces which affect pastoral environment and cause growing vulnerability needs a broader perspective seeking to address broad socio-economic causes as they are linked with factors of population growth, incorporation of pastoral economies into the market economy, civil wars and conflict, and other factors arising from climate and ecology (Abdel Ghaffar and Abdel, 1996:5).

In general the synthesis of pastoralist researches (ecological, cultural, economic and anthropological) and extensive literature on pastoral development projects has led to a paradigm shift. The debate has shifted from anthropologists challenging the range ecologists' explanatory paradigm to ecologists challenging old certainties, such as the idea of equilibrium environment, and old certainties are quickly being replaced by new orthodoxies about pastoral environments and the contingent nature of pastoral adaptations (Hogg, 1997a:2). However, the ecologists' explanatory paradigms "tend to view pastoralists and pastoralism in isolation, instead of seeing pastoralism as the product of a dialectic between a variety of shaping forces - history as well as nature - they seek single variable explanation (Hogg, 1997a:2). Hogg further contends that "cultural, economic and political relationships shape and give meaning to the natural environment, in a way which no single form of environmental determinism can allow, and it is only through understanding of these relationships that we can understand the current transformations taking place in the pastoral way of life" (Hogg, 1997a:2).

Therefore, improved understanding of pastoral situation in space and time needs analysis of both historical and contemporary ecological, economic, cultural and political processes. The flexible and opportunistic nature of pastoral society calls for both historical and contemporary analyses. This suggests the need for doing historically-oriented studies that reveal historical social and political processes that have shaped the current circumstances of pastoralists. In the light of themes and perspectives described above the following sections discuss on state policies, historical socio-political processes and climatic events (drought risk) that have affected pastoralists in East Africa and in Ethiopia.

3.2 Pastoralism and Development Policy Orientations: East African Context

3.2.1 Pastoralists and State Policies in East African Countries

Pastoral system makes use of areas or rangelands which cannot be used by conventional agriculture. But the “modern world” has made technical advances and has expanded large-scale agriculture into areas where such pastoral systems are traditionally operating in benign to the environment. As a result, pastoralists have been deprived of their key resource areas and are increasingly pushed into inhospitable terrains or marginal areas where forage resources are hardly available for their livestock. Their property rights have become uncertain and their traditional institutions and authorities are undermined. Moreover, national governments are often hostile to pastoralists⁶³ and pursue policies which often favour settled cultivators. Many countries have also policies of sedentarization that are mainly derived from political considerations or for security and control reasons, rather than the concern for the welfare of the people they wish to settle. These external pressures have exacerbated the consequences of climatic events (droughts and floods). In East Africa, the interplay of these internal and external factors has put pastoral societies in a very precarious situation (Markakis, 2004; Babiker, 2002:18, 19; Fratkin, 1997; Manger, 1996:18).

In East African countries pastoral societies make substantial contribution to the national economy both in supporting their own households and in supplying protein (meat and milk) to villages and towns. In spite of this, national governments are mainly hostile to pastoralists and apply biased policies that either exclude or disrupt pastoral way of life and their livelihoods. National governments rarely recognize their contribution, while taking investment decisions and policies. National policies are mainly based on general national goals without considering the needs and priorities of pastoral communities. Investment and development programmes are therefore mainly extractive in nature. They focus on harnessing pastoral resources (land, livestock and their products, minerals, water, etc) for achieving national goals at the expense of the pastoral societies. Moreover, projects and programmes intended for pastoral developments have been ill-conceived (i.e. drawing on simplistic understandings of pastoral systems as a major development problem; backward activity/sector, and superiority of settled life or agriculture; simple assumptions that pastoral areas are large and vacant, etc); and thus

⁶³ With exception of Mauritania and Somalia, the ruling elites in African states are drawn from non-pastoral groups which also view pastoralism with ambivalence at best and often with outright hostility (Timberlake, 1991:74-76).

they have not considered the broader cultural, economic, political and ecological circumstance of the pastoral areas (Manger, 1996; Abdel Ghaffar, 2001; Getachew, 2000). Since the colonial time to date such biased or inappropriate policies, and ill-conceived programmes and projects have been witnessed in many developing countries, particularly in Africa (Hesse and MacGregor, 2006; Markakis, 2004). In order to illustrate this, the following paragraphs present some evidences from selected East African countries (i.e. Sudan, Kenya, Tanzania, Uganda, and Somalia).

i. Sudan: The livestock sector in Sudan is the “source of employment for about 80% of the rural labour force”, and animals are “almost entirely concentrated in ecologically marginal and semi-arid areas which also contain zones of large-scale irrigated and rainfed agriculture, small-scale farming and protected wildlife areas and forest reserves”. These latter sectors “tend to be supported by both government and international donors and reflect land legislations and development interventions that favours non-pastoral activities” (Ahmed *et al.*, 2002:12-13).

Other authors (Salah, 1996; Ibrahim, 1996) also noted that the government intervention and land legislation have favoured agriculture and large-scale commercial farms. Since 1944 (i.e. over a decade before the independence) the “expansion of large-scale mechanized and commercial farming in the clay plains of south Kassala brought marginalization of nomads by undermining century-tested nomadic pastoral adaptations to predominately marginal region” (Salah,1996:213). The consequences of the mechanized farms on pastoral systems in Sudan included disruption of nomadic corridors and water points; diminished pastureland; forced concentration of herds in small areas with consequent increased in overgrazing and environmental degradations; proliferation of conflicts between farmers and pastoralists (to the detriment of the latter) (Salah,1996).

Developments in non-pastoral sectors (mainly large-scale irrigated and rainfed mechanized farming) in Sudan compounded pastoral problems by restricting access to dry season water and grazing resources (Ahmed *et al.*, 2002). The traditional system of land tenure which “recognizes the *dar* (homeland) of each ethnic groups was abolished and replaced by a system of tenure granting the government the right to appropriate land as it wishes”; and the “pastoral areas were given to operators of large schemes” (Shazali and Ahmed, 1999 cited in Abdel Ghaffar, 2001:175). Moreover, pastoralists have been politically marginalized through the abolition of their indigenous administrative systems, and they have no way of influencing any decisions which impact on their system of livelihood (Abdel Ghaffar, 2001).

In 1994 the Sudanese government attempted to redress some of the above problems through “establishing pastoral union for instance in eastern Sudan”, and by issuing “decree ordering the reopening of all known nomadic corridors throughout the Sudan by January 1995” (Salah, 1996:213-214). However, Salah (1996:214) noted that “the union seems rootless and only in Blue Nile State (south eastern Sudan) where a few corridors were opened under extreme pressures from the State Wali (Governor) in compliance with the decree, whereas in Gdarif State of eastern Sudan, reopening corridors seems to be blocked by powerful lobby of scheme-owners”. Salah further argues that “the Sudanese government used to make gestures which indicate some concerns about the condition of pastoralists, but which almost always amounted to no more than lip-service”. The same author concluded that “marginalization of

pastoral nomads in south Kassala, as in Sudan in general, was and continues to be, consequences and manifestation of particular configuration of governance (relation between government and society) in which nomads could not effectively influence government to cater for their needs and interest” (Salah, 1996:213-214).

On the other hand another author (Ibrahim, 1996:260) stated that “recently the pastoral sector started to attract greater attention and the present government in Sudan seems to have appreciated the role of pastoral sector at least in terms of its policy statements”, one of which is the “Comprehensive National Strategy (CNS), the official blue print and plan of action that outlined development policy in livestock sector”.

However, Ibrahim (1996) observed that the implementation of CNS with regard to pastoral sector did not address the priorities of pastoralists. According to Ibrahim, reasons for the failure included among others:

- i. the Sudanese Comprehensive National Strategy is a top-down approach in planning and implementation that gives very less attention to pastoralists who as segment of population and as social strata have never been consulted either by planners or by an executing agency;
- ii. while range and pasture management have been given priority, many important issues of great consequences such as the question of land tenure, and entitlement to land use and the impact of all this on pastoral sector were not addressed; rather the CNS has spread the ground for the intensification of contradictions between the interests of commercial mechanized farming and pastoralists by calling for horizontal expansion of mechanized rainfed and irrigation schemes and reserved forests;
- iii. At the time when the state is officially embracing and advocating market liberalization, accepting and implementing strict Structural Adjustment Programmes (SAP), it formulates the Comprehensive National Strategy programmes which are a version of central planning. While the former (i.e. SAP) demands cuts in budgets and refreshment of staff, the latter requires higher levels of investment which may call for deficit expenditure if necessary. Thus results are crippling for the Department of Range Management and the programme as a whole (Ibrahim, 1996:269).

In general the Sudan case illustrates the bias of the government policy to agriculture and large commercial farms, and inadequate implementation of pastoral programmes that have led to deprivation of pastoral groups from their key pastoral resources. This indicates the political and economic marginalization of the pastoral groups in the country.

ii. Kenya and Tanzania: In Kenya and Tanzania, the Maasai pastoralists have experienced similar situations of marginalization as many other pastoral societies in East Africa. The Maasai of Kenya and Tanzania have been deprived of their rights to grazing lands. The expansion of commercial farms, modern private ranches, game reserves and parks, and encroachment of sedentary farmers from neighbouring communities have increased since the colonial time (Fratkin, 1997; Markakis, 2004). Before the colonial rule (1885-1963) Maasai cattle herders occupied the Rift Valley savanna plains from Lake Turkana in Northern Kenya

to the Maasai Steppe in Central Tanzania. An international border divided the Maasai into German Tanganyika and British Kenya in 1885 (Fratkin, 1997).

In 1911, Kenyan Maasai saw their lands reduced by 60% when the British evicted them from north central Kenya to make room for settler ranches, confining Maasai to the present-day Kajiado and Narok districts. Maasai lands in both countries were further reduced with the creation of game parks (Fratkin, 1997:243). Moreover the Maasai in Kenya and Tanzania have faced competition for land from agriculturalists, including wheat-growing and beef producing commercial enterprises.

Another example of alienation of herders from their customary rights is the case of Barabaig who are cattle pastoralists that live around Mt. Hanang near Arusha (Lane, 1996, cited in Fratkin, 1997:245). In 1968, 70,000 ha (later expanded to 100,000) of Barabaig's land was taken over by the parastatal National Agriculture and Food Corporation (NAFCO) to grow commercial wheat on seven state farms. The project was funded by CIDA (Fratkin, 1997:245). Though Barabaig presented their case to the Tanzania higher court for restoration of their traditional rights, the victory was limited by technical flaw. And the result was a major setback for Barabaig pastoralists and led to an increase in NAFCO aggression and expansion of the wheat scheme in the 1980s. Furthermore the Tanzanian Government set in motion a series of laws attempting to extinguish customary rights in land and prohibit compensation for such extinctions (Lane, 1994 cited in Fratkin, 1997:245).

Development projects implemented between the 1960s and 1970s in Kenya and Tanzania did not bring any substantial development to Maasai pastoralists (Fratkin, 1997). The USAID and World Bank funded project - "Maasai Livestock and Range Management"- carried out between 1969 and 1979 did not result in any substantial increase in livestock sales. Rather the water and road development led to a large number of immigrant farmers, population concentration near boreholes and overgrazing (Homewood, 1995; Jacobs, 1980 cited in Fratkin, 1997).

iii. Uganda: Since the colonial period the successive governments of Uganda have focused on development of commercial livestock ranching disregarding the significance of traditional livestock production sector (Frank, 2001:101; Frank, 1996; 2002; Markakis, 2004). Since the 1960s when lands had been earmarked for ranch development, many cattle keepers were dispossessed of their land (e.g. in Signo, Bunyoro) and continued roaming the entire stretch of drylands. Others were also evicted from their area for the establishment of national parks. For instance pastoralists in Karamoja have been affected when 36% of the area was designated as a game and forest reserve and the remaining as a controlled hunting area (Frank, 2001). Large tracts in Uganda's 'cattle corridor' were taken for ill-fated ranching projects (Markakis, 2004:11). Moreover, during the Obote II the majority of the cattle keepers were harassed because they were suspected to be sympathetic to the National Resistance Army (NRA) led by Museveni (Frank, 2001:102).

When the National Resistance Movement (NRM) came to power in 1986, it formulated an economic recovery programme focusing on improving and transforming the existing livestock production. At that time, the government attempted to provide facilities and infrastructure such as veterinary services, diagnostic facilities, water, training of animal health workers, etc.

(Frank, 2001). After 1996 the government adopted 'agricultural modernization agenda' aimed at reversing the decline in livestock number and settling nomadic cattle keepers. Resettlement was seen by the government as a panacea to resource management problems associated with the practice of nomadism which the NRM considers to be among the leading obstacles to the development of a livestock production sector in Uganda (Frank, 1996; 2001:103). Frank further notes that the government "sees not simply the sedentarisation of pastoralists as a solution to the crisis, but the transformation of cattle keepers into crop cultivators" (Frank, 1996:76).

The Ugandan government has uniquely pursued with more hostile policies against traditional pastoralism favouring modern ranching. Establishing modern ranching schemes, restructuring of ranches, delineation of national parks and resettlement of cattle keepers - all were taken against traditional pastoralism which "was seen as the greatest obstacle to government's commitment to developing the livestock industry" (Frank, 2001:109). Frank noted the position of the Ugandan Government at the time on pastoralism as follows:

At the time when the policy of restructuring government ranching schemes was being discussed, it was government's strong belief that nomadism was the greatest obstacle to the development of the livestock industry. Because of this, the view was held that soon after the end of the ranch restructuring exercise a law banning the nomadic lifestyle would be introduced in parliament and this would make an offence for cattle keepers to continue roaming from one place to another. [...] the government had been nursing the idea of making it [nomadism] a criminal offense to engage in nomadism ((Frank, 2001:120).

In February 1992, President Museveni told two public rallies in Masaka District that the government would soon come up with a law prohibiting nomadism because it leads to the spread of cattle diseases and leads to overstocking and overgrazing ('Nomadism will be outlawed-Museveni' in *New Vision*, 1992 noted in Frank, 2001:129).

The above descriptions show that traditional pastoralism either as way of life or production systems is not recognised to continue in Uganda. A study on rangeland tenure and resources management in Uganda also stated the situation in the following manner:

The customary rights and social institutions of pastoralists in their grazing land are generally no longer recognized by law.... Given today's hostile rangeland environment, it is increasingly difficult to assume that pastoralism in its traditional form will persist, since pastoralists are easily displaced (Kisamba-Mugerwa, 1992 cited in Rugadya, 2005:2)

The above statements have revealed that the attitude of the Ugandan government towards traditional pastoralism has been outright hostile. The government has perceived that traditional pastoralism spreads cattle diseases, leads to overstocking and overgrazing. It also questions the viability of pastoralism and the trend is to outlaw it. Moreover, forced settlement or sedentarization is imposed on pastoralists by the government.

In general pastoralists in Uganda are under numerous internal and external pressures including hostile government policy; population increase; loss of grazing areas to private farms and modern ranches, national parks, military installations; conflict with settled

cultivators, etc (Frank, 1996). Frank stated that the case of Karamoja district can be illustrative for never-ending crises facing pastoralists in Uganda. The crises are manifested by “recurrent famine conditions; ecological degradation; and diminishing resources and increased pastoral mobility which leads to violent conflicts among pastoralists and with other resource users” (Frank, 1996:76).

iv. Somalia: Most of Somalia has a semi-arid to arid environment which is suitable primarily for nomadic pastoralism (Janzen, 1993:17; Ahmed *et al.*, 2002:18). More than half of its population practices nomadic pastoralism. Before the civil war, 60% of Somalia’s population were pastoralists or agro-pastoralists, about 20% agriculturalists and the remainder were urban dwellers (government employees, factory workers, shopkeepers, traders) (Ahmed *et al.*, 2002:18). Like in other African countries sedentarization and agro-pastoralism are increasing in Somalia. There is a rapidly unfolding process involving the formation of numerous transitional and combined forms of nomadic and sedentary ways of life in the rural sector (Janzen, 1993:17). The two major rivers Shebelle and Juba are increasingly used for irrigation to grow maize and sorghum. Plantations of banana, sugarcane and citrus fruits are also available in Somalia.

As some authors (e.g. Doornbos, 2001; Farah, 1997) noted, Somalia is a different case by many standards, especially due to the fact that since 1991, after the fall of Syad Barre regime Somalia has no effective central government. Civil war, though in ‘low-intensity’ manner, still continues in many parts of the country, especially in the south (Doornbos, 2001:287). “Since the fall of Mogadishu in January 1991, Somalia has been divided into a mosaic of separate clan fiefdoms” (Farah, 1997:82). While the north-western part of the country has relative stability, various competing war lords have turned the south part into war zones.

In fact the current problem in Somalia has its roots in the past colonial and post-colonial socio-political processes (Flintan and Imeru, 2002, Markakis, 2004). During the colonial time the Somali people were divided between Somalia, Somaliland, Kenya, Ethiopia and Djibouti. Following the establishment of the Somali Republic in 1960 and the beginning of Somali nationalism, the government of Somalia claimed the Ogaden region that is under Ethiopian administration. This led to the 1977-78 war between Ethiopia and Somalia, which eventually Somalia was defeated in 1978. But the tension between the two countries has existed in one form or another since 1977-78 war (Flintan and Imeru, 2002:249).

Both the colonial administrative rules and the subsequent war emanated from laying claims on territory between Ethiopia and Somalia had brought never-ending consequences and recurrent crisis to Somali pastoralists living in both countries. Initially the colonial demarcation divided lineages, clans, and tribes among different countries; and then curtailed their mobility and access to key resources in attempt for protecting state frontiers (Flintan and Imeru, 2002; Markakis, 2004). Group cohesion was weakened and traditional clan authority was undermined resulting in inter-clan conflicts and mutual suspicion. These processes again led to loss of natural resources, ecological crisis, border wars, displacement of pastoral communities and disruption of their livelihoods, etc.

Indeed, before the civil war the ruling elites were drawn mainly from pastoral groups. At the time the Somalis had at least access to the central government. However, the government was

authoritarian and the local people were under severe repression that led to the emergence of liberation movements and later to never-ending civil strife across the country. In this case some authors (e.g. Doornbos, 1993, cited in Frank and Otim, 2002:113) noted that “even in a country like Somalia, where pastoralists are in the majority, they continue to be marginalized by the state”. As a result, the Somalis have been affected by political crisis and lack of central government for the past 16 years, and Somalia became the first stateless country of the world in the 21st century. Consequently pastoralists in this country have been suffering from a protracted civil strife, displacement, poverty and famine, epidemics, recurrent drought, flood, environmental crisis, etc.

In general the plight of pastoralists in East African countries has revealed that colonialism, and the post-colonial policies and development projects of national governments have had various far-reaching negative consequences on pastoralists of the region. However, it is not to deny some benefits of projects, though they vary to pastoralists. For instance water projects which created access to previously unutilized lands; veterinary services that reduced livestock mortality; and roads which improved access to markets. Yet the attempts to “develop” African pastoral systems with western production models and infrastructure have typically failed over the past 40 years (Behnke, 1983; Coppock, 1994; Jahnke, 1982 cited in Desta and Coppock, 2004:466). In relation to inappropriate external interventions to pastoral areas of East Africa, Manger (1996:18) has this to say:

...the past history of planning and contact between public authorities and East African pastoralism has been one of misunderstandings as well as more or less conscious policies of marginalization based on simplistic assumptions. The most common of these are the widespread generalizations that accuse pastoralists of creating desertification, of managing their stock according to irrational economic principles and of being technically stagnant and backwards; of wandering about destroying nature, and of adhering to conservative social structure and cultural notions, i.e. being anti-developmental, unprogressive.

Manger (1996:18) further states that “pastoralists themselves have often responded to such developments with distrust, resistance and violence. This was because their cooperation was never solicited, but was always imposed”

However, failure to achieve the intended objectives of past development programmes does not mean pastoral societies have not changed. They have undergone great changes and transformations during their contact with state structures and external interventions (Manger 1996). In this case Desta and Coppock (2004:466) also added that “lack of impact from economic development should not imply that pastoral systems do not change - indeed changes are pervasive”. For instance the Maasai of semi-arid Kajiado district in Kenya can be an illustrative case in East Africa. According to Desta and Coppock (2004:466) the overall pattern of change for Kajiado Maasai pastoralists in the past 50 years consists of:

- i. decline in per capita livestock holding largely as a result of limits imposed by scarcity of natural resources on animals and human population increase;
- ii. adoption of additional sources of food, e.g. agro-pastoralism and wage employment;

- iii. increased internal pressures resulting in privatisation of resources as resources competition is intensified;
- iv. loss of key grazing or water resources to land annexation or ecological degradation;
- v. shift for households to keep more small ruminants (relative to cattle) as the forage base is altered, and people become more sedentary;
- vi. increase of poverty and food insecurity, especially for the poorer segments of the population.

Therefore, though the degree and the causes of these changes vary from one country to the other, pastoral groups in Africa have nearly experienced such patterns of changes that the Maasai pastoral groups have experienced. For instance, a survey carried out on 317 Borana households in southern Ethiopia has confirmed largely similar patterns described above (Desta and Coppock, 2004:465). The recent study in the Somali Region of Ethiopia (Devereux, 2006) also reinforces this pattern.

As the above discussion on experiences of East African countries reveals, pastoral development programmes pursued by the national states share the following common characteristics (Manger, 1996:18; Fratkin, 1997:240-2; Markakis, 2004:16-17, 21-22; Rugadya, 2005:2-3; Rotich, 2005:8):

- i. faulty land tenure policies and reforms (failure to recognize and protect traditional communal rights to key pastoral resources), and forced sedentarization,
- ii. ill-conceived or inappropriate pastoral development projects or programmes funded by donors and as well as by national states (i.e. considering the sector mainly as foreign exchange earner without addressing pastoralists needs and priority),
- iii. top-down approach focusing on technical supports only,
- iv. failure to recognize that pastoral livestock management in arid lands is productive, rational and an essential way of utilizing scarce and patchy resources.

Generally the policies of most national governments (be they economic, political, social or administrative) have been geared towards harnessing resources of pastoral areas (e.g. livestock, land, rangeland resources, water, minerals etc) to develop national economies and not to benefit pastoral people and enhance their livelihoods. These external interventions have further replicated marginalization of pastoralists in the wider polity and economy. This in turn progressively affects the pastoral way of life (livelihoods) and makes pastoral households or communities vulnerable to vagaries of weather (drought, flood) and famine (chronic food insecurity), disease outbreaks, conflicts and instability.

As a result, pastoral societies in East Africa are currently in grip of two main forces - the *recurrent drought* which affects their rangeland resources and livestock, and continuous *external encroachment* resulting in diminishing of prime grazing areas and curtailment of mobility. On the one hand drought cycles have shortened from 7-10 years in the past to 3-5 years at present, on the other hand the state and sedentary farmers are expanding agricultural farms into pastoral areas thereby taking up both dry and wet season grazing areas. While pastoral communities have time-tested adaptation strategies to live in arid and semi-arid areas

and to cope with high variability of rainfall that often results in variable patterns of resources in space and time, they have less capacity/power to challenge external pressures or encroachments. They have less power to negotiate and influence governments for protecting their customary land rights; they are not often represented in the national political and economic contexts. Therefore, this latter factor, more than drought and its consequences, requires the political commitment of governments and empowerment of pastoral societies to protect their pastoral way of life and their land tenure rights on prime resources.

3.2.2 Pastoralists' Vulnerability to Multiple Risks in East Africa

As stated above, pastoralists in East Africa face a multitude of risks. These include the natural covariant of drought; the idiosyncratic risk of human illness and risk of livestock diseases (which can turn into epidemic diseases); the economic risk of exclusion from markets; the social risk of violent conflict over increasing scarce resources (risks of civil strife), the political risk of marginalization, and the environmental risks of pasture degradation (Rass, 2006:2). This section presents a brief discussion on some of these risks.

i. Drought and its Characteristics: Drought as a natural hazard has been the subject of many studies and defined in many ways according to the needs for water or moisture. Drought may be considered in general terms as a consequence of a reduction over an extended period of time in the amount of precipitation that is received, usually over a season or more in length. It is a temporary aberration, unlike aridity which is a permanent feature of certain climates (ISDR, 2003:4). Drought is a temporary departure from 'normal' rainfall patterns, distribution and amount in a climate (Ifejika Speranza, 2006:14). Several terms and definitions for drought include seasonal drought, contingent drought, meteorological drought, agricultural drought and hydrological drought (Ahmed *et al.*, 2002; Ifejika Speranza, 2006). The most common ones are described as follows:

- i. Meteorological/climatological drought* refers to precipitation deficit in relation to some expected or 'normal' (average) amount over an extended period of time.
- ii. Agricultural drought* refers to deficit in soil moisture available for crop growth.
- iii. Hydrological drought* is defined best by deficiencies in surface and subsurface water supplies, which lead to lack of water to meet normal and specific water demands.
- iv. Socio-economic drought* implies an extended and significant negative departure in rainfall, relative to the regime around which society has stabilized (Rasmusson, 1987 cited in Ifejika Speranza, 2006:14).

The first three types are commonly noted in many writings. "Common to all droughts is that they originate from precipitation deficit, which results in water shortage for various uses" (Ifejika Speranza, 2006:14). Other terms were proposed to qualify a drought according to land use or need such as "pastoral drought" and "ecosystem drought" (FAO, 2002, cited in Ahmed *et al.*, 2002: 21).⁶⁴ Droughts differ from one another in three characteristics:

⁶⁴ Pastoral drought could be defined as lack of forage availability as a result of particular sequences of meteorological drought, in terms of length, seasonal timing and the intensity of the deficit (Bruins, 2000 cited in Morton, 2006:5).

- i. Intensity*, which refers to the degree of the precipitation shortfall and/or the severity of impacts associated with shortfall.
- ii. Duration*, which refers to the timing of the onset of the precipitation shortfall, though the start of a drought is difficult to pinpoint (it can continue for months or years).
- iii. Spatial coverage*, drought-affected areas evolve gradually as drought shifts from one area to another (Ifejika Speranza, 2006:14).

Drought impacts also vary significantly between locations, because of differences in economic, social, and environmental characteristics at micro and macro levels (ISDR, 2003:4). The same source also stated that drought definitions should be impact or application specific and region specific⁶⁵. Mitigating drought consequences means activities related to the prediction of drought and intended to reduce the vulnerability of society and natural systems to drought (FAO 2002 cited in Ahmed *et al.*, 2002).

ii. Drought and other related risks in pastoral areas of East Africa: In the arid and semi-arid areas of the Horn of Africa drought is a normal part of climate. It is intricately related to the lives of the pastoralists of the Horn of Africa for centuries; however it had projected itself to famine disaster (Ahmed *et al.*, 2002). In general terms drought is a normal part of life in the arid climate, often described as a natural hazard. Whether it leads to disaster depends on its severity and peoples' vulnerability to such shock. Impacts of drought vary considerably, and the ability of people to cope with drought consequences also varies from one social system to the other. In the Horn of Africa, most of the severe droughts that occurred within past 3-4 decades have developed into famine disasters.

The bulk of land in the Horn of Africa that pastoralists inhabit lies in the semi-arid and arid zone which is characterized by high variability of rainfall. This zone has been severely affected by droughts. Recurrent droughts over the past three to four decades have had their impacts on the human and livestock population as well as reshaping the ecological scene (Abdel Ghaffar and Abdel, 1996:3). For instance the extra-dryness that occurred in the 1980s resulted in loss of livestock and famines that took the lives of many people. Those drought consequences and subsequent droughts constrained quick recovery and asset rebuilding.

Though drought is a recurrent reality in East African drylands with which pastoralists have developed various forms of adaptation, the compounded impacts of internal and external pressures have undermined the means of escaping drought consequences. Therefore, the process of change among pastoral communities is not only a function of physical conditions (e.g. drought), but also a result of their interaction with and/or encroachment of external systems (Abdel Ghaffar and Abdel Ati, 1996:7).

⁶⁵ For instance the World Meteorological Organization (WMO) proposed two definitions for drought: (a) prolonged absence or poor distribution of precipitation; and (b) period of abnormally dry weather sufficiently prolonged for the lack of precipitation to cause a serious hydrological imbalance. And the United Nations Convention to Combat Desertification (UNCCD) defines drought as "the naturally-occurring phenomenon that exists when precipitation has been significantly below normal recorded levels, causing serious hydrological imbalances that adversely affect land resource production systems" (Ahmed *et al.*, 2002:21).

Therefore, it can be said that the present situation of the dryland of East Africa has become very complex and the predicaments of pastoral groups have increased as a result of socio-political processes as well as ecological or environmental crises. Pastoralists and agro-pastoralists are striving to make use of this zone through managing existing resources via their adaptive strategies. However, their resource base (natural resources, livestock) have been eroded and their strategies are undermined due to mounting external interventions and internal processes. As a result, recurring droughts and their consequences have challenged pastoralists' livelihoods and coping strategies. Therefore, pastoralists in East African countries have become more vulnerable to drought-related famines than they were in the past.

In fact the local people still use their indigenous knowledge to manage their natural resources/environment and to cope with various crises. In some cases, this might have worked. However, in many cases due to internal or/and external factors, the local people had to abandon their traditional ways of land and pasture conservation and try to utilize natural resources to satisfy their immediate needs. The cutting of trees (deforestation), production of charcoal to satisfy the needs of rapidly growing urban areas; forced sedentarization which results in overgrazing and degradation of land, etc. can be cited as consequences of external pressures that exacerbated the impacts of droughts (Abdel Ghaffar and Abdel, 1996:3).

In general many Sub-Saharan Africa countries have been afflicted by the prolonged and recurrent droughts, especially since the 1980s. Many empirical studies also showed that Sub-Saharan African countries were repeatedly affected by droughts, most of which developed into disasters like famines (Ifejika Speranza, 2006:24; Markos, 1997:140). Markakis (2004:4) also describes drought occurrence in East Africa in the following terms:

Drought is a frequent visitor to the region, which the pastoralists regard as 'an act of God'. A rough collation of recorded incidents in the previous century suggests major incidents occur every 10 years. Anecdotal evidence suggests that drought cycles have shortened from 5-10 years in the past to 3-5 five years at present. Droughts are remembered because they are usually accompanied by famine.

Yet drought does not necessarily lead to disaster which therefore cannot be called "natural". Instead drought interplays with other factors to develop into a disaster (e.g. famine crisis). Ifejika Speranza (2006:22) noted that "there is general notion that if a (drought) hazard and its consequences are not properly managed and controlled, a hazard might develop into a disaster". Ifejika Speranza further mentions that "a hazard occurrence may become a disaster in one society but may only cause negligible impacts in another society". Therefore, other social, economic and political processes play major roles in creating vulnerability conditions. Many studies from East African countries showed that pastoralists' livelihoods and their drought escaping strategies have been undermined by external encroachments (Ahmed *et al.*, 2002; Markakis, 2004; Devereux, 2006). The combined effects of internal and external forces have eroded the capacity of pastoralists. Traditional pastoral societies are increasingly unable to cope with drought, as indicated by large losses of herd capital, widening poverty and frequent famine (Coppock, 1994 cited in Ahmed *et al.*, 2002:36). The incidence of extreme poverty ranges from 25-55% among African pastoralists/agro-pastoralists (Rass, 2006:1). Therefore, pastoralists of the region represent a particularly vulnerable group due to their exposure to multiple risks (Rass, 2006: 6).

This suggests the need for intervention of external agencies (government and NGOs) in terms of development investment and risk management to enhance pastoralists' capacity for coping with risks. External interventions (investment and risk management strategies) should be based on existing livelihood systems, indigenous knowledge (e.g. local adaptive strategies) and on understanding whether risks are preventable (e.g. pasture degradation or violent) or manageable (e.g. drought risk). While an outbreak of epidemics, violent conflicts, or degradation of pastureland can, in theory, be prevented, in the case of drought only risk mitigation⁶⁶ strategies can be set in place (Rass, 2006:2). Moreover, not all pastoralists are vulnerable. They often utilize their indigenous knowledge and strategies to adapt and cope with different circumstances. Therefore, pastoral strategies and adaptive responses have to be taken into consideration in order to understand local livelihood systems and peoples' resilience.

3.2.3 Pastoralists' Adaptive and Coping Strategies

3.2.3.1 General Description of Coping and Adaptive Strategies in the Literature

Households and communities confronted with various shocks and circumstances respond in a number of ways. For the past four to five decades various coping and adaptive strategies have been documented in the literature, particularly in the context of drought and famine in Sub-Saharan Africa. This section presents how these strategies are categorized and defined by different authors.

Household and community strategies can be broadly categorized into two: coping strategies and adaptive responses. The former could be considered as short term survival strategies, while the latter are long-term strategies of adaptation. Coping essentially means "acting to survive *within the prevailing rules*" (Gore, 1992 cited in Davies, 1996). On the other hand, "when adaptation occurs, the rule system (or the moral economy) itself changes" (Davies, 1996:55). It should be, however, noted that coping strategies and adaptive strategies could sometimes overlap (Barton *et al.*, 2001 cited in Ahmed *et al.*, 2002:31). Individual households and social groups employ various strategies depending on differential access to resources, and opportunities and constraints which emerge within different contexts. In relation to this Walker (1995:152) states that "not every famine-prone community will have access to all [...] strategies or be able to use them all, and not every household in a 'famine' area starts off from the same level of vulnerability".

In the literature while some writers (Birks 1980, Watts 1983, Corbett 1988 cited in Davies, 1996; Dessalegn, 1991) found out a sequential uptake of coping strategies, others (Mortimore 1989, Riely 1991 cited in Davies, 1996; Yared, 1999) have challenged this simple sequential model arguing that the pre-crisis period circumstances of individuals or households (e.g. differential access to resources, endowments) influence their options and strategies. Other social and cultural factors also affect options and strategies to be employed in particular

⁶⁶ Mitigation refers to measures which can be taken to minimize the destructive and disruptive effects of hazards and thus lessen the magnitude of a disaster (Maskrey, 1989:39).

contexts. For instance with regard to coping strategies, Davies (1996:59) remarked, “The fact that one person’s coping strategy is another’s livelihood makes the identification and monitoring of repeated patterns of coping behaviour more or less impossible for representative groups”.

Differences in options and choices occur at individual, household, community and livelihood systems levels (Davies, 1996:50). A study in northern Nigeria revealed that adaptive behaviour to drought over a thirteen year period varies between households in the same villages (Mortimore, 1989 cited in Davies, 1996:50). With each cycle of drought and partial rehabilitation, the range of options will change, and the rate of take-up of particular strategies will vary (Davies, 1996).

Davies (1996:45, 55) also makes distinction between coping strategies and adapting strategies: the former “are the bundle of producer responses to declining food availability and entitlements in abnormal season or years”, the latter involve “permanent change in the mix of ways in which food is acquired irrespective of the year in question”. According to Davies “coping is a characteristic of structurally secure livelihood systems, and vulnerable ones are characterized by adaptation. In other words secure livelihood systems bounce back and restrict the use of coping strategies to periods of shock, whereas in vulnerable systems, coping strategies move up the hierarchies of activities after each shock to become simply an intensification of normal behaviour (Davies, 1996). Davies further argues that making distinctions between coping and adapting strategies is not sufficient. Thus Davies (1996:58) remarked that (i) “the activity itself has not changed but only its motivation and frequency of use, (ii) at any given moment in a community, one person’s coping strategy may be another’s adaptive strategy, and (iii) the shift between coping and adaptation is occurring all the time”.

Other writers also distinguished between types of coping strategies. For instance Corbett, (1988 cited in Davies, 1996) distinguishes between “insurance strategies and coping strategies”. The former are those activities undertaken to reduce the likelihood of failure of primary production. The latter are employed once the principal sources of production has failed to meet expected levels and producers have literally to ‘cope’ until the next harvest. Frankenberger and Goldstein (1990 cited in Davies, 1996:48) also distinguished between various types of risk management and patterns of coping. WFP (1989 cited in Davies, 1996:48) differentiated between accumulation and diversification (insurance) strategies. The former aims at increasing a household’s resource base, and the latter at promoting a variety of sources of income with different patterns of risk to avoid the exposure associated with a single income source.

Still further distinctions were made with regard coping strategies. In a study of famine in Darfur in 1985, De Waal (1989 cited in Davies, 1996:48) distinguished between ‘non-erosive’ and ‘erosive’ coping, i.e. between those strategies which use extra sources of income and do not erode the subsistence base of the household, and those which do, thereby compromising future livelihood security. Distinction is also made between “hungry season strategies used for the most part of the year and strategies to survive particularly bad years” (Davies, 1996:48).

In relation to disaster and hazards, having reviewed the literature on household coping strategies Blaikie *et al.* (2004:115-118) have identified six categories of coping strategies. These are (i) preventive strategies, (ii) impact minimizing strategies, (iii) building up stores of food and saleable assets, (iv) diversifying production, (v) diversifying income sources and, (vi) development of social support networks.

Of all distinctions, as indicated above Davies (1996) makes an important distinction between coping strategies and adaptive strategies, and elaborates the role and use of monitoring them in different livelihood systems in relation vulnerability. Davies argues that while such sources of entitlement (e.g. production and exchange) have often been monitored by EWS, those sources of entitlements (e.g. claims as calls, coping and adaptation) and mediators of entitlement (e.g. livelihood system protection⁶⁷, moral economy⁶⁸, state⁶⁹) have been ignored or rarely incorporated in EWS. Davies further contends that “monitoring the sequential uptake of coping strategies as sensitive indicators of proximate vulnerability⁷⁰ has drawbacks”. Davies’s argument is that “as livelihood systems become structurally vulnerable, many coping strategies are incorporated into the normal cycle of activities and thus become part of the process of adaptation” (Davies, 1996:38).

In the light of entitlement approach, Davies considers “entitlements derived from coping and adaptation as tertiary activities pursued by people to survive when their habitual primary and secondary activities can not guarantee a livelihood” (Davies, 1996:238). Therefore, Davies states that “production and exchange entitlements are the central planks of subsistence in any year and of accumulation in good year; coping strategies, in contrast are reserved for periods of unusual stress. Activities become adaptive strategies when they are used in every year to fill the food gap left once production and exchange entitlements have failed to meet minimum food requirements” (Davies, 1996:238).

Davies further states that “most strategies are derived from the same agro-ecological and socio-economic conditions as production and exchange entitlements”, and “coping strategies are not hermetically sealed from habitual activities and the entitlements to which they give rise, but rather, are extensions or adaptations of such activities” (Davies, 1996:240). Accordingly Davies classifies coping/adaptive strategies by ‘entitlement base’, and distinguishes them as ‘insurance strategies’ to offset potential risk or/and ‘deficient-management strategy’ to meet expected requirements in a given year. These include production-based, common property resource-based, reciprocally-based, asset-based, labour-

⁶⁷ Some evidences from Darfur (De Waal, 1989) and Ethiopia (Turton, 1977) indicate that people will strive to preserve future livelihoods even during crises (e.g. by reducing current consumption in order not to sell productive assets, or by returning home from remunerative migration in order to cultivate (cited in Davies, 1996:39-40).

⁶⁸ By citing Gore (1992) Davies notes that it is erroneous assumption that moral economy is an informal insurance system which provides a community safety net in times of crisis, whereas in fact such relationship can be both extractive and exploitative and can become more so in periods of acute stress (Davies, 1996:40).

⁶⁹ With regard to *indicators of state mediators* of entitlement Davies argues that two critical aspects of state mediation need to be addressed in EWS, (i) indicators of whether the state facilitates or inhibits coping and adaptation and, (ii) whether it makes damaging and untimely claims on entitlements (Davies, 1996:42).

⁷⁰ Proximate vulnerability: that which changes from one year to the next as opposed to more or less permanent state of structural vulnerability (Davies, 1996).

based, exchanged-based, migration-based, and consumption-based coping/adaptive strategies (Davies, 1996:240-41).

The above section deals with general conceptual distinctions within and between coping and adaptive strategies found in the literature. As stated earlier options and choice of the strategies vary from household to household and from one community to another in a particular context or situation. The subject of this study is pastoral community. The following sections discuss strategies which pastoralists have developed over decades to adapt to and cope with difficult circumstances in African context.

3.2.3.2 Adaptive and Coping Strategies of Pastoralists

Earlier in section 3.2.2, it is stated that pastoral livelihoods are affected by multiple risks. For instance drought or epidemic may reduce herd size; conflicts may reduce social capital within a community; encroachment of land by settled farmers or commercial schemes may deprive pastoral people of key resources; decline terms of trade for livestock may make their sale unprofitable, etc. In order to discern the effects of these risks on the livelihood systems, and to design appropriate interventions, it is important to understand how pastoral households or communities respond to both external and internal shocks.

Studies show that over the course of centuries, pastoralists have developed various strategies to adapt to their harsh environment, and offset risks or to cope with impacts of hazards (drought), disasters (famines) and external intrusions (Abdel Ghaffar and Abdel, 1996; Egeimi, 1996:35; Rass, 2006:34). They have developed various means and ways whereby they combine and use their assets and knowledge to achieve individual and collective goals. Many authors have identified a portfolio of adaptive and coping strategies pursued by pastoral households and communities to adapt to and cope with risks and uncertainties (Scoones, 1996; Egeimi, 1996; Ali, 1996; Assefa, 1996; Bayer and Waters-Bayer, 1996; Ahmed *et al.*, 2002; Sommer, 1998; Fasil *et al.*, 2001; Dereveux, 2006; Rass, 2006). These strategies include regular and opportunistic herd movements, tracking rainfall, diversification of species; herd splitting and distribution; livestock accumulation and changing species composition; dispersal of resources and assistance from relatives; forage supplementation; generation of food stores; sale of non-livestock assets; income generation from non-pastoral activities; reduction of food intake and change of composition of diet, etc. For the convenience of presentation I categorized these strategies into (i) adaptive strategies/responses, (ii) coping mechanisms to food crisis and (iii) drought recovery strategies. In the following sections each of these categories of strategies are elaborated.

3.2.3.2.1 Pastoralists' Adaptive Strategies

i. Mobility and opportunistic tracking. The key strategy of pastoralists is the movement of their herds in response to seasonal and annual changes in pastures and water availability. Mobility allows pastoralists to avoid overgrazing and to evade disease, conflict or drought conditions (Hesse and MacGregor, 2006:7). The productivity of African rangelands is heterogeneous in space and variable over time. Flexible movement is, therefore, critical to pastoralists (Scoones, 1996:2). This pastoral strategy may involve tracking rainfall by moving

herds, movement between different agro-ecological zones and to key resource areas (Scoones, 1996:2). Mobility allows herders for tracking fodder across landscapes and making use of patchy grass production caused by uneven rainfall or variations in landscape (Scoones, 1996:16; Bayer and Waters-Bayer, 1996). Furthermore, animals depend on relatively small patches within a wider dryland landscape during dry seasons or drought periods. Therefore, strategic movements are usually pursued by herders to such key resource sites that could sustain animals (Scoones, 1996:11).

In arid and semi-arid areas variation in soil type and topography can also result in very patchy pasture production, containing key sites for pastoral production such as dry season and drought reserves, swamps, water points, lakes, salt licks, and micro patches for fodder production, or cereal cultivation (Swallow, 1994 cited in Rass, 2006:32). Therefore, efficient tracking requires movement over different scales depending on the temporal and spatial pattern of primary production variability (Scoones, 1996).

Various pastoral groups also pursue variable patterns of movement. Pastoral systems “differ by degree of movement from highly nomadic through transhumance to sedentary” (Rass, 2006:32). Thus regularity of movements differs between the systems and involves some degree of flexibility. In relation to this Rass (2006:32) noted that “nomadic pastoralists prefer to certain established migration routes which they have developed balancing knowledge of pasture, rainfall, disease, political insecurity, national boundaries with access to infrastructures”. However, in very arid areas with high variability in quantity and distribution of rainfall, it requires certain flexibility and enforces irregularities in the movement. In contrast, in semi-arid areas with less variability in rainfall transhumant pastoralists pursue regular movements of herds between fixed areas (Rass, 2006).

Many pastoralists face various constraints while pursuing their tracking strategies. These include among others, administrative arrangements (borders and boundaries); land use changes (conversion of pastoral lands into non-pastoral uses); lack of tenure security; conflict with agriculturalists over key resource areas; livestock disease risks; infestation of areas; denudation of transit zones by preceding herds; prolonged drought and long distance movement, etc (Scoones, 1996; Ahmed *et al.*, 2002). Costs are imposed on herders by regulations and restrict their movement. Most administrative arrangements (movement permits, veterinary regulation) assume also stable environment, and discourage movements (Scoones, 1996).

Pastoralists also face difficulties while leading their herds through agricultural areas before harvests are completed. Pastoralists may also be forced to move to areas infested with tsetse fly and other parasites, and where grasses may be unfamiliar to animals (Ahmed *et al.*, 2002). Consequently, tracking resources through movement has become increasingly difficult for many pastoral groups in East Africa.

ii. Diversification of Species. Pastoralists strategically diversify the species, and breeds within species in their herds taking into account that species and breeds are affected differently by most animal diseases and adapt to different environment. Therefore, different species are bred for their resilience to drought and diseases. Different animals have also different niche specializations (Rass, 2006; Bayer and Waters-Bayer, 1996).

Diversity is crucial to pastoral survival in highly variable environments like the dryland Africa where risks are high and multiple. In this region pastoralists keep a diverse mix of livestock to match herds with different components of vegetation and to reduce risks (drought impacts, diseases, grazing scarcity). Viable herd can be maintained in a given area, if the herd includes several species which eat different components of the vegetation (Bayer and Waters-Bayer, 1996:60). A mixed herd (cattle, camels, sheep and goats) can make full use of a 'larger spectrum of the vegetation' and 'different niches in the environment'. Therefore, managing a variety of species helps take optimal advantage of the 'heterogeneous nature of ecosystems' (Perrier, 1996; Bayer and Waters-Bayer, 1996; Ahmed *et al.*, 2002).

Keeping several species also permits faster restocking after drought, as feeding habits and physiology of camels and goats allow them to survive droughts better than cattle or sheep and, afterwards, small ruminants recover in number more quickly than cattle and camel (Bayer and Waters-Bayer, 1996). In general diversification of species composition within the family herd is one of the risk reduction and adaptive strategies of pastoralists. Therefore, herders can reduce risks they face from a particular event by maintaining several species.

iii. Herd splitting and distribution. In order to reduce the effects of localized drought, and risks of animal raiding and disease, pastoralists employ herd splitting and distributing stock through loans and exchanges with other herders (Hesse and MacGregor, 2006; Ahmed *et al.*, 2002). Animals may be kept in several different areas which reduce the effects of localized droughts, and disease outbreak. Herders divide their livestock into small herds grazed separately; and prioritize into other categories (e.g. milking animal, dry animal, young animal). Animals may also be distributed through loans and exchanges with other herders in order to reduce risks of drought and disease. This strategy also enables herders to create and reinforce social ties between households thereby maintaining social networks for future risk management (Ahmed *et al.*, 2002:34).

Moreover, herders use the strategy of herd splitting to enhance livestock productivity in relation to labour, forage and water. By dividing herd, labour for instance can be used more efficiently. Children and women frequently tend small stocks; and nursing animals are intensively cared by women. Lactating animals are kept near homestead, usually herded by men and milked by women (Perrier, 1996). Dry animals are often herded by young men far away from homestead. In so doing, herders enhance efficient use of labour and grazing (Oba, 1993; Perrier, 1988 cited in Perrier, 1996).

Concerning labour efficiency of watering, during dry season many herders adopt alternate-day or every-third day watering thereby saving labour to be spent in lifting water and in using grazing sites distant to water points. The level of feed intake also can be managed by controlling access to water. Reduced water intake reduces forage intake helping to conserve dry season grazing resources (Perrier, 1996; Bayer and Waters-Bayer, 1996:60).

iv. Livestock accumulation and changing herd/species composition. Pastoralists are constantly exposed to risk of losing livestock. Thus, as opportunistic stocking strategy, they accumulate livestock numbers that exceed the subsistence demands during good years so as to

still have reproductive females for rebuilding herds after a crisis (Rass, 2006:32; Hesse and MacGregor, 2006:7).

It is argued that “pastoralists’ attempts to maximize herd size are rational in a highly variable environment” (Sandford, 1983 cited in Bayer and Waters-Bayer, 1996:59). Herd-owners endeavor to maximize their herd size during favorable periods, so that animal losses during drought do not reduce the herd size below a viable size. They attempt to “protect themselves against the worst ravages of droughts and epidemics by expanding their livestock holding on the principle that quantity provides the best defense against heavy losses” (Bayer and Waters-Bayer, 1996; Ahmed *et al.*, 2002:34).

In pastoral systems wealth⁷¹ in livestock provides a buffer against crisis. Households with high number of livestock can absorb high drought-related livestock mortality, and obtain sufficient milk to meet household needs during dry period (Coppock, 1994 cited in Perrier, 1996:55). Therefore, pastoralists are motivated to maintain large herds in order to survive the risk of dry period and impacts of drought (Hesse and MacGregor, 2006:7).

Feed habit or requirements differ among herds depending, among others, on species, age, and lactation. In times of feed shortage herd owners attempt to adjust their herd composition to reduce feed requirements. “Dry females and adult males require less feed than lactating females or young stock and can therefore survive periods of shortage. A herd’s forage demands can be reduced seasonally by disposing of young stock not needed to replace breeders and by drying off milk animals to keep only a reproductive herd. Mating can be timed so that lactation does not coincide with dry seasons” (Bayer and Waters-Bayer, 1997:60).

Pastoralists also change the species composition of their herd as a long-term strategy for coping with drought and change in vegetation and rangelands. This takes place among species that have a different reproductive rate, mobility style and feed habit (Ahmed *et al.*, 2002). For instance the Afar pastoral groups in Ethiopia have changed their livestock composition from more grazers and less browser into more browsers and less grazers due to drought impacts, range deterioration, diminishing of annual grass and bush encroachment into rangelands (Ali, 1996:204-205). In relation to this some studies (e.g. Assefa, 1996; Ali 1996) indicated that changing the species composition of herds has some limitations, if pastoral communities need to generate cash from time to time. For instance the market for camels is often much less developed than the market for cattle or sheep in Ethiopia.

⁷¹ With regard to wealth accumulation of herds more explanations are given by researchers. One explanation is that “because pastoralists do not maximize a profit function, livestock are used by pastoralists as their principal store of wealth rather than as income generating capital (Goldschmidt, 1975; Doran, Low and Kemp, 1979 cited in Rass, 2006:32-33). The store of wealth concept has been advanced to the “target income” concept (Dahl and Hjort, 1976 cited in Rass, 2006:33), which argues that in anticipation of livestock losses due to recurrent risks (epidemics or drought) pastoralists follow a risk reduction strategy and sell the minimum number of animals necessary to get the “target income” for some identified needs”. Another explanation given by asset model explains that “income from livestock assets in pastoral areas is in the form of products produced from livestock themselves rather than in cash obtained from the sale of livestock. Accordingly livestock owners regard their animals as capital assets which produce a stream of valuable products while held and have a capital value when sold and slaughtered. Stock owners determine the optimal age of sale or for slaughtering by comparing the expected net capital value of animals if slaughtered or sold” (Rass, 2006:33).

v. Dispersal of resources and assistance from relatives. According to Sommer (1998:11) these strategies include herd and family splitting, temporary migration, transfer of animals within social networks (i.e. on basis of kinship, stock associates) on which individuals have legitimate claims, resource sharing (e.g. circulation of milking animals). Pastoralists adopt various resource (herd, labour, forage, manure) use arrangements among themselves or with their neighbouring farmers.

Pastoralists also disperse animals in herds of allied households (Rass, 2006:33). Animals are exchanged between pastoral households to reduce the risk of losses, or loaned to other pastoral group members who suffer misfortune (Bayer and Waters-Bayer, 1996:66). In the first case, if one herd is affected by disease or drought in one location, other herds in other location may survive and a household will lose some but not all of its assets. In the second case, animals are transferred through social networks (kinship, bond relationships and stock association) in order to support those members who face crisis or to solicit care or feed for stock (Hesse and MacGregor, 2006:7). The creation of such stock alliance and patronage also creates social bonds; disperses the risk of animal loss during drought; and decreases the workload of households (Rass, 2006:33).

Tending large stock of animals requires much labour, and thus rich households either give animals on loan to poor families, or employ poor herders (Rass, 2006:33). Young herders from pastoral families may also migrate and work for farmers, traders and richer pastoralists for some years in order to rebuild their own herds. Pastoralists, with few animals, or who lost their stock, may also enter into herding contracts whereby, depending on their agreement, they receive milking rights as well as some of the offspring of 'contract animals'. This has been practiced for instance by Wodaabe herders, in Niger (Bayer and Waters-Bayer, 1996:66).

Forage and manure use arrangements are made between herders and farmers depending on their relations. Arrangements for forage use between herders and farmers range from open access to stubble fields, to the sale of grazing rights or crop residues to particular herder (Bayer and Waters-Bayer, 1996:66). According to Bayer and Waters-Bayer, "arrangement between herders and farmers for stubble grazing is common throughout West Africa". And in "central Nigeria, where stock density is low, few formal arrangements for the use of crop residues are made, and in the more densely settled zone in Northern Nigeria, herders gain rights to stubble grazing by paying cash or in kind or by helping farmers with harvest" (Perrier, 1983, cited in Bayer and Waters-Bayer, 1996). The same source states that similar trends are witnessed in eastern Sudan, and herders buy rights to use crop residues.

Securing manure is crucial for cropping in many parts of sub-Saharan Africa, as forage arrangement is crucial for animal keeping. The expansion of cropping and decline in fallowing calls for measures other than long-term fallowing to maintain soil fertility. Manure is removed from pastoralists' kraal and sold to farmers, and arrangements are made for keeping herds overnight on fields to deposit manure (Bayer and Waters-Bayer, 1996:67). For instance, farmers in central Nigeria pay Fulani herders in cash or kind to camp on their fields during dry season (Bayer and Waters-Bayer, 1996:67). In the millet zone of Mali, where farmers have private wells dug for attracting herders, manuring contracts are also arranged via access to water (Toulmin, 1992a cited in Bayer and Waters-Bayer, 1996:68).

Forage and manure use arrangements between herders and farmers, and herding contracts have considerable implications. Manuring contracts have importance for good herder-farmer relations and for creating close links between manuring and forage arrangements. Thus external interventions must understand these links and relations not to weaken them. Every opportunity should be sought to find ways to strengthen them (Bayer and Waters-Bayer, 1996:66-68). The implication of contract herding is that there may be extensive milking and thus leaving less milk for calves. This may lead to higher calf mortality. Contract arrangements also limit the extent of herd movement since herd-owners want to “keep an eye” on the herds and are thus unwilling to allow long migration, in turn contract herders are less inclined to invest more labour (Toulmin, 1992b, cited in Bayer and Waters-Bayer, 1996).

vi. Forage supplementation. This includes hay-making, lopping of trees (leaves, fruits, branches), supply of commercial forage supplements, etc. (Scoones 1996; Sommer 1998). Many studies showed that coppiced trees and shrubs in dryland areas are critical to the nutrition of livestock in times of drought. Tree pods in particular may be important protein supplement for maintenance of animals during periods of stress (Bayer and Water-Bayer, 1996). Depending on the herd species and availability of coppiced trees and shrubs, pastoralists thus collect and feed their stock with pods, fruits and leaves during periods of stress. Pastoralists track also woodlands and use them as refuge during prolonged dry seasons or drought period to survive feed shortage.

Some writers stated that “hay-making is not widely reported from sub-Saharan Africa; and “crop residues may be stored and sold particularly near towns” (Bayer and Waters-Bayer 1996:74). In Ethiopia, the Borana women traditionally collect grass in dry season for calf feeding. Hence hay-making during wet season was encouraged among the Borana. Though the amounts collected were small (i.e. up to 300 kg per household), it facilitated calf feeding in the following dry season (Coppock, 1991 cited in Bayer and Waters-Bayer 1996:74). In Burkina Faso, the Fulani men make hay in years with good or average rainfall. But, they can collect little or no hay in drought years (Bayer and Waters-Bayer 1996:74). In general, whether hay-making is a viable option in years of extreme droughts is doubtful, since hay yield suffers the same fluctuations as range yield in areas with high rainfall variability.

3.2.3.2.2 Pastoralists’ Coping Strategies to Food Crisis

i. Generation of food stores. In anticipating shortfalls in food, pastoralists attempt to store some foods in order to fill gaps and to avoid distress sales. These include, among others, cereal stores to prevent distress sales of livestock; stores of butter, meat and fat; collecting and storing wild foods, etc (Sommer, 1998:11). In Ethiopia, the Afar pastoralists often prepare and preserve various foods from meat and cereals for drought periods and/or for long journeys. This will be elaborated in Chapter 6.

Some authors reported that wild foods feature as famine foods in almost all parts of Africa (de Waal 1989a, and McGlothlen et al., 1986 cited in Blaikie *et al.*, 2004:119; Mohammed Salih, 2001). Gathering of wild foods, however, is adversely affected by drought conditions. Consequently many bush products (e.g. berries, roots) may suffer from the impacts of recurrent and prolonged droughts, and they may not be available. In relation to this

Mohammed Salih (2001:210) states that “building up stores of food and diversification of production are climate dependent”. He further noted the need to “understand the consequences of drought and other climatic variables on horticulture, wild edible plants and watershed cultivations since they constitute the main sources food during drought”.

ii. Reduction of food intake and changing composition of diet. Adjusting consumption patterns is often made very early when food shortages are anticipated. Reducing the number of meals and the amount of food, and resorting to less preferred foods⁷² are the common consumption smoothening mechanisms in times of food shortage. The immediate impact of drought in pastoral areas is decline of milk supply which is the most important source of calories. Thus pastoralists tend to take more cereals than milk, and reduce their food intake. The food related responses of Borana pastoralists in Ethiopia during the 1983-86 hunger period can be an illustrative instance. At the time the Borana pastoralists responded through household diet adjustments: These were: (i) giving priority to young children to receive milk; (ii) shifting diet composition for other age groups to include more cereals, meat and blood to accommodate the needs of children and; (iii) reducing the size and frequency of meals to adults and older youths (Coppock 1994:163 as cited by Ahmed *et al.*, 2002:35).

iii. Sale of non-livestock assets. When there is a potential food shortage or possible famine, households or communities attempt to mobilize assets or resources which are at their disposal in order to cope with food crisis. For instance sale of easily disposal assets is pursued. Sale of non-livestock assets (jewellery and other non-productive items) takes place in order to help bridge a temporary shortfall in subsistence supplies. In this case wealthy pastoralists are usually in a better position as they have certain assets that may be sold for buying grain, and therefore postponing the moment at which they will be forced to sell productive assets such as livestock (Ahmed *et al.*, 2002). However, some evidences from Darfur and Ethiopia show that “even poor people also attempt to preserve future livelihoods by reducing current consumption in order not to sell productive assets” (Turton, 1977 and de Waal, 1989 as cited by Davies, 1996:38). On the other hand such coping is criticized by some reports. It is argued that poor or vulnerable people can survive almost any livelihoods crisis by their own resources. However, the reality is that malnutrition and child mortality rates in many places are unacceptably high even at ‘normal’ times (e.g. Bradbury, 2000 cited in Devereux, 2006).

iv. Mobilizing social support networks and claims. These involve a wide variety of rights and obligations which members of household, or extended families or kinship groups claim upon their groups in difficult times. Claims may be by individuals or households upon kin groups or local patrons. Household links to larger social groupings are vital for survival in pastoral communities. Within groups these links provide support networks that assist households in times of crisis (Perrier, 1996; 55). Some sources presented “village level associations as being one of the key components in overcoming famine in a number of African countries” (Walker, 1995:153). Walker added that the possession of structures to organize locally on both a kinship and peer-group basis seems to be of paramount importance in facing adversity. Claims can also be made upon government and international relief agencies (Walker, 1995:153). This, in fact, requires strong local associations by which local people can assert their claims and rights to access external resources in times of crisis.

⁷² A common example is substitution of lower quality and wild foods (famine foods) for more expensive staples.

On the other hand some authors indicated that throughout the LDCs such networks and moral obligations are in decline (Blaikie *et al.*, 2004:119). The ‘moral economy’ (e.g. ‘non-economic relations between patrons and clients or between rich and poor, which is called ‘a subsistence ethic’ based on the norms of reciprocity) may offer a minimum subsistence and marginal security in times of hardship. However, some authors reported that “such obligations are being eroded, for instance in South Asia (Agarwal 1990, Fernandes and Menon 1987 as quoted by Blaikie *et al.*, 2004:118) and in Kenya during 1971-1976 (Wisner 1980, Downing *et al.*, 1989 as cited by Blaikie *et al.*, 2004:118).

In addition during some droughts/famine times, there were cases from India where some groups of people (caste) took up demeaning activities (thus to loss respect), and certain activities prescribed or discouraged by membership of a social group or caste or gender (thus below their dignity) to secure minimum food supply (Rao 1974, Agarwal 1990 as cited by Blaikie *et al.*, 2004). Blaikie *et al.* (2004:114) also postulated that “despite economic and emotional support that it provides, family may break up to allow its individual members to survive” during famine disaster. In this case the authors suggested that “famine may be unique or at least extreme among disasters in often provoking social tension and break down of this kind” (Blaikie *et al.*, 2004:114). Yet sociological studies on “community responses to disasters (earthquake and floods)” found out that “emergent organization is much more common than social chaos, and that altruism and stoicism are more common than selfishness and panic” (Qaurantelli and Dynes, 1972, 1977; Qaurantelli, 1978, 1984; Dynes *et al.*, 1987 cited by Blaikie *et al.*, 2004:114).

And yet a recent study (Doss, 2001:1) conducted on 323 pastoral households in northern Kenya and southern Ethiopia found that transfers of money, food and livestock among pastoralists as part of a social safety-net system was very limited during the drought year of 2000. The same study concluded that “there is less of a social safety net than we had expected to find based on the ethnographic literature” (Doss, 2001:2). This indicates that local level informal safety nets are less able to buffer against stresses or shocks. Therefore, without such informal means of insurances, people whose animals die or who lose the sources of livelihood are likely to drop out of the pastoral system. This often has detrimental consequences for dropouts since they are usually ill-equipped to succeed in more urban settings. In addition, there can be detrimental effects to smaller towns and villages in pastoral areas (Doss, 2001:2).

v. Income generation from non-pastoral activities. Livestock raising faces multiple risks (drought, epidemics, raiding) that undermine food security. Thus pastoralists use alternative sources of income to overcome risks and economic shocks. Some of these activities include, among others, charcoal making, handicrafts, hunting, fishing, petty trade, working in urban areas, and migration to neighbouring countries for labour (Scoones 1996; Ali 1996; Sommer 1998; Fasil *et al.*, 2001). These and other sources of income have been of varying importance for different households or pastoral groups in providing additional income in normal times and a fallback source of subsistence during times of crisis. On the other hand some authors remarked that some activities pursued as income source (e.g. charcoal making) may undermine the basis of livelihood in the long run (Grainger, 1990, and O’Brien and Gruenbaum, 1991 as cited by Blaikie *et al.*, 2004:117). A case in point is deforestation resulted from cutting trees for charcoal-making.

In general the above strategies are used mainly as risk reduction and/or adaptive responses. They involve a variety of actions taken by households or social groups before or during an event in order to avoid risks or mitigate their effects. In fact, as stated earlier, some recovery activities may overlap with coping or adaptive strategies which are already discussed in the above sections. Pastoralists in the Horn of Africa and elsewhere use a variety of strategies of herd recovery after drought or crisis period. These include systems of restocking (stratification or stock lending), mobilizing social networks, migration or mobility of wage labour, small business, sedentarization, etc (Ahmed *et al.*, 2002). As a strategy of drought recovery, some of these are briefly described in the following section.

3.2.3.2.3 Drought Recovery Strategies

After a drought or a crisis period, pastoralists attempt to rebuild their herds. As mentioned above herders “prepare for drought by lending their animals to relatives or friends in exchange for looking after some of their animals in return” (Blench and Marriage, 1999:21). Herders who lost breeding stock during crisis also mobilize their *social networks* to acquire essential stock (e.g. female ones) to rebuild their herds. Soliciting support or animal loan from kin groups or bond-relations is one of the strategies for restocking.

Cattle-raiding was one method of restocking after a drought in East Africa⁷³ (Blench and Marriage, 1999:20; Hendrickson *et al.*, 1998:8). “Redistributive forms of raiding have traditionally been a sophisticated way of reallocating pastoral resources between rich and poor herders, and have been an equally common features of both intra-tribal and inter-tribal relations”(Dyson-Hudson and McMabe, 1982 cited in Hendrickson *et al.*, 1998:8). Hendrickson *et al.* (1998) added that “within the context of an indigenous conception of livestock as collective property, raiding serves to rebuild herds after livestock have been killed by drought or seized in raids”. It is governed by complex rules and closely tied to climatic conditions and to the prevailing state of ‘tribal peace’ (Hendrickson *et al.*, 1998:8).

*Diversification of incomes*⁷⁴ or engagement in temporary paid labour is an indirect means of restocking (Blench and Marriage, 1999:21). Sources of household income such as wage labour and petty commodity production or artisan are also tapped to earn an income for the reestablishing of breeding herds. Particularly those pastoral households, who are unable to be reestablished in the pastoral sector, migrate to other places looking for employment. They may go to work for other herd-owners; or look for employment outside the pastoral economy (e.g. in irrigation schemes, plantations and towns). In this case some studies in Sudan (Egeimi 1996 as cited in Ahmed *et al.*, 2002:42) and in Ethiopia (Fasil *et al.*, 2001) indicate that “pastoralists *wage labour migration* seems to increase from time to time”. For instance

⁷³ With regard to raiding some researchers (e.g. Hendrickson *et al.*, 1998:1) argue that “livestock raiding has been transformed over years, from quasi-cultural practice with important livelihood-enhancing functions, into a more predatory”.

⁷⁴Some field reports (e.g. by Sandford and Johannes, 2000:9) indicate that in recent years many pastoralists in countries of Africa diversify their economic activities outside pastoralism and agriculture in order to spread the risks of natural and manmade disasters. But the same report indicated that none of the major pastoral groups in Ethiopia seem to have succeeded in diversifying their activities to a significant degree outside the agriculture.

Hadendowa pastoralists in Sudan are nowadays considering this strategy as an important outlet. Thus “migration for wage labour, which was not a tradition before, has increasingly become significant for the Hadendowa local economy” (Egeimi, 1996 cited in Ahmed *et al.*, 2002:42). In Ethiopia the Afar and Borana pastoral groups diversify their income by creating employment opportunities for the youth in non-pastoral activities or by sending part of the household (young men) in nearby towns or to other foreign countries (Assefa, 1996; Fasil *et al.*, 2001). While the Afar usually send their young men to Saudi Arabia, Djibouti and Yemen (Assefa, 1996); the Borana youth migrate for labour to Kenya. (Fasil *et al.*, 2001).

Pastoralists also attempt to recover from drought by running *small scale businesses and trade*. These may include, among others, cross-border trades, salt production and trade, trading in handcrafts and animals, ‘contraband trade’, etc. Some studies indicate that trade, particularly “unofficial cross-border trades”, are common in the Horn of Africa. For instance “unofficial cross-border trade in Eastern and Southern Ethiopia involves a number of people from the major pastoral groups including the Afar, the Borana and the Somalis (Ahmed *et al.*, 2002:42; Assefa, 1996). Some researchers stated that due to the fact that the pastoral areas are unable to provide employment opportunities in other sectors, the unofficial cross-border trade in the Horn of Africa appeared to be the only way out from the pastoral sector (Assefa 1996; Little 2000, 1998 and Tegegne *et al.*, 1999 cited in Ahmed *et al.*, 2002:42).

‘*Sedentarization*’ or ‘combining cultivation with animal raising’ can also be employed as post-drought recovery strategies. Some writers argue that sedentarization results from either excessive poverty or excessive wealth (Barth 1961, Baxter 1975, Salzman 1980, and Azarya 1993 as cited by Ahmed *et al.*, 2002). In case of “poverty (i.e. loss of livestock) pastoralists are forced to settle among agriculturalists and start cultivation”, while in the “case of wealth, prosperous pastoralists acquire land and have it cultivated by hired hands or dependants of various sources” (Ahmed *et al.*, 2002:41). Markakis (2004:12) also stated that “sedentarization takes several forms; one is to remain in the region and become increasingly dependent on cultivation while retaining a depleted herd, and the other is to migrate to neighbouring district where land is available and to take up cultivation or become a worker in commercial farms”. In this case Markakis observed that “sedentarization via cultivation (i.e. agro-pastoralism) is a rapidly advancing phenomenon throughout the Horn of Africa, from the Masaai region of Tanzania to the Somali region of Ethiopia” (Markakis, 2004:12). A Beni Amer herder in Eritrea put it in a similar way: “In the past all Beni Amer were pastoralists, but now there are three kinds of Beni Amer - one is an agricultural wage labourer, another is a petty merchant, and only the third owns livestock” (as quoted in Markakis, 2004:12). Markakis then suggested that “this is the shape of future as the mobility of pastoralists becomes increasingly constrained, their habitat progressively degraded, and their strategies for coping with progressive, mounting crises exhausted”.

3.2.4 Preliminary Conclusions

The above sections present a brief account of discourse on pastoralism; national governments’ positions and policies towards pastoralists of East Africa; the state of pastoral livelihoods; coping and adaptive strategies to multiple risks that pastoral groups are facing. The above discussions have also revealed that pastoralists in East Africa have become more vulnerable than they were in the past due to a number of factors rooted in climatic and ecological

conditions, state neglect, inappropriate programmes/interventions, alienation of key pastoral resources; tenure insecurity; restriction of mobility; civil strife, border conflicts, etc.

It is also stated that the current state of pastoralists in East Africa is the result of historical and contemporary socio-political processes. Colonial and post-colonial boundaries and administrative arrangements have brought far-reaching consequences on various pastoral groups in the region. These processes have divided kinship or ethnic groups and restricted their movement; deprived them of worship places, markets, pasture and water points; disrupted their social and political integrity, thus undermining social cohesion and traditional authority among pastoral communities. These in turn have intensified competition over resources and conflict between pastoral groups, and with settled cultivators and state authorities (Markakis, 2004; Fratkin, 1997; Rotich, 2005:2).

The policies of national governments throughout the region were aimed primarily at developing the livestock sector for national economic goals, not at improving the life of the pastoral groups. National governments have followed either hostile or inappropriate policies or programmes with respect to pastoral development; and the result was mainly failure except some few achievements in the area of services and infrastructure⁷⁵. Many development programmes were based mainly on the desire to harness pastoral resources (livestock, land, minerals) through implementing large-scale schemes (commercial farms, irrigation schemes, modern ranching schemes) and establishing national parks leaving pastoralists without rights of tenure. At the same time environmental risks or ecological degradation and population have increased. As a result, the material base of pastoralism has been thoroughly eroded, and pastoralists have been vulnerable to effects of recurrent drought, violent conflict and famine. Therefore, given these multiple risks and extreme vulnerability of pastoral groups, national governments need to invest in development and risk management programmes. This calls the need to distinguish between risks to design proper risk management or vulnerability reduction strategies. Moreover, it needs political commitment of national governments to address the issues of pastoral political and economic marginalization. In relation to this Markakis (2004:24) has to say the following:

Pastoralists are unlikely to be able to assert their rights to communal lands in the push for privatization that is well underway throughout Africa today. Without a shift in power from state to local land users, from donors to recipients, from wealthy to poor members of pastoral society, then the current confusion and damage can be expected to persist.

Earlier in section 3.3.3.2, it is also noted that pastoral groups have developed over centuries their own adaptive and coping strategies to survive in harsh environment and to cope with internal and external forces that shape their livelihoods. This points out to peoples' agency, ingenuity and ability to help themselves individually and collectively. However, indigenous strategies which are often based on the existing resources/assets are constrained by external socio-political and institutional factors, and by dynamic context of risks. Therefore, the

⁷⁵ Some researchers (Coppock, 1994 cited in Ahmed *et al.*, 2002) stated some benefits accrued to the pastoralists (e.g. water projects created access to previously unutilized land; veterinary services reduced livestock mortality; and roads improved market integration).

traditional strategies are also under pressure and have become increasingly ineffective⁷⁶ over the past decades to cope with excessive pressures imposed on pastoralism (Blaikie *et al.*, 2004:120; Rass, 2006:5; Ahmed *et al.*, 2002). And yet if these traditional strategies are supported with effective interventions that do not undermine them or create dependency, pastoralists cannot only sustain themselves but also dispose the resources of the harsh environment they inhabit. This, in fact, needs proper understanding of the indigenous coping and adaptive strategies upon which external interventions can be built. In other words, it needs to understand how the local people are responding to internal and external processes. The common trends witnessed among the East African pastoralists include households' shift to small animals; changing from nomadic migration to transhumance pattern of mobility, the engagement in other economic activities to augment incomes; combining pastoralism with sedentary agriculture (agro-pastoralism); and in some cases total departure from the pastoral sector. While the last two could be considered as long-term mechanism, the rest could be just short-term survival strategies (Abdel Ati, 1996:7; Markakis, 2004; Ahmed *et al.*, 2002; Ali, 1996; Fasil *et al.*, 2001).

In the light of above discussions, the present research attempts to understand the types of risks that the local people in my study community perceive, and their coping or/and adaptive strategies. The main focus in Chapter 6 rests on these issues. In the following section I present a general discussion on the Ethiopian pastoral groups; historical socio-political processes that influence the current state of pastoralists; approaches/policies of the government to pastoral development; drought/famine and other related risks in the pastoral areas of Ethiopia.

3.3 Pastoralism, Socio-Political Processes, Development Policies and Famine: Ethiopian Context

3.3.1 The General Condition of Pastoralists

i. Some Characteristics of Major Pastoral Areas. Ethiopia with a population of 77 million is the second most populous country in Sub-Saharan Africa. The overwhelming majority of the population are rural,⁷⁷ most of which live in the highlands. The concentration of population reflects the relationship between physiography, climate, economy and population (Hogg, 1997a:5). While the highlands have a relatively high density, the lowlands are sparsely populated and are characterized by poor infrastructure and communication, highly variable and uncertain rainfall. Some characteristics of the main pastoral areas are given in table 3.1 below.

⁷⁶ Some authors (Blaikie *et al.*, 2004:120) noted that 'coping is managing under stress, but it is in essence a strategy reactive to events beyond the immediate control of the individual, household, or community. As circumstances deteriorate, these may prove insufficient. For instance in famine context, informal support systems among the Dinka communities of south-Sudan were well developed, but they fell apart under extreme pressure. They could not resist the cumulative onslaught over a long period of war, drought, and enslavement and displacement.

⁷⁷ The agricultural labour force is 81% (FAO statistics and World Bank, 2006).

Table 3.1 Characteristics of the Main Pastoral Areas

Main pastoral areas	Area* Km ²	Human population (in millions)	Annual rainfall (mm)	Temperature (Celsius)	Altitude (masl)
Borana zone	78,314	1.66	440-700	15-35	1000-1500
Somali region	282,300	3.69	100-700	20-45	300-1700
Afar region	95,970	1.22	200-600	30-50	-100-1000
Total	456,584	6.56

Source: Pastoral Area Development: Issues Paper and Project Proposal, Mission Report (World Bank, 2001:2).

* Area shown under Borana is only for the six pastoral Woredas (districts).

Aridity occurs where the rainfall is insufficient to replenish the loss of moisture - less than 500 mm a year makes for aridity, and 500 mm to 750 mm for semi-aridity. According to this criterion more than half of Ethiopia (i.e. 52%) is arid (Markakis, 2004)⁷⁸. The physical environment that major pastoral groups inhabit mainly belongs to the arid and semi-arid zones. These arid and semi-arid environments are characterized by extreme variability and unreliability of rainfall both between different years and between different places in the same year (Ali, 1996:95; Ahmed *et al.*, 2002: 4).

The Borana pastoralists of Ethiopia inhabit the Borana Administrative Zone (in the Oromiya Region) that consists of 12 Woredas, six of which (Liben, Yabello, Dire, Arero, Teltele and Moyalai) are situated in areas below 1500 masl.⁷⁹ Landuse in this area is dominated by pastoral and agro-pastoral productions. The other six Woredas of the Zone are situated in the mid-highlands with a dry sub-humid climate.⁸⁰ The residents of two Woredas (Bore and Uruga) are fully sedentary and engage in cash crop production (World Bank, 2001:2).

Somali pastoralists of Ethiopia reside in the Somali National Regional State. Desert and semi-desert constitute 80% of the region. The Somalis practice mainly pastoralism, and some combine herding and cultivation⁸¹. The Afar inhabit the north-eastern part of Ethiopia. They practice pastoralism (i.e. 90%) and agro-pastoralism (10%) (World Bank, 2001:3). Other small groups of pastoralists inhabit in the southern and south-western parts of the country.

As stated above pastoral areas are characterized by extreme variability and unreliability of rainfall. As a result rainfed agriculture is hardly possible in most pastoral areas (Ali, 1996:195). Though some pastoral areas may provide some options to produce certain crop species in good years, they are generally marginal to intensive crop cultivation (Markakis, 2004:1; Ahmed *et al.*, 2002: 4). Therefore, livestock rearing is the major economic activity among pastoralists in the Ethiopian lowlands.

Yet the marginal nature of the physical environment still imposes certain constraints to livestock production too. Moreover, pastoral areas are characterized by the scarcity and

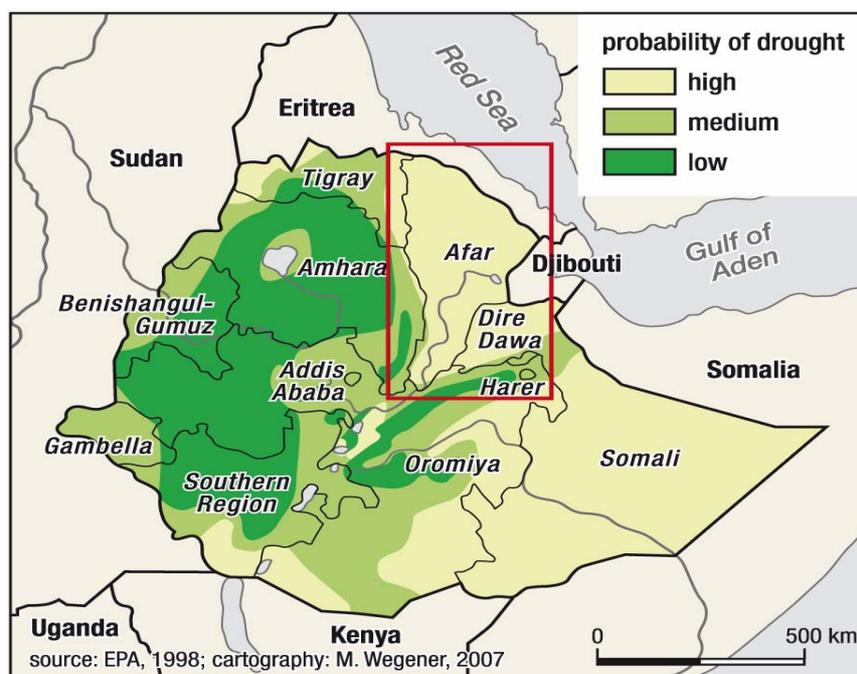
⁷⁸ The total land area of the country is 1,104,300 km².

⁷⁹ It is arid and semi-arid with roughly <200mm and 200-800 mm respectively.

⁸⁰ It is roughly with 800-1200 mm.

⁸¹ Though it is difficult to gauge the extent of sedenterization via cultivation, the government statement claims that 30% of the Somalis and 20% of the Afar are already settled (Markakis, 2004:12).

seasonal variability of vegetation, and vulnerability to recurrent drought (Ali, 1996:95; Ahmed *et al.*, 2002: 4). As it is in other countries of the Horn of Africa, drought is recurrent in Ethiopia, and usually accompanied by food crisis or famine (see map 1 for drought probability in Ethiopia).



Map 1 Probability of Drought in Ethiopia

ii. Livestock Population and its Contribution. Ethiopia has more domesticated animals than other countries in Africa (World Bank, 2001). Pastoral groups manage some 40% of the national cattle herd, one quarter of the sheep, three quarter of goats and nearly all the camels (Ahmed *et al.*, 2002:8). The total livestock population in pastoral areas is given in table 3.2 below.

Table 3.2 Livestock Population in Heads in the Lowlands/Pastoral Areas/ of Ethiopia

No	Pastoral region	Cattle	Sheep	Goats	Camels	Equines
1	Afar	3,600,000	2,000,000	3,000,000	900,00	200,00
2	Oromiya (Borana)	1,400,000	1000,000	500,000	530,000	60,000
3	Oromiya (other zones)*	100,000	200,000	300,000	10,000	20,000
4	Somali	5,200,000	6,600,000	3,300,000	1,100,000	360,000
5	SNNP	450,000	340,000	500,000	1,000	40,000
6	Benishangul and Gambella	100,000	100,000	100,000	-	20,000
	Total	10,850,000	10,240,000	7,700,000	2,541,000	700,000

Source: Sandford and Yohannes, 2000:3

* Karrayu and southern part of the Bale zone

The primary livelihood of the pastoral groups in Ethiopia is the management of livestock (cattle, goats, sheep and camels). Livestock are critical to the well-being of pastoral households and communities in terms of income, savings, food security, employment, etc. Livestock also represent the means through which pastoral institutions, traditions and cultural

ties are assured and are the currency for building relationships (social capital) between families, groups and communities. Livestock inheritance, gifts, loans, etc are critical for social reproduction and maintenance of the social fabric of the pastoral communities or societies (Fekadu *et al.*, 1984:64-65).

In addition to supporting pastoral households and communities, the pastoral sector has an important contribution to the Ethiopian economy contributing 20% of total GDP and 10% of export earnings since the year 2000 (Markakis, 2004:18). About 90% of livestock export of the country comes from these pastoral areas (Ahmed *et al.*, 2002).

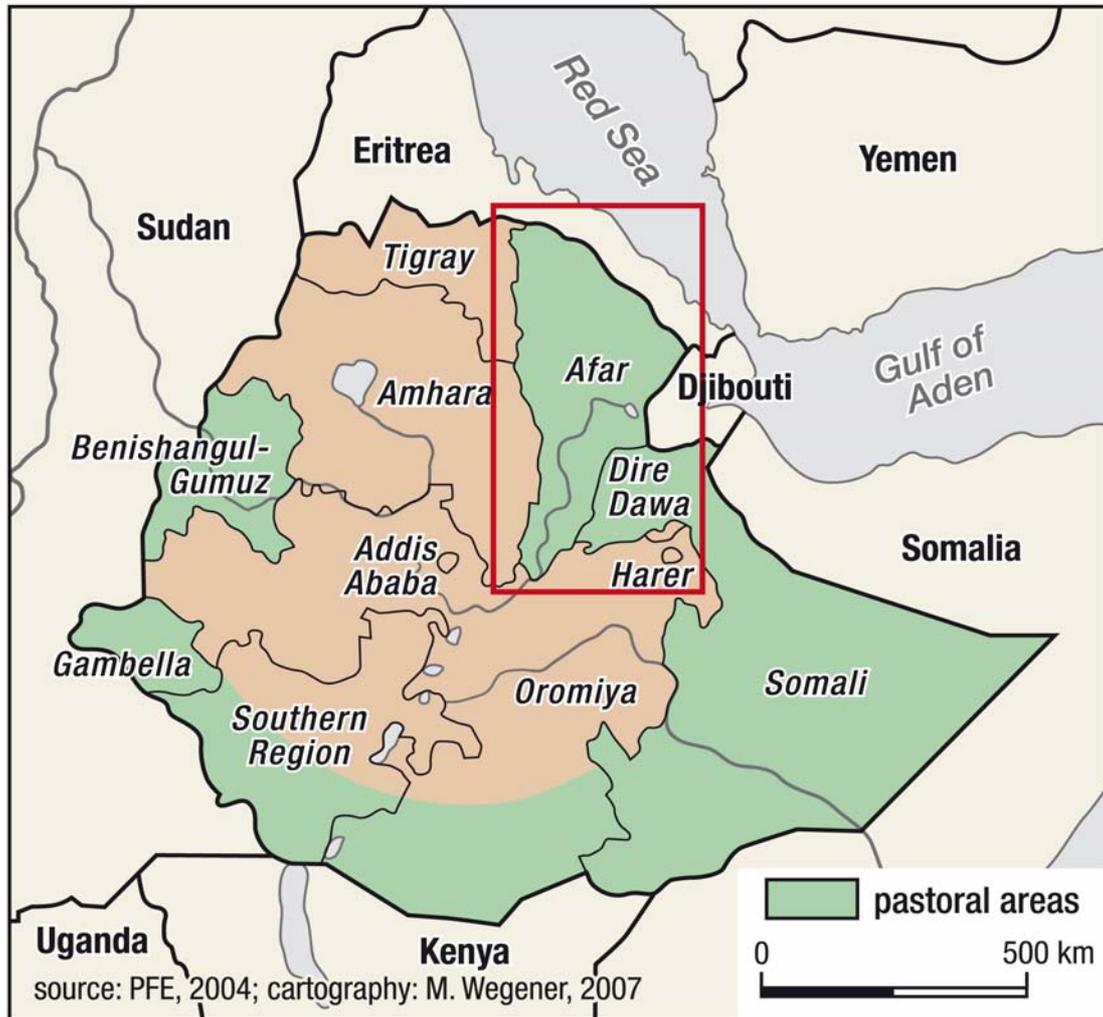
iii. Pastoral Groups and their Livelihoods. Pastoral and agro-pastoral communities constitute about 10-12% of the total population, and occupy 60% of the country's land (Ahmed *et al.*, 2002:8). Pastoralism is extensively practiced in the Somali and Afar regions and in the Borana Administrative Zone of the Oromiya Region. Pastoral groups are also found in areas of SNNP, Benishangul Gumuz and Gambella regions. The pastoral groups in Ethiopia are given in table 3.3 below.

Table 3-3 Pastoral Groups in Ethiopia by Geographical Location, Region and Ethnicity

Geographical location and Region	Ethnic groups
North-East (Afar, Oromiya and Somali Regions)	Afar, Somali, Argoba, Oromo.
South (Oromiya and Somali Regions)	Oromo, Somali
South-East (Somali Region)	Somali
South-West (SNNP and Gambella Regions)	Dasenetch, Hamer, Mursi, Bodi, Bumie, Bena, Erbore, Tsemay, Nuer, Anuak, Ari, Bali, Dime, Nyangtom, Chai, Trima, Ruli, Tinshana Muguji.
West (Benishangul Gumuz Region)	Komo, Shinasha, Gumuz, Benshangul

Source: Dawit Abebe (2000) cited in Ahmed *et al.*, 2002: 8)

The main pastoral communities are Somali (53%), Afar (29%), and Borana (10%) living in the south-east, north-east, and southern parts of the country respectively. The balance (8%) are found in the Southern, Gambella and Benishangul regions (Hogg, 1997a; Coppock 1994 cited in Ahmed *et al.*, 2002:8). (See map 2 for major pastoral areas in Ethiopia).



Map 2 Major pastoral areas in Ethiopia

Although the climatic conditions and hardship are nearly similar for the pastoral groups, people inhabiting these areas differ in their social structure, herd composition, coping strategies, and the extent of their orientation to the market (World Bank, 2001:2). The majority of the pastoral groups are engaged in extensive livestock herding. However, within and between each of these pastoral groups, there are different adaptive specializations depending on varying ecological, economic and cultural factors. The composition of herds varies from one group to another depending on the natural environment. The herd population usually consists of camels, cattle, goats and sheep. In some areas donkeys, horses and mules are reared. The Borana prefer to keep cattle. But currently they are increasingly participating in sheep, goat and camel production. Somalis have a higher production of camels in their herd mix and they also herd cattle, sheep and goats (World Bank, 2001:2). The Afar herd a mix of herds (cattle, camels, goats and sheep). In general some pastoral groups rely for subsistence primarily on livestock; others combine livestock production with other subsidiary activities such as cultivation, trade and wage employment.

iv. Relation between Pastoralism and Farming. The highland rural areas of Ethiopia are primarily crop-dependent. Extensive livestock herding is the primary activity in most lowland areas. In general terms, farming and extensive livestock herding form a continuum from “pure” pastoralism to farming at the two extreme points (Hogg, 1997a). In this case Hogg states that “pastoral societies pursue multi-resource activities constantly shifting in response to changing circumstances” (Hogg, 1997a:5). This suggests peoples’ adaptation to the environment and changes in socio-economic and ecological environments. Markakis (2004:4) further states this situation in East Africa, which includes Ethiopia, in this manner: “Due to nature of land in East Africa, [...] people tilled the land where it was possible to do so and herded livestock where it was not, often managing to do a bit of both. By and large this is still the way things are done”.

In Ethiopia there are pastoral groups or households, especially from Borana, Somali and Afar who tend to combine herding with crop cultivation by themselves or in cooperation or through various resource use arrangements with sedentary cultivators. Pastoralists in the past have depended heavily on livestock and livestock products for their livelihoods. In recent decades, however, many pastoral households are gradually involved in practicing small-scale cereal cultivation to cope with crisis in their traditional mode of subsistence. Especially pastoral households or groups from Somali, Afar and Borana tend to take up crop cultivation. They strive to combine herding with cultivation by themselves or through various arrangements (e.g. sharecropping, renting out land, mutual cooperation, and hired labour) with neighbouring sedentary cultivators. This practice has been observed between Karrayu and Afar pastoralists and between these groups and their neighbouring crop cultivators (Ayalew, 2000:332; Getachew, 2001a:107).

In the Somali Region, irrigated agriculture has been exercised along the Wabe-Shebelle, Genale and Dawa rivers. In Kelafo and Mustahil of the Somali Region, a form of agro-pastoralism well adapted to local conditions is being practiced (Mohammed, 2004:2). In relation to this some reports (e.g. Mohammed, 2004:2) indicated that the expansion of cropping in recent years competes in some sense with livestock husbandry. In recent years traditional bottomland grazing areas are used for growing maize and other crops. As a result, grazing resources are shrinking. In addition encroachment from non-pastoral groups into pastoral areas has increased. In Borena, for example, non-pastoral groups from other areas cultivate even the wet-season grazing areas. Consequently, livestock are forced to concentrate in a given area causing overgrazing, land degradation, and change in vegetation cover from grassland to woody vegetation (Mohammed, 2004:2).

In general pastoral groups are taking up cultivation either as secondary activity or as coping mechanism to crisis in their traditional mode of subsistence. Although lowland areas are often perceived as arid regions with no potential for (rain-fed) agriculture, in many pastoral frontiers, herders coexist with farmers, and are often cultivating crops themselves. Therefore, pastoral areas support a diversity of livestock-based, crop-based, and mixed (agro-pastoral) livelihood systems.

3.3.2. Socio-Political Processes and Previous Development Approaches to Pastoralism

The circumstances in which pastoral groups found themselves nowadays are not only the results of the current actions or events. They are largely the outcomes of historical socio-political and economic processes. Thus it is important here to give a bird's eye-view of historical processes that have shaped the current situation of pastoralists in Ethiopia. The main historical events that have brought far-reaching consequences on Ethiopian pastoral groups are the advent of colonialism; the internal political processes (centralization and consolidation of power); and policies/approaches pursued by the successive Ethiopian governments. In the following I will try to assess these processes and their consequences on pastoral societies.

3.3.2.1. The Colonial Legacy

Colonialism had serious consequences for various pastoral groups inhabiting in Ethiopia⁸² and as well as in neighbouring countries. In relation to colonialism, Markakis aptly explains how it divided pastoral groups among different states as follows:

Although colonialism was least concerned with the pastoralists among its subjects, its rule had fateful consequences for them. With few exceptions, colonial boundaries were drawn through the pastoralist domain which, in the absence of settlement, was considered unclaimed by anyone. Ethiopia expanded prodigiously at the same time, occupying vast stretches of the lowlands, and doubling its territory and population. The result was the partition of many pastoralist communities among two or more states. In the worst case, the Somali were apportioned among five states; the Afar among three.... (Markakis, 2004:7).

Consequently colonialism brought adverse consequences on pastoralists and to their pastoral economy. Firstly people were cut from their kinship groups, traditional leaders, markets, worship places. Thus many pastoral groups found themselves on the margins of every state. Secondly, colonialism had undermined economic viability, political integrity, traditional authority and social solidarity of pastoral societies. Thirdly, the colonial demarcation curtailed the imperative movement of pastoral groups, as national governments saw it as defying their administrative, fiscal, and political and security imperatives of their state (Markakis, 2004:7).

Moreover, provincial boundaries and tribal grazing areas were drawn to limit the scope of movement within each state. In relation to this Markakis (2004:7) stated that the gradual curtailment of spontaneous movement disrupted the natural process of adjustment that maintained a balance between people, land and livestock, and this in conjunction with other developments (e.g. large-scale irrigation schemes) brought pernicious effect on fragile ecology and pastoral economy.

The colonial demarcation has also contributed to the current lingering conflicts among various pastoral groups and between neighbouring states. The partitioning of ethnic groups increased

⁸² In fact Ethiopia as a nation was not under colony, except a brief Italian administration/ invasion during 1936-1941. But its "peripheral territories" where some pastoral group inhabited, were the interest of colonial powers that administered neighing counties (Somalia, Kenya, Sudan, and Djibouti) and Eritrea - the then province in Ethiopia.

conflicts between pastoralists and also paved the way for inter-state conflicts (Flintan and Imeru, 2002). Consequently, the colonial demarcation made pastoral groups vulnerable to various internal conflicts and wars that emanated from contention over national boundaries which were inherited from colonial administration. The case in point is the border conflicts and wars between Ethiopia and Somalia that have affected the Somali pastoralists of both countries. The Somali Region of Ethiopia was subject to military rule from mid 1960s to 1991 (Markakis, 2004:27). Even after 1991 either for internal or external reasons the militarization of the Ethiopian Somali Region has continued to date. The Ethio-Eritrea conflict is also over boundary which the two countries inherited from colonial demarcation. The war between the two countries has affected the Afar and other pastoralists of both countries. For instance it is reported that in the latest confrontation with Ethiopian army and militia, about 70% of the Eritrean national herd was raided, at the expense of bordering pastoral groups (DFID, 2000 as quoted in Nori, n.d).

The colonial demarcation fragmented pastoral groups and impeded cross-border movements essential to the viability of customary resource-use systems. For instance the Haud pastures found in the Ogaden region were a long source of conflict between the Ogaden and the Ishaq Somali clans. Earlier competition to control the Haud pastures rarely involved large loss of life; and traditional institution (known as *Diya*) effectively contained and resolved these types of conflicts. Following colonial demarcation, however, conflicts took on more political nature. The Ogaden, where Haud pastures are situated, came under Ethiopian territory. On the other hand the Ishaq were under British administered Somaliland and outside the Ethiopian territory. Thus a claim to the Haud pastures between the Ogaden and Ishaq became a territorial dispute. The border then impeded Ishaq entry into Haud (Flintan and Imeru, 2002:252).

Another example of inter-ethnic conflict fueled by the colonial rulers was the conflict between Borana pastoralists and their neighbours within Ethiopia. “During the brief Italian administration, the Borana started to face violent attacks from their neighbours (Degodia and other Somali); Gujji and Arsi Oromo recruits to the Italian army. These groups used the Italian administrative policy and military support to occupy the eastern and north-eastern parts of Borana grazing lands in the Liban Zone” (Getachew, 2002b:71). The never-ending conflict between the Somali-Issa and Afar within Ethiopia is also partly the legacy of colonialism. In general the impacts of colonial policy and border demarcation were alienation of resources, undermining the material base of pastoral economy, disruption of social cohesion of pastoral groups, and widespread conflict over resources, a lingering territory claims and counter claims, etc. Therefore, the colonial process that took place half a century ago has brought far reaching consequences on the pastoralists and their economy in Ethiopia and in the neighbouring countries as well.

3.3.2.2. The Internal Socio-political Processes

The past internal political processes also affected pastoralists groups within Ethiopia. In Ethiopia, state formation was punctuated by violent inter-state and intra-state conflicts. The nature of conflict between the various regional powers that vied for control of the state was nearly violent. In the process “divergent groups were integrated, not always successfully, into central state which reflected the values of an elite strongly Christian orthodox group” (Flintan

and Imeru, 2002:246). The authority of Ethiopia rulers before Emperor Menelik II was highly diffused and shifted between different regions. Though the centralization tendency continued under different emperors in the North and Shewa for consolidating their power, centralization of state culminated during the rule of Emperor Menelik, and further consolidated during Emperor Haile Selassie with the emergence of the modern state, modern education, civil and military bureaucracies ((Flintan and Imeru, 2002:245).

In the process of expansion, centralization of administration and consolidation of power, mainly the Amhara and Tigrean elites spread their political and administrative systems, language, culture, and religion into ever-distant areas through forces and assimilation. Penetration and domination of diverse groups expanded without sufficient emphasis on identification and participation of citizens into the embryonic nation state (Flintan and Imeru, 2002:245). State control means acquisition and control of resources by ruling elites. Thus competition over valuable land and natural resources became common between the central state and various groups/regions incorporated in the central state. Moreover, the central state expanded and imposed a new political and administrative system onto customary social formations in order to strengthen its control over dissident groups. This in turn led to disruption of traditional authority and self-administration of different peripheral groups including pastoralists, as the central state established its structure and incorporated different groups. In this case Nicol et al., (2000) aptly explain, for instance, what was the situation during period of the past two Ethiopian governments:

... under both Haile Silassie and the Derg, maintenance of power and authority was equated with the appropriation of resources for the center and conversely, with denial of access to peripheral communities. In pastoral areas such as the Afar region, state capture and exploitation of land adjoining the Awash has, [as a result,] left the legacy of resentment which directly impacts on resources management in the region (Nicol et al., 2000 as quoted by Flintan and Imeru, 2002:272).

In addition to economic and political marginalization, the Ethiopian successive governments followed hostile policies towards pastoral groups. The fact that most pastoral groups inhabit the margin of the country, their area has always been under security surveillance either to suppress internal resistance or to pave off external invasion. Therefore, the state perceived pastoral people and their cross-border movement as a threat to security and reacted violently to any pastoral movements.

In general the social and political processes that were pursued by successive Ethiopian governments have undermined the material base of pastoral economy; traditional self-administration and social cohesion; customary pastoral land tenure and management systems. It has resulted mainly in the loss of key resources to state or non-pastoral purposes; extraction of resources (through levying heavy tax and tributes in the form of livestock, forest product); curtailment of pastoral mobility due to provincial boundaries, administrative procedures and delineation of tribal areas; widespread state-society conflict (e.g. resistance often resulted in harassment, killing, confiscation of property, eviction); intra-clan and inter-clan conflicts over resources, etc. Moreover the current situation in pastoral areas is also partly the result of biased and inappropriate development approaches/policies of the previous Ethiopian governments. This is elaborated in the following section.

3.3.2.3 The Past Development Approaches/Policies and their Consequences

i. Large-scale Commercial Farms and Conservation Areas. In Ethiopia pastoral areas are mainly situated in lowlands which are often crossed by big perennial rivers (e.g. Awash, Omo, Wabe-Shebelle, Genale-Dawa, Baro-Akobo and Abay). Some of the lakes of the Rift Valley also lie in the traditionally pastoral areas. At different times the Ethiopian Governments have introduced various large-scale development schemes in the river basins where pastoral groups are living. In the past four to five decades the process of external encroachment into pastoral areas has taken place. This included the establishment and expansion of commercial irrigated farms and plantations, and designation of national parks, game reserves and conservation areas. At the time the pastoral land was seen by the state and policy makers as “vast fertile, vacant and unoccupied” area to be harnessed for national development without considering pastoral traditional land use (Ayalew, 2004:243; Getachew, 2004:223). Moreover, settled life and agriculture received more priority than the pastoralism and pastoral economy.

In addition pastoral mobility, which is a crucial adaptation strategy of pastoralists, was perceived by the state and its planners as “backward” and “inferior” to settled agriculture. Consequently, as some researchers (Getachew, 2002a:785; Yacob, 1999; Mohammed, 2003:41) stated, pastoral groups were regarded as ‘inefficient land users’, ‘lawless’, and *Zelan* (literally means wanderer) which has derogatory implications. Their movement was also viewed as threat to settled life and state security. These misperceptions were the beginning of economic and political marginalization of pastoral groups. They led to ill-conceived policies or programmes that disrupted pastoralists’ way of life. These included forced settlement of pastoralists; alienation of customary users; inappropriate interventions resulting in overgrazing and land degradation. The detrimental effects of these interventions on different pastoral groups are well documented by many authors (Getachew, 1999, 2000, 2002b, 2001a; 2004; Ayalew, 1997, 2002, 2004; Ali, 1996; 1997; Assefa, 2000; Markakis, 2004).

Some of the consequences identified by many authors included loss of grazing land; restriction on mobility; displacement; disruption of communal tenure and traditional resource management systems; erosion of traditional local authority; intensification of inter and intra-ethnic conflicts over grazing lands and water points; loss of sacred places; health impacts; aggravation of effects of drought; economic differentiation among pastoral households, etc. (Ali, 1997; 1996:206; Ayalew, 2004:246-257; Getachew, 1999:252-53; Markakis, 2004:11). The advent and expansion of large schemes in the Awash Valley could serve as illustrative for the consequences of external encroachments.

As stated above since the 1950s and 1960s there was a persistent assumption that vast, excess and unutilized land existed in pastoral areas and could be allocated for other uses. This attracted the central government to establish large-scale irrigated commercial farms and national parks. This has been mainly undertaken in the Awash Valley where the Afar pastoralists and other pastoral groups (Issa, Karrayu and Argoba) are living.

Large-scale development schemes in the Awash Valley or elsewhere were established for commercial and political interests of the central state with little or no concern for the

subsistence of the local people. The expansion of commercial farms and delineation of parks have resulted in loss of pastureland, restriction of livestock movements and eviction of pastoral groups. Particularly mobility disruption has put pastoral livelihoods in a precarious situation. One can imagine how risky pastoralism is in a situation where territorial rights alienated, and freedom of movement is curtailed. Markakis explains how these two rights are crucial to pastoral life:

Every herd must have access to dispersed, ecologically specialized and seasonally varied grazing lands and watering holes, in order to provide for the varied foraging needs of different livestock species, and to afford a margin of safety against the vagaries of rainfall (Markakis, 1993, as quoted in Assefa, 2000:94).

Since the 1950s the gradual expansion of commercial farms, plantations and parks in the Awash Valley also led to the eviction of local communities with no compensations. This is illustrated in table 3.4 below.

Table 3.4 Groups Evicted From the Awash Basin Area at Different Times

Groups evicted	The reason for eviction	Year	Compensation
Jille	The Dutch HVA Wonji and Shewa sugar cane estates. Construction of Koka dam and creation of Galila lake. Assignment of land for other urban and rural development projects.	1950s 1960s	None
Arsi	Nura Erra irrigation scheme	1950s-1960s	None. However, they continue to practice pastoralism in hilly Tibila area
Karrayu	Sugar cane development between Kesseme and Awash rivers. Awash National Park which resulted in loss of 80,000 ha of dry and wet season grazing land.	1950s 1966	None
Afar	Commercial agricultural development along river beds. Construction of Koka dam. Awash national park.	1950s-1960s	Resettlement, wage labour, although this was rarely taken up

Source: Nicol *et al.*, 2000 quoted by Flintan and Imeru, 2002:273.

These external encroachments also exacerbated competition over scarce resources, and inter and intra-clan conflicts. The frequent conflicts between different pastoral groups (e.g. Afar, Issa, Karrayu, Argoba) are partly the consequences of past development interventions in pastoral areas.

Moreover, the establishment of irrigated commercial farms, plantations and national parks exacerbated the effects of drought; affected pastoral economy and then made the local people more vulnerable to famine or food crisis. A case in point was the effect of Tendaho Cotton Plantation on the Afar pastoralists. Some researchers (e.g. Gamaledin, 1993:56; Lars Bondestam, 1974 cited in Gamaledin, 1993) vividly explained the effects of the scheme and government policy as follows:

When the 1973-74 famine struck, the Afar pastoralists who were denied access to the Awash River and its immediate environs were decimated. Lars Bondestam suggested that almost 30 per cent of the Afar population of the Awash perished. Irrigation and the government's centralization policy interacting with prolonged drought were mainly responsible for this catastrophe.

The advent and expansion of development schemes also brought social differentiation and inequality among the Afar. It encouraged privatization of some communal lands by clan chiefs and those who were affiliated to central government and private enterprises. These groups of people have benefited either from their own investment in private farms or by collecting rents of tribal lands. On the other hand the ordinary Afar were denied access to grazing lands and to water points and pushed farther into the marginal areas. This will be further elaborated in Chapter 5 (section 5.2.4.1)

ii. The Past Pastoral Sector Development Programmes and Projects. Since the 1960s, the successive Ethiopian Governments initiated and implemented some pastoral development programmes and projects in the pastoral areas. As elsewhere in Africa the policy objectives of those interventions were to increase animal output and for range conservation. For instance the USAID and World Bank assisted projects emphasized the provision of veterinary services, construction of water points, creation of trade routes connecting to the highlands, and creation of public pastures (Helland 1997b cited in Ahmed *et al.*, 2002:120-11; Tafesse, 2001; World Bank, 2001). Institutions were also established to facilitate such interventions. A case in point was the Livestock and Meat Board (LMB) that was established in 1964 to improve marketing infrastructure, mainly in the Borana and Afar pastoral areas (Tafesse, 2001:96-97; World Bank, 2001).

Subsequent projects like the Second Livestock Development Project (SLDP), which went into operation in 1973, and the Third Livestock Development Project (TLDP) were initiated and implemented nearly with similar policy objectives and with some provisions added in the latter. While the SLDP focused on establishing infrastructures like slaughter facilities for provincial towns and cities and tried to improve stock routes and market places for livestock, the TLDP was designed to develop rangelands, including water supply and access roads in the pastoral areas (Tafesse, 2001; Ahmed *et al.*, 2002:12-13).

Pastoral sector development programmes aimed at developing the livestock sector, however, did not bring the intended benefits to pastoral groups. Firstly, those programmes were based on inappropriate assumptions and on the misunderstanding of a pastoral way of life. Secondly, they were designed and implemented with little or no participation of the pastoral groups. At the time the pastoral areas were viewed as a vast potential for the national development, and the international donor community channelled investment resources and

support to develop the livestock sector. The first rangeland development scheme designed and funded by the World Bank was launched in the 1960s focusing on stimulating livestock production and market take-off. The programme had concentrated on improving access roads, veterinary services and water supplies in the eastern and southern lowlands of Ethiopia (Markakis, 2004:16).

Three more projects followed in the 1970s and 1980s, funded by the World Bank and the African Development Bank. The main driving force for the investment was to modernise the pastoral sector and to integrate into national and foreign markets. For instance, several projects focused on livestock marketing options in the 1970s and 1980s. The Second Livestock Development Project (SLDP) established the Ethiopian Livestock and Meat Marketing Enterprise which used to buy a substantial number of live animals on a weight basis. The Third Livestock Development Project (TLDP) later sponsored livestock trucking programmes linked to highland fattening schemes. All these programmes have had episodic, but unsustainable impacts on the market (World Bank, 2001:6). All that is left of the efforts of programmes are “the rusting bulks of broken machinery, pumps and vehicles strewn on the range” (Markakis, 2004:16). “Evaluations of these projects have painted a picture of almost uniform failure - millions of dollars have been invested in development activities, often with no discernible impacts” (Devereux, 2004 cited in Markakis, 2004:16). In addition, most, if not all pastoral or rangeland projects, resulted in negative impacts which included degradation of range lands; high concentration of human and livestock population around boreholes and other services and infrastructures; resource competitions and conflicts; degradation of traditional authorities, etc.

Consequently a series of rangeland or livestock projects have received widespread criticism. “Policies were designed primarily to promote livestock production and not the welfare of producers. The intention was to increase meat production on the cheap for the benefit of urban consumers and for export which means the pastoralists were to gain least” (Markakis, 2004:17). Furthermore, the projects were top-down, unsustainable and failed to provide sufficient technical, institutional and financial support (World Bank, 2001: iv). Yet some institutions (World Bank, 2001) stated that those projects made considerable progress in water development and animal health and in accumulating a wealth of knowledge on pastoral society and economy.

Besides attempt was also made to resettle pastoralists or displaced pastoral groups. During the Imperial and Derg periods “the emphasis was placed on turning nomadic pastoralists into settled cultivators practicing a combination of crop and animal husbandry” (Ayalew, 1997:373). Thus several resettlement schemes were created. For instance some attempt was made to settle the evicted pastoralists, mainly Afar as a token compensation for alienated land through establishing irrigated schemes (e.g. Amibara settlement, the Hale Debi, the Awara-Melka/Doho/ and Dunti). In Afar region, however, the “attempt to sedentarize the nomadic Afar proved to be largely unsuccessful because it did not take into account the ethos of the would-be beneficiaries, and therefore failed to develop strategies of persuading the people of the usefulness of the schemes” (Ayalew, 1997:373). A number of reasons are enumerated for the failure of settlement schemes in the Awash Valley. Some of these include, the top-down nature of the approach; lack of clear policy on how to resettle pastoralists; improper planning;

failure to take into account the traditional clan territoriality; inadequate inputs (e.g. skill training for settlers, investment) (Ayalew, 1997:373-374; Getachew, 2004:235-236).

In terms of provision of social services and infrastructure, pastoral areas are at a disadvantaged position both in the past as well as currently. There are disparities between pastoral and settled areas in terms of social services and infrastructures, especially in communication, education, health and transport (Desta and Coppock, 2004:483). Currently if we take education, the national average gross enrolment rate for primary level is 64.4%. For the Afar and Somali Regional States, it is 13.8 % and 15.1% respectively. In terms of gender disparity Somali Region has the lowest (10%) gross enrolment rate for girls at primary level. Health statistics are even more desperate. Under five year mortality in Addis Ababa is 113.5% per live birth, in the Afar Region it is 229.3%, which means one quarter of Afar children die before they reach their fifth year (Ethiopian Demographic and Health Survey, 2000 cited in Markakis, 2004:19). These disparities are partly a legacy of past policy gaps, and biased approaches which favoured settled and urban areas.

In general pastoral development interventions implemented during the previous regimes focused on commercialization of livestock production to exploit the livestock potential in the country. Yet they failed to achieve their intended objectives. Rather, as some authors (Helland cited in Ahmed, *et al.*, 2002: 12-13) argue, those interventions have eroded vital indigenous institutions and affected the environment negatively. Hogg (1997a) also noted that “development projects allowed little local participation; focused on technical solutions ignoring indigenous strategies; focused on implementation of project components neglecting their maintenance and sustainability; and little focus on cost recovery”.

3.3.3. Preliminary Conclusions

The development thinking at the global political and economic level dominated by the motto of “modernization”, the “tragedy of the commons” and the “cattle complex in Africa” partly shared state perception about pastoralists, and guided state policies and strategies as well as those of donors and lenders which later received heavy criticisms because of their negative consequences on pastoralists and their economy and the environment (Mohammed, 2003:41; Amaha, 2002:3, 6). The consequences of colonial demarcation, the internal socio-political processes and policies of previous governments had undermined the pastoral economy, traditional self-administration, communal land tenure systems, and traditional resources management systems in pastoral areas of Ethiopia.

Particularly excessive intervention of the state had put pastoral lands and indigenous institutions under the control of the centre. During the Imperial Government, the 1955 revised constitution and the 1960 Ethiopian civil code made all lands occupied by the pastoralists a state property (Mohammed, 2003:40). The Military Regime (Derg) also followed similar policy with respect to pastoral lands. (This point will be elaborated in Chapter 5 by taking the Afar case as illustrative instance). Then the establishment of large commercial farms and enclosure for parks was extensively undertaken by the state. At the same time encroachment was made by cultivators - both from outside and from within as the formal laws were in their favour.

State-sponsored interventions sought primarily to attain peace and security in the lowlands and border regions through administrative control; heavy military presence and taxation; restricting mobility of pastoralists' and their livestock across national and regional borders; and encouraging or forcing the people to abandon pastoralism. Moreover, the government and planners (of development) abolished communal tenure, and introduced and implemented tribal-grazing areas or reserves (Getachew 2002a).

Furthermore, the previous Government adopted development strategies and approaches which excluded pastoral people, their cultures, economies and institutions. Pastoral mobility, considered not to fit the predominantly highland sedentary system, was perceived as a great challenge to the government's administration in the pastoral area. The pastoral communities live in the areas that border with neighbouring countries. Thus the state considered the pastoralists' cross-border movement as a divided loyalty on the parts of pastoralists. Cross-border mobility has added to widen the gap between state (which was not on good terms with its neighbours) and pastoralist societies (Mohammed, 2003:41). This contributed to political marginalization of pastoral societies which in turn resulted in a hostile relationship between State and pastoral groups. In brief the negative effects of previous external interventions on pastoral groups can be summarized as follows (Getachew, 2002a; Mohammed, 2003:41):

- i. marginalization of the pastoral community in all aspects;
- ii. alienation of communities by outsiders upon large areas of wet and dry-season prime grazing lands;
- iii. intensification of competitions and conflicts with respect to access to, use of and tenure right to resources;
- iv. disruption of traditional pastoral resource management systems;
- v. increased vulnerability to periodical climatic events, particularly drought risk.

Generally the historical political processes, centralized administration and external encroachments coupled with ecological changes within pastoral areas have eroded the livelihood bases of most pastoral groups. Consequently, larger pastoral population in Ethiopia face more risks now than at any time in the past. They are increasingly becoming vulnerable to multiple risks (loss of key pastoral resources, famine, epidemic diseases, conflict, environmental crisis, etc). Besides, their traditional strategies are eroded and have become increasingly insufficient to cope with stresses and shocks. As a result, many pastoralists are increasingly relying on external food assistance to survive crisis periods. As indicated earlier about half of the Ethiopian population is poor and vulnerable to chronic food insecurity. And about 5-6 millions of people face severe food crisis every year and rely on food aid. Pastoral groups constitute the most vulnerable group to chronic food insecurity and famine. (This point is elaborated in section 3.4.6). The following section attempts to assess the present government's policies and approaches to pastoralism in Ethiopia.

3.3.4 The Current Government Development Approaches to Pastoralism

In the proceeding sections attempt is made to discuss the broader socio-political processes, policies of previous governments and their consequences that have shaped the present state of pastoral groups in Ethiopia. This section assesses the current government policies and approaches to pastoral development and disaster prevention. Since 1991 the current government has introduced different political and economic reforms, and issued various national policies and strategies. This section, in fact, is not intended to make comprehensive assessment of all reforms and policy measures. But it takes up only selected ones that are pertinent to pastoral areas, and gives a brief assessment of them. The focuses in point are Constitutional Provisions to pastoralists; Rural Development Strategies and Policies; Pastoral Development Policy; National Policy for Disaster Prevention and Management.

3.3.4.1 Constitutional Provisions

In the early 1990s Ethiopia saw enormous political changes. Since the 1991, new political arrangements and administrative structures have been established in the country. Accordingly there have been some changes in state's approach towards pastoral communities. The Charter of the Transitional Government was adopted in 1991 and paved the way for the establishment of a federal system of government. The change in state structure resulted in "decentralization of power and administration". Consequently, pastoral groups have got their own regional and local self-administrations established mainly on ethnic basis. Accordingly, the two largest pastoral societies (Afar and Somali) have their own regional governments. The other major pastoral groups (i.e. Borana) have their own Zonal and Woreda administrations under the Oromiya Regional State to which they ethnically belong.

This new political and administrative arrangement can be viewed as a positive step as compared to the previous political space accorded to pastoral or marginal groups by the previous governments. In the past pastoral societies were divided into different provinces and had no their own self-administration.⁸³ In addition to self-administration, some constitutional provisions and institutional measures have been made for pastoralist societies. For instance, in the 1995 FDRE Constitution important provisions are provided. Some of these provisions mainly related to pastoralists are presented in box 3.2 below.

⁸³ Towards the end of 1980s, the Derg regime organised an Afar administration under the "Assab Autonomous Region", and a Somali administration under "Ogaden Autonomous Region". However, this arrangement was viewed simply as security measure rather than a genuine response to the demands of the Afar and Somalis.

Box-3.2: Some Constitution Provisions Most Related to Pastoralists:

Article 8

No.1. "All sovereign power resides in the Nations, Nationalities and Peoples of Ethiopia".

No.2. The "Constitution itself is the expression of their sovereignty".

No.3. "Their sovereignty shall be expressed through their elected representatives...and ...their direct participation."

Article 40

No.5. "Ethiopian pastoralists have the right to free land for grazing and cultivation as well as the right not to be displaced from their own lands. The implementation shall be specified by law.

Article 41

No.8. "... pastoralists have the right to receive fair prices for their products that would lead to improvement in their condition of life and to enable them to obtain an equitable share of the national wealth commensurate with their contribution".

Article 88

No.1. "... Government shall promote and support the people's self-rule at all levels".

Article 89

No.3. "Government shall take measures to avert any natural and man-made disasters, and, in the event of disasters, to provide timely assistance to the victims"

No.4. "Government shall provide special assistance to the nations, nationalities and peoples least advantaged in economic and social development"

No.6. "... government shall at all times promote the participation of people in the formulation of national development policies and programs, it shall also have the duty to support the initiatives of the people in their development endeavors"

FDRE Constitution, 1995

These and other provisions are general ones, of course showing the government's position and concern towards pastoral communities. If we see, for instance article, 40, No.5 in box 3.2 above, it is an important constitutional provision which pastoralists were denied by the previous regimes. Yet its implementation is equally crucial to pastoralists. In the absence of rule of law, the provision only is not enough. Therefore, equally important is to what extent the government policies and strategies emanated from the above provisions and the like have addressed the pastoral issues and concerns in investment decisions and their implementation at the ground. In this case a member of the parliament (from a pastoral area) in Ethiopia states that, "the wind⁸⁴ is blowing in our direction, but it hasn't rained yet" (as quoted by Markakis, 2004:25). This is to say that the actual implementation is yet to be seen. Again in relation to the importance of law interpretation a herder said this: "the law does not speak the Samburu language, or the Borana, or the Somali or the Turkana, or the Maasai" (quoted in Markakis, 2004:-22). This suggests that enacting law is not sufficient, and equally important is the actual implementation or interpretation of laws. Therefore, it is imperative here to assess to what extent the current policies and strategies in Ethiopia have addressed pastoral issues and concerns at the surface.

⁸⁴ Wind in this case is an indicator of the coming rain.

Nowadays both the state and NGOs have begun to give some attention to pastoralists' concerns and priorities in Ethiopia. The government and policy makers also attempt to incorporate some pastoral issues in the national policies, programmes and projects. The following sections discuss some of the relevant policies and strategies and to what extent pastoral issues are incorporated in them.

3.3.4.2 (Rural) Development Policies and Strategies

i. The Agricultural Extension Programme. The governments' emphasis is on rural and agricultural development. To this end the government has issued various policies, and designed strategies and programmes since 1993. The agricultural extension programme, which was initiated in 1993, focused on intensive crop production, and pastoral area issues were not incorporated in the programme (Mohammed, 2003:43). The major concern of the agricultural extension programme was to increase crop production⁸⁵. In a research report done by UNDP on "Water Points and Grazing Reserves" in Somali Region, an elder informant said this in relation to exclusion of pastoral issues: "Those who are close to the pot are always the first to enjoy the food and we are far from it" (UNDP/FAO, 1994 cited in Mohammed, 2004:5). The explanation of this remark was that the Somalis are economically and politically peripheral and as well as marginal in the national policy-making process.

ii. Food Security Strategy (FSS). The Food Security Strategy (FSS) issued in 1996, incorporates some issues, especially problems (e.g. drought) encountered by the pastoral systems. It also prescribes some interventions that include: (i) development of an early warning system relevant to pastoral systems; (ii) supplemental feeding of livestock; (iii) encouraging small-scale cereal plots in post-drought years; (iv) establishment of processing plants near to sources of supply; (v) improvement of marketing to preserve the purchasing power of households in times of crisis; (vi) encouraging diversification in local economic system (e.g. production of forage legumes adapted to arid areas); and (vii) encouraging better management of livestock focusing on calf-growth rates and management of water supplies (as quoted by Mohammed, 2003:44). This strategy document focuses on food security, and its subsequent revision provides details of above-mentioned interventions.

In 2002 the Government issued an update of the 1996 Food Security Strategy. The overall objective of the strategy is to ensure food security at a household level. The strategy rests on three basic pillars: (i) to increase the availability of food through increased domestic production, (ii) to ensure access to food deficit households, and (iii) to strengthen emergency response capabilities. It targeted the chronically food insecure, moisture deficit and pastoral areas (Sharp *et al.*, 2003:14 in annex 1). The focus in the revised strategy is on environmental

⁸⁵ Sectoral policies often reflect the way of life of the agricultural highlands and neglect that of pastoralism. For instance Agriculture Development Led Industrialization (ADLI) – the general development policy of the Ethiopian government, is biased towards the highland agricultural production system and does not adequately address the pastoral and agro-pastoral production systems (Mohammed, 2004:1).

rehabilitation as a measure to reverse the level of degradation and also as source of income generation for food insecure households.

iii. *The Five Year (2000-2004) Development Plan (FYDP)*. In the development of subsequent policies and strategies, the current government adopted the Five Year Development Plan (FYDP). It embraces three main policies and strategies: (i) Rural Development Policies and Strategies (RDPS); (ii) Capacity Building Strategy (CBS), and (iii) Strategy for Democratization (SD). The five year plan makes reference to pastoralism. The plan indicates that “the Government has a gap in its knowledge of pastoral development”, and it envisages “strengthening agricultural development activities in pastoral areas to raise the standard of living; strengthening the foreign exchange earning, and alleviating nomadic livelihoods step by step (as quoted by Mohammed, 2004:7). To this end the plan suggests interventions that include: (i) natural resource conservation, (ii) introduction of new varieties of grasses and vegetables, (iii) provision of water (iv) introduction of livestock extension programme and, (v) development of markets for dairy products (quoted in Mohammed, 2004:7). For “alleviating or improving nomadic life style”, the plan also recommends “sustainable settlement” with introduction of small-scale irrigation. As can be seen from these suggested interventions in the five year plan, the government still focuses on provision of services, marketing, sedentarization, and crop cultivation. The idea of “alleviating nomadic livelihoods” also implies the intention of changing pastoralism into sedentary way of life. This reflects the view of technical experts who believe that there is no future for pastoralism.

iv. *Rural Development Policies and Strategies (RDPS)*. This policy document entails more issues on pastoral development than the preceding policy documents do, though it focuses, as usual, on crop cultivation. With regard to pastoral development this document phases its approach in (i) short and medium terms, and (ii) long-term.

In short and medium terms, emphasis is placed on improving pastoral systems to ensure food security and sustainable development. In this regard the policy document states that, “since the livelihood of the people is based on pastoralism, our development endeavor and activities must be based on it (i.e. pastoralism)” (FDRE, 2000a). The policy document also suggests the opportunity to undertake certain agricultural activities when families are settled in one area for several months. Having pointed out the imbalance between stocking rates and the provision of water and pasture during the dry season, the policy puts priority on ensuring water supply in different selected places. The policy also recommends rangeland management and conservation based on traditional management systems. In general for short and medium terms, the RDPS focus on improving livestock husbandry basing efforts on a wide range of traditional knowledge. To this end the policy recommends: (i) preparing a package that can strengthen people’s knowledge of livestock husbandry; (ii) training extension workers and provision of extension services focusing on the indigenous knowledge, (iii) provision of veterinary and livestock development extension services which go well with pastoralists’ mobility; (iv) creating an efficient livestock marketing system that can make pastoral systems market-oriented (FDRE, 2002a:141-142).

The long-term aspect of RDPS focuses on sedentarization of pastoralists based on the development of irrigation (FDRE, 2002a). It states that “unlike of highlanders, settlement in pastoral areas is a question of changing people whose life has long been rooted in pastoralism,

into cultivators who have to learn the ways of sedentarization” (FDRE, 2002a:145). In RDPS “it is emphasized that, though it takes a long time, settlement is a must in order to bring about accelerated and sustainable development aimed at improving the livelihood of pastoralists” (FDRE, 2002a:146-147). Thus RDPS envisages the preparation and implementation of settlement programmes that focus on extensive training on settled farming system to be given to pastoralists and undertaking the settlement activities step by step.

In the RDPS, there seems to be a contradictory idea between prescriptions given in short and medium terms, and those in long-term. In the first case the RDPS recognize pastoralists’ livelihoods and pastoralists’ wide range of traditional knowledge and thus envisage the need to improve the pastoral way of life. In the latter case (i.e. in the long-term aspect) of RDPS, total sedentarization of pastoralists and total transformation of way of life is envisaged. This implies that pastoralism (mobility) is not either desired or needed in the future. It also implies the preference for settled agriculture or crop cultivation. However, this prescription for settling pastoralists is questionable. Firstly, the policy does not make distinctions between different types of the pastoral system (‘pure’ pastoralism, transhumance and agro-pastoralism) which pastoral groups alternate or combine them depending on the circumstances. Secondly, it is difficult to imagine total transformation of a pastoral way of life through settlement or sedentarization, as pastoralism is not simply an economic activity to the pastoral groups. It rather involves social, cultural, psychological and political aspects. Therefore, it is simplistic to think that a pastoral way of life can be transformed through a settlement programme.

However, it doesn’t mean that settlement or sedentarization is not taking place in certain contexts. At this time there are pastoral groups or households who take up cultivation and sedentarization as adaptive strategy based on their choice (or decision) and as they find it desirable. And for that matter pastoralism is not static, it is under transformation, but by its dynamism and adaptive mechanism rather than by “planned intervention”. Yet it is difficult to envisage settlement or sedentarization as a fixed programme to all forms of pastoralism⁸⁶. Moreover, the previous attempts to resettle pastoralists also proved difficulty or failures. For instance, in the 1980s and early 1990s, international NGOs in collaboration with government organizations (e.g. Ministry of Agriculture) attempted to implement resettlement programme in the Borana zone. However, the programme was not successful since it ignored a range of factors including indigenous pastoral land tenure and resource use pattern, socio-cultural setup, economic and political organizations (Getachew, 2002a). A failure case has also been recorded in attempt to settle the Afar pastoralists in the middle Awash. This is already discussed in section 3.3.2.3.

v. Poverty Reduction Strategy (PRS). Poverty reduction strategy is the most recent government document of tackling poverty, and conditional for debt relief and concession loan. It was issued in 2000 as the Interim-Poverty Reduction Strategy Paper (I-PRSP) and was

⁸⁶ Some researchers (Alula, P., 2003, Cliffe et al., 2002) provided recommendations by assessing the previous settlement programs of the mid 1980s in Ethiopia. For instance, (i) “there is a case for learning from spontaneous migration which privileges social relations with local people, and maintains linkages between settlement and home areas, rather than seeking to create rigidly planned isolated units” (Alula, P., 2003). (ii) Having recommended implementing a pilot program to test the viability of alternative models of resettlement in the future, “Cliff, et al (2002:15) warn that it is important to “proceed with caution and a high degree of doubt about the appropriateness and specific value of resettlement” (cited in Sharp *et al.*, 2003).

open to public discussion and consultation until the mid 2002. As raised during the public discussion on I-PRSP, the coverage given to pastoral development issues remained minimal. It had a very weak section on pastoralism, thus failing to adequately address one of the major sectors of development of the country (Mohammed, 2004). Few lines that deal with pastoral interventions are superficial and illustrate the persistent knowledge gap in this area (World Bank, 2001). The strategy foresees “improving the welfare of pastoral people by increasing productivity and minimizing risk through infrastructure development, improved market access and other support” (World Bank, 2001:16). Finally the PRS document is incorporated into the government’s programme named “Sustainable Development and Poverty Reduction Programme (SDPRP)” which was issued in July 2002 and submitted to the World Bank.

vi. Sustainable Development and Poverty Reduction Programme (SDPRP). The SDPRP document identifies many issues pertinent to pastoral areas and pastoralism. It also mentions the socio-economic and institutional constraints affecting pastoral development. These included (i) ecological constraints (erratic rainfall, persistent drought, inadequate pasture and water); (ii) poor facilities (health and education services as a result of mobility, poor livestock health services, and poor market outlet owing to absence of roads and information); (iii) weak institutional support (conflicts and tribal disputes, poor governance and gender insensitivity); and (iv) lack of clarity of vision and strategy for pastoral development (donor driven, non-sustainable programmes and projects, inadequate consultation and involvement of pastoral communities in the project design and implementation) (FDRE, 2002b:72). SDPRP also envisages similar approaches to pastoral development that are described in the Rural Development Policies and Strategies mentioned above. In fact SDPRP recognizes the complexity and the challenge of settling pastoralists as it involves culture change and takes a long time. Yet SDPRP envisages sedentarization as an approach to pastoral development. The strategies to be adopted include (FDRE, 2002b:73):

- i. Sedentarisation of mobile pastoralists on voluntary basis.
- ii. Consolidate and stabilize those who are already settled or semi-settled through improved water supply, pasture and social services.
- iii. Carefully select viable and reliable river courses for future sedentarisation based on irrigation, and link these places through roads and other communication lines.
- iv. Provide mobile social services including health and education holistically for those that continue to be mobile.

In addition SDPRP also envisages technical interventions/support in pastoral development. These are summarized as follows (FDRE, 2002b:74):

- i. *Improve water supply and irrigation development.* Water harvesting; construct water points adjacent to range resources for dry season utilization; river/stream diversion; supply appropriate crop varieties; etc.
- ii. *Livestock and range resources development.* Improve the indigenous breeds and veterinary services; forage production; livestock marketing; strengthen livestock EWS; initiate and conduct community-based rangeland management demonstration practices, etc.
- iii. *Strengthening infrastructures and institutional support.* Improve road, communication, and market; access to education, training, health services;

strengthen and revitalize local traditional institutions; encourage the establishment of viable pastoral associations; establish research institutions and rural technology promotion centres; provision of appropriate and strong extension services, etc.

The objectives of pastoral development are (i) to improve livestock productivity through irrigated pasture, environmental rehabilitation, and improved animal health services, and (ii) explore market outlets and integrate livestock production into the national economy (FDRE, 2002b:73). In general the government policy focuses on sedentarization of pastoralists and provision of technical support to producers. Thus Ethiopia's statement on pastoral development policy forecasts phased voluntary sedentarization along the banks of the major rivers as the main direction of transforming pastoral societies into agro-pastoral system and sedentary life (MoFA, 2002, as cited in Markakis, 2004:13). The pastoral policy is described briefly in the following section.

3.3.4.3 The Pastoral Policy

The pastoral policy was developed in 2002 as a continuation of policies and programmes for pastoral areas. The government policy statement entails the following visions (MoFA, 2002 as quoted in Mohammed, 2004:10):

- i. Phased voluntary sedentarization along the banks of the major rivers as the main direction of transforming pastoral societies into agro-pastoral systems; from mobility to sedentary life; from a scattered population to small pastoral towns and urbanization.
- ii. Complementing sedentarization by micro and small-scale enterprises development in the urban centers and off-farm activities in the rural areas.
- iii. Undertaking integrated development based on irrigation and focused on livestock production, complemented by static and mobile education and health services as well as rural roads, rural energy and water supply, rural telephone services, etc.
- iv. Co-ordinated and concerted federal support for programme ownership by the Regional States and communities, with capacity building to enable them to lead development at all levels.
- v. Allowing, enabling and coordinating the private sector and NGOs to play a positive role in line with the policy direction and within the framework of the broad programme and strategy, after mobilizing their own resources.
- vi. Tapping indigenous knowledge and skills on animal husbandry and rangeland management.

From the above mentioned strategies and approaches envisaged for pastoral development, it can be observed that some old ideas are reflected in the government policies and strategies, for instance, 'viewing mobility as pastoral problem and prescribing sedentarization'; high preference to settled way of life; overemphasis on technical inputs; etc. which were dominant views that guided pastoral development policies and programmes in the 1970s and 1980s. Above all, sedentary life or sedentarization for pastoral areas is considered to be the ultimate goal. In this case it is emphasised that "resettlement programmes have become part and parcel of the national economic and social development programme" (FDRE, 2002b:73).

Most of the ideas mentioned in the government's strategies and policies are related to sedentarization, increasing the productivity of the production systems and integrating of the sector in the market, and the provision of technical inputs and construction of infrastructures and services mainly geared for increasing the productivity of livestock production system. This suggests that historical, socio-political and cultural factors that shape the life of the pastoral societies have not been adequately analyzed during the design of these pastoral development approaches or interventions. In fact the policy and strategy document recognized the need for pastoralists' participation, their willingness, and persuasion work to implement resettlement or other programmes. While these merit consideration for success of any intervention, it is important to analyze the historical as well as contemporary transformations in pastoralism as a result of changing state-pastoralists, herders-cultivators, local inter and intra clan or ethnic relationships, and as well as changes in wider political and economic environments. Equally important is the understanding of pastoral economic and decision making behaviour, distinction between different pastoral communities characterized by different social and economic systems which are confronted with different development issues. In relation to this Hogg (1997a:17) has this to say: "any pastoral development must start from the premises that 'pastoralist environment' is also a cultural construct, in which the interplay of wider political and economic forces, must have important determining effects on the likely success of development option available." Therefore, before designing and envisaging pastoral development programmes, it requires a careful analysis of pastoral ways of life and adequate consultation with concerned pastoral communities for determining (mainstreaming) the kinds of interventions, as pastoral systems and groups are differentiated with varying interests, choices and concerns. Otherwise policy prescriptions and strategy statements will remain as only "shopping lists".

3.3.4.4. National Policy on Disaster Prevention and Management

Different hazards have been recorded in Ethiopia. There have been area specific crises caused by different kinds of events/hazards at different times and in varying degree and magnitude. DPPC (now DPPA) claimed that hydro-meteorological hazards, particularly droughts have remained the leading cause of disaster⁸⁷ and human suffering in Ethiopia in terms of frequency, area coverage and the number of people affected. Flooding has also affected people and their property particularly in the lowland areas (DPPC, 2004).

There were times when disease epidemics also caused serious famine, and migratory pest infestation has been a serious problem in parts of the country; bush fires occurred and depleted forest and wildlife resources; people have been internally displaced due to conflicts of different nature; and in recent years HIV/AIDS has reached to the level of disaster (DPPC, 2004:1).

⁸⁷ The proclamation for the establishment of "Disaster Preparedness and Prevention Commission (DPPC)" defines disaster as "the development of a situation wherein a segment of the community or the population of a locality cannot any longer meet the need for food and other basic necessities, due to natural and man-made calamities, with its daily life thus falling into crisis which renders it unable to survive without assistance from others" (FDRE, Proclamation No.10/1995:74).

In the Ethiopian context, a host of factors contribute to the vulnerability of individuals, households or communities to frequent disaster risks such as drought related famine, epidemics, flood, landslides, civil strife and mass displacement. In particular, millions of people have been affected by drought-related famines for several decades. Very huge amounts of resources have been deployed in the form of relief, which, of course has saved many lives (DPPC, 2005; FDRE, 2002b).

Based on lessons drawn from past experiences of relief operations for domestic shocks, a shift in policy direction was made with the National Policy on Disaster Prevention and Management (NPDPM) ratified in 1993, which introduced “new approach” on the utilization of relief resources based on prevention and preparedness. The previous Relief and Rehabilitation Commission (RRC), whose duties were mainly to manage effects of drought through relief distribution to and rehabilitation of victims of drought and other disasters, has been replaced by Disaster Preparedness and Prevention Commission (DPPC) with the objectives of: (i) preventing disasters by way of removing the basic causes of thereof; (ii) building, in advance, the capacity necessary to alleviate the extent of damages that could be caused by disasters; (iii) ensuring the timely arrival of necessary assistance to victims of disaster (FDRE, Proclamation No.10/1995:75). The main powers and duties of DPPC are summarized and given in box 3.3 below.

Box 3.3: Some of the Powers and Duties of DPPC:

- i. Prepare a disaster prevention and preparedness national policy; formulate strategy for its application; [...] follow up its implementation; formulate strategies for future disaster prevention by way of studying previous disaster areas.
- ii. Administer the National Disaster Prevention and Preparedness Fund and the National Food Reserve.
- iii. [...] undertake prior studies on the causes of disaster, set up systems for advance warning;
- iv. [...] make known the magnitude and extent of a disaster together with measures that should be taken in connection therewith; officially declare any relevant part of the country a disaster area;
- v. [...] request and receive any form of assistance from domestic and foreign sources; register all forms of assistance [...] and cause the distribution of same to the people being helped;
- vi. Inform the public through the mass media of the type, volume and utilization of assistance received from domestic and foreign sources.
- vii. [...] rehabilitate the victims of disaster,
- viii. coordinate and supervise relief activeness of NGOs.

Source: (FDRE, Proclamation No.10/1995:75-76).

The National Policy on Disaster Prevention and Management (NPDPM), and its directives have been in place since 1993. The main priority areas of the Policy have been:

- i. saving human lives and their livelihoods;
- ii. protecting the quality of life in the affected areas from deteriorating on the account of disaster;
- iii. ensuring best use of natural resources endowment; and
- iv. overcoming the root causes of vulnerability to disaster through provision of relief in the short-term and promoting sustainable development in the longer-term (DPPC, 2005:3).

The Policy makes references to all phases of disaster management (prevention, mitigation, preparedness, response, and rehabilitation/recovery). It focuses on multi-sectoral approach and involves all relevant Ministries. The policy entails the ideas of “preparedness”, “prevention”, ‘vulnerability’, and ‘saving livelihoods’ which were mainly lacking in the previous RRC activities. Prior to the issuance of the policy, relief resources were distributed directly to the drought-affected population on free handout basis. The new approach or policy has discouraged free relief distribution to the able-bodied population with the aim of integrating the relief resources with development works, i.e. “linking relief to development”.

The most important elements of the disaster prevention and management policy are the Early Warning System (EWS) established to monitor and give warning of disasters ahead of time; the Emergency Food Security Reserve (EFSR); the development of Relief Plan; National Disaster Prevention and Preparedness Fund (NDPPF). These elements form mainly the preparedness aspect of the policy. In recent years, of course, these policy measures have helped largely to avert famine.

On the other hand elements for prevention, especially for addressing the main causes of disasters or livelihood protection are not clearly worked out in the policy implementation process. In relation to Ethiopian famine policy during the 20th century, some authors argue that “government self-interest and a disinterest in prospects of people led to untimely and insufficient responses and policies” (Stephen, 2004:109 quoting Mesfin Woldemariam, 1986). On the other hand DPPC claims that its policy was formulated in a systematic fashion involving:

- i. Analysis of drought and famine situation over the 20 years prior to the policy, which revealed that food aid increasing; beneficiary number increasing; dependency increasing; local production falling; and then the government was forced to ask itself - what next?
- ii. Formulation of policy that introduced “linking relief to development” as key mechanism of preparedness.
- iii. Implementation of the policy through the various modalities (e.g. EGS) (Sharp *et al.*, 2003:4 in annex 1).

Yet in its report for the world conference on disaster reduction (held in Kobe-Hyogo, Japan in January 2005), DPPC described its challenge in relation to policy implementation in the following terms:

.... implementation of the NPDPM in its full sense, particularly in addressing the root causes of food shortage still remains a key challenge. In spite of the intensive familiarization of the policy and the associated training programmes, some of the policy components are not yet fully put into practice. Out of the many preparedness modalities/strategies stated in the Policy Directives, the establishment of seed reserve, the livestock preservation strategy, the initiation of Relief Plan at Woreda level and the allocation of resources based on Relief Plan as well as the declaration of disaster using decentralized EWS information are examples of strategies that are not adequately realized (DPPC, 2005:3-4).

It is clear that for the past three to four decades the number of people affected by droughts and famines has increased and many have been forced to rely on food aid every year. At the same time relief agencies have had to increase relief supplies to be distributed either for free or in exchange for beneficiary labour participation in communal works. Therefore, what the national policy on disaster prevention has brought is to discourage free food distribution to all able-bodied beneficiaries and to establish a modality on how to disperse relief resource to the needy. Accordingly the policy envisaged Employment Generation Schemes (EGS) whereby able-bodied beneficiaries get access to food by participating in EGS activities; and free food distribution (gratuitous relief) to those who are unable to work on EGS either due to health problems and age or due to any other physical disability. The basic assumption, as stated above, was to use relief resources for development activities too, i.e. ‘linking relief resources to development’.

Therefore, in this case it can be said that there is no major departure in the policy implementation to address the root causes of increasing vulnerability to famine disaster in recent decades. In fact the two seemingly new elements include the discouraging of free food distribution and the introduction of EGS to undertake some development works. However, using relief resources for EGS activities is not as such new innovative approach⁸⁸. It is similar to that of previous food-for-work or cash-for-work programmes which were applied since the 1984-85 famine. Various agencies (e.g. World Food Programme and various NGOs) have implemented such programmes in the past three decades. Even some experts consulted in the highland areas commented that EGS is just like as “an old wine in a new bottle”.

In fact DPPC acknowledged that addressing the root cause of food crisis still remains a key challenge (DPPC, 2005). It has faced constraints in implementing its disaster prevention or risk reduction strategies.⁸⁹ This is attributed to a ‘capacity problem’⁹⁰ mainly at Woreda level, lack of legislation to enforce the implementation of the Policy and to fill other gaps in the national policy. Major stakeholders particularly key line departments do not seem to accept the main policy strategy - the Employment Generation Scheme (EGS) - a mechanism to ‘link relief to development’ as part of their mandates. The link between responsibility, authority and accountability is not clearly understood and observed, which became an impediment to the policy implementation. This calls for policy revision taking into account the lessons learnt during the past implementation periods (DPPC, 2004).

⁸⁸ Some case studies, of course, indicated that EGS programmes showed improvements in beneficiary targeting by minimizing errors of inclusion and exclusion which were the major problems of previous FFW/CFW programmes (Ali, 2000).

⁸⁹ Some of these strategies include EGS; establishment of seed reserve; livestock preservation strategy, Relief Plan at Woreda level; and declaration of disaster using decentralized EWS information.

⁹⁰ In fact, presenting a “capacity problem” in defending “policy implementation failures” is a common reaction of the government concerning all its policies. On the other hand other sources attributed largely the policy failures to other key issues, for instance (i) Absence of proper diagnosis of problems (lack of clear linkage between analysis and policy choice). Details of problem analysis and the operationalization of the conceptual framework have major weaknesses. Therefore, in terms of the development of government policies, there is a general lack of systematic problem diagnosis/identification in Ethiopia (Teshome, 2002: 5 cited in Haan *et al.*, 2006:12; Sharp *et al.*, 2003:4 in annex 1); (ii) Resistance to reviewing/revising policy (e.g. land, education, NPDPM policies); absence of operational manuals/guidelines for policy implementation; and lack of consistency across sectors (Sharp *et al.*, 2003:4 in annex 1)

Of course the proclamation for establishment of DPPC indicated the need to “undertake prior studies on the causes of disaster and set up systems for advance warning”, and to “enhance capacity to alleviate the damages” (FDRE, Proclamation No.10/1995:75-76). However, it has limited the objectives of studies to a setting up of systems for advance warning and that of “enhancing capacity to lessen damages.” Though, these objectives worth consideration, the Policy and its Directives have not clearly envisaged a framework for understanding factors or causes that increasingly put people in vulnerability situations.⁹¹ In other words it is to say making distinction between chronic and transitory food insecurity and addressing the issues accordingly.

Indeed at project level there was an attempt made under the project named “Strengthening Emergency Response Abilities (SERA)” to undertake studies aimed at understanding the extent and nature of vulnerabilities to disasters. The project had two main objectives: (i) to develop vulnerability profiles of drought prone areas and design relevant response packages to enhance capacity; (ii) to conduct vulnerability researches to understand the root causes of disasters (famine, severe food crisis, epidemics). In general the study had three components:

- i. Preparing vulnerability profiles for districts (Woredas) prone to chronic food shortages.
- ii. Undertaking research on selected topics to investigate the factors that render communities vulnerable.
- iii. Designing response packages to the vulnerable communities.

The study also had a purpose of improving early warning systems and implementation of food security programmes; helping effective use of food resources and targeting vulnerable population and reducing their vulnerability to shocks.

A pilot study covering 16 Woredas in four regions was completed. With regard to research agendas, the first was a study on “Vulnerability to Epidemics, Prevention and Preparedness” that was carried out by Ethiopian Health and Nutrition Research Institute (EHNRI). It addressed the major epidemics in the country, their severity and geographic distribution as well as prevention and preparedness mechanisms. The other research topic, “Analysis of Drought Forecasting Capability in Ethiopia” was undertaken by the National Meteorological Service Agency (NMSA). It was expected to contribute to the understanding of drought monitoring and forecasting methods in the country. The research topics related to “flood hazard” and “population pressure and carrying capacity” were not undertaken at all, due to lack of commitment and institutional problems on the part of partner agencies designated to undertake these topics.

The SERA project was the first attempt made to understand disaster in terms of “vulnerability research”. It was intended to understand the types of disaster risks and their root causes. The intention was to analyze broader vulnerability factors rather than only risks/events/ and their symptoms. Unfortunately the project did not progress with its initial objective, and finally it

⁹¹ In fact some experts from DPPC state that “addressing vulnerability is a development issue that mainly falls under the mandates of other sector ministries which have a direct responsibilities for development activities” (personal communication).

ended up in being a “capacity building endeavour” which, as the usual routines of DPPC, focuses on enhancing EW systems of Regions. This happened mainly when international agendas (e.g. household food security, capacity building, poverty reduction, good governance) have become modus operandi.⁹² In relation to this Lautze *et al.*, (2003:20) noted that “leading humanitarian agencies in Ethiopia theorize famine as the outcome of food shortages leading to starvation. Termed a ‘food first bias’, and this has been the prevailing model of famine theory in Ethiopia since the 1970s. This concept has influenced the policies, institutions and processes of humanitarian responses in Ethiopia”.

Although the vulnerability concept included in the national disaster prevention policy reflected the government’s initial reshaping of its ideology and position to show consistency with global concepts and a commitment to Ethiopian people, the policy prescriptions envisaged for addressing the basic causes of disaster have not yet been addressed adequately in process of implementation. In fact some sources (e.g. Maxwell, 2002) noted that the Ethiopian EWS is successful in alarming and putting some standing preparedness components in place (food grain reserve, public works-based safety nets). Since the catastrophic famines of the mid 1980s, the humanitarian communities (including the Government of Ethiopia as well as donors, the UN and NGOs) have invested heavily in institutional improvements for famine prevention in Ethiopia (Maxwell, 2002). DPPC also claims that “though drought-induced food shortage is still recurring, it has not reached to the level of famine since the ratification of the Policy and this is a success in relation to the short-term objective” (DPPC, 2005:3)⁹³.

Nevertheless this is not the whole of the matter when it comes to disaster prevention. The Ethiopian tradition to disaster prevention, in its long history, did not address the root causes of disasters. “The underlying orthodoxy in Ethiopia has been explained as a ‘food-first bias’ linked to the use of ‘food availability decline’ model for food security analysis” (Lautze *et al.*, 2003:20), and “this has its roots in the prevailing understanding of food security in the 1970s and early 1980s” (Haan *et al.*, 2006:15). Still another researcher (Maxwell, 2002) also noted that the underlying famine processes were not adequately addressed by prevention mechanisms in Ethiopia. In this case Maxwell has this to say:

Much of famine preparedness in Ethiopia [...] focuses on famines as events - specific episodes that put people at risk of starvation - rather than as processes that over time lead to either an improvement or a deterioration of people’s livelihoods. Despite the improvements made in famine preparedness [...] in many parts of the

⁹² In Ethiopia global discourses on EW, famine, and food security had influenced the government policies. For instance Stephen (2004:106-108) investigated how food aid discussion is framed in Ethiopia and how food insecurity is homogenized in order to fit within the prevailing socio-political setting. She found out that the information processing for EW was shaped by different interpretations paired to particular worldviews about food security and famine, and by the disjuncture between locally situated food insecurity and national decision making.

⁹³ Despite DPPC’s claim, however, some studies labeled the crises of 1999-2000 (Maxwell, 2002:53) and 2002-2003 (Degefa, 2005:123) as famines that occurred after the introduction of a new National Policy on Disaster Prevention and Management. The 2002-2003 famine affected even localities which previously had no famine record. Pastoralists were the most affected segments of the population during the 2002-2003 famine (Degefa, 2005:126).

country, including those most hard hit by the crisis, people were steadily losing assets - and thus their ability to cope with the shocks that led to the crisis - all through the 1990s (Maxwell, 2002:52).

Moreover the existing EWS and assessments have gaps too in terms of area coverage and issues to be considered. In relation to this Maxwell also observed it as follows:

While lack of information is probably not to blame for the crisis of 1999–2000, several lessons about information systems can be drawn. One is that, in addition to the standard early warning information collected, the humanitarian community ought to pay much closer attention to assets and to the coping capacity of vulnerable populations. The underlying process of destitution in rural Ethiopia was known, but was not widely incorporated into early warning analysis before the crisis. Second, early warning systems developed for agricultural areas probably require greater adaptation before being used in pastoral areas (Maxwell, 2002:52-53).

Retrospectively even it was not because of lack of information or warning that the tragedies of 1973-74 and 1984-85 famines occurred in the country. There were ample evidences even in the then RRC documents and provincial offices that such tragedy could occur. Therefore, it was not because of lack of prior warning or information that those famines took the lives of thousands of people. It was because of the Imperial and the Derg regimes' and even international donors' inactions or delays that led to those disasters⁹⁴. Even currently it is not fair to attribute averting famine only to DPPA⁹⁵ early warning system, given the proliferation of a dozen of NGOs engaged in food crisis monitoring and relief assistance more than any time in the country's history. In relation to this Mesfin (1991:5) states that, "starvation has not disappeared. But thanks to a multitude of NGOs who closely monitor the situation, starvation has not been allowed to develop into famine since 1984-85". Therefore, the knotty or crux of the matter is to address vulnerability which is in fact political as some writers put it (Bender, 1999 cited in Heijmans, 2004). And it requires political change and commitment more than channeling relief aid and public relation to prevent famine.

Likewise the issue of pastoralists' vulnerability has to been seen in the light of this framework that can address the root causes of their vulnerability. Concerning pastoralists the National Policy on Disaster Prevention and Management recognizes that livestock preservation is a key aspect of disaster preparedness in pastoral areas (Hogg, 1997b:4). Accordingly, the specific recommendations that are of long-term as well as emergency nature include alleviating fodder and water scarcity, avoiding distress disposal of stock and controlling decline in health status. However, as stated above, disaster prevention strategies envisaged for pastoral areas have not yet been materialized. For instance EGS, livestock preservation strategy, relief plan at Woreda level and declaration of disaster using decentralized EWS information are not put in place. Even the above mentioned types of projects or programmes (e.g. SERA and EGS) that

⁹⁴ "The 1973-1974 and 1984-1985 famines, which caused the deaths of thousands of people, testify well the failure of the Haile Selassie and Menegistu governments to protect the citizens from famine/hunger" (Degefa, 2005:346).

⁹⁵ The previous Disaster Prevention and Preparedness Commission (DPPC) is now called Disaster Prevention and Preparedness Agency (DPPA).

were attempted in agricultural areas have not been undertaken in the pastoral areas. The pilot study project (SERA) has been undertaken only in settled agriculture areas.⁹⁶

Therefore, in pastoral areas the intervention of DPPA is focused on some early warning activities and relief work. Assessment of livestock conditions, market, diseases, rainfall, etc. is done mainly on ad hoc basis. However, the existing EWS is not well adapted to pastoral areas as it is designed on the experience of agricultural areas. Moreover, the current early warning activity in pastoral areas is weak. Therefore, DPPA's intervention is mainly on emergency assessment in order to target affected areas and communities and to distribute mainly relief food, and sometimes water to the needy.

Very recently DPPA seems to undertake livelihood-based information systems for early warning, and for vulnerability and poverty monitoring and analysis. Although the tools developed have not yet been officially endorsed, pilot-testing of a livelihood-based needs assessment system is done in the SNNP Region (Haan *et al.*, 2006:18). However, Haan *et al.* (2006:31) have remarked that “strong conceptual frameworks concerning food security analysis exist within the key government policy documents; the challenge is to adequately operationalise these in the Emergency Food Security Assessment (EFSA)”. Therefore, so far there has been little attempt for monitoring livelihood systems' vulnerability (i.e. socio-economic determinants of vulnerability in individual sub-regions),⁹⁷ despite the fact that the sources of disasters are rooted more in social, economic, political and environmental processes than in the vagaries of nature.

3.3.5 Preliminary Conclusions

Generally it can be concluded that the current approach to disaster prevention has not yet adequately addressed the root causes of vulnerability at different levels for reducing risks. The activity of DPPA has been mainly emergency relief distribution during disaster⁹⁸. The “Ethiopian EWS (e.g. spatial analysis of famine at higher level of aggregation) has been a tactical measure, exercised by the state and non-governmental agencies”, and “it is a policy designed to control the dispersal of scarce resources, but also to preserve the status quo” (Stephen, 2004:109). Stephen added that “this has limited the development of conceptual views within the national early warning systems to only superficial parts of the analysis”. The practice of EWS has been mainly monitoring traditional indicators (e.g. food supply, behaviour of market, rainfall and livestock health). Its methods of analysis fall in line with the greater demand for information in emergencies and resources available for relief, as opposed to long term development (Stephen, 2004:11). Of course there is success of the early warning system in terms of averting widespread famine (Lautze *et al.*, 2003:27). But it failed to take adequate account of more localized food crises and of the general impoverishment and

⁹⁶ After I completed my field work, some pilot safety net programs have been started in some pastoral areas in 2007. Thus I had no the opportunity to assess these programs in this research.

⁹⁷ The dominant methodology is an assessment of national needs using technological equipments whose purpose is to provide a broad view.

⁹⁸ However it does not mean that relief intervention has not done well. It has, of course, saved the lives of victims of various crises/famines. In here, however, it means addressing the root causes of and differential vulnerability at different levels, and accordingly designing risk reduction strategies.

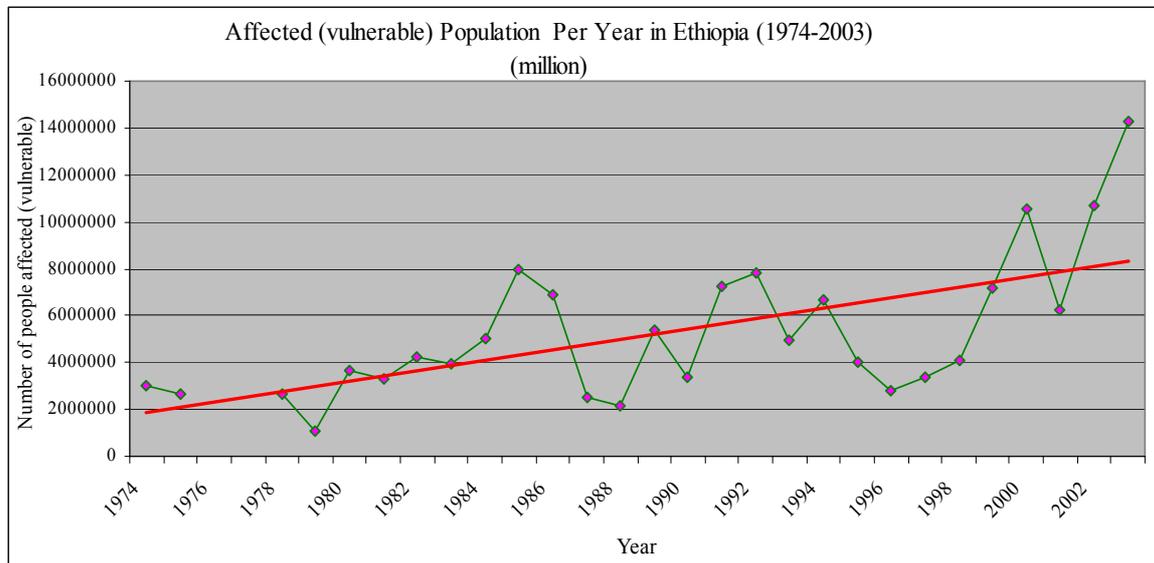
erosion of capacity that recurrent crises have on the affected households (Haan *et al.*, 2006:19).

Very recently the government claims that it is committed to overcome the root causes of food insecurity. It states that “strategies like intensive water harvesting, safety net, alternative income generation activities and resettlement of people from vulnerable areas to fertile locations are some of the main areas of focus aimed at reducing disaster risk in a sustainable manner” (DPPC, 2005). These interventions are new and their viability has to be seen in the future.

Furthermore, the government’s intention is to settle pastoralists as a long term solution to tackle impacts of drought, and shortage of water and pasture. However, the fragility of the pastoralists’ environment is identified as a major challenge to the present government’s intention to settle pastoralists and to expand irrigation schemes.

Indeed the frequency of drought has increased from once in 10 years (during the 1970s and 1980s) to once in about three to five years in recent decades. And drought-related food crises/famines have affected millions of people and killed a significant number of people between 1970 and 1996 (Lautze *et al.*, 2003). Drought-related food crisis is still recurring. In the past fifteen years (i.e. after the new policy on disaster prevention is in place), the number of people exposed to famine/food crisis is in an increasing trend, though the number of victims fluctuated between years (see figure 3.1).

Figure-3.1: Affected (vulnerable) Population per Year (1974-2003) in Ethiopia*



Source: Own computation on the basis of DPPC data source.

* Data for 1976 and 1977 are not available.

In general on average 5-6 million people are in need of food assistance every year. As figure 3.1 shows, the number of needy people is increasing, whereas the Ethiopian Government

claims success of its rural-centred development policy in the past fifteen years.⁹⁹ Worst to this is also an increase of destitution in rural areas. Of all social groups, the pastoral communities which inhabit mainly the peripheral parts of the country have been more vulnerable to various risks now than any time in the past. The main risk factors that face pastoral groups in Ethiopia are brief described in the following section.

3.3.6 Pastoralists' Vulnerability to Multiple Risks

The preceding sections discussed the socio-political processes, external encroachments and government policies that have influenced the current situation of pastoral societies in Ethiopia. As it is indicated earlier pastoralists have become vulnerable to multiple risks. This section presents a summary of main risks that pastoral groups are facing in Ethiopia.

i. Recurrent Drought Risk. The pastoral areas are characterized by frequent drought with high livestock mortality followed by famine and a high death rate in human population. Drought has increasingly become the major deterring factor of pastoral production. When a drought occurs it substantially increases livestock mortality; reduces livestock prices and raises the prices of food grains, a situation that aggravates the problems of pastoralists by shifting the terms of trade in favour of their purchase than their sales (Futterknecht, 1997 cited in Ahmed *et al.*, 2002). Since 1972-1974, severe drought occurrences decimated a high percentage of livestock population with little time for recovery. The following table depicts the size of livestock lost to the past drought events.

Table 3.5 Size of Livestock Loss to Major Droughts

Drought year	Regions	Affected livestock species (%)				
		Cattle	Sheep	Goats	Camels	Equines
1972/1974	Afar	72	45	34	37	-
1983/1985	Oromiya/Borana	60	-	-	-	-
1995/1997	Oromiya/Borana	78	-	-	45	-
1999/2000	Afar	up to 45	up to 15	up to 15	up to 25	
	Oromiya/Bale	50	35	20	15	20
	Somali	up to 80	60	40	35	-
	SNNPR/South Omo	50	20	20	15	-

Source: Sandford and Yahannes (2000:6)

There is a general idea that drought is a normal state of affairs in drylands where pastoral groups inhabit and have developed adaptive strategies to escape drought effects. This has been in fact true for long time where pastoral groups' capacity to withstand the effects of drought was high. As a result of mounting pressure from outside and increased frequency of drought, indigenous coping mechanisms have been insufficient to cope with impacts of prolonged and recurrent droughts. Moreover, the natural resource base of the pastoral economy has been undermined by a number of socio-political processes that have taken place in the past half a century. Consequently, drought risk has become a number one threat to livestock production and to pastoral livelihoods. This is mainly because of the loss of drought

⁹⁹ "Failure of human beings to minimize vulnerability is blamed for famines since 1950; and much of the blame lies on failure of governments i.e. lack of good governance, lack of pro-poor policies, and lack of preparedness and sound EWS" (Degefa, 2005:346).

and dry seasons grazing areas and the restriction of herders' movements that are the main drought-impact escaping mechanisms. Furthermore, the direct impacts of drought have been severe, and recovery has been extremely difficult for pastoral groups. Resources or assets both at household and community levels have been eroded overtime and community level fallbacks have been insufficient either to cope with crisis or recover quickly. For instance a recent study (Devereux, 2006:47-48) of pastoral livelihoods in the Somali Region of Ethiopia showed that:

- i. The recent series of droughts in the Somali Region have caused widespread and seemingly irreversible losses of livestock in thousands of pastoralist households.
- ii. Many of these households have been forced out of livestock-based livelihoods and into urban areas or internally displaced person (IDP) camps as a consequence, possibly permanently.
- iii. Pessimism about the future viability of livestock-based livelihoods is high, especially among women and young people in parts of the Region.

Therefore, some pastoral households are forced out of their traditional livelihood system and/or to rely on external assistance as they are not able to cope with shocks through traditional mechanisms. Generally recurring and prolonged droughts have become the main risks to the pastoralists in Ethiopia.

ii. Risk of Political Marginalization (Persistence of State Neglect). In recent decades pastoral groups have gained some degree of “representation” at the national, regional and local levels. This seems a promising start, though it has yet to be fruitful. The potential to influence state policy and to assert pastoral needs and priorities has not yet reflected at the surface. This needs a significant and a true decentralization, local autonomy, fair and effective representation at all levels which in turn enhance trust and smooth state-society relationship. Nevertheless, a recent study from the Somali Region came up with discouraging results after a decade of “political decentralization” processes. The findings “suggest that three-quarters of the people in the Somali Region feel disenfranchised (not fairly represented) and believe that the Government is not working effectively to serve their interests (ineffectively represented)” (Devereux, 2006:117). The same study also explored critical views with respect to the government-local people relationship. In one of the discussions with the community, the people expressed the following critical views about their relationship and interaction with the government.

Box 3.4: Some views of pastoralists towards government

1. We do not know if we have representation. It seems no one is conveying our problems to the government.
2. Nothing changes. Electing leaders is a waste of time.
3. Government, government - what government are you talking about? We only see the army, if that is what you mean.
4. No one talks to us to ask what we need. The government does not exist here.
5. The government does nothing at all for us.

Source: Devereux, 2006:118

In the same study key informants also reinforced the above views. An elder from Kelafo District expressed it as follows:

... successive regimes have marginalized the district and the Somali Region in general. [...] elected local representatives cannot have any positive impact, because they are effectively voiceless and quickly forget their roots in the rural constituencies: The elected representatives do not look back, they go and disappear in Jijiga”¹⁰⁰ (Devereux, 2006:18)

Alternatively other informants “recognized the potential for decentralization to make a difference to local people, but identified serious shortcomings in its implementation” (Devereux, 2006:118). One of the focus group participants expressed this as follows:

Decentralization can be a good process, but there must be clear communication between the different levels. The District must pass messages to the Regional Government and then they must pass it onto the Federal Government. At the moment, decentralization only means that we have these different levels, but not that there is any communication between the levels (Devereux, 2006:118)

In general what can be drawn from the case of the Somali Region is that political marginalization of pastoral groups still persists. Representation is inadequate at all levels. Moreover communication gaps between the local people and other actors have been pervasive at all levels. In this case the situation in other pastoral areas may not be significantly different from that of the Somali Region. This point is examined in the context of my study community in Chapter 6.

iii. Risk of Violent Conflict. In Ethiopia despite the political developments since 1991, various forms of conflicts have been intensified. Conflicts occur at different levels, from widespread commercialized animal theft, to political rebellion and secessionism¹⁰¹. Given pastoralists’ position along the state’s boundaries, conflicts from neighbouring countries also spill over across borders, and aggravate inter-state conflicts. Typical examples are the Ethio-Eritrea border war and Ethiopia’s invasion to Somalia.

Conflicts among and between pastoral groups for pastureland, water and access routes are also intensified. Clashes between herders and cultivators have become more frequent. Frequent clashes also occur between indigenous people and authorities of national parks and private investors, as livestock-herders move their stock into parks and private commercial farms, especially during drought periods.

The ethnic-based political process also involves contention over control of government offices and resources at local level. Tension and conflict among power-mongers has been pervasive at all levels. “Ironically, the modicum of politico-administrative resources brought to the pastoralist domain lately by the move towards decentralization has also become a bone

¹⁰⁰ Jijiga is the capital of the Somali national regional government.

¹⁰¹ In most regions, insurgent groups are operating at different levels for political power, some with agenda of seceding or broader autonomy (e.g. OLF, ONLF, ARDUF).

of contention” (Markakis, 2004:26). Control of state office and resources at the local level has sparked inter and intra group conflicts. For instance, Anuak and Nuer contention for dominance in the Gambella Regional State climaxed in massive violence in 2003 (Markakis, 2004:26).

The policy of ethnic federalism has also brought a risk of increased conflicts at the regional frontiers. Some authors argue that “the ethnic based regionalization and mapping of administrative regions has created or added more tension to what is a conflict-prone part of Ethiopia” (Alem, 2001 cited by Flintan and Imeru, 2002:284). This has been common between Somalis and Oromos in the south-east and between Afar and neighbouring sedentary cultivators in the north-east. For instance, changes in distribution of land with the recently defined regions between Somali and Oromiya Regions have escalated ethnic conflict in the Borana area (especially between the Somali clans in Liben and Arrero ward in the Borana lowlands (Flintan and Imeru, 2002:284). The conflicts between the Borana and Hamar pastoralists, and between the Borana and Arbore pastoralists have been ongoing for many years. One major conflict area is the Chewbahir Lake where pastoral groups from Hamar and Borana bring their animals for pasture and water during the prolonged dry seasons or drought periods (Mohammed, 2004: 20-21).

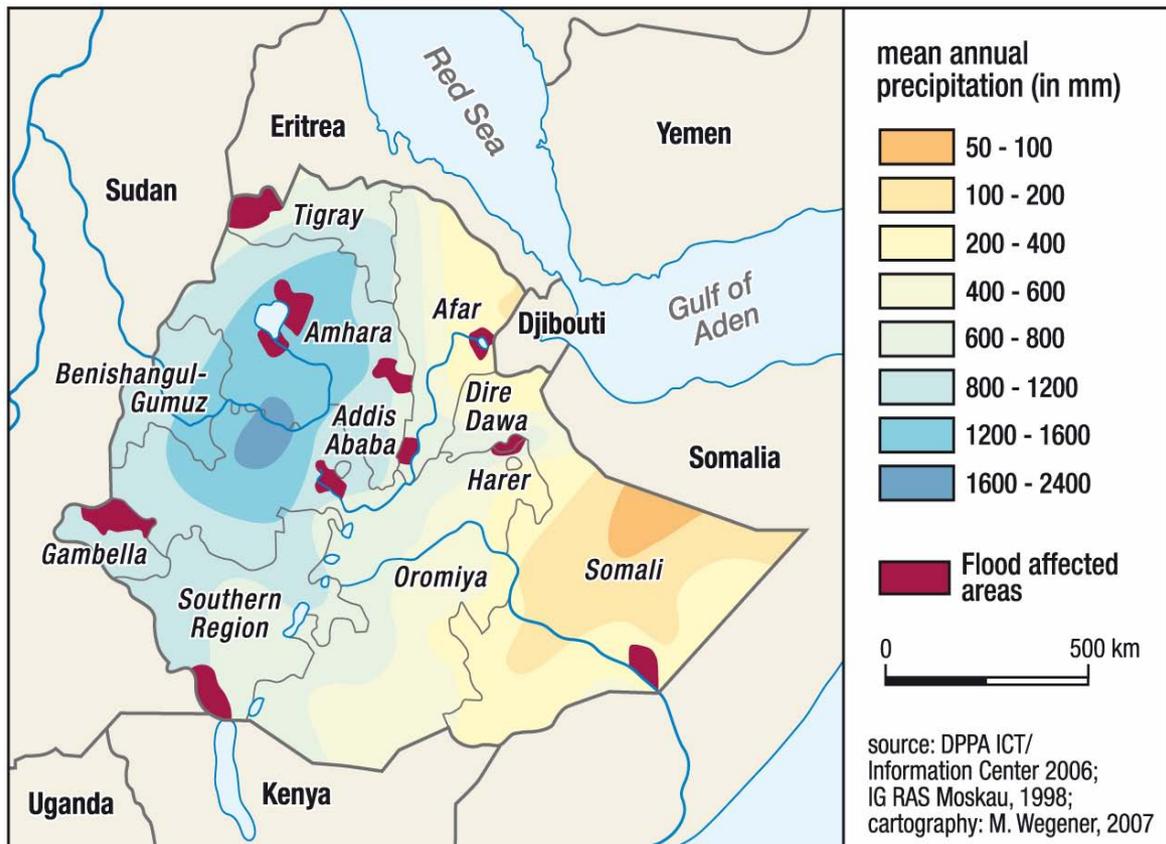
New transport links that cross the lowlands represent a new resource and source of conflict in Awash. The Afar and Issa Somali in eastern Ethiopia are locked into a bitter conflict over the control of the Addis Ababa-Djibouti road. Similarly, the Borana and Gerri have been fighting for more than a decade over a section of the Ethiopia–Kenya road, north of Moyalai (Markakis, 2004:26).

Pastoralists are also affected by larger conflicts between states and/or between the national government and rebel groups. For instance the conflicts between Eritrea and Ethiopia, and conflicts between the Ethiopian government and rebel groups (OLF and ONLF) have affected pastoral groups in the north, and south and south-east respectively. In general, in recent decades inter and intra-ethnic conflicts over resources, access routes and territory boundaries have been intensified due to increased scarcity of resource, and accelerated by curtailment of mobility, high incidence of drought, proliferation of weapons, etc. In a net shell both vertical and horizontal conflicts among various ethnic groups have been pervasive in different parts of the pastoral areas. Therefore, violent conflict has become a risk to livelihoods of many pastoral groups in Ethiopia.

iv. Risk of exclusion from market. Currently there emerge modern ranching schemes and animal fattening for both domestic and foreign markets. These schemes often fulfil standards, since they have access to services and can also invest in disease prevention. Moreover, animals are trucked by modern transport and risks of animal weight loss or morality are avoided. On the contrary, pastoralists live in remote areas and have little access to infrastructures and services or they do not have the means to purchase drugs for disease prevention. Moreover for the pastoralists transport involves major costs. Animals are either trekked or trucked to markets. Trekking is the dominant mode of transportation in pastoral areas. However, trekking has high costs due to animal mortality, weight loss, risk of raid or conflict, taking inconvenient time and bad routes as a result of water point or grass, etc. Taxes

or transit fees may be high, or livestock may be repeatedly taxed. As a result of these constraints, pastoralists face a high risk of exclusion from market. This is due to either their livestock may not meet sufficient health standard for export or for local market, or may not compete in open markets. Sporadic crackdown by the government on “illegal cross-border livestock trade”, and bans by Gulf States on livestock import also contributed to market exclusion. Consequently, pastoral groups are facing constraints to get access to regional markets and cross-border livestock trade due to internal and external factors.

v. Risk of flood (hazard). Geographically, nearly all pastoral areas are found in the lowlands which are crossed by major rivers (Awash, Wabe-Shebelle, Genale, Omo and Baro-Akobo). The highland areas are highly degraded and the runoff from these areas has been very high in recent decades. Therefore, flash flood is becoming an emerging disaster risk. For instance in summer 2006, a dozen of local people were affected and displaced by flood in South Omo, Somali and Afar; and a number of people were drowned. As a result communities, especially pastoral groups inhabiting in low-lying areas are at risk of flood hazard. This is particularly true in Afar and Somali regions, Southern Omo (SNNP region) and in western Ethiopia (see map 3 for flood prone areas). Therefore, flood hazard is leading to a disaster in marginal areas where pastoral societies are living.



Map 3 Flood Prone Areas in Ethiopia

vi. Risk of HIV/AIDS. HIV/AIDS spread rapidly reaching epidemic proportions by the end of the last century in all the countries of East Africa. In Ethiopia HIV/AIDS is a growing new source of vulnerability with serious economic, social and demographic impacts. The rate of infection in Ethiopia is estimated at about 10% of the adult population (Markakis, 2004:19). Its prevalence is higher in urban than in rural areas.

In pastoral areas there are conditions that are conducive to the spreading of HIV/AIDS. These include lack of education and information; lack of health services, testing facilities and condoms; poverty and insecurity; and traditional harmful practices. For instance according to the Ethiopian Demographic and Health Survey report (DHS) the lowest use of modern contraceptive methods is in Somali Region (CSA, 2001:vii). Besides, traditional harmful practices such as female genital mutilation, polygamy, wife inheritance, early marriage, under-age marriage to older men, etc. are other conducive factors for the spread of HIV/AIDS in pastoral areas. Moreover, nowadays small towns are emerging, and the number of animal traders and migrant labourers is increasing in pastoral areas¹⁰². Such developments also indirectly contribute to spread of the HIV/AIDS. A recent study in Somali Region of Ethiopia indicated that prostitutes who migrated from highlands; internally displaced persons; and refugees from Somalia were blamed for the spread of the disease in the Region (Devereux, 2006:154). Therefore, given all these factors the spread of HIV/AIDS pandemic is a risk for pastoral population in Ethiopia.

With special emphasis on pastoralism in East Africa and Ethiopia, this chapter has presented a review of empirical researches carried out on pastoralism, pastoralists' adaptive and coping strategies, pastoral development policies and strategies pursued by the national governments and their consequences on pastoralists, etc. It is also attempted to depict the pastoralists' predicaments, marginalization, and transformation caused by internal and external factors. With this review of the previous empirical works as background, the next four chapters will focus on the Afar pastoralists. Chapters 4&5 will discuss on the Afar political structure, social organizations, livelihood systems and their constraints, adaptive and coping strategies to external pressures and extreme events, etc. Discussions in these two chapters mainly constitute regional level analyses. Chapter 6 presents community and household level analyses focusing on the case study community. Chapter 7 summaries the main findings, and provides conclusions and recommendations.

¹⁰² For instance a study carried out in pastoral district (i.e. Maasai-populated Kadjado) of Kenya indicated that animal traders are suspected of being the main conduit of transmission, because they have a high incidence rate of sexually transmitted diseases (Koech, 2001 cited in Markakis:2004:19).

Chapter Four

The Afar Pastoralists: History, Political Structure and Social Organizations

This chapter mainly focuses on the history of the Afar and their socio-political structure and organization. The background information used in writing this chapter came mainly from secondary sources (Lewis, 1955; Trimmingham, 1976; Voelkner, 1974; Fekadu *et al.*, 1984; Ayele, 1986; Gamaledin, 1993; Kebede, 1994; 2005; Yacob *et al.*, 2000; Getachew, 2001a; Ayalew, 2000; 2004; Yirgalem, 2001; Kelemewrok, 2002; ANRS, 2003; 2004b). In some sections of this chapter, whenever needed, discussions are supplemented with primary data material generated during the field work.

Firstly, a brief account of the administrative structure and population of the Afar region is provided on the basis of statistics and empirical researches. Secondly, a brief history of the Afar and their historical relations with the central state and with their neighbours is briefly discussed. Thirdly, descriptions of Afar social and political structures and organization (clan, marriage pattern, settlement pattern, clan leadership, council of elders, sanction-executing and conflict management institutions) are elaborated. Finally, an attempt is made to assess how the traditional social organizations and authorities are affected by social and economic pressures and processes of incorporation into the state structures in the past several decades. In doing so this chapter situates the social and political organizations of the Afar society in the context of the research problem under consideration.

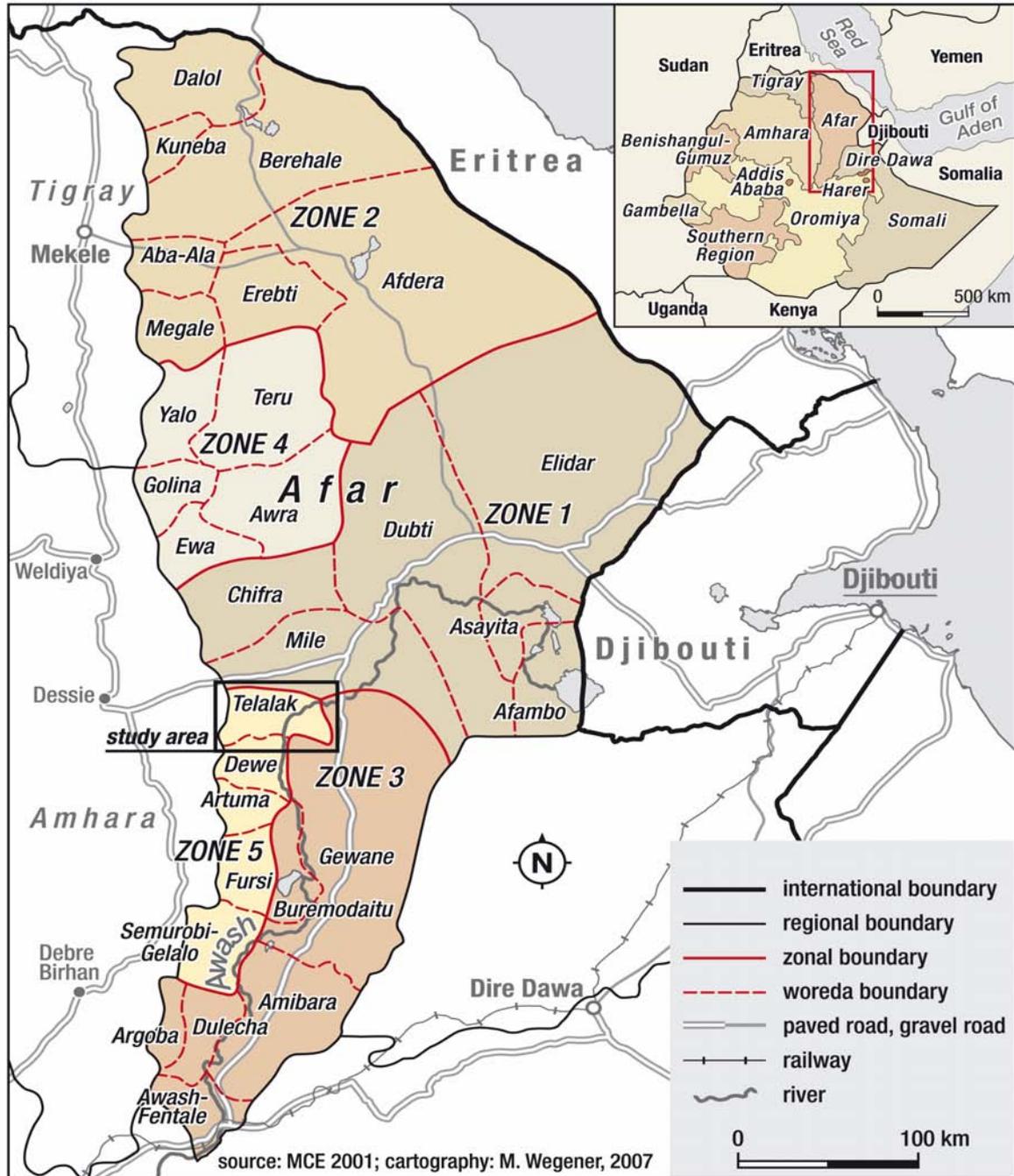
4.1 Location, Administrative Structure and Population

In Ethiopia with the change of government in 1991 came a new administrative structure established on the basis of ethnic federalism. Prior to this period the Afar land was partitioned into the provinces of Wello, Tigre, Shewa, Hararghe and Eritrea. In fact prior to 1991, the 1987 constitution of the People's Democratic Republic of Ethiopia (PDRE) provided the Afar with "autonomous regional status" under the name of "Assab Autonomous Region" which was changed since 1991.

During the transition period (1991-1994) the Afar territory changed into two respects. The north-eastern portion from the junction of the Ethiopia-Djibouti border to the Buri peninsula was incorporated into the new state of Eritrea, and the territory extending from the salt mining area of Berehale was made part of the newly reorganized territory of the Afar Regional State. Then the Afar population was consolidated within one regional administration with its own powers of self-administration.

The current Afar National Regional State (ANRS) covers some 95,266 km² across the north-eastern part of Ethiopia (ANRS, 2004b:1). The Afar region shares international boundaries with Djibouti and Eritrea, as well as regional boundaries with Tigray, Amhara, Oromiya and Somali regions. It is organized into 5 zones (sub-regions), 29 administrative Woredas (districts), and 358 Kebeles of which 326 are rural kebeles and 32 urban Kebeles (ANRS,

2003:1). Kebele is the lower government administrative unit (For administrative region and location see map 4).



Map 4 The current administrative zones and Woredas in the Afar Region¹⁰³

¹⁰³ Delineation of international and regional and/or other boundaries on maps must not be considered authoritative.

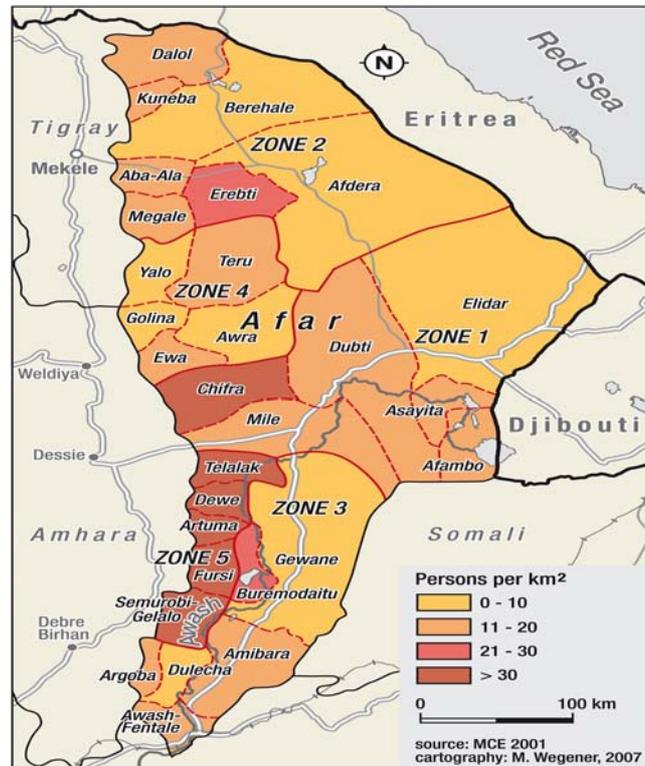
The Afar population is estimated at 1.2 million (ANRS, 2004b:1). The population distribution by zones and rural population density are depicted in the table 4.1 below. Some 92 percent of the population live in the rural areas. Pastoralism and agro-pastoralism are the main economic activities, the first being the dominant one. Along the western edge there are an increasing number of rural families who practice rain-fed cultivation (ANRS, 2004b:1).

Table 4.1 Rural and urban population and rural population densities for 2000

Zone	Rural	Urban	Total	Rural density (persons/km ²)
Zone 1	320,089	48,936	369,025	10
Zone 2	230,281	5,705	235,986	8
Zone 3	127,074	42,811	169,885	8
Zone 4	139,724	2,025	141,749	13
Zone 5	317,032	0	317,032	59
Region total	1,134,200	99,477	1,233,677	12

Source: Afar National Regional State (ANRS), 2004b, p.22.

As shown in table 4.1 above, Zones 2 and 3 have the lowest overall population densities, a reflection of their low natural resource potential and low rainfall on the eastern side of the Region. On the other hand, Zone 5 has the highest density. Within the Region and the Zones, the Woreda densities per total area vary (see map 5 below). A maximum of 139 persons per km² occurs in Artuma Woreda in Zone 5, and 1 person per km² in Afdera Woreda in Zone 2. The higher population densities are found in those Woredas in the foothills and piedmont plains below the main escarpment in the western side of the Region (ANRS, 2004b:22).



Map 5 Population Density by Woreda, Afar region

4.2 History of Afar People and their Changing Relationship with the State

4.2.1 Origin of the Afar People

The Afar, Somali and Oromo belong to Cushitic language family. The Afar language - *cafar-af* - is classified along with the Somali and Oromo languages within the Lowland East Cushitic language family (Getachew, 2001a:35; Kebede, 1994:4). Trimingham (1976:8) also stated that “the Afar-Saho, Somali and Oromo belong to one of the waves of Cushitic migrations [...] who crossed the Bab-al Mandab¹⁰⁴ and the Gulf of Aden in early times into the coastal regions of East Africa”. According to Trimingham these groups fundamentally belong to the same Hamitic stem, and are usually classified as “Low Kushite” and their original African homeland seems to have been between the upper course of the Webi and the coast of the Gulf of Aden. Trimingham asserted that they became differentiated ethnographically into three great groups due to migration, fractionings, and through mixing in varying degrees with Negroes. And those who spread northwards into the Danakil depression and its coastal region are distinguished by the linguistic group names of Afar and Saho (Trimingham, 1976:8).

According to the above description the Afar are a Hamitic people of the same branch as the Somali, and their ancestors must have come across the Red Sea in the distant past (Trimingham, 1976:171). But, Trimingham remarked that “their history is unknown for, like that of all nomadic peoples it is the issue of migrations and super-impositions, fractionings and regroupings”.

The Afar were first mentioned by Ibn Sa'id in the 13th century under the form or by the name Dankal/Danakil (Trimingham, 1976:171; Lewis, 1955:155). The Afar call themselves *cafara-umata*, the Afar people, and they call their language *cafar-af*, and their country *Afer-barro* (Getachew, 2001a:35, 49). The Afar are identified by their neighbours and outsiders by various names: *Danakil* by Europeans and Arabs; *Adali* by their Oromo neighbours; *Oudali* by the Issa-Somali; *Taltal* by Tigre; and *Adal* by the Amhara and Argoba (Getachew, 2001a:49, Trimingham, 1976:171).

4.2.2 The Afar Sultanates and their Relation with the Central State

For many centuries the north-east part of the Ethiopian Afar land has been an area where a number of big and small Sultanates evolved and declined (Getachew, 2001a:35). Some of these included the Sultanate of Aussa; Sultanate of Rahyata, 60 kms to the south of Assab; Sultanate of Biru in Tigray [nowadays found in Afar Regional state]; Sultanate of Tadjoura and Sultanate of Gobaad, both found in the Republic of Djibouti (Dahilon, 1985 cited in Kebede, 1994:35).

Trimingham (1976:171) also noted that they [i.e. Danakil] formed the nomadic part of the peoples of the Kingdom of Adal and a substantial section of the Imam Ahmed's armies.

¹⁰⁴ For the location of Bab-al Mandab (Balel-mandeb) see map 1 (Languages of North-East Africa) in Trimingham (1976:16).

Getachew (2001a:49) further indicated that the Afar used to have Sultanates, which seem to have evolved from the Adali Muslim state of Harar since the 17th century. According to Getachew the earlier Sultanate of the Afar was the Ankala Sultanate with its capital Rahayto, which developed in the northern part of the present day Djibouti Republic and southern Eritrea.

Trimingham (1976:171) claimed that after the death of Imam Ahmed Grag and the collapse of his armies that consisted of substantial recruits of Afar, the Danakil (Afar) were soon dispersed and back again in their miserable desert, where in one place where permanent settlement was possible, the Sultanate of Aussa was formed. In this connection Getachew (2001a:49) also stated that the Awsa [Aussa] Sultanate evolved from the [Ahmed] Grag Wars and the Oromo invasion.¹⁰⁵

Historically, the Afar have had a complicated relationship with the central government and their neighbours. Trimingham (1976:172) noted that “the Aussa Sultanate was comparatively free from raids from the highlands and the Abyssinian power until the time of Emperor Menelik II when, as a result of its Sultan having formed treaties with the Italians, it was invaded in 1895 by the Shewan army and forced to pay tribute”. Another explorer (Thesiger, 1935) also reinforced Trimingham’s idea. He stated that “the Afar country has never been effectively conquered by the Abyssinians, who are highlanders, unsuited by nature to operate in those hot and feverish lowlands” (Thesiger, 1935 as quoted in Kebede, 1994:29). Therefore, according to these sources, the Sultanate of Aussa remained independent and unpenetrated by the central government of Ethiopia until 1944¹⁰⁶.

According to Trimingham, however, the Northern tribes such as the *Dahrimela* came under the hegemony of the rulers of Tigray, whereas those in the centre and south, with whom the Shewan kings had to remain on good terms in order to ensure the safety of their caravans to the coast always maintained a practical independence. No Abyssinian force dared to penetrate beyond the fringes. The Afar were continually contending even for the possession of these (Trimingham, 1976:171).

Of all Sultanates of Afar, “the most important was that of the Sultanate of Aussa by virtue of its considerable wealth and strategic location. It is only the Aussa region which is fertile, and agriculture has been practiced there for so many years by the help of the Awash River” (Dahilon, 1985 cited in Kebede, 2005:36). Thus the Aussa Sultanate became stronger than any other previous Sultanate, and political and economic factors contributed to this. The economic factors that had contributed to the strength of the Aussa Sultanate included caravan trade, livestock production, small-scale agriculture along the lower Awash delta, and later the

¹⁰⁵ There are two views concerning the emergence of the Sultanate in Aussa. The first view relates the emergence of the Sultanate to the coming of Arabs to the area from a place called Yambu in Yemen, while the second view maintains that it is the result of the fall of Islamic Kingdom of Harar (Kebede, 1994:21). The former description seems unlikely while the second one is most likely and also widely supported by other writers (e.g. Trimingham, 1976: 96-97), and traditional interpretation of history (Kebede, 1994:22).

¹⁰⁶ Clapham also further argued that “Ethiopia as a whole did not have a centralized administration until after the end of the Italian rule in 1941, when attempts were made to set up a civil and military bureaucracy” (Clapham, 1969 cited in Kebede, 1994:29).

introduction of large-scale commercial farms in the Awash Valley in the 1960s (Kebede, 1994; Getachew, 2001a).

Historically the Awash Valley had been the main gateway for the caravan trade between the coast and the highland of Ethiopia. Aussa formed an important link on this route and its Sultanates depended on revenue from trade. The early Sultans had also benefited from slave trade and other trade activities as Aussa was the vital trade route to Tadjoura for centuries (Gamaledin, 1993:48). Until the early 1960s (i.e. before the advent of large-scale commercial farms in Aussa), the main economic base of the Sultanate of Aussa was mainly livestock breeding. As animal production was the major economic activity in the region, the major concern of the Afar had been the availability of water and grass for livestock. This economic base continued as the main mode of economic life until the introduction of large-scale commercial farms in Aussa in the 1960s. Agriculture, though on small-scale, had been practiced for thousands of years which first began in today's Afambo area.

Since the early 1940's (i.e. during Emperor Haile Silassie's time) the relation between the Imperial Government and the Aussa Sultante had changed. In 1944 an Ethiopian expedition was sent against Aussa on the grounds of the insecurity of the trade-routes, and its Sultan (Mohammed Yayo) was captured and brought to Addis Ababa where he died whilst in captivity. One of his relations, Ali Mirah was appointed as the Sultan of Aussa. (This will be elaborated in Chapter 5, section 5.2.4.1). However, the Imperial Government's attempt to directly administer Aussa through centrally appointed governors was challenged by Sultan Ali Mirah and his supporters. Thus the central government resorted to indirect rule through appointing local chiefs (*Balabats*). At that time the relationship between the Sultan of Aussa (Ali Mirah) and the Emperor Haile Silassie was largely smooth. In relation to this Kebede (1994:33) stated as follows:

.... after a little-known *Boha* Revolt by the Sultan in 1949 when he decided to exile himself to *Boha* - a small village near the border of the Republic of Djibouti - an agreement was made between the Ethiopian government and the Aussans. [...] this agreement served the interests of both the central government and the Aussans. The Emperor was aiming to incorporate the then French territory of Afar and Issa. Hence, to the central government the long-term objective of the agreement was to use the Sultan as mediator to influence political conditions in that area. The Sultan was also careful to normalize relations with the Emperor for the role the Emperor could play in influencing or determining who should take power when the opportunity presents itself. This was a lesson the Sultan learnt from the Emperor's role in his coming to power in 1944. Both Sultan Ali Mirah and the Emperor needed to have smooth relations with each other. The Sultan was practically a semi-independent Sultan, having a direct access to the central government. For the Emperor, for anything to be done in Aussa the Sultan's prior consensus was important.

Therefore, following the agreement between Emperor Haile Silassie and Sultan Ali Mirah after the brief revolt of the Sultan at a place called *Boha*, the Ethiopian governor was removed from Asayita. Governors henceforth were to administer the Aussa district from their remote base at Bati town in the highland. The Sultan who had complained about restriction of access to the Emperor was given such access and he was promoted to the position of 'chief' (*Balabat*) and then *Bitwoded* (the beloved). This later ushered the era of indirect rule, because

other Afar leaders were subject to this new overlord (Gamaledin, 1993:53). This point is elaborated in 4.3.4, No.I.

Though exploitation was in its rudimentary stage and not widespread, there were some dominant chiefs who were 'first among equals'. In relation to this some authors stated that the Afar had Sultanates resembling feudal kingdoms (Fekadu *et al.*, 1984:18). According to the informants from the study community, the Chiefs (*Balabats*)¹⁰⁷ during the Emperor time were reported to be 'exploitative'. At each level the local people had to pay tax to their respective chiefs (*Balabats*) and each chief to the higher level leadership (i.e. to the Sultan in Aussa). Informants reported that the Sultan of Aussa was able to accumulate large herds collected from tax and share from penalty collected at the community level. The Sultan's wealth of stock was managed by herding groups assigned to each species of stock. Every 500-1000 cattle were herded by a group of about 15-20 persons, and this grouping was called *Bahiri-Derimo*. Likewise every 500-1000 camels were herded by a group of about 15-20 persons, and this grouping was named *Bahiri-Akelie*. Therefore, groups of people who were becoming dependent for subsistence on livestock owned by the Sultan had emerged. In relation to this Gamaledin (1993:48) noted that "the period witnessed the appearance of pastoral aristocracy, many of whose members owned land, and client population who were becoming dependent for their subsistence on the livestock owned and managed by the Sultanate's own *Malokti*¹⁰⁸ (bailiffs)". Gamaledin further stated that the inclusion of *Malokti* within the power structure, imposition of these officials in pastoral sectors and the introduction of livestock taxes reduced the power of the *Makaban*.

The introduction of large-scale commercial farming in the late 1950s into Aussa also shifted the Sultanate's economic base and changed the class structure and relations in the region. The Sultan had been among the shareholders and benefited much from the new commercial farming. The percentage share of the Sultan Ali Mirah was seven percent¹⁰⁹ (Kebede, 1994:34). This new economic wealth of the Sultan together with his traditional authority has strengthened his power and he became stronger than his predecessors. This gave rise to a new class previously unknown to Aussa. Thus the Sultan and a small number of clan chiefs promoted to *Balabats* benefited from the new commercial farms through shareholding and/or running their own farms. In addition to this the Sultan acquired substantial land and profits from taxation. On the other hand, the majority of the pastoralists were out of the main stream of development, and had no or very little participation in the new economic activity. Therefore, the majority of the Afar were neglected while modernized agriculture with attractive profit was growing fast at their expense.

In general the Sultanate of Aussa had supremacy over the other Sultanates and succeeded in maintaining its existence as a strong traditional Sultanate for four centuries until 1974. The Aussa Sultanate survived until the 1974 Revolution in Ethiopia. During the Derg rule the Sultanate was officially abolished in 1974. The demise of the Sultanate of Aussa led to the

¹⁰⁷ Some authors noted that the introduction of *Balabats* caused political havoc, because some Afar *Kidho Abba* (lineage heads), with aspiration to power, began to use the government to promote their personal rise in status (Gamaledin, 1993).

¹⁰⁸ *Malokti* were officials assigned by the Sultan.

¹⁰⁹ Mitchell-Cotts Group (a British Firm which managed Tendaho Plantation) had 51 per cent of the share; the Ethiopian government 38 percent, and 4 percent was left for various local and foreign private interest shares.

weakening of the political strength of the Afar (Helland, 1980, cited in Assefa, 1995; Kelemework, 2000; Gamaledin, 1993). After 1974 the Derg regime abolished the office of the Sultan, clan leaders (*Balabats*) and the lineage heads (*Chikashum*) and their feudal privileges (Getachew, 2001a:64). At the same time the relationship between the Derg government and the Afar society deteriorated and became very hostile as the central government pursued aggressively expanding state farms in the Awash Valley and the militarization of the region on the grounds of security and for suppressing insurgent groups from Tigray, Eritrea and the Afar Region as well.

After the fall of the Derg regime, the Aussa Sultan was restored in 1991 (Getachew, 2001a:35). The current Sultan (i.e. spiritual leader) of the Afar is Ali Mirah. As stated earlier, subsequent to the 1991 political change in the country, the Afar have their own Region covering a vast area in north-eastern part of Ethiopia. The establishment of this self-administration, which was long-desired by the Afar, is viewed as a positive measure. In fact it has yet to yield fruit by bringing the entrenched economic, political and ecological marginalization of the Afar society to an end. The following sections discuss the Afar social and political organizations, and the central governments' attempts to incorporate them into the government structure.

4.3 The Afar Social and Political Organizations

4.3.1 Major Branches of the Afar: Adohimara and Asahimara

Historically the Afar people have been divided into two major branches: the Asahimara (the reds) or nobles and the Adohimara (the whites) or commoners (Lewis, 1994:155; Trimingham, 1976:173). All the Afar in the Upper Middle Valley (UMV) area are of the Adohimara branch. The Asahimara occupy mostly the area in the Lower Awash plain and delta (Voelkner, 1974:6; Fekadu *et al.*, 1984:19). But some Asahimara clans live as far as Gewane north of Angelele (Voelkner, 1974:6). According to some writers (e.g. Lewis, 1994: 155-56) both groups comprise a variety of tribal confederacies and tribes, but they are not always territorially distinct groups. Sometimes Asahimara and Adohimara clans occur as separate territorial groups, but most tribal groups contain a mixture of both. Thus the Asahimara/Adohimara cleavage cuts across the total Afar society. For instance Ayele (1986, 56) identified that the Dodda clan has eight Adohimara and four Asahimara local communities; the Arapta clan has 43 Asahimara local communities¹¹⁰, the Ali-Hamedo has four Adohimara local communities. Thus a clan can belong either to Asahimara or Adohimara or to both.

Scholars and writers gave different origins to the duality structure of Asahimara and Adohimara. In general two hypotheses have been raised. The first claims that the duality of Asahimara and Adohimara is an outcome of political developments, migration and intermingling in the past between people of different origins, status and economic organization; the second hypothesis attributes the two groups to their respective habitat (Getachew, 2001a:59).

¹¹⁰ Local communities may refer to lineages or sub-clans.

According to the first hypothesis pastoral groups from the coastal areas of the Red Sea and Gulf of Tadjoura migrated and joined the people of hinterland in the Awash Valley. And in the process the Asahimara intermingled with the local population of the Adohimara (Getachew, 2001a). Ayele (1986:56) noted that the Asahimara reckon descent from Haralmais and the Adohimara from Ankala Derder. This view is linked to a widely held Afar myth about Haralmais (an Arab Sheikh) that is said to have introduced the faith of Islam to the Afar hinterland, particularly in the Middle Awash. According to this legend the descendents of Sheikh Haralmais became Asahimara (thus regarded as conquerors), while the rest of Afar became known as the Adohimara (the conquered) (Getachew, 2001a). On the other hand Lewis (1994:156) reported that “the Asahimara are generally supposed to be descended from immigrant peoples of Ethiopian highlanders who imposed themselves upon earlier Afar tribes in Dankalia in the 16th century”. Trimingham (1976:173) and Lewis (1994) as well as informants like Mohammed Hanfre (as cited in Kebede, 1994:9) reported that the divisions arose due to status differences within a descent group¹¹¹, in that the Asahimara were the "red" people and were the ruling group, and Adohimara were regarded as "white" people and thought to be inferior. This view involves political reason for red/white dualism in the Afar society.

However, other authors (Getachew; 2001a:60; Voelkner, 1974; Helland, 1980 cited in Getachew, 2001a) have challenged this view. On the basis of oral accounts¹¹², Getachew stated that there seems to be no solid evidence to justify that the duality of Asahimara and Adohimara refers to conquering and conquered groups (Getachew, 2001a:60). The view of “conqueror” and “conquered” did not demonstrate the nature of the Afar people, as there is no significant distinction (status difference) in the lower status of the Afar social organization (Ayele, 1986: 56; Kebede, 1994:9; Getachew, 2001a). It was because of coincidence, exposure and interaction with different types of neighbours and outsiders that the Asahimara clans were able to form a Sultanate in Aussa. But the relation between the two groupings was and is still loose and flexible (Getachew, 2001a). A study done some three decades ago also indicated that “at the branch level no leadership position could be seen to exist for the Adohimara. They had several Sultans in former times, but they are now either not existent or are totally ineffective” (Voelkner, 1974:6). On the other hand the same source pointed out that “the Asahimara branch having a longer history of sedentary agriculture in the Awash delta has developed a more sophisticated political organization [...], and “it culminated in the considerable political power and business acumen of the Sultan of Asahimara in Asayita” (Voelkner, 1974:6). And yet Getachew (2001a:60) argues that “there is no strong evidence that demonstrates the Asahimara to have been politically dominant over the rest of the Afar

¹¹¹ A similar view is reported by some other studies (e.g. Kebede, 1994:9; Ayele, 1986:56) that ‘the differences are those of descent only while, historically, these two tribes were mutually hostile and were organized into separate distinct chieftaincies’.

¹¹² An oral account, collected by Getachew (2001a:60), reads as: “The Asahimara and Adohimara are children of one father. One was born red and called Haralmais, the other was born black, Bidaitu. But their father died without giving word or any message, and then the two sons quarrelled over inheritance. Haralmais, the younger wanted to be an elder and became *Amoyta*, the king, while Badohaita or Bidaitu also wanted power. This quarrel over the share of power led to a conflict and a split of the family members. The elder son and lineage of Adohimara group is the *Adi-Ali*. In principle all clan heads (*Balabats*) of Adohimara section are appointed by the *Adi-Ali* group head. The dualism began at that point and since then the dualism continued to exist between the two sections of the Afar: the Asahimara and Adohimara”.

and the Adohimara sections were subjected to the Asahimara. There seems to be no tribute payment relationship and no registered case of power relation between Asahimara and Adohimara”

In the past, as oral accounts indicate, the Afar clans had been mutually hostile to each other, so conflict might have led to the formation of the two groups of Afar with distinctive names of Asahimara and Adohimara. In relation to hostility among clans, Trimmingham (1976:175) noted that “what little sense of unity the Afar possess [...] is based on the factors (language, religion and way of life) they do possess in common. But even these have never enabled them to combine against the common enemy such as the Oromo, or Abyssinians, whilst they live in perpetual bloody struggle with one another”.

The second hypothesis attributes the two groups to their respective habitats. The name Asahimara, the red people, seems to be derived from the red color of soil of the Aussa region and of the Awash Valley. The name Adohimara seems to be derived from the cream-colored sand of the coastal regions of the Red Sea and Gulf of Tadjoura (Getachew, 2001a).

Getachew (2001a:60-61) argues that the two hypotheses about dualism in Afar failed to take into account other possible factors and relations. According to him dualism in Afar has to do with a range of other factors to which oral traditions and historical evidences alone seem to be insufficient. Despite occasional conflicts and competitions between the descendants of Haralmis and Bedaitu, today they are intermingled through marriage in many places. Both groups have a strong sense of Afar solidarity and shared cultural values, language and ethnic identity over centuries (Getachew, 2001a, Ayele, 1986; Kebede, 1994, 2005). Group solidarity extends to their kin that are living in the neighbouring ethnic groups and countries (e.g. Djibouti, Eritrea). This can be attributed to their sharing of a common language, their way of life (pastoralism), their traditions, and their religion (Thompson and Adloff, 1968 cited in Kebede, 1994). Nowadays, the Adohimara and Asahimara cleavage is increasingly disappearing in keeping with the motto of the present Afar unity. The two branches are intermingled and it is difficult to see differences in their behavioural characteristics (Ayele, 1986:56). Therefore, the entity of the clan is stronger and more significant in the Afar society. This point is discussed in section 4.3.3 below.

4.3.2 Tribal and Clan Structures: Social and Political Organizations

In his study on the social structure of Adohimara in the Upper Middle Valley, Voelkner (1974:6-7) pointed out that the Afar society is structured into tribes, clans, lineages and families. Accordingly, Voelkner identified two tribes -Waima and Dabine - which in turn are divided into clans, which are sub-divided into lineages. But Waima and Dabine tribes did not occupy exclusive areas. The clans of the both tribes were inter-mixed throughout the Upper Middle Valley. Tribal boundaries had once been effective. Because the tribal boundaries between Waima and Dabine can still be pointed out by elders of any clan (Voelkner, 1974:7).

In relation to Waima and Dabine sections which are regarded as tribal sections by Voelkner (1974), Getachew did not consider them as tribes per se. He rather presented them as a sort of “confederation of clans whose members claim shared distant agnatic ancestors” (Getachew,

2001:71). According to Getachew, clans affiliated with each other, form a sort of confederation with the names (e.g. Waima and Dabine), but with each clan (*Kedo*) being an autonomous unit in its own internal affairs. In relation to tribal sections, Trimmingham (1976:174) also noted that “the traditional political system of the Afar is based upon kinship groups [...] rather than tribal sections and the heads of these kinship groups are the real holders of authority”.

Other authors (Fekadu *et al.*, 1984:19) stated that the clan organisation is dominant in the Afar society and it has three levels of segmentation: the clan family, the clan and the lineage (*Dula*). According to these authors the clan families are three: Waima, Babine (in the middle Valley) and Asahimara (in the lower plain). In this case the ‘clan families’ seem to refer to ‘tribe’ as it is compared to a description given by Voelkner above. In the past whatever the levels of social and political structures were, nowadays clan, lineage and family (household) levels are important in social, economic and political life of the Afar society. Such structures are discussed in the following section. But before we look at a clan system, let us describe briefly kinship, marriage and settlement patterns.

i. Descent/Kinship: In Afar society genealogies are either shallow or missing above the clan level and the Afar mostly reckon descent through the male line, from family (*Burra*) and extended family (*Dahla*) to lineage (*Gulub/dahla*) and clan (*Kedo*) (Getachew, 2001a:53). Individuals can count back as far as six ancestors. Beyond that few individuals, particularly those persons belonging to traditional political or religious authority within a clan know their own genealogies (Ayele, 1986; Getachew, 2001a). Kinship or descent provides an individual with his social identity, and access to resources of other individuals in maternal and paternal kin groups. Kinship also regulates marriage and distribution of property rights (Ayele, 1986; Voelkner, 1974). In general, descent and kinship are important to Afar as organizing principles in a number of ways in different economic and social contexts, for instance for legal protection, claims in rights and obligations, gifts, and marriage (Getachew, 2001a:53). Therefore, in Afar society relations of an individual to his paternal and maternal kin are crucially important in economic and social contexts.

ii. Marriage patterns: The Afar practice endogamous marriage. Due to religion (i.e. Islamic) as well as sororal marriage, polygamy is also extensively practiced (Fekadu *et al.*, 1984). There are several marriage patterns which include cross-cousin (*Absuma*) marriage, intermarriage with unrelated clans, levirate arrangements, intermarriage with non-Afars (Yayneshet and Kelemework, 2004).

The ideal type is prescriptive patrilineal cross-cousin marriage. A man may marry daughters of a father’s sister (Getachew, 2001a; Yayneshet and Kelemework, 2004). Family is founded mainly on cross-cousin marriage. The nearest cousins are preferred as partners. Girls in such category (*Absuma*) to a man are his potential wives and are considered as his reserves to such extent that if any man touches them, he will be penalized by customary law. A man has absolute right to his father’s sister’s daughter (Fekadu *et al.*, 1984; Getachew, 2001a). In this connection Fekadu *et al.* (1984:24) noted that “there are two most important things that a person should defend, and these are *Absuma* and land”.

A lineage of an individual also enforces the customary principles of the *Absuma* marriage among the Afar. Such type of marriage is preferred, and the prescriptive rules are generally in force among the Afar. The principles force an individual to marry a real cousin, and thus an individual does not have any right to choose a partner of his or her own preference. If a man has just one *Absuma*, even crippled or ugly or with bad manners, he will be forced to marry her and vice-versa (Getachew, 2001a:81).

In principle a man should not marry his parallel cousin (i.e. his father's brother's daughter or his mother's sister's daughter). But there are circumstances in which such marriages do take place. It occurs particularly when the parents of two parallel cousins agree to the marriage. Someone who could not find *Absuma* or a parallel cousin has to arrange marriage with a woman from another clan or non-Afar group. However, children born of such union cannot be claimed as cross-cousin (*Abuse or Absuma*) (Getachew, 2001a:72).

In empirical researches many explanations have been given for the practice of cross-cousin marriage among the Afar. It is claimed that this type of endogamous marriage has the effect of creating a more cohesive social system at the lineage level. Perhaps some degree of isolation is also created by this very fact (Fekadu *et al.*, 1984). Cross-cousin marriage provides access to production resources and mutual support between two intermarrying families and lineages (Ayele, 1986). Moreover, newly married cross-cousins can acquire livestock in short or long-term loans and as gifts from a father-in-law and other close kin. Some authors (e.g. Yayneshet and Kelemework, 2004:10) also reported that "cross-cousin marriages are stronger than marriages between unrelated persons because no serious harm is inflicted on ones own blood and flesh in times of conjugal conflict". Cross-cousin marriage is stable; divorce is less likely; and dispute can be handled through negotiations (Getachew, 2001a). Getachew added that inter-clan marriage widens alliance and creates relations between members of intermarrying clans; creates access to other's resources and distribution; leads to defence cooperation; and enables to resolve conflicts without resorting to warfare (Getachew, 2001a).

Generally the above description of marriage patterns has pointed out the social and economic implications of the Afar patrilineal prescriptive cross-cousin marriage (*Absuma*) among the Afar pastoral communities. According to Getachew (2001a) these implications include among others: the strengthening of social ties; provision of security to parents in old age; concentration of wealth and distribution within intermarrying, linked lineages of a clan and clans; and the provision of mutual support among all involved (families and lineages).

iii. Settlement Pattern: The Afar live in villages or camp groups. Their residency patterns are highly complex. Many authors have identified slightly different patterns of settlement in the Afar society (Voelkner, 1974; Fekadu *et al.*, 1984; Getachew, 2001a). The slight variations might be due to their consideration of different pastoral groups (e.g. transhumance, semi-nomadic/sedentary) at different periods in time. For instance, Voelkner (1974) stated that village *sites* are mostly permanent each having a long-established name, whereas *occupancy* of village sites is seasonal, not permanent. This settlement pattern is observed in the study community under consideration.

Voelkner further stated that village occupation is neither solely by clan nor by lineage. Families of several clans and lineages may occupy a village site for certain periods of the year though in a more or less consistent pattern. In some localities occupancy of villages may be more exclusively by clan only, and very little inter-mixture of different families from different clans may occur there (Voelkner, 1974).

Fekadu *et al.* (1984) also identified that the lineage normally owns one or two villages nearby the river bank for dry season grazing and about the same number at the nearest foothills for wet season grazing. Thus camping groups move back and forth within the clan territory and accommodate each other in times of need. Getachew (2001a:57-58) has identified four types of settlements (*Ganta*)¹¹³. These are described as follows:

- i. Family settlement (*Dahla*): has fenced residential enclosures, multiple huts, and animal enclosures (*Gasso*).
- ii. Lineage settlement: consists of several extended families (*Dahla*), and all its members belong to one named lineage and it has a representative elder.
- iii. Clan settlement: consists of households from several intermarrying lineages of one clan, and it has a named ancestor, political leadership, a shared ritual leadership, and *Fimaa* (sanction-enforcing body).
- iv. Clan neighbourhood: consists of several lineage settlements dispersed over clan land; comprises also households from other clans which have conjugal ties with host clans, and has its autonomous ritual and political authority.

Getachew (2001a:56) has also observed that the nuclear or extended family settlement unit has two types of residence: the main settlement (*Homa*) and, the satellite herd camp (*Magda* or *Magida*). The family unit in *Homa* comprises the core family unit and contains the lactating large stock and small stock, the later is a highly mobile satellite herding camp. These settlement or camping patterns are practised mainly for better productivity and growth of offspring, for avoiding seasonal feed and water shortages and risks from disease outbreaks and drought.

Settlement unit varies contextually in the type of members it comprises. Members are recruited to all settlements by kinship, affiliation with a certain locality, conjugal ties and host-client relationships. For instance in the family settlement (*Dahla*), members are related to each other through shared descent, kinship, property right in livestock and conjugal ties. Members of a settlement are also bound together by a shared graveyard and by collective ownership of land resources. They also cooperate in herding, holding rituals and sacrifices and a shared prayer place (Getachew, 2001a; Ayele, 1986).

Settlement patterns in Afar areas have been changing over time. The Afar settlement patterns and mobility are affected by the encroachment of peasant farming, irrigated and mechanized farming and drought (Fekadu *et al.*, 1984). Particularly following the introduction of irrigation farming and the establishment of modern administrative structures, social services,

¹¹³ According to Getachew (2001a:57) the term “*Ganta*” refers to a totality of nuclear and extended families that form a larger cooperative residential unit or local community.

and emergence of small rural towns, there have been changes in settlement patterns. The change of settlement patterns in the study community is illustrated in the box 4.1 below.

Box 4.1. Settlement patterns and changes in the study community

1. *Burra*: It is single household unit (nuclear family).

2. *Debala (Dahla)*: It is extended family/residential unit which comprises 2-6 households. In the past up to 15 households were located in such residential unit. Though the number of household units in *Debala* is reduced, it is a common settlement unit in the study community.

In an extended family residential unit, individual households may use one kraal for each of the animal species. For instance they can keep their camels in one kraal, and cattle in another kraal. Households living in one *Debala* pool and mobilize their labour force for livestock management. Adults from each household unit keep large stock together. Children from each household unit herd small animals together.

3. *Burari (Buri)*: It consists of scattered *Debala*. It may consist of 3-5 *Debala*. Nowadays such settlement is rarely found in the locality. It is mainly found in other places like Dalifagie.

4. *Ganda*: It is large residential settlement which may comprise from 7-10 *Debala* or *Burari*. Nowadays this type of residential settlement does not exist in the locality. It is found in Dalifagie.

Ganda was a large cooperative residential settlement that was common in the past because of the security and other reasons. Before 4 decades, up to 100 *Debala* were put in one place to strengthen force against external threats. The local people used to establish such type of settlement in order protect external attacks, especially to strengthen their force against repeated invasion of Waggirats of Tigray. At the time Waggirats, Oromos and raiders from Shewa were the main threats to the local Afar. These groups and Issa-Somalis raided animals and killed persons at different times in the past. Therefore, establishing large *Burari* or *Ganda* was crucial to the protection of the community against external invasions or attacks from other clans.

Secondly, the local people also used to establish *Ganda* settlement or camping when they were displaced by severe drought and had to move to distant places beyond the Afar land. The third reason for concentration in big residential units (*Ganda*) was to reserve areas for grazing and for balancing the available resources in certain localities with the number of herds. In recent decades following the scarcity of pasture, this pattern of settlement, however, shifted into *Debala* or *Burari* size and pattern, as villagers had to disperse into different localities where fodder can be available. Moreover, as time went on the incursion of Waggirats and Oromos had been stopped and inter-clan conflicts have been reduced. Thus, the local people felt secure and have started establishing relatively scattered and small settlement units, like *Dahla* and *Burari* types.

Source: Key informant interview, December 2005

4.3.3 Clan and Lineage

i. *Clan*: The clan is the most cohesive group structure among the Afar. It is also the level at which the strongest and most effective traditional leadership structures are to be found (Voelkner, 1974). In Afar clan (*Kedo*) refers to a group of people related to each other by descent, living with shared clan territory and shared common rituals and political leadership. It may comprise ‘a few hundred people up to a thousand and between ten and twenty lineages and sub-lineages (*Dahla*) whose number changes through time due to continuous fission and fusion (Getachew, 2001a:55). Clan has a name used for social identity and cooperation when

there is a case which affects the whole clan families. Members of a clan cooperate in defence of their land, people and property (Getachew, 2001a, Fekadu *et al.*, 1984; Ayele, 1986). Clan has legislative, executive and judiciary functions and it resolves intra and inter-clan conflicts and those occurring within lineages (Fekadu *et al.*, 1984:22). This will be elaborated in section 4.3.5 below.

ii. Lineage: Each clan is divided into a number of lineages. The term *Dahla/Gulub* is used to refer to lineage and lineage segments which consist of several related individuals that are linked to each other by shared descent. Lineage members share the same locality, residence, pasture and migrations. And internally each lineage consists of a number of extended family units (Getachew, 2001a).

Each lineage has a name and head who is normally an elder in the clan. The head represents the lineage as one unit in the external relations with other similar units that form *Kedo* (Getachew, 2001a; Voelkner, 1974). The lineage which traces its members up to seven generations is the most significant in terms of pastoral production and maintenance of social order at the grassroot level. It is vital for social identity, livestock production, regulation of marriage, mutual aid and defence, and the control of common property (Fekadu *et al.*, 1984:22).

Lineages and sub-lineages are intertwined with each other through multiple-overlapping webs such as shared resources, political leadership and residence. Therefore, the component lineage, and sub-lineages of clan have the following functions. Lineage: (i) settles, sends its scouts for prospecting possible settlements sites and moves together; (ii) discourages and prevents members from depleting their stock by selling for purchase of unessential urban consumer goods, (iii) regulates the cross-cousin marriage system, (iv) in terms of mutual aid, it takes responsibility of restocking the individual family who lost its stock for one reason or the other (Fekadu *et al.*, 1984:22).

iii. Nuclear Family and Extended Family: Nuclear family is composed of a male household head with one or more wives and children. In some cases it may consist of unmarried adults, related by blood or friendship to the head of the household. A nuclear family or household unit (*Burra*) is founded mostly on cross-cousin marriage (i.e. a boy marries his father's sister's daughter). It is realized through evolving rights of production, reproduction and consumption (Getachew, 2001a; Fekadu *et al.*, 1984, Voelkner, 1974). The establishment of a household marks the beginning of an independent livestock production unit. The household unit has ownership rights over stock (camel, cattle, goat, sheep and donkey) and other types of assets (Ayele, 1986; Getachew, 2001a). To maintain itself in the arid and semi-arid environment, a married couple¹¹⁴ (nuclear family) requires the cooperation of three persons: a male head of the household responsible for herding cattle and supervising all activities, a woman responsible for housework, looking after children, milk animals and who also assists in herding, and a child who herds small stock. As the number of stock increase more labour is needed and different work teams are formed (Ayele, 1986). The term *Dahla*¹¹⁵ is used to

¹¹⁴ The newly married couple shares food with the bridegroom's parents and vice versa.

¹¹⁵ *Dahla* also refers to households of co-wives' households who share the same residence, and this accommodates from 2-6 huts (Getachew, 2001a).

refer to an extended family. An extended family settlement consists of from five to eighteen huts (*Ari*)¹¹⁶ and comprises families of up to four generations deep (Getachew, 2001a:56).

4.3.4 Leadership Structure

Historically, as stated earlier, the Afar had four major Sultanates: Tadjoura, Rahyata, Biru and Aussa (Ayele, 1986). Though the Afar have had such Sultanates resembling that of feudal kingdom, the clan organization has remained the dominant and the higher unit. In relation to this some authors (e.g. Fekadu *et al.*, 1984:19) stated that “the Sultanates did not manage to encapsulate the enormous clans by creating centralized political machinery.”

A study done three decades ago in the Upper Middle Valley recorded that standing tribal leadership was not present at the time (Voelkner, 1974:9). This same source stated that tribal leadership functioned in the past only in raids on, or in wars with non-Afar neighbours. Even in the past tribal leadership was elected only for such special occasions and was empowered only for this duration. The election was conducted by the inter-tribal council composed of the more esteemed elders and *Balabats/Makaban* of various clans. Therefore, at the time the inter-tribal council had only the function of discussing and mediating inter-tribal problems (Voelkner, 1974:9). This description of tribal leadership suggests that it is the clan level at which the strongest and most effective leadership structures were/are to be found.

Currently the functions of three clan leadership branches or structures are significant in the Afar society. These include clan leaders (*Makaban*), council of elders (*Daar-edola*) and a sanction-executing unit (*Fimaa/Finna*). Grading of clans and lineages as young/small/junior (*Hundah*) and elder/bigger/senior (*Kaddah*) is one feature that is noticed among Afar. Accordingly different roles are allocated to each lineage: a senior lineage of a clan provides political leadership of a clan and a junior one provides ritual leadership and leadership of the sanction-executing unit (*Fimaa*). But members of the council of elders (*Daar-idola*) and members of *Finna* are conscripted from all lineages of a clan (Getachew, 2001a:61). The main leadership structures of clans are discussed below.

i. Clan leaders (Makaban): The role of a *Makabantu* is not that of an order-giving chief, but of an arbiter of intra-clan disputes and representative in inter-clan arguments and affairs. He is the representative of the clan towards everything outside the clan, be it the government or groups of other clans, Afar or non-Afars. Clan leaders and lineage heads act as mediators between the local government representative, the central government and the Afar. They represent their people for everything outside their clans (Voelkner, 1974; Getachew, 2001a; Kebede, 1994).

The position of *Makabantu* is hereditary in the male line; but sometimes could be appointed and changed by an elder elective-group (Ayele, 1986; Kebede, 1994). The criteria by which the *Makabantu* is judged to be fit for a position are, for instance: one, who looks after his people, protects his clan, who works for his people, who is a good speaker and who speaks the truth, one who has a “good brain” and is a good administrator (Voelkner, 1974; Fekadu *et*

¹¹⁶ The number of huts in extended family settlement may vary over time, and from one community to the other as stated in box 4.1 above.

al., 1984). A strong and respected *Makabantu* may be able to command a certain amount of obedience but in general this is minimal and there is no pressure on the Afar individual to obey any but religious laws and to conform to the Afar norm of co-existence with one's *Kidha* (father of the people) neighbour (Kebede, 1994:12). No lineage is considered as superior or inferior, and equality of components of a clan is stressed and competition between members is discouraged through emphasis on shared descent, shared political and ritual leadership, cooperation and intermarriage (Getachew, 2001a:61). Other authors (Fekadu *et al.*, 1984:23) also observed that “in principle all adult males have equal say, since all can speak in the general assembly of their clan, but the opinions of certain category of men carry more weight. The indices for prestige are: wealth, family background, skill in oratory, political acumen, religious piety, wisdom, and other personal qualities”.

As stated earlier in this chapter the Ethiopian successive governments have employed indirect rule to administer the Afar from remote highlands. A case in point is the use of *Makaban* as mediators between local people and the state through promoting some of them to a status of *Balabat* or *Chika-shum*. Traditionally *Makaban* are representatives of the clans towards everything outside the clan during all Ethiopian governments. *Makaban* represent their clans, and contact government, private groups and other clans. In the study community *Makabantu* is known as *Detamo Abba* or *Daara Abba*. For instance before 1991, Dawid Muhayta was *Datamo Abba* for Bahir-Aghini sub-clan and Seko Duba for Megenta Aghini sub-clan. Nowadays Dawid is *Detamo Abba* for both groups and Seko Dawid is his deputy.

During the Derg time the father of Dawid was on bad terms with Derg. He refused to work with Derg rule. Thus, Derg was searching him for his protest. He died while he was in hiding. However, at the time the leadership of *Makabantu* (*Detamo Abba*) and clan leader (*Kedo Abba*) were not abolished in the study community. They were functioning as they used to before the 1974 Revolution. Unlike in settled and semi-settled places the structure of pastoral/peasant association was not established in the study community. Therefore, in such areas the *Makaban* (clan chiefs) handled all issues related to everything outside the clans during the previous governments.

In general during the Emperor and Derg regime, the Afar clans, lineages and the Aussa Sultanate were incorporated into the Ethiopian administrative structure. During the imperial time the Sultan of Aussa was entitled to use the imperial title *Bitwoded*, and other clan and lineage heads were given the title of *Balabat* and *Chika-shum*¹¹⁷ (village chief) respectively (Getachew, 2001a:64). After 1974, the Derg regime abolished the offices of the Sultan, *Balabats*, and *Chika-shum* and their feudal privileges. And very similar offices replaced imperial offices with similar functions called representatives (*Yegosa-teteri/Yegosa-tewekay*), peasant association (*Gebere Mahbar*)¹¹⁸ and the position of Sultan was officially abolished. The following table summarized the “titles of traditional authority” and “titles or roles given to traditional leaders by the previous and incumbent governments”.

¹¹⁷ *Bitwoded* was the most senior title of the Imperial Government of Ethiopia, and it literally means ‘the beloved’ in Amharic; *Balabat* was the title for the clan head (*Kedo Abba*) and it literally means ‘notable’ and *Chika-shum* was the title for the lineage head and it is equivalent to ‘village chief’.

¹¹⁸ Peasant association (*gebere mahbar*) was a grassroots association of peasants mainly in settled areas. In Afar context such association was established mainly in some agro-pastoral areas or in settled agriculture neighbourhoods during the Derg time.

Table 4.2 Local Leadership and Titles

Traditional title of local leaders	Title given during Emperor Haile Silassie period	Title/role given during the Derg regime (1974-1991)	Current title/role (1992 to present)
Sultan	<i>Bitwoded</i>	Sultanate was abolished	The Sultan is restored and became spiritual leader
Clan heads	<i>Balabat</i>	The <i>Balabat</i> was abolished and replaced by <i>Gebere mahbar</i> leaders	- Clan heads act as traditional leaders ¹¹⁹ - <i>Makabantu</i> (some individual <i>Makaban</i> are given advisory position in the formal structure)
Lineage heads	<i>Chika-shum</i>	The office of <i>Chika-shum</i> was replaced by <i>Yegosa-teteri/ Yegosa-tewekay</i>	Lineage heads have continued
<i>Finaa-t-abba</i>	<i>Yegobez-Alaka</i>	<i>Finaa-t-abba</i> continued	<i>Finaa-t-abba</i> has continued

Source: (i) Getachew, 2001a; Gamaledin 1993; Kebede, 2005; and Voelkner, 1974 (ii) Interviews with key informants.

As can be seen in table 4.2 column 4, after the establishment of Afar National Regional State (ANRS), there is an overlap of traditional authority and modern administration at the community level. In recent years the Kebele Administrations (KA) established by the Government represent the local community towards everything outside the clans. Most of the “elected KA leaders” are not from clan leaders. In this connection some informants from my study community reported that during the Transition Period (1991-1994) their clan leaders were to some degree involved in local government when the Afar Liberation Front (ALF) led by Sultan Ali Mirah (now the Afar spiritual leader) was active in the Afar Region. After the ALF withdrew, the informants said, office holders selected among traditional leaders were gradually replaced by individuals affiliated to the Afar Peoples Democratic Organization (APDO).¹²⁰ Currently it seems that the role of *Makabantu* as intermediary between the local people and the state authorities is being taken over by “elected Kebele leaders”. Kebele Administrations perform the following activities:

- Mobilization of community members for communal works (e.g. access road construction, water development, etc).
- Acting as liaison/mediator between local government authorities and the local people.

¹¹⁹ Currently Kebele Administration through “elected leaders” acts as formal grassroots government structure. On the other hand clan and lineage heads and *Finaa-t-abba* continue their traditional function in parallel to Kebele administration. In fact some hand-picked *Makaban* are given a status of “advisor on Afar culture” (*Ye-bahil-Amakari*) in the formal structure.

¹²⁰ APDO came into existence shortly after the fall of the military regime. It is supposedly supported by Afar who were formerly part of Tigray province and is an EPRDF affiliate. Considering the close ties between APDO and EPRDF, it seems that APDO largely represents the interests of the country’s ruling party, instead of the interests of the Afar (Ali, 1998:113).

- Communicating government programmes and policies to the community members.
- Presenting community's requests to formal government institutions (e.g. district administration).
- Enlisting the support of clan or traditional leaders to recognize the Afar *Ada* (customary law).

The traditional authorities also function at clan level without interfering with Kebele Administration. Clan leaders and elders mainly manage and resolve conflicts through the Afar *Ada* (customary law). They handle mainly conflicts over resources (pasture, cultivable land, watering points); conflicts resulting from adultery/rape, theft and robbery; clan rivalry, and conflicts related to *Absuma*.

Though the formal government administration is put at the grassroots levels, the local people still pay more attention to the traditional authorities (clan leaders, elders and religious leaders). A number of informants claimed that the source of authority for 'elected leaders' is by chance (i.e. not inherited from traditional source of authority) and leadership position is temporary, whereas the clan leadership is long-term and life-long. The informants also reported that the formal administrative posts are filled mainly with youths who give less weight to the Afar *Ada* (customary law).

Currently very few "hand-picked" clan leaders are involved in the new formal structure and such individuals are given an advisory role on cultural matters (*Ye-bahil-Amakari*). In return for their service they receive a monthly allowance. Traditionally the community members often put more trust into clan leaders and view them as true representatives towards everything beyond their community. Obviously the local people heed to clan leaders rather than to the "elected Kebele authorities". This suggests that the local Afar want to maintain the full involvement of their traditional leaders in the modern administration. This issue is further elaborated in Chapter 6.

As table 4.2 above shows, in spite of the incorporation of the Afar people into the Ethiopian administrative structure for such a long time, traditional authority structures and the clan authority of the pastoral clans have undergone little transformation. Although the authority of the Aussa Sultanate was undermined during the military rule of 1974-1991, the authority of clan leadership has been largely maintained. This owes partly to the resistance of Afar and to the policies of the governments of Ethiopia that stressed the indirect rule through the traditional authority of clans and the Sultanate of Aussa (Getachew, 2001a).

Therefore, it can be said that traditional Afar leadership at grass-root level peaks at the clan level in the position of *Makabantu*. Clan is still the most cohesive group structure among the pastoral Afar. It is also the level at which the strongest and most effective leadership structures are to be found. All clans are divided into sub-clans (lineages) which are made up of related families. A clan belongs either to the Asahimara or the Adohimara or to both. Each clan is headed by a clan chief (*Makabantu*) with overall prescribed functions and powers. However, his powers are shared and controlled by the elders of the clan. Decisions are usually made by *the elders* together with the clan chief (Voelkner, 1974; Kebede, 1994).

ii. Council of elders (Daar-edola): Elders appear to be the second powerful leaders in a clan. The majority are actually the older. But an elder does not have to be old. He can be of any age of an adult man who has to be wise. Wisdom has to be proven: an elder has to “keep cool” in terms of temperament and partiality in disputes and issues, and has to be able to take the long point of view of what is best for the people of the clan and be able to “make peace” (Voelkner, 1974:10). Often an elder represents a lineage as its head - a position he acquires as much by survival and inheritance as by ability. Other elders, however, are chosen purely for their above-average competence and performance to an ideal elder. Elders function mostly as judges of the internal affairs of a clan. They represent the major Afar leadership principle of government by group decision (Voelkner, 1974:10-11). Council of elders (*Daar edola*) hold the supreme power and it can be summoned at clan or lineage level whenever need arises.

iii. Sanction-executing unit (Fimaa/Finaa): The executing arm or sanction-executing unit in Afar society is *Fimaa*¹²¹. *Fimaa* is a multi-purpose institution whose size and number varies from one clan to the other. Bigger clans with large populations and vast clan land may have more *Fimaa*. Members of *Fimaa* are often recruited from all lineages of a clan, and recruitment is made by clan elders and clan head on the basis of birth into one of the lineages of a clan, kinship affiliation, locality, and personal character such as good manners and respect for the elderly and community value. Potential members seem to be all able - young and strong men in the clan (Getachew, 2001a:65-66; Voelkner, 1974:11).

The institution of *Fimaa* has a principal leader (*Finna-t-abba*) and deputy/assistant (*Eerena-abba*). The leader comes from a particular lineage of a clan and his deputy is his younger brother. This post is hereditary, but in some exceptional cases some other *Fimaa* leaders can be selected by elders of the clan with approval of members of *Fimaa* (Getachew, 2001a:66-67). The *Fimaa* leaders carry out basic community tasks which include executing sanctions passed by clan leaders, supervising activities of *Fimaa* members, looking after the peace of the community and working closely with clan elders and clan heads. When there is sanction to be executed or tasks to be done, a *Fimaa* leader will call up on *Fimaa* members with a cry *Eei-eei* in the morning, and hearing the sound, members will come and gather in the residence of their leader. Then they will be given the instructions to enforce or perform tasks (Getachew, 2001a:67).

Generally the main purpose of *Fimaa* institution, its leaders and members is to serve their community and clan as a community police and clan defence force. Consequently their activities are linked to traditional authority of the clan and they are expected to work in collaboration with elders and clan head. Their main task is to enforce sanctions passed by clan authorities and by the clan head (Getachew, 2001a; Voelkner, 1974). Members of *Fimaa* and its leader are expected to implement all actions required by the decisions of elders and clan leaders ranging from enforcement of the law to fighting wars, and from protecting clan herds to guarding clan villages (Voelkner, 1974:11). *Fimaa* members also assist in disciplining young men who misbehave or challenge the authority of parents. Other subsidiary tasks of *Fimaa* are defence of livestock and other resources of the clan; deterring

¹²¹ The term *Fimaa* in Afar language denotes ‘of equals’ and ‘of the same stage of circumcision’ but not necessarily of the same age. Differences among members occur and this has been seen as advantage where younger members can learn a lot from older members with rich experiences (Getachew, 2001a).

neighbours from expanding into Afar clan lands; and monitoring and assessing seasonal grazing areas. *Fimaa* also functions as mutual assistance institution whereby members help each other through contribution of material, financial and labour services and through moral support (Getachew, 2001a).

4.3.5 Conflict Management and Resolution

As it is true in all societies, different sorts of disputes and conflicts occur in Afar community. These include inter and intra-clan disputes over clan land or other resources (pasture and watering points) and conflict with non-Afar migrants and neighbouring ethnic groups (Issa, Oromo, Amhara, Argoba, Tigre). Though there is some degree of tolerance to accommodate each other, conflicts between clans over scarce resources, and disputes over or claims on territories are common among the pastoral Afar (Yacob *et al.*, 2000: 16). In this connection, the Afar say, “We love each other, but we will quarrel with each other, if it comes to land. It means there is no compromise over clan land.” (Getachew, 2001a:62).

In Afar community most inter and intra clan conflicts and disputes are settled by their traditional authorities: elders, clan leaders, *Fimaa* and religious leaders. The pastoral Afar have their own customary law (*Ada/maada*) which is effective in conflict management and resolution. As stated above the Afar are organized into clans, each with clan leader, *Fimaa-abba*, and group of elders (*Daar-edola*). At each level these leaders manage the internal affairs including conflict management and resolution. They organize assembly to handle disputes according to the Afar customary law (*Maada*) through which disputes within and between clans are settled. The Islamic law (*Sharia*) is also used alongside the Afar customary law. In relation to this, Sheikhs are important in assisting the traditional authorities, especially when conflicting parties need to swear on Quran and to seal the case with pronouncing *Fatiha* (i.e. the completion of litigation). The Sheikhs work along with clan leaders and elders in settling disputes in addition to teaching and prayers services in their community. Let us closely look at how the pastoral Afar handle ordinary and severe cases through their customary laws.

The pastoral Afar apply their customary law to adjudicate criminal acts and ordinary cases. In pastoral Afar crime is a collective responsibility of the clan to which a culprit or offender belongs. The responsibility for any criminal act is not restricted to the party committing the crime. It includes the lineage of the criminal in particular and his clan in general. The closer one lies in a clan bond to the criminal, the greater the portion of responsibility that falls on him (Jamaluddin, 1973 cited in Voelkner, 1974: iv in annex-b).

A given case is often processed in an Afar tribunal. A council of elders can be summoned at clan or lineage level to see a case or one’s grievance brought to the attention of elders. Jamaluddin (1973) described the procedure for an ordinary case as follows:

... the plaintiff brings his grievance to the attention of the elders. The elders construct *Maro*. *Maro* is a session to be held in a circle-like manner under a tree shade. *Maro* consists of plaintiffs, defendants, jury and observers. Once a *Maro* is set, the *Makaban* gives the first right of speech to the plaintiff. But before doing this

the elders ask both parties to name guarantors (*Habi*) who are asked to bring *Lekeayso*¹²². Both the plaintiff and the defendant have the right to speak in person or through an advocate according to their wishes. The plaintiff then addresses his speech to one of the persons in *Maro* and spells out details of his case. Then the defendant answers the charges levelled at him by the plaintiff. If it seems necessary, both parties are once again given the right of rebuttal. Then the *Makaban* asks someone among the *Maro* to give a short resume of what was said by the plaintiffs and the defendants. After all this remains to *Makaban* to investigate the argument put forward by both sides and decide. Then recourse is made to the *Maada* (customary law) to find out a fitting punishment (*Jamaluddin, 1973 cited in Voelkner, 1974: vi, in annex-b*).

Jamaluddin (1973) stated that unless it is for *Billu* (case involving murder); the process for the rest of *Mable* (litigation) is the same. But punishment (compensation) differs from case to case. The case of *Billu* does not require *Mable* but there are certain ways in which *Ama* (reconciliation) is conducted. Hence, the procedure for murder case is described below:

...when a member of a clan kills somebody from another clan; two courses are open to the former. The clan members can either leave the area immediately and appeal to other clans to act as a go-between and help them make peace with the concerned clan, or they can stand their ground and let the bereaved clan take vengeance upon the killer, but prepare to defend themselves if the clan exceeds the rule of vengeance. If vengeance is not taken immediately, the other clans in the area try to reconcile (*Ama*) the two clans by the payment of *Diat* (compensation for murder). If this is accepted by the bereaved clan, a general meeting of the clans in the area is called. The clan of the killer is called upon to provide *Sepa* - a sort of *Lekeayso* for the *Makaban*. The two clans are then stationed at separate places for the purpose of facilitating mediation. The *Billu* is judged according to the *Maada*. After this, members of the murderer's clan disarmed including sticks and wearing garments in a loose manner are taken over to where the bereaved clan is stationed. They follow the *Makaban* in single file repeating after him *Yalial Habai Nel Rasa* (forgive and forget) to members of the bereaved clan who remain seated during the whole process. After this the *Makaban* pronounces the *Fataha* and that seals the case (*Jamaluddin, 1973 cited in Voelkner, 1974: vi-vii in annex-b*).

The Afar customary law (*maada*) embraces eight basic principles. They are the essence, the types of crime, the responsibility, the category of crime, the punishment, the varieties of bodily injuries, the compensation, and the execution. Fines for each category of criminal acts and a standard compensation for each category of body injuries are prescribed in the Afar community (for details of each see Voelkner, 1974: vi-vii, in annex-b).

The Afar traditional rules stipulate the number of animals to be paid as fine or compensation for killings or other offences. Compensation and fines are often paid in the form of animals. For instance in the study community kidnapping a girl (one's *Absuma*)¹²³ involves a fine of 12 cattle, raping 36 cattle, marrying a widow without the permission of the legitimate heir 36

¹²² *Lekeayso* is an amount collectable from plaintiff and defendant and payable to the jury for conducting the litigation.

¹²³ According to the institution of cross-cousin marriage and levirate institution, each girl and widow has a legitimate husband and heir respectively. Marriage and inheritance outside of the prescriptions of these institutions involve punishment. If not handled by elders when individuals violate these rules, it may lead to conflicts between offenders and legitimate claimants.

cattle¹²⁴. Blood compensation paid for the victim's family is 55 cattle per person killed, and compensation paid for wounded person varies from 12-30 cattle depending on the seriousness of the injury. Relatives and clan members together have to help pay the compensations. This practice gives the whole clan an interest in preventing violence, because all clan members must help pay the fine if one of their relatives or members is found guilty.

Generally in Afar pastoral community conflicts can take place at three levels: intra-clan, inter-clan and inter-ethnic. The causes may include claims on or access to resource (land, grazing, and watering points), animal theft, adultery, raids and counter raids, insults, etc. Intra-clan and inter-clan conflicts are often resolved according to the socio-political structure, depending on the level of conflict. Disputes, which arise between neighbourhoods or individuals related by kinship or marriage, are handled by relatives, neighbours and friends of disputants. These mediators act on the basis of social obligations. They cool down emotions, investigate causes and resolve disputes.

Conflicts that cannot be managed by the extended family leader (*Dahla Abba*) will be passed on to the sub-clan or clan level chief (*Makabantu*). Serious disputes are often managed by the council of clan elders (*Mabilo*) summoned by the clan chief (*Makabantu*). Likewise inter-clan conflicts/serious disputes like homicide, stealing, and heavy physical injury are often managed by elders council (*Mabilo*) consisting of the respective clan leaders (*Makabantu*) of the disputants. Therefore, on the basis of these principles the Afar traditional authorities apply customary rules in handling murder and ordinary cases in their respective local communities.

The Afar also use various institutions or mechanisms to settle conflicts/disagreements that can arise with their neighbouring communities. For instance in northern part of the Afar Region where the Ab'ala Afar interface with Tigray community, the institution called *Gereb* is used to resolve any disputes which may arise between them. *Gereb* court is established by elders of both sides to try and resolve disputes (Kelemework, 2002). Likewise elders and religious leaders attempt to resolve disputes between the Afar and neighbouring Oromos.

Afar-Issa conflicts used to be settled through the initiative of elders. First three women tying sheep's flesh onto their neck are sent to the victim's group to show sympathy and the need for a peace deal. Peace deal is inferred if the women delegates come back adding another three women from the victim's side. Subsequently elders would do the same and negotiation is made. Then a compensation of 55 cattle per person killed is paid to the victims. Peace deal is usually wrapped up with cultural ceremonies and religious rituals (Yirgalem, 2001). Over the past decades, however, Afar and Issa traditional conflict management systems are disrupted with the changing context of conflicts. The traditional systems of conflict management are overwhelmed by external factors and incapable with the changing context of the conflict. The

¹²⁴ The fine for the act of abducting a widow involves paying more cattle. This is because a widow may have children and wealth in which case only a close relative to the children has to take responsibility for them and their resources. Thus the legitimate right to inherit a widow is vested only on the brother or close relative of the deceased. The community strongly disapproves remarrying of a widow to an outsider who has no blood relation to the deceased. The logic behind this is that an outsider misuses children's resource and does not properly nurture them. Moreover, the resource of the deceased is often viewed as communal property of the extended family (i.e. his brothers, sisters and uncles). Thus an outsider is not allowed to get access to the deceased's resources through marrying the widow.

traditional animal raiding which both parties involve have taken new dimensions due to historical and socio-political processes taking place in the countries of the Horn of Africa. The Issa's intrusion into the Afar land has increased over the past decades as a result of the following factors:

- Historically and now the Afar and Issa-Somalis in Djibouti compete for power dominance. The Issa-dominated government in Djibouti favours the Issa-Somalis in Ethiopia. This has an influence on relations between Ethiopian Afar and Issa-Somalis in Ethiopia.
- The proliferation of firearms and the Issas became well-armed. Contraband traders proliferates firearms for sale, and hence this increases the level of conflict and its context. The Issa-Somalis have better access to border livestock trade and contraband trade through Djibouti and Somalia, as their clan groups have political dominance in these two countries. Therefore, the increased involvement of Issas into contraband trade affects Afar-Issa economic and power balances.
- The Ogaden question and related war with Somalia that created inflow or access to various firearms for Issa-Somalis in Ethiopia.
- Lack of substantial support to the Afar from their respective governments, and the tendency to perceive them as separatists with a vision for "one Afar" in the Horn of Africa. One of the political problems in the Horn of Africa is the Afar ethno-centric politics, which aspires for an independent "Afar state" in the Horn sub-region. The Afar who now live in Ethiopia, Djibouti and Eritrea have already developed such a political aspiration. Those in Ethiopia clearly want self-determination for all of the Afar peoples. Some of those in Djibouti are struggling against the Issa-dominated regime (Kebede, 2005:2). Thus political conflicts from Djibouti spill over into the territory of Ethiopian Afar.
- Lack of inter-state cooperation to stem cross-border conflicts and promote cross-border trade (Getachew, 2001a). The political and economic marginalization of the Afar in their respective countries makes them hostile to the central governments in the sub-region. These neighbouring states also use the Afar insurgent groups for subversive activities against each other (Kebede, 2005:3-4).
- The current ethnic-based federal system in Ethiopia has added conflict to the long-aged Afar-Issa conflict over boundary, as both sides are involved in border claim and counter claims in order put territories under their respective domains.

In general the Afar have been affected by the political changes and processes which have taken place in Horn countries (i.e. Djibouti, Ethiopia, Eritrea and Somalia). The separation of Eritrea from Ethiopia has split the Afar into two countries. The Djibouti Afar Liberation Movement against the Issa-dominated government in Djibouti had a consequence on the Ethiopian Afar. The Issa-dominated government considered the Ethiopian Afar as having allied with dissidents in the Djibouti. Thus the Djibouti government curtailed the hitherto easy

movement of the Ethiopian Afar into the Djibouti. Moreover, the Ethiopian government is using the Djibouti port and this has influenced the arbitration process since Djibouti is ruled by the Issa-dominated government. In most cases the Afar are losers of the Ethiopian triangular relationship with Djibouti, Somalia and Eritrea (Yirgalem, 2001).

As a result of the all these socio-economic and political processes, mistrust and enmity between Afar and Issa has increased in the past three decades. Moreover, the frequency of raiding and killing has increased. Therefore, traditional conflict management systems have overwhelmed by external factors and have been ineffective. Consequently conflict resolution is now taken over by government-sponsored peace committees that comprise community representatives, Afar Regional Government, Somali Regional Government and the Ministry of Federal Affairs. However, this government approach did not bring sustainable peace between Afar and Issa due to the following reasons (Yirgalem, 2001, Yacob *et al.*, 2000):

- The religious and cultural values used to disapprove retaliation and to strengthen negotiation processes between Afar and Issa have been eroded in the past decades due to the factors mentioned above.
- The community representatives (elders) are refraining from meetings feeling insecure. They are unhappy about poor communication among stakeholders and complain about the attempts of officials to arbitrate than to mediate.
- At grassroots level the communities have lost trust on the committees for not achieving sustainable peace, despite a series of peace conferences sponsored by the Federal Government.
- Absence of development programmes that involve warring groups working cooperatively and without fear of encroachment or displacement from their traditional incumbency.
- The failure of the government to settle the territorial issues by employing fair and equitable method of territorial allocation.

In general, conflicts in the Afar Region take place at three levels: intra-clan, inter-clan and inter-ethnic conflicts. The first two types of conflicts are still managed by the existing traditional conflict management system. On the other hand inter-ethnic conflicts, especially Afar-Issa conflicts have become very violent and are beyond the capacity of traditional dispute management systems.

4.4 Concluding Summary

The Afar belong to Cushitic-speaking language group and have their own language called *cafar-af*. Their original African homeland seems to have been between the upper course of the Webi and the coast of the Gulf of Aden. Historically their territory stretched from the Djibouti-Dire-dawa railway in the south to peninsula of Buri in the north, and from the shores of Red Sea to the eastern spurs of the Abyssinian plateaus. Currently the Afar have been partitioned into three states, Ethiopia, Eritrea and Djibouti.

As stated earlier in this chapter, various researchers indicated that the Afar had maintained independent self-administration until the beginning of the 20th century. Prior to their political incorporation into the Ethiopian state in 1905, the Afar had been outside Ethiopian state administrative control. They also remained outside the effective control of the central government until 1944. After this period the political and economic importance of Afar territory in terms of location (access to the Red Sea) and agricultural potential in the Awash Valley has been recognized and the successive Ethiopian governments have pursued with full incorporation of Afar territory through setting up civil and military bureaucracy. This finally culminated in the abolishment of the Sultanate of Aussa in 1974, the gradual incorporation of traditional structures into central government administration and into far-reaching consequences on the Afar pastoral economy.

Over the past half of a century the Afar have been squeezed into the Lower and Middle Awash Valley alongside of the river Awash due to Issa-Somali successive incursions, pressure from highland peasant cultivators, expansion of commercial large-scale farms and establishment of national park and wildlife games. (This point will be discussed later in chapter 5).

And yet the Afar social and political organizations are still effective at the clan and lineage levels, despite excessive pressure from the central government. The Afar social and political organizations are based on descent, kinship and clan territory. Nowadays clan leadership is still significant and cohesive among the Afar pastoralists. Despite the formation of new structures and institutions by the successive Ethiopian governments at the grassroots level, the Afar traditional authorities (elders, clan and lineage leaderships) have continued to function in governing the Afar social, economic and political life. Especially clan leaders have continued to be important political leaders representing their respective clans towards external actors. Community members often take heed of traditional authorities (clan leaders and elders).

The long-standing Afar *Maada/Ada* (customary law) is still instrumental and effective in handling cases, and in guiding traditional governance, self-help and mutual assistance. People are proud of their traditional way of administration through *Maada*. They feel that their *Maada* provides them with justice which entails fair and common use of resources. Justice is understood as careful observance of *Maada* principles (mutual recognition, mutual respect, common use of resources in the locality) (Yacob *et al.*, 2000:24).

In general it can be said that the Afar social and political organizations have largely remained resilient in pastoral communities, despite the excessive pressure from modern governmental administrative structures for such long time. This might be partly attributed to the following factors:

- i. The traditional organizations and leadership structures are very much participatory and transparent to all adult male members. Political systems, leadership and decision making processes require full participation, full debates and examination of cases at length, and consensus in decision.
- ii. The cohesiveness and solidarity of the Afar people against external pressures. The Afar elders stress that all Afar are governed by the same Afar *Ada* (customary law) irrespective of clan membership, area of residence, national politics, etc.

- iii. The continuous resistance of Afar to the attempts of complete incorporation by the successive Ethiopian governments. This relentless resistance has reduced exercise of direct rule by the successive Ethiopian governments.
- iv. The fact that the Afar inhabit the peripheral areas where the modern governmental structures (civil and military bureaucracies) could not be easily set up into all the Afar land.
- v. The ability of the Aussa Sultanate to handle the central state pressures in its favour via playing by the strategic importance of Afar territory for the nation.
- vi. The policies of Ethiopian governments that have pursued indirect rule (i.e. through 'traditional authority' and the Sultanate of Aussa).

Recently after the 1991 political change in Ethiopia, the Ethiopian Afar population is consolidated within a single region with autonomous powers of self-administration. Therefore, it seems that the current federal system has opened an opportunity for the Afar society to enhance the roles of traditional organizations and authorities in handling their internal affairs, representing their people, and linking them with external actors. However, the involvement of traditional authorities in the present local government (Woreda and Kebele administrations) is so far very limited. Community members lack trust in the current local government administration due to lack of commitment and non-participatory, patron-clientele system, clan favourism, and corruption and individualism. This issue of local governance is assessed in Chapter 6 by way of considering the perception of study community as illustrative instance. The next chapter deals with the Afar pastoral economy and its predicaments.

Chapter Five

The Afar Pastoral Economy: Historical and Situational Assessment

This chapter presents a historical and situational analysis of the Afar livelihood resources and systems, herd management strategies, relations with the state and their neighbours, ecological and economic changes and Afar pastoralists' predicaments brought about by the introduction of large commercial farms in the Awash Valley. In doing so, this chapter focuses mainly on the regional level assessment and analysis of factors that have contributed to Afar livelihood predicaments. The background information for discussions in this chapter is based on both primary and secondary data sources.

5.1 Climate, the Resource Base and Land Use Systems

5.1.1 Climate

The climate of the Afar region is semi-arid and arid, with the aridity increasing from west to east. Temperature is inversely related to altitude, with mean annual temperatures of 22°C to 27°C (ANRS, 2004b:14). In areas like the Danakil Depression, the temperature usually reaches up to 50°C. Rainfall ranges from 100 to 700mm with most parts of the Region receiving an annual rainfall of less than 300mm (MCE, 2001:3). 60% of the annual rainfall is received in July-September, and another 20% in March-April. The remaining months of the year are dry leaving the Afar pastoralists dependent on the Awash River for water resources, and opportunistic cultivation along the banks of the River (Yacob *et al.*, 2000:12). According to the "woody biomass inventory and strategic planning study" (ANRS, 2004b:14), the Region has three major rainfall distribution patterns. These include:

- i. *Low overall and extremely erratic rainfall* (less than 200mm per annum) with a peak during October to March (*Gilel*) as exemplified by the pattern at Tendaho. This pattern is found in the eastern part of the region.
- ii. *Moderate and erratic rainfall* (less than 500mm per annum) with a single peak between June and September as exemplified by the pattern at Gewane. This pattern is found just west of the previous pattern.
- iii. *Slightly higher and less erratic rainfall with a double peak*: a low peak which occurs between March and May (*Sugum*), and a second and pronounced peak which occurs between July and September (*Karma*) as exemplified by Bati, Eliwaha and to a lesser extent Awash. The *Sugum* rains are more reliable in the central and northern areas, and nearer to the Eastern Escarpment.

Generally rainfall is erratic and scarce in the Region. Due to this, the region has frequently experienced recurrent drought, and is classified as one of the drought prone regions of Ethiopia.

5.1.2 Natural Resources Base

The Afar land covers 10% of the total area of the country and 29% of the pastoral lowlands (Yirgalem, 2001:5). One of the hottest areas in the world is found in the Afar Region. Though most of the Region is arid and semi-arid, it is able to support the population of the Afar pastoralists mainly due to the presence of the large and permanent Awash river which is the life-belt to the Afar people and their livestock population. Moreover, most of the large-scale farms in the Region and subsistence irrigated crop cultivation have been possible due to the Awash River.

Some studies have indicated the presence of other natural resources including 18 perennial and 19 seasonal rivers, 26 major forest sites, 17 lakes and a number of mineral sites (Yacob *et al.*, 2000:11; MCE, 2001). Natural resources such as water and forage vegetation play a key role in providing fodder and water points for livestock production in the Region. The wetlands, which are found along the Awash River, are classified as seasonal swamps and marshy areas. The seasonal swamps found in Zones 2, 3 and 4 serve as dry season grazing areas (MCE, 2001:43). The Awash River floods the Afar land during the months of July to September due to the heavy rainfall in the head water areas. Pastoralists move away from the flood plains usually to the escarpments on the west or to the Alledeghi plain on the east. When the main rain stops in the highlands and floods recede to the banks of the Awash River, the Afar move down to the flood plains to provide their livestock with flash grass and abundant water resources. Therefore, the traditional Afar pastoralism is sustained by pastoralists' oscillation between the flood plains and the wet season grazing territories away from the flood plains and river banks (Yacob *et al.*, 2001:12). However, over the past decades this pattern of mobility has been affected by a number of external and internal factors. We will be back to this issue in section 5.2.4 below.

The vegetation types, which are the main stay of the pastoral livestock economy, comprise riverine woodland, bushland, shrubland and grassland. Currently livestock get their feed from bushland, shrublands, riverine forests, grassland and seasonal marshes and swamps (MCE, 2001). However, "land use and vegetation cover survey" carried out by Afar rangelands and water development study estimated that 70 % of the region is barrenland¹²⁵ and only slightly less than 30% of the area is considered potentially productive rangeland (MCE, 2001:44). This implies the limited feed resources from these areas, given the increase in livestock population and human population. The same study also identified the extent of the potential grazing and browsing areas in the Region and this is presented in table 5.1 below.

¹²⁵ Different sources (studies) provided varying percentage figures for barrenland. For instance MCE (2001:44) provided 70%; the woody biomass inventory and strategic planning study (ANRS, 2004b:14) provided 50%, and Land Resources Inventory (1999) provided 63.67%. Most of the percentage figures fall between 50% and 70%. Therefore the figure, which is provided by Land Resources Inventory, seems to be the best estimate.

Table 5.1 Potential of the Region in Relation to Range Development

Description	Extent of each Unit (ha)	% of the region
Potential for grazing and browsing	1,517,524	16.50
Potential for grazing	725,062	7.88
Potential for irrigated pasture	87,569	0.95
Potential for seasonal grazing	151,320	1.65
Potential for crop production	208,966	2.27
Un-utilizable land	6,505,559	70.75
Total region	9,196,000	100

Source: MCE, 2001: p.44.

5.1.3 Vegetation and Land cover

The major land cover patterns are closely related to patterns of rainfall and temperature, with local variations due to soil and drainage factors. In the southern and central parts of the western piedmont hills and plains, dense shrubland/woodland changes to open shrubland with decreasing altitude and rainfall. To the north with decreasing rainfall in Zones 2 and 4 the vegetation is lower and less dense (ANRS, 2004b:16).

Along the middle Awash River floodplain dense riverine woodland and swamp are found where it has not been cleared for irrigated agriculture. Below Dubti where the Awash River divides into a number of distributaries to form the Awash delta, a mosaic of dense woodland, permanent and seasonal swamps occur. Much of this has been reclaimed for irrigated agriculture (ANRS, 2004b:16).

The riverine plains and interfluves of the Mile, Logiya, and Uwa Rivers in the West-Central Plains; Mile, Chifra, Ewa and Gulina Woredas in Zones 1 and 4 have extensive areas of grassland. Extensive areas of grasslands also occur on the wide sand grabens and plains in Amibara and Gewane Woredas of Zone 3 (ANRS, 2004b:16).

The “woody biomass inventory and strategic planning study” has identified areas of land cover types in the Region. The major types and their percentages of the Zones and of the Region are indicated in table 5.2 below.

Table 5.2 Dominant Land Cover Types as percent of Total Zonal Area¹²⁶

Zone	rainfed cultivation	irrigated cultivation	grass land	shrub land	wood land	natural forest	riverine forest	water	wet land	exposed soil, sand, or rock	Total
Zone 1	0.0%	1.2%	15%	24%	2%	0.0%	0%	1%	1%	55%	100%
Zone 2	0.1%	0.0%	10%	27%	0%	0.4%	0%	1%	0%	62%	100%
Zone 3	0.4%	0.0%	19%	38%	4%	0.0%	1%	1%	1%	36%	100%
Zone 4	0.0%	0.0%	16%	45%	2%	0.0%	0%	0%	0%	38%	100%
Zone 5	0.0%	0.0%	26%	56%	2%	0.0%	1%	0%	0%	15%	100%
% of Region	0.1%	0.4%	15%	32%	2%	0.1%	0%	1%	1%	50%	100%

Source: Afar National Regional State (ANRS), 2004b, p.19.

The Afar rangelands and water development study also reported that “almost all the land in the Afar region is classified as rangeland¹²⁷ which serves as a source of forage for the livestock” (MCE, 2001:8). As depicted in the table 5.2 above some 50 percent of the Region is covered with bare soil, sand or rock, with 32 percent in shrubland and 15 percent in grassland. In the eastern part of the Region much of this grassland comprises annual grasses, so that much of the year bare soil is the dominant land cover (ANRS, 2004b:18).

5.1.4 Rural Land Use systems

The “woody biomass inventory and strategic planning study” (ANRS, 2004b:25) identified four rural land use systems in the Afar Region. These include pastoralism, agro-pastoral systems based on rainfed and irrigated agriculture, and sedentary agriculture. Each of these systems is briefly described as follows:

- i. *Sedentary agriculture* (growing maize and sorghum): Its main distinguishing feature is the production of nearly all crops from seeds. The crops are mainly cereals, pulses and oil crops. Livestock holdings are comparatively very small (less than 6TLUs per family). Herd splitting does not generally occur. There is little or no movement of livestock (ANRS, 2004b:25).
- ii. *Agro-pastoral agriculture based on rainfed agriculture* (cultivating maize and sorghum). Livestock holdings are large (average of 23 TLUs per family). Herd splitting occurs. Livestock movements can occur over long distances in search of grazing and browse. Camels travel the furthest because of their ability to go for long periods without water. The “dry” cattle herds can travel long distances but must be within a maximum of three days to water. Goats and sheep generally stay within one day’s travel from the settlement, although goats have a wider feeding range than sheep because of their ability to consume

¹²⁶ The “woody biomass inventory and strategic planning study” might not include small-scale traditional cultivation (rainfed or irrigated ones) from some Zones (e.g. Zones 4 and 5). For instance I was able to observe small-scale cultivation in my study community that is located in Zone 5.

¹²⁷ In this case rangelands are defined as those areas with natural vegetation, which for some ecological reasons (normally low rainfall, in some cases rocky, steep or intractable soils or severe climate) are unsuitable to stable, rain-fed cultivated agriculture (MCE, 2001).

a greater portion of browse. Calves and milking cows generally stay close to the settlement (ANRS, 2004b:25).

- iii. *Pastoralism* with no crop cultivation, and livestock holdings larger than agro-pastoral families (average of 29 TLUs per family). Herd splitting occurs. Movement of livestock for grazing and browse are the same as for the agro-pastoralists (ANRS, 2004b:25).
- iv. *Agro-pastoral agriculture based on irrigated agriculture* in the Awash delta area (i.e. growing maize, sorghum and sesame). Livestock holdings are very large (average of 36 TLUs per family). Herd splitting occurs. Movements of dry cattle and camels during the wet season are as far as Chifra Woreda. Sheep graze over relatively short distances along the Awash floodplain, whilst goat and camel movements occur over much larger distances (ANRS, 2004b:25).

The above systems are not spatially distinct and it is possible for one or more systems to exist within one Woreda (district). However, generally the first two systems are found away from the Awash River and the fourth is found along the Awash River in Asaita and Afambo Woredas of Zone one.

In general terms pastoral and agro-pastoral systems form the main livelihoods of the Afar population, the first being the dominant one. The overwhelming majority of the rural households (about 95 %) are pastoralists, and rely on a system where extensive livestock raising is the principal subsistence, milk as staple food. The pastoral groups sell live animals and animal products to get cash for purchasing agricultural and manufactured foods. On the other hand the agro-pastoralists in some pocket areas practise crop cultivation as subsidiary component. They cover some of their food needs from their own production and appear in the market to get supply of manufactured foods and some non-agricultural commodities (ANRS, 2003:1). The following section deals with the Afar pastoral livelihood systems and herd management strategies.

5.2. Livelihoods of Afar the Pastoralists

5.2.1. The Afar System of Livestock Production

As stated above the mainstay of the Afar society is livestock production. Like many other pastoralists in East Africa and elsewhere, the Afar keep multiple species and multi-purpose stock. They rear multiple species including cattle, camels, goats, sheep and donkeys (Ayele, 1986; Ali, 1996; Getachew, 2001a:37). The proportion of the different species varies with the vegetation cover of the Region. In parts of the Region, in the escarpment and around the perennial rivers where the grazing resource is relatively good, cattle and sheep are the dominant types of livestock. In the drier part of the Region camel and goats make the prominent parts of the herd composition with mainly camels in the extreme arid areas (MCE, 2001:14-15).

An extensive livestock production system has been the predominant livelihood system which provides subsistence for Afar pastoral households. It supplies goods for household consumption (milk, meat, butter, hides, skins, etc). Live animals are also used in transactions

such as barter, and sources of cash from the market. In addition to the economic value, animals are also a means of establishing networks of social relationships and exchanges which provide security and mutual aid essential for the continuity of Afar pastoralism. Within the context of kinship and clan affiliation, members practise a good deal of sharing of resources (livestock and labour) and cooperation in economic activities. This point is elaborated in Chapter 6 on the basis of case materials from the study community.

In general the Afar are engaged in subsistence livestock production not only for its economic value but also for the social and cultural values as well as life it renders to kinship groups and the Afar society. Pastoral values are a dominant feature of their social and cultural life (Getachew, 2001a:37). Therefore, among the pastoral Afar, livestock is the most important economic factor influencing all other socio-political and cultural activities. In addition they are used as a store of value and monetary, and as basis of enforcing social ties.

However, as indicated earlier, in the past three to four decades the Afar subsistence pastoral system has been under pressure due to internal and external factors. Like other pastoral groups in East Africa the Afar pastoralists face various problems that include loss of grazing lands and water points to non-pastoral activities; recurrent drought and famine; loss of livestock, and impoverishment; political instability and conflict; population growth, etc. Each of these will be discussed at length in sections 5.2.5 and 5.2.6 below. Here I describe only the concomitant consequences of these developments on food supply from the subsistence livestock production.

The Afar have derived the bulk of their food from milk, meat and butter in the past good days. In the past three decades particularly since the 1970s and 1980s, the pastoral Afar have made a shift towards grain as a major component of their diet. This is partly attributed to (i) insufficient milk yield and loss of livestock due to above mentioned factors, (ii) their gradual integration into market whereby they exchange animal and animal products for grain and, (iii) exposure to relief food provided in the form of grain during the past famine crises and the resultant changes in food habits.

Particularly the losses of grazing and livestock owing to alienation of key resource area and recurrent drought have contributed to decline of food supply (milk, meat and other by-products). The advent of large-scale commercial farms in the Middle and Lower Awash Basin has deprived Afar pastoralists of the dry and drought season grazing areas. This has exacerbated the consequences of drought that led to high livestock mortality and reduction of food supply. For instance the livestock mortality rate following the 1999/2000 drought ranged between 5-12% for camel, 30-80% for cattle, 30-60% for sheep, and 20-30% for goats in the Afar Region. During the 2002/2003 drought in Afar Region livestock mortality, particularly cattle, was estimated to be over 50%. (Beruk, 2003:9).

Furthermore, with establishment of commercial farms came small towns, local markets and sedentarization. Then pastoral groups had to offer live animals (cattle, sheep and goats) and some animal products for sale at markets. During drought period terms of trade has been against pastoralists, in that livestock price drastically falls, whereas the price of grain soars. Therefore, these new circumstances and market forces have their own impacts on the Afar subsistence pastoral economy.

All these socio-economic processes have led to the increased dependence of pastoralists on the wider society and market forces; and to social inequalities and wealth differentiation among pastoral groups. Moreover, these processes have led pastoral groups to take up other non-pastoral pursuits such as practising crop cultivation, wage labour, charcoal making, and firewood selling that are new lines of occupation which pastoralists resort to when the pastoral household income falls. Consequently, the hitherto economically undifferentiated pastoral groups have been disintegrated and some pastoral households pursued non-pastoral activities. Some have started practising crop cultivation. Still some are forced to take up wage labour and other non-pastoral activities. And some still, fortunate ones maintain their herds through grazing alliance (i.e. stock association with neighbouring farming population or with bond friends) and engaging in animal trading.

Therefore, the economic change implies a growing pattern of wealth differentiation. For instance in the Middle and Lower Awash Valley a few wealthy Afar were transformed into commercial agro-pastoralists, while the poor Afar households were neither able to sustain themselves in the pastoral sector nor were able to cope with the new circumstances that followed development, including increasing involvement in opportunistic farming on marginal lands, wage labour and the cash economy (Getachew, 2001a:149). As food supply from livestock production declines and drought cycle has increased, pastoral households are gradually less able to cope with recurrent food shortages and to recover after drought episodes. Consequently pastoralists, particularly poor households and those who lost their stock and assets rely on external food assistance. For instance during the 2003 drought, 204,115 (i.e. 18% of the total) of the Afar people were chronically drought affected and food insecure who required not only food assistance but also basic services such as water, health and nutrition as well as stock recovery (Beruk, 2003:11).

Generally, it can be said that the diversification of sources of livelihoods (i.e. pastoral households' involvement in non-pastoral activities) has been an increasing trend in response to both internal and external pressures on subsistence livestock production. And yet the subsistence-based pastoralism remains the main livelihood system for the majority of the Afar pastoral households, despite the gradual taking up of subsidiary economic activities (petty trade, small-scale cultivation, wage labour). The increase of non-pastoral strategies implies the fragmentation of the traditional pastoral system. On the other hand the majority of pastoralists still continue with their subsistence livestock production event at its marginality. Pastoral households employ various strategies of customary resource and herd management strategies in order to maintain their pastoral systems. This implies both the change and continuity of the pastoral system in response to internal ecological changes and external pressures. In the following section I discuss adaptive responses or strategies employed by the Afar pastoralists to maintain their pastoral system under the destabilizing events and processes going on in the Afar Region.

5.2.2 Customary Resource and Herd Management Strategies

Earlier travellers characterised the Afar territory as “unpleasant consisting of stony or sandy desert traversed by great lavas ...miserable desert, barren” (Nesbitt, 1935; Trimmingham, 1976). In fact the Afar land is largely semi-arid and arid which is, except in some pocket areas, not suitable for conventional or rainfed agriculture. And yet the Afar have managed to survive in such an environment for centuries via maintaining ecologically and economically sustainable pastoral production systems. Their pastoralism represents a highly rational adaptation to a severe and adverse environment. They have employed various herd management strategies and have developed flexible and adaptive social-political organizations to survive in such an adverse environment.

Seasonal mobility, changing herd compositions (when the situation demands), and traditional institutions of mutual aid have been used to maintain the sustainability of the pastoral system both ecologically and economically. However, as indicated earlier over the past three to four decades this system has come under mounting pressure and increasingly becomes vulnerable to various stresses (economic, political and environmental ones). Changing land use, political, economic, demographic and institutional changes have all either in single or combined brought a growing pressure on Afar pastoralism. In other words these mounting environmental, demographic and political forces have put their long-adapted strategies at a test. I will be back to these factors at length in section 5.2.4. Here I first briefly discuss the main herd management strategies employed by the pastoral Afar.

As discussed in Chapter 3, among the Afar and in many pastoral groups in East Africa herd management strategies are responses to many factors such as limitations set by ecology, physical needs of the stock, the social needs of people who keep the herds and, other socio-cultural factors (Getachew, 2001a:38). For instance different species of stock prefer different niches and have different feeding habits; require distinct herding patterns; have different breeding rates and tolerance to vagaries of nature; provide different amount of yields; and have different social, cultural and religious significance. Therefore, it is in the light of all these considerations that herders or pastoral households pursue various herd management strategies and organizing their household labour.

Households are production, reproduction and consumption units. The stock management unit in Afar is the household unit/extended family (*Burra/Dahla*) whose basic objective is geared towards provision of sufficient milk and exchange, and balancing the reproduction and further survival of stock after droughts or misfortunes (Getachew, 2001a). In general for a successful pastoral production system in an economically risky and politically volatile environment like that of the current situation in the Afar Region requires an effective livestock management strategy; stock diversification; mobility of stock; stock redistribution and transfer; establishing stock alliance and mobilizing social networks; change of residence by households, etc. Each of these strategies is elaborated below.

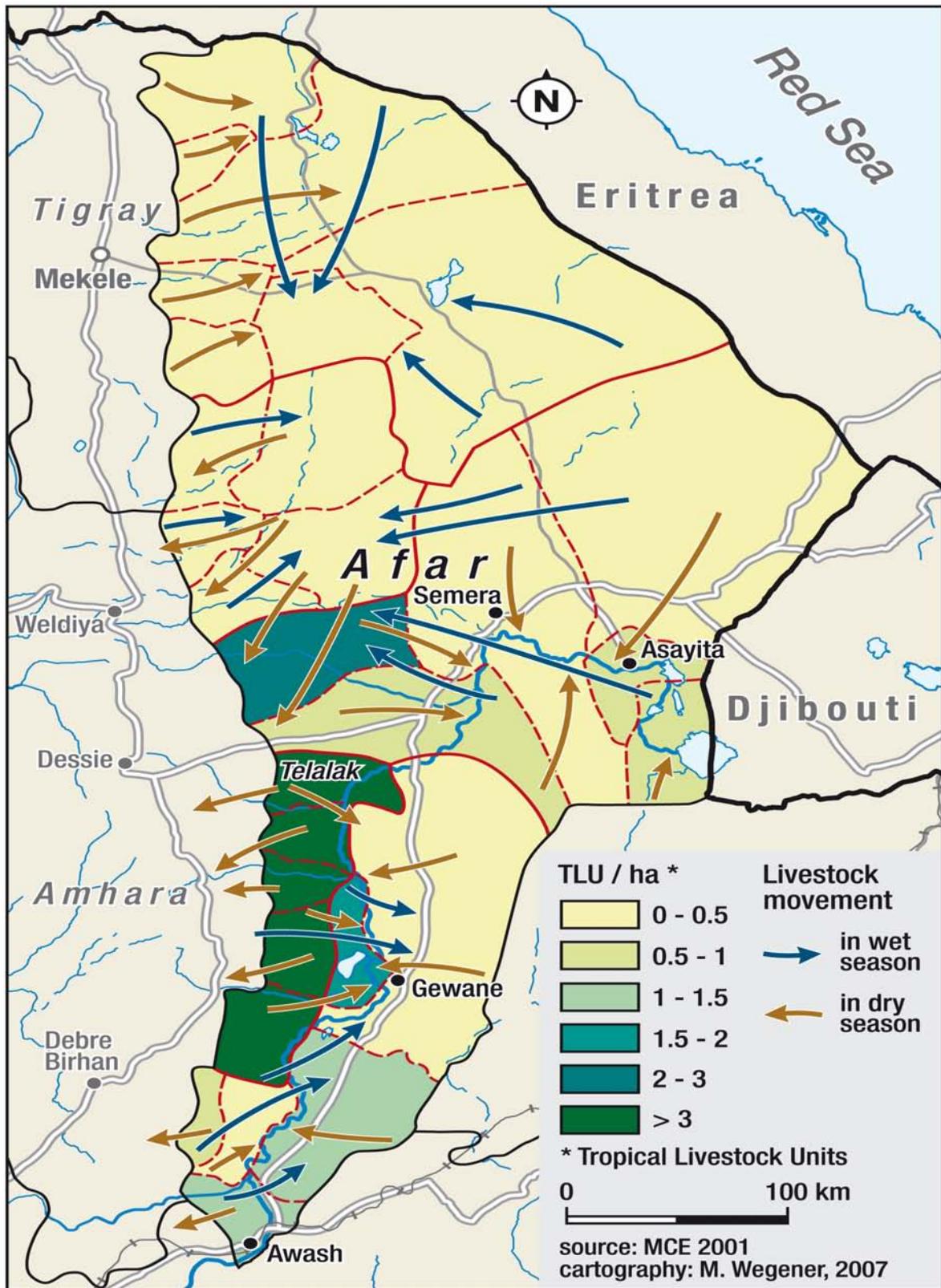
i. Accumulation and diversification of stock: One of the challenges of the pastoral households is the growth of livestock or to acquire more livestock and to diversify species in order to be a viable production unit and to recover from unexpected losses or misfortunes. Therefore, the Afar pastoral households in each extended family try to acquire more stock and

to keep multiple species as much as possible for feeding family members, for social investment and insurance against unexpected losses due to raid, disease or drought consequences. To this effect they strive to keep a sufficient number of cattle, camels, goats, and sheep. Particularly family members refrain from selling productive female stock and young heifers. Moreover, lineages or kinship groups often discourage and prevent members from depleting their stock (particularly camels and cattle) by selling for purchasing unessential urban consumer goods. Even transfer of stock to an individual family, who has lost its stock for one reason or the other, needs to ensure the availability of proper stock management, adequate and appropriate labour and skill in the recipient family. If a recipient mismanages a loaned stock, immediate recall of a loan stock can take place. All this is to build up family's or lineage's stock for provision of sufficient food, social investment, and for safeguarding against destitution which may result from unexpected stock losses or misfortunes. Transfer of stock between households also resolves shortage of herding labour for households who own relatively more stock than labour power. However, in recent decades the strategy of herd accumulation has been constrained by loss of stock because of recurrent drought impacts, shrinkage of pastureland and loss of key resource areas to non-pastoral uses.

ii. Livestock mobility and labour organization: As stated in Chapter 3, the most conspicuous adaptive strategy of the pastoral production system is the mobility of herders and livestock. The mobility of herders and herds which is mainly dictated by the availability of forages and water can follow different patterns, but is always characterized by a combination of individual stock ownership and communal land use.

Among the Afar the strategy of mobility is pursued mainly to minimize stock losses and to provide access to seasonally varying grazing resources and to sufficient water. Mobility also occurs to escape floods, mosquito infestation and livestock diseases. The Afar pastoral system is based on the utilization of rangeland resources which vary temporally and spatially. In order to utilize such different rangeland resources, the pastoral groups adopt various patterns of mobility depending on seasonal availability of pasture, vegetation and water. As the Afar Region is characterized by extreme variability in and low amounts of rainfall, the Afar have developed an extremely flexible system of livestock and rangeland management that utilizes the poor/scarce livestock feed resources available to them in a highly efficient manner.

Spatial mobility is made to dry-season and wet-season pastures involving short-range mobility and/or long distance migration. Transhumance is practised between dry-season pasture within flood plains of the Awash River and key resource areas at the banks of some perennial rivers and the wet-season pastures on the high grounds outside of the riverine lands and on foothills or escarpments in the western part of the Region. (See map 6 for directions of livestock movement within and beyond the Region).

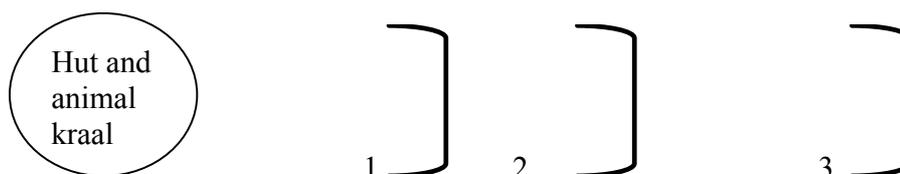


Map 6 Livestock Movement during Wet and Dry Season

During the dry season people and livestock retreat to areas with relatively secure water supplies. During the short rain herders split their livestock into grazers and browsers, and into “wet” (milk) and “dry” animals. Using a highly developed system of scouting and verbal communication (*Dagu*) they direct their animals to areas where browse and/or pasture are temporarily at their best. (This point is elaborated in Chapter 6 on basis of case materials from the study community).

Mobility also involves the division of management units (i.e. the households and their stock). Herding unit is often based on types of animals, age, sex and lactating status. The herd is divided into camel, cattle and small stock herding units which in turn sub-divided into main/permanent settlement-based lactating stock (*Homa*) and temporary camp-based dry-herd stocking unit (*Magida*). Likewise labour resources of households are organised into herder groups on the basis of age, gender, kinship relation, traditional rules and settlement. If we see labour organization in terms of type of stock, age and gender of herders, camels are often kept only by adult men and cattle by adult men and women. Small stocks are mainly herded by children and women who are in fact overseen by adult men to ensure their security against any external threats (e.g. theft, wild beasts, raids from Issa, Karrayu). Livestock are penned in accordance with kinship relations. Kinship groups or households within extended families often pool their labour, organize and herd their stock together. As a rule camels are herded and milked only by men, cattle by men and women, goat and sheep by children and women. Elders supervise the management of herd units both in main settlements and temporary camps. They also tend lactating, small stock, some pack animals, weak and work stocks which are kept near the base camp (*Homa*). On the other hand junior, unmarried and energetic young men drive dry-herd from the main settlement to wet and dry season grazing areas (see box 5.1 below about livestock in space vis-à-vis homestead/family enclosure in the study community).

Box 5.1 Livestock in Space



1. **Gudata (Kelao):** space allowed only to extended households to graze kids and calves. Other large animals can stay for short time in *Gudata*. *Gudata* is closer to the homestead and often reserved for small kids and calves.
2. **Dahari:** area designated mainly for goat, sheep and cattle
3. **Der-dahari:** Area far from homestead and mainly used for camel and cattle grazing.

Sources: Focus Group Interview, December, 2005

The range of mobility varies spatially as well as seasonally. Previous studies done in the Awash Valley (e.g. Getachew, 2001a:50; Voelkner, 1974:21) indicated that the mobility range of the main settlement camp of the Afar family is estimated to be between 0 to 5 kms, but sometimes it is between 5 to 30 kms radius and conversely the dry-herd satellite camps have ranges of migration between 30 to 100 kms radius. Long distance migrations are practised during the rainy season and enable efficient use of the distant pasture and preservation of the nearby for the later use.

However, over the past three to four decades the Afar pastoral mobility into the dry/wet seasons' key resource areas has been highly affected by the introduction of irrigation schemes in the Awash Valley; the change of the Awash River course and flooding; delineation of national parks; the intrusion of Issa and other neighbouring groups into the Afar land; and the mounting of intra and enter-clan and ethnic conflicts over the use of scarce resources, and shrinkage of pasturelands. Each of these constraints is discussed in section 5.2.4 below. But here let us proceed with discussing on herd management strategies employed to overcome stock losses during dry or drought seasons.

In Afar society the last part of the dry season is the most difficult period for the pastoralists. It is a period where household heads and clan/lineage leaders have to make critical decisions to overcome stock losses. Until the rainy season comes they tend to the disposal of part of the stock through sale, transfer to other households or bond friends, exchange of animals, etc (Getachew, 2001a). Equally critical is the drought period where pastoral households have to resort to distress migration, stock disposal, slaughtering animals and destocking. Some of these strategies are elaborated below.

iii. Stock distribution and transfer: Stock redistribution and transfers are made on the basis of kinship relations. Stock can be transferred in different contexts in the form of gifts, loans and exchange (Getachew, 2001a; Ayele, 1986). Stock transfer starts from birth through marriage to establishing of independent households (i.e. cycle of household development). Each son acquires the birth gift from his father, paternal and material kin and affines. Likewise a daughter also acquires gifts from parents and relatives. Birth gifts constitute the core herd by the time a son gets married. As a boy grows he again acquires additional gifts of stock from his father, mother and close kin at circumcision and marriage. (This point is elaborated in Chapter 6 on basis of case materials from the study community). Besides he could acquire stock through his own effort by engaging in herding and wage employment in town and non-pastoral works.

On the other hand households or individuals who face misfortune and loss of their stock could ask for free gifts or loans of stock from their close kin. A household head that could not afford his children's marriage, circumcision, mortuary rituals, or could not cover cost of treatment of ill-dependent could ask his relatives or kinsmen for loans or gifts. A poor or a household head who could not sustain his household members could ask his paternal, maternal kin and in-laws (affines) of milk-stock (*Hantilla/Hantita*), or redistribute his children among these groups of relatives. Stock distribution or transfer through *Hantilla* could be viewed in terms of practical livestock management strategy which includes security guarantees and ecologically efficient resource uses. The transfer of stock to relatives living away from the

giver's residence is preferred and considered as more advantageous to those living closer (Getachew, 2001a:42). Various stock transfer and mutual aid associations exist among the Afar. These associations are described in Chapter 6 using case materials from the study community.

Generally, among the Afar, kinship groups have a shared claims and rights in each other's stock, and moral responsibility for raising the necessary number of animals or cash in assisting members who face misfortunes for one reason or the other and/or could not sustain their household members, since they are involved in mutual aid and cooperation. The arrangements of stock transfers are the function of social organizations and effective herd management strategies. Transfers are done within a household and across households linked by kinship relations in order to tackle shortage of milk and breeding stock by the recipient households. However, nowadays the amount of transfers and the degree of mutual aid have been constrained by decline of assets both at household and community levels among the Afar. Though solidarity, good will and the ethos of mutual help are still strong among the pastoral groups, the amount of transfers has been gradually insufficient either to rebuild stock or to cope with severe crisis. This point will be illustrated in Chapter 6 by the way of analyzing the case study of Aghini pastoral community.

iv. Stock-Alliance and Animal Entrustment: For an individual or a household it is customary to have bond friend(s) (*Kataysa*) from the own clan group or from non-Afar groups. Bond-friendship is one way of forming an alliance or networking for reciprocity or resource sharing. Such alliance is based on voluntary, self-selected contracts between individuals or households. Thus individuals and households who have established bond friendships exchange gifts, loans and form stock-alliance.

Stock-alliance is established between individuals or households. It is customary for an individual to have four stock-partners, two of his own and the other two of his father.¹²⁸ If one gave one particular animal to his friend, his friend could ask him for another animal at another time (Ayele, 1986:37). The stock partner could also tend livestock of his ally for a certain period, and in return he could receive animals or firearms for his service.

The relation between Afar and neighbouring groups (Oromo, Argoba and Amhara) is characterized by both conflict and cooperation. The relations of Afar with their neighbours living in the west part (i.e. Oromos and Argoba) have been friendly, peaceful and important as compared to that of the Issa. There have been economic and social relations. Intermarriage and friendship (*Kataysa*) as well as relationships with their neighbours have been important in creating peaceful trade relations and access to scarce pastoral resources and markets (Getachew, 2001a). In order to escape drought risks, shortage of feed and livestock diseases the local Afar move part of their stock to their Oromo or Argoba friends (*Kataysa*). Likewise their Oromo friends bring their stock to their Afar friends during wet seasons. Moreover, the Afar and the neighbouring groups exchange pasture resources and stubble (crop residues). In recent years, however, forging stock-alliance with neighbouring Oromos has been reduced.

¹²⁸ *Kataysa* (bond-friendship) is inherited among the Afar. Children often continue their relations with their father's *Takaysa*, when their father passes away.

This will be explained in Chapter 6 by analyzing the relationships of case study community with its neighbours.

v. Slaughtering, Destocking and Restocking Livestock: The pastoral Afar sell or slaughter only specific types of animals like dry females, kids (*Bakal*) and older animals. In normal times older animals and non-productive stock are often disposed either through selling them at market or slaughtering them for household consumption or offering for the feast called *Dasiga*. As a rule female stock are not offered for market unless they are old or non-productive. Old and non-productive stock are offered for *Dasiga*. *Dasiga* is an Afar term that denotes sharing meat in the bush. It is practised mainly by young men who want to hold a meat-sharing feast. An animal is often offered for such a feast on payment in kind. For instance, a camel slaughtered for a *Dasiga* is equivalent to 90-100 goats (Helland, 1980, cited in Getachew, 2001a:51). The practice of *Dasiga* is partly to overcome craving for meat. On the part of the stock owner, it is a way of disposing an old stock, and reconstituting the herd by young and productive ones. In relation to *Dasiga* as a means of disposing unwanted stock and restocking, my key informants stated as follows:

In the study community unless there is severe problem, female-animals are not often offered for sale. Under the normal conditions male-animals, old animals (both sexes), those female-animals with less yield, or with deformed breast, or those which are emaciated or thin; or a cow whose calf could not grow (called *Sobiyalie*), and finally heifer are often offered for sale at market. Male-camel which is fattened or old can be offered for meat to the clan members on loan basis for the feast called *Dasiga*. *Dasiga* is often feasted with a group consisting of seven or nine or eleven members. The number of *Dasiga* group is always odd number. A herder who has a fattened or old camel offers it for *Dasiga*. The owner in return can receive nine female-goats immediately (i.e. in advance). After 2 years, the owner will receive nine castrated bulls. Then the owner will fatten and sell the bulls for cash, or exchange them for heifers, or rent out the bulls to the neighbouring sedentary cultivators for grain and to be used for plowing (*Key informant interviews, December, 2006*)

The Afar also dispose stock selectively even during dry season or drought period. They also cull animals when there is a critical shortage of feed during drought, and during disease epidemics. They tend first to sell old, non-productive and male stock early to avoid losses due to shortage of feed and to preserve the existing scarce feed for those core and productive-female stock. When a drought becomes severe they slaughter very young ones or calves as the dams could not provide them with sufficient milk and withstand the exposure to drought effects.

5.2.3 The Increased Involvement of Afar Pastoralists in Non-pastoral Activities: Trade and Crop Cultivation

Even though pastoralism was and is long-standing mainstay of the Afar, trade and crop cultivation had been adopted since earlier times. They are not newly introduced practices among the Afar who reside in the lower delta of the Awash River Valley. Earlier travellers (Nesbitt, 1935:207; Trimingham, 1976; Dahilon, 1985 cited in Kebede, 2005:51) observed such non-pastoral pursuits in parts of the Afar land at earlier times. For instance, during his expedition to Aussa, Nesbitt (1935:207) recorded that “at present agriculture is practised only

sufficiently to supply the needs of the population, and certain reserve crop which is stored in the Sultan's granaries for use in the less productive years." Crop cultivation had been observed along the Awash River, particularly in the fertile districts of Badhu and Aussa where a series of lakes developed from the Awash River had been exploited for cultivation by the creation of a system of dykes built by Arabs at the instigation of the Sultanate of Aussa (Nesbitt, 1935: 208; Lewis, 1994:162). And at the time maize, cotton and tobacco were grown.

Earlier travellers and explorers also reported the excavation of salt as one economic activity apart from pastoralism in the northern and central part of Danakil (now northern Afar). Afar traders were also engaged in exporting salt block (*Amoliay*) to the west to highland areas (i.e. to Abyssinian merchants¹²⁹) and to the east to the coast (Arabian merchants). Salt deposits provided an essential article of trade¹³⁰. Livestock and their products were also traded in exchange for durra and cloths brought by coastal merchants (Lewis, 1994:155,158).

Moreover, the long distance caravan trade route was through the Afar territory. While the local people earned some income from providing escorts for the caravans, and exchanged their goods against imported goods, the local (tribal) chiefs collected transit fees from caravan traders. Therefore, the Afar being in the strategic location - in an area through which the caravan trade route to and from the hinterland and the coast passed, have benefited from this traffic by acting as middlemen between the coastal and hinterland traders, and have also themselves involved in the trade for centuries. Earlier times the external trade between Afar and their neighbours was largely carried out through the caravan networks (Getachew, 2001a:45).

Until the establishment of Djibouti-Dire-dawa railway, the caravan trade route and coastal commerce (trade) played a significant role in the Afar economy. Moreover, the route also served the Afar Sultanates to maintain their practical independence from the Abyssinian rulers, as the later remained on good terms in order to ensure the safety of their caravans to the coast. However, since 1895, the independent Sultanate of Aussa gradually came under the control of the Ethiopian rulers. Particularly after 1944, the pressure from the central government has increased and it has been enhanced by the establishment of civil and military bureaucracies. Moreover, the advent of the large irrigation schemes in fertile districts of the Awash Valley hitherto used for traditional irrigated agriculture and grazing has brought far-reaching consequences on Afar pastoralism, crop cultivation and trade.

Generally speaking the Afar pastoralists have neither subsisted from the products of their animals nor grown sufficient food crops to meet their consumption, ritual and luxury requirements. Therefore, they have to sell livestock and other products, and rent out their pack animals (camel and donkey) to local and non-local traders in order to purchase grain, cloth, medicine, and luxury goods. Still others engage themselves in additional income sources

¹²⁹ In relation to this Nesbitt (1935:63) observed that "the Danakils had carried the bags of salt to the boundary of their territory, where they had been taken up by ... Abyssinians".

¹³⁰ "Licata wrote in 1885 that slavery [was] the main commercial enterprise of the Afar" (Licata, 1885:272 cited in Lewis, 1994:167) and Nesbitt (1935: 189) also indicted that "though very restricted ... trade in slave or the slave-traffic continued ... because it was such a lucrative business".

such, growing food crop, wage labour, animal trading, charcoal making, fuel-wood selling, etc. Nowadays, therefore as income and food supply from subsistence livestock production declines over time, pastoral households gradually resort to taking up of additional livelihood strategies either to augment their income sources and/or to cope with economic shocks. These non-pastoral activities will be illustrated in Chapter 6 with reference to the study community. Therefore, the following section focuses on the historical political processes, and socio-ecological changes that have affected the current Afar livelihood systems. State-society relations, Afar relations with their neighbours, ecological and economic changes, and the Afar predicaments are the focus in the following sections.

5.2.4. Relation with State and Neighbours

5.2.4.1. State-Society Relation

i. Political incorporation: As indicated earlier in Chapter 4 the Afar-state relation has evolved for centuries. Various historical, political and economic factors have contributed to shaping the Afar relations with successive Ethiopian governments. The political incorporation of the Afar territory and the partial annexation to highland economy, and the development programmes that reflected the priorities of government political, strategic, national and foreign commercial interests have played a great role in shaping Afar-state relationships. Some of these factors are elaborated in the following paragraphs.

As stated by various authors, until the end of the 19th century the Afar and their Sultanates were able to maintain their “practical independence” from the Abyssinian rules. The Sultanates of Rahyata and Tajoura passed under European domination, but the Aussa Sultanate remained independent and its influence extended over southern Dankalia (Lewis, 1994:157). A number of factors have been mentioned by many writers for the “practical independence” of Afar land prior to early 1940s, and for a semi-independence status after this period (Nesbitt, 1935; Lewis, 1994; Trimmingham, 1976; Gamaledin, 1993; Getachew, 2001a). Some reported that Danakil harsh environment, a circle of sterile desert on one hand and the braveness and ferociousness of the local people on the other hand had guarded the Danakil territory against Abyssinian authorities or raids from Abyssinian highlands (Lewis, 1994:157; Nesbitt, 1935). In relation to this Nesbitt (1935:72) noted as follows:

Though the Danakil country belongs to Abyssinia, the agents of the government are unable to penetrate in its deserts, except fringes. The brave and ferocious Danakils are in a continual state of contention with the government forces for possession of the borderlands lying between their tribal territories and the plateau. In any given sector, sometimes the government forces and sometimes the Danakils hold the upper hand. Beyond the borderlands no government forces ever dare to pass.

Other authors stated that the fact that Abyssinian rulers, particularly those of Shewa wanted to ensure the safety of their caravans to the coast and thus had to remain on good terms with the Afar had contributed to maintain a practical independence (Lewis, 1994:156-157; Trimmingham, 1976:171). The caravan route was the main access trail to the coast for import and export at the time. Still other authors claimed that the Abyssinian rules (Amhara and Tigre) followed the policy of indirect rule through natives of the Afar (Getachew, 2001a; Gamaledin, 1993). Gamaledin (1993:45) further contended that it is not only in Afar, but

“Ethiopia as a whole did not have a centralized administration before the end of the Italian rule in 1941, when attempts were made to set up civil and military bureaucracy”. According to Gamaledin until 1941, the Afar region was not effectively controlled by the Ethiopian government partly due to the inability of the central government to provide the necessary administration and partly because of the historical relations between Shewa and the southern Afar (Gamaledin, 1993:49). Later on, with the end of colonial administration in Northern Ethiopia, the security of border and safe access to the coast had become a priority concern for the central government. This emanated from the economic and political importance of the strategic position of the Afar land for the central government. Consequently the central government strengthened its surveillance and expedition into Afar land to salve any external threat.

Generally the Danakil territory was comparatively free from the Abyssinian authority until the time of Emperor Menelik II, when, in 1895, on the pretext that the Sultan of Aussa had become an ally of the Italians, a Shewan army was sent against him and the Sultan was forced to pay tribute (Lewis, 1994:157). Therefore, after the withdrawal of Italians from Eritrea, an Abyssinian expedition reached to Aussa in 1944, captured Sultan Mohammed Yayo and brought him to Addis Ababa where he died in captivity (Lewis, 1994). His office was passed to Ali Mirah (a kinsman-young boy from the Aydahiso family), who was indebted to a celebrated *Wazir* (chief assistant), Hamadi Yayo, until he was crowned as Sultan of Aussa. Then after Aussa remained as a semi-independent Sultanate tributary to Ethiopia until the 1974 Revolution when the Sultan was deposed and forced into exile to abroad (Lewis, 1994:157). In relation to this Gamaledin (1993:47) stated that the “policy of the Imperial Government in Afar land was to create an Afar officialdom on lines similar to those everywhere in the country by conferring titles and stipends on Afar notables, and in so doing the Centre was to exert its influence. Gamaledin (1993:47) also added that the introduction of agricultural reforms and large-scale commercialization into the Awash Valley was to consolidate the position of state bureaucracy, thereby creating an economic bond with the wider Ethiopia society. The increasing incorporation of Afar territory under the control of the centralized state administrative and political machinery has been enhanced during the 1940s with the advent of modern civil and military bureaucracies in Ethiopia and further intensified with the introduction of irrigation schemes into fertile lands of the Awash Valley in the subsequent decades. In general the Imperial Government and the Derg regime attempted to incorporate the Afar traditional structure and authority into the central state. This aspect has been already discussed in Chapter 4. In the following sections I describe the consequences of large-scale commercialization and delineation of parks on Afar pastoralists.

ii. Farm Commercialization and National Parks/Game Reserves: Pastoral Land Alienation:

As stated earlier in Chapter 3, the development policies and programmes implemented in the Afar Region have historically reflected the priorities of government political and strategic interests and selected national and foreign commercial interests. The land tenure and development policies of the successive Ethiopian regimes were hostile to pastoral economy of the Afar society. Their policies were mainly in favour of settled agriculture including large-scale state and private commercial farms aimed at achieving national economic goals that excluded the social and economic interests of the local customary users.

If we begin with the time of the Emperor Haile Selassie, the lands of the pastoral areas were made the property of the state by constitutional decree. In 1955 the revised constitution of the Haile Selassie Government dispossessed all pastoralists of their land by declaring it as State property. The ground which prepared for such policy could only have emanated from a total misunderstanding of the ways of life of pastoral nomads, their social system, particularly their customary law regarding land (Fekadu, 2001:1). A survey carried out in 1969 found out that 42% of the total area of the country was classified as Government land (MoLA, 1969a:118 cited in Abdul-Mejidi, 1976:12). According to this same study, 78% of the Government land had “a grazing only” potential and could not be used for agriculture without heavy investment in irrigation. And such areas were those lowlands inhabited by pastoral groups, and had been declared Government land. Accordingly the government and prominent individuals inside the pastoral groups and in the high echelon of the central government began to seize on these opportunities to assign the pastoral land for commercial farming. The immediate victims of such exploitation were the Afar, whose prime land was exploited by commercial farming to the detriment of the productivity of pastoralism (Fekadu, 2001).

In fact the rise in government interventions since the 1960s was part of much broader development strategies that most developing countries adopted during the 1950s and the 1960s. Taking into account the global economic order of the time, the Imperial Government in Ethiopia designed an industry-focused economic development strategy (Bekele, 2006:6). Expansion of large-scale commercial farming was taken as a means to supply raw materials to domestic industries, and food supply for workers. While expanding commercial farms, the Afar plains were among the areas that attracted the attention of the Government.

Out of the total of some 200, 000 ha of irrigable land, 25% was developed in 1970-71, mainly for the production of cotton and sugar. It was precisely those areas most frequented by the Afar, i.e. their grazing pastures which are traditionally flooded during June to August resulting in excellent grazing for the greater part of the year (Abdul-Mejidi, 1976:19). The prime land “corridor of survival” of the Awash River which was used strategically in the height of the dry season when the grass is depleted in other areas was no longer available for them. The taking of this land had such disastrous consequences that the Afar were vulnerable to withstanding the slightest of the usual cyclical droughts (Fekadu, 2001:1).

The 1974 Revolution in Ethiopia deposed the Imperial Government. The Military Government (Derg) came to power. This was followed by the 1975 Land Reform Proclamation. However, the 1975 land reform, which was expected to restore communal lands lost to private commercial farms since the 1950s, failed to address the land tenure issue. The reform that led to the nationalisation of all lands did not redress the disastrous consequences of land tenure and development policies of the Imperial Government. Rather the expropriation of pastoral communal lands for large-scale irrigation schemes had continued during the Military Regime. Firstly, the Derg Government confiscated all large-scale farms owned by private commercial farmers and concessionaires. Later on large-scale private farms were transformed into state-owned enterprises. Secondly, new farms were expanded under the Derg regime through appropriation of more pastoral lands. The Derg Regime promoted a rapid expansion in state-run irrigation schemes, which brought vast tracts of grazing land under cash crop production. For instance, after the 1975 land reform the Middle Awash Agricultural Development Enterprise (MAADE) was expanded from 300 ha in 1968 to 13,

116 ha in 1985 by clearing more land from dry-season grazing areas (Bekele, 2006:6). Therefore, the local Afar were denied of property rights, of their remaining grazing lands due to additional expansion of state-owned large-scale irrigation schemes.

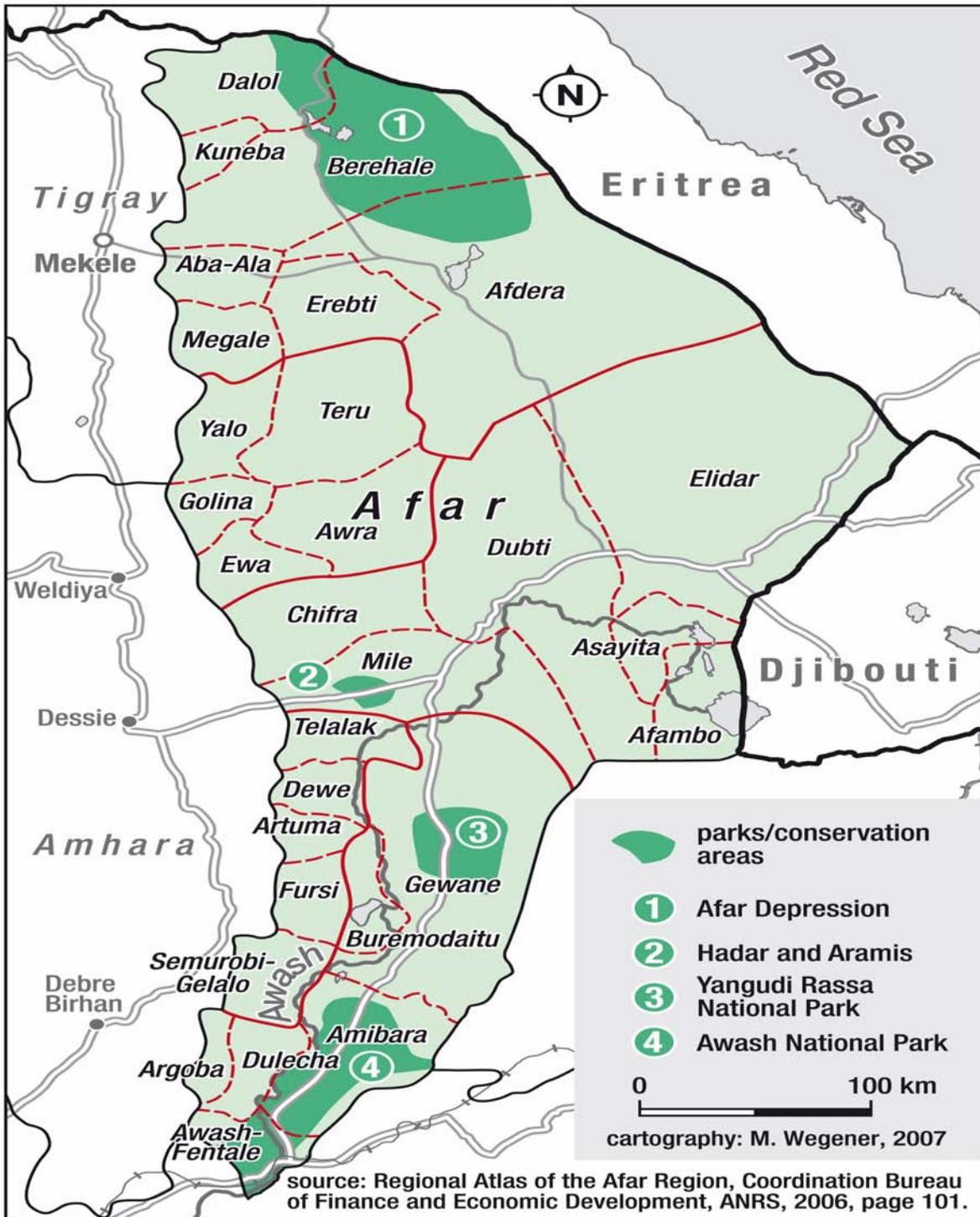
Though the Afar region is one of the hottest areas and is extremely inhospitable, it has been able to support the Afar pastoral and agro-pastoral groups due to the presence of the Awash River and other permanent water courses. Particularly the Awash River is the life-source of the Afar pastoralists and agro-pastoralists inhabiting the Lower and Middle Awash Valley. However, their relative autonomy and pastoral economy have been severely threatened since the early 1960s by the establishments of irrigated agricultural schemes and national parks in the Awash Valley. Particularly the land which has been taken for early development was mostly land close to the river, in areas which flooded easily and took a long time to drain. Consequently, the pastoralists have lost important dry season grazing areas that have good grazing during the hottest and driest part of the year from February to June (Abdul-Mejidi, 1976; Flood, 1976; Ali, 1996; 1997). The estimated dry/wet season grazing lands lost to non-pastoral uses in the Middle Awash Valley is given in table 5.3 below.

Table 5.3 Estimated Grazing Lands Lost to Non-pastoral Uses in the Middle Awash Valley

Pastureland		Area (ha.)
I.	Dry-season grazing lost to:	
1.1	Middle Awash Agricultural Development Enterprise	15, 840
1.2	Awara Melka and Yalo farms	2,430
1.3	Settlements	3,011
1.4	IAR, Melka Werer Irrigation pasture project	360
1.5	Irrigated pasture project	1,200
	Sub-total	22,841
II.	Wet-season grazing lost to:	
2.1.	Alledeghi Animal holding center	6,000
2.2.	Northern part of Awash national park	23, 000
	Subtotal	29, 000
	Grand total	51, 841

Source: Ali, 1997, p.126.

Generally, out of the total area of 130, 000 ha put under commercial farms in pastoral areas of Ethiopia, the Afar Region contributes 70, 000 ha (Beruk, 2003:5). Similarly a significant area of rangeland is designated for wildlife reserves, parks and sanctuaries in the Afar Region (see map 7 for major parks/ conservation areas).



Map 7 Parks/conservation Areas in the Afar region

A total of 466, 640 ha of range areas have been converted to wildlife parks and sanctuaries in Ethiopia (Beruk, 2003:5). Of this amount of rangeland, about 75% of the alienated pastoral land belongs to the Afar pastoralists¹³¹. This is shown in table 5.4 below.

Table 5.4 Parks, Wildlife Reserves and Sanctuaries in the Rangeland Area of Afar

Park/wildlife reserve/sanctuary	Area (in hectare)
Awash National Park	7,560
Yangudi-rassa national Park	47,310
Alledeghi Wildlife Reserve	18,320
West Awash Wildlife Reserve	17,810
Gewane Wildlife Reserve	24,390
Mile-Serdo wildlife Reserve	87,660
Gewane Controlled Hunting Area	59,320
West Awash Controlled Hunting Area	91,360
Sub-total	353,730

Source: Ethiopian Wildlife Conservation Organization (EWCO), 1993 cited in Beruk, 2003, p.5

Generally speaking all the interventions of the state were without the consent of the customary users. Compensatory measures such as irrigated pasture and resettlement schemes were attempted. But they could not satisfy pastoral groups who lost their key resource areas. All compensation measures had proved failure for the reasons already mentioned in Chapter 3. Therefore, there were always series of resistance from the local people during and after the establishment of the commercial farms particularly during the Derg time. At times the pastoralists expressed their dissatisfaction and desperation in damaging mature crops and confronting with state authorities. Conversely they suffered from penalty, confiscation of stock, harassment, eviction and killing. The following incidence that occurred immediately after the 1975 land reform illustrates Afar pastoralists' resistance to the central state:

Following the flight of the Sultan Ali Mirah, Afar grievances sparked a rebellion which culminated in the burning of a cotton plantation and killing of many non-Afars. As the Sultan left Asayita on June 2, 1975, his followers killed about 221 non-Afars the next day. The killing of the highlanders was provoked by the fears of the Afars that the government would hand over their land to those tilling it in accordance with the land proclamation since highlanders worked on Afar owned farms by being employed at the time. The Addis Ababa-Assab highway was also closed as result of the uprising. As it had serious implication for the country's economy, the Derg regime soon reacted harshly by sending troops to the area and began what Shehim (1985) called an "Afar genocide". Asayita, the capital of Aussa Sultanate was destroyed and many Afars were murdered. The Sultan claimed that "the government army killed as many as 1,000 Afars by using airplanes and armored cars" (Ottaway and David, 1978, Shehim, 1985 and Ali 1998 cited in Kebede, 2005:57-58)

¹³¹ The balance, 35% belongs to other pastoral areas (i.e. 62, 300 ha in SNNPR and 50,610 ha in Gambella Region have been converted to wildlife reserves, parks and sanctuaries).

The flight of Sultan Ali Mirah to Saudi Arabia marked the end of friendly relations between the central government and the Afar. It ushered in a period of open ethnic confrontation between the Afar and the central government (Ali, 1998:111). Therefore, state-local people relation was that of suspicion, distrust and conflict. This in turn combined with ecological marginality contributed to economic and political marginalization of the Afar pastoralists. Apart from loss of pastoral key resource areas and conflicts between Afar and government authorities, the advent of large-scale development schemes in the Awash Valley also brought ecological crisis and socio-economic consequences. The following paragraphs briefly present some of these consequences.

iii. Ecological and Socio-economic Consequences: The arid and semi-arid areas of East Africa have rainfall patterns that are highly variable temporally and spatially making pasture and water availability for livestock unpredictable. Moreover, key ecological resources of such areas are characterized by small patches of seasonal grazing and important water points that are critical to support the entire livestock production system. When such key resources are degraded or lost, the production systems can be badly affected.

In the Afar Region huge areas used by the pastoralists during wet season have no permanent water supply. The great plains which support no human habitation during dry season are capable of providing grazing for several million animals during the wet season. In the dry season, with most people clustered around the Awash River, the density of population is high, whereas in the wet season people are very sparsely scattered on the land. Particularly pastoralists who inhabit the Middle and Lower Awash Valley stay close to the river much of the year (i.e. during the long dry period lasting from September to May). The only time they venture great distance is during the rainy season in the highlands when the river overflows its banks creating an area of rich soil for the rest of the year. Therefore, they are largely dependent on grazing near the Awash River banks. When a small area close to the Awash River is made unavailable for dry season grazing in the past four decades due to the establishment of irrigated farms, a much larger area away from the river is rendered useless (Flood, 1976).

Moreover, the regime of the Awash River has been changed drastically by the construction of Koka dam and dykes constructed for regulation of Awash River water. Land degradation that occurred at the upstream has caused a high run off and sedimentation at the Awash River bed. An earlier study reported that Koka dam has reduced the peak flow of water from 700 m³ per second to 300 m³ per second (Flood, 1976:65). The reduction in river potential to flood has effects throughout the Middle and Lower Awash Valley. As the irrigation process takes much water from the river and allows it to drain away or evaporate in the fields, less water reaches inland delta. Therefore, vegetation balances have been disrupted and desertification is allowed to encroach (Flood, 1976).

Since much of the land taken for schemes had been good grassland, and the rest grasslands are no longer to provide sufficient pasture due to drought and conflict risks, cattle in particular have been hit by the consequence of external interventions and impacts of drought. Consequently, a number of pastoralists have resorted to raising more goats. Goats and camels gradually came to dominant the pastoral economy, with resultant destruction of tree cover and topsoil in forest areas close to the River. The domination of pastoral economy by goats gives

in a short term the best chance for survival. But in the long term, concentration of goats destroys grazing. Lacking grass, pastoralists also had to lop trees for feeding animals with leaves. Moreover, due to the development of permanent settlements and small towns near commercial farms and plantations, a vast amount of trees were cut for both construction and for firewood. This in turn resulted in deforestation (Flood, 1976).

The consequences of external interventions on Afar people are not limited only to loss of prime pastoral resources and land degradation. The interventions also brought social and institutional consequences among the Afar pastoral groups. The advent of large-scale irrigated farms, parks and the subsequent establishment of civil bureaucracies have led to the formation of small towns and settlements with large numbers of highland migrants and government employees. These developments and migrants have brought an alien culture that undermines local people's culture. For instance prostitution and thievery, which were unknown some years ago, are now widespread in towns. Many young Afar, both men and woman are absorbed into the urban-based irrigation scheme culture, and urban life. Clan integrity is also beginning to suffer, as the clan is unable to maintain all its members in one place due to changing nature of pastoral production (Getachew, 2001a; Piguet, 2001:8; Flood, 1976).

Moreover, traditional resource management systems have been disrupted with the advent of irrigation and land privatization. Forced sedentarization, expansion of crop cultivation, and the adoption of agro-pastoralism resulted in privatization of some communal lands (i.e. making enclosures) along the river banks. This new landholding element competes with communal land rights, and traditional landuse management system. It has created disparity among clan members in the level of resource use. In fact seasonal mobility, herd-splitting, changing herd composition and traditional mutual aid institutions have been used to maintain the pastoral system. These strategies have played great roles in herd management and in balancing herds with available pastoral resources. However, with advent of irrigation and privatization of some land resources previously shared and communally managed in the past three decades, the Afar pastoral subsistence system has come under growing pressure and increasing vulnerable to vagaries of nature and environmental stresses (Bekele, 2006; Piguet, 2001; Flood; 1976). Insecurity and resource competition also make difficult the opportunistic movement or the tracking of available fodder resources in other places. The wet season migration, camping and patterns of group placement have been already breaking down. The recurrent drought and ecological crisis make pasture and water scarce for livestock production. These risks translate into risk of human food shortage as livestock yield falls along with loss of these key pastoral resources.

The expropriation of key resource areas for non-pastoral activities and the resultant ecological changes have both affected the lives of Afar pastoral and agro-pastoral groups. As stated earlier their pastoral production is determined by their dependence on livestock, sufficient grazing land and their pattern of mobility. However, over the past four decades they have faced severe ecological changes in their environment manifested in terms of erosion, land degradation, deforestation, and overgrazing. Consequently, their pastoral resource bases have shrunk; key resource areas have been no longer accessible, and mobility has been constrained. These in turn have led to diminishing herds and subsequent impoverishment, under-nourishment and starvation (Abdul-Mejidi, 1976:19; Flood, 1976:64). Therefore, all these processes have resulted in vulnerability to drought consequences and livelihood insecurity.

In conclusion, as it is attempted to show in the above paragraphs, until the last quarter of the 19th century, the Afar controlled trade and major routes in the Horn of Africa. The advent of colonialism, the redrawing of boundaries and the appearance of new states during colonial and post colonial periods diminished the political and economic power of the Afar. The Afar have been partitioned into three states and their pastoral mobility has been affected. Internally the Aussa sultanates obviously resisted and challenged the direct rule of the successive Ethiopian governments and various interventions in the Awash Valley. However, continuous state intervention and lack of access to political and economic power or representations in the central government undermined the Afar relative autonomy and pastoral economy (Gamaledin, 1993). All these factors, either combined or independently have resulted in political and economic conflicts between the state and pastoral groups on the one hand, and inter and intra-ethnic conflicts on the other. As a result of all these overlapping processes the Afar pastoralists have faced multiple marginalizations (political, economic and ecological) in the past five decades. The following section briefly describes Afar relations with other neighbouring groups.

5.2.4.2 Relation with Neighbouring Pastoralists and Cultivators

Pastoral, agro-pastoral and cultivating neighbours surround the Afar. In the eastern Issa-Somali, in the south and southwest the Oromo groups (Jille, Ituu, Karrayu, Harsu), and in the west Argoba, Amhara and Tigre surround them. The relations between Afar and their neighbours have been shaped by various factors such economic, social and religious factors, population movements and migration, clan territoriality and resources use, government policies and interventions and global economic and political forces, etc. Therefore, the Afar relation with neighbours has been constantly changing and it is characterized by mixture of cooperation, competition, and conflict over access to and control over resources.

In the wars between Ethiopian Christian kingdoms and Muslim principalities that ended in the 16th century, the Afar formed the major portion of the Ahmed Gragn's force and fought along the side of Gragn. However, after his defeat they suffered from revenge from Christian rulers of Ethiopia and experienced major displacement. They also entered into conflict with Issa-Somali who were once an ally during the Gragn war against the Christian kingdoms of Ethiopia. The Oromo migration from their homelands from southern Ethiopia into the present-day southwest, north, east, and north-eastern Ethiopia has led to the incursion of Issa-Somali clans and Oromo groups into the most fertile lands of the Afar. This also led to displacement of some Afar clans and squeezed them into the narrow strip of Awash River and arid areas of Alledeghi plain (Getachew, 2001a:46). In general terms, historically the Afar relation with Issa-Somali has been a long-standing enmity manifested in violent conflict resulting in loss of human lives and property and in continuous animal raiding.

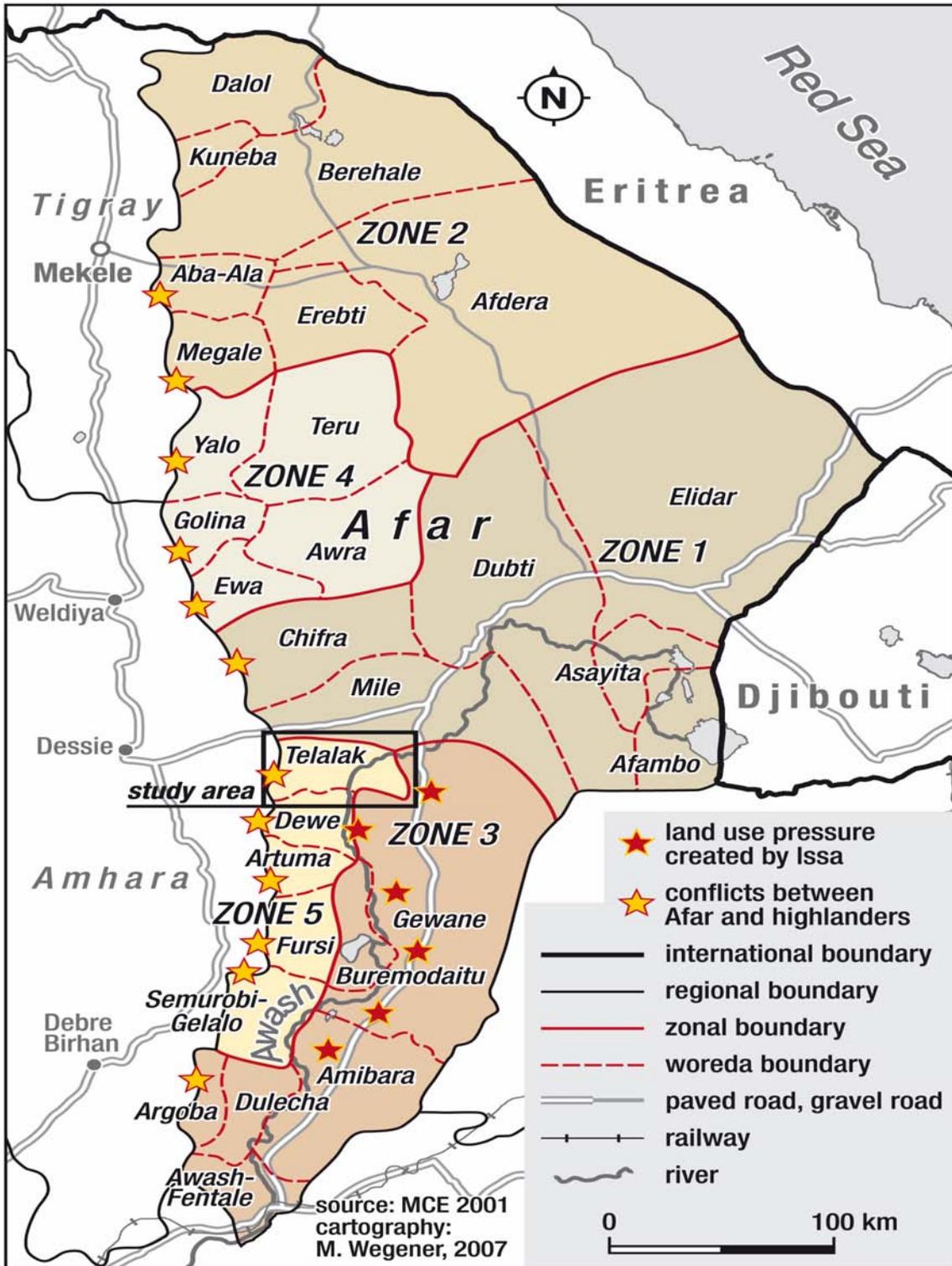
A sample survey conducted some decades ago in the Middle Awash Valley found out the following number of Afar killed and animals raided by different ethnic groups which are neighbours to the Afar. These are shown in table 5.5 below.

Table 5.5 Number of Afar killed and animals raided between 1981/82-91/92 as reported in a sample of 83 households.

Raider	Afar killed	Animals raided		
		Camel	Cattle	Sheep and Goat
Issa	70	353	937	314
Karrayu	4	2	27	30
Ittu	-	10	33	-
Argoba	12	-	81	-
Total	86	365	1,078	344

Source: Ali, 1997, p.135

The development interventions and land policies pursued by the successive Ethiopian governments also have increased the competition over land and pastoral resources involving warfare. A case in point is the escalating violent conflict between Afar and Issa-Somali after the introduction of irrigation development in the Awash Valley. Such schemes also increased competition between Afar and Karrayu pastoral and agro-pastoral groups over the use of scarce pastoral resources (See map 8 for land use pressure created by Issa and conflict between Afar and highlanders).



Map 8 Land use pressure created by Issa and conflict between Afar and highlanders

Though the Afar and Issa-Somali share pastoral values, ecology and geographic proximity and the faith of Islam and Cushitic value, their relationship has been characterized by a century-old animosity, which is still manifested in raids and counter raids (Getachew, 2001a; Fekadu *et al.*, 1984; Flintan and Imeru, 2002). In chapter four I have described the history of Afar-Issa relation and how it has gradually evolved into near-war type of violent conflict in recent decades.

On the other hand the Afar relation with other neighbouring groups (e.g. Oromo, Argoba, Amhara and Tigre) is not as hostile as that of the Issa-Somali. The Afar relation with these groups is largely peaceful, friendly and important as compared to that of Issa. Social, economic and trade relations have played a significant role in maintaining peace and cooperation between them. For instance Afar and Oromo share pasture and they intermarry. Moreover, the Afar visit markets in Oromo country and Afar too. The impact of this long-established relation is manifested in the ability of Afar and Oromo in sharing resources, in speaking each other's language, and in sharing similar styles of clothing (Getachew, 2001a). Similar type of relation has been observed between Afar and Argoba, particularly in sharing resources, intermarriage and trade relations or networks. In general, despite occasional clashes over scarce resources in some pocket areas, the economic and social relations between them are largely maintained. In fact in some Afar frontiers relations with their neighbours oscillate between cooperation and conflict. This issue shall be further illustrated in Chapter 6 by analyzing the changing relation of the study community with its neighbouring Oromo, Argoba and Amhara who are crop cultivators. The following section summarizes the Afar predicaments resulted from ecological changes, external encroachments, drought impacts and conflict.

5.2.5 Concluding Summary: The Current Predicaments

The current major problems facing the Afar pastoralists are lack of grazing and water points; insecurity and resource competition; decline of herd; recurring drought and food crisis. Recurrent droughts, ecological crisis, increasing salinity as well as change in the course of the Awash River have contributed to degradation of pastoral key resources (decline of fodder supply, disappearance of palatable fodders, drying up of water points, swamps). Moreover, direct human related causes such as insecurity, resource competition, population increase, destruction of watersheds in the upstream, soil erosion are the major factors in the loss of grazing, water and arable lands. In general the main predicaments of the Afar pastoralists are summarized in the following paragraphs.

i. Environmental crisis and loss of prime pastoral resources. The Afar pastoralists have been faced with environmental crisis and loss of key ecological resources over the past five decades with the advent of large-scale commercial farms in the fertile land of the Awash River Valley. Some of the detrimental impacts of the large schemes include:

- Loss of dry season grazing pasture and reduction of available fodder supply.
- Prevention of flooding by construction of dykes that reduces grazing availability in the plains.

- Change in the Awash River course that causes flood hazard to settlements and affects mobility and migration routes.
- Increase incidence of livestock diseases and effects of agro-chemicals that have negative consequences on livestock health.
- Disappearance of palatable species, encroachment of unpalatable species and prosopis.
- Soil pollution and salinity.
- Increased incidence of human diseases (malaria, encephalitis, cholera, typhoid and various intestinal disorders).
- Increased vulnerability to drought and violent conflict over the use of the remaining pastoral resources (Ali, 1997:127; MCE, 2001; Getachew, 2001a).

The ecological resources of the Afar pastoralism have been increasingly degraded. Moreover, most of their fertile land along the Awash River banks has been expropriated for non-pastoral uses. This has sharply reduced the area available for seasonal pasture. As a result, pastoral groups are forced to move into less fertile, more arid areas which cannot support their livestock production. This in turn has exposed different pastoral groups to risks of drought, famine and violent conflicts. In the following I briefly describe these risks.

ii. Increased vulnerability to drought and famine. In Ethiopia two views dominate as to the relation between drought and famine. Some scholars argue that there is no necessarily a direct link between drought and famine, though the two are related (Abdul-Mejidi, 1976; Mesfin, 1986). On the other hand government authorities and agencies tend to present the whole issue as just ‘natural calamity’ like drought and epidemic diseases. However, to the extent that there is a connection between drought and famine, it is mediated by social and economic arrangements of a society that can either minimize the human consequences of drought or accentuate its effects (Abdul-Mejidi, 1976). As discussed in Chapter 3, the effects of drought as well as other economic and political factors led to famine disasters of the 1970s and 1980s, which the then Regimes deliberately presented the whole issue as natural calamity. Therefore, the Afar case could not be different from this. However, the increased expansion of irrigation schemes and other encroachments (parks and game reserves), and conflicts have rendered the Afar pastoral economy susceptible to recurrent drought and famine crisis. Even the experience of earlier famine episodes evidenced this. The famine disaster of the 1972-73 severely affected the Afar pastoralists. Many writers (Bondestam, 1974, cited in Abdul-Mejidi, 1976; Flood, 1976) reported that the adverse effects of commercial farms in the Awash Valley had accentuated the effects of the 1973 drought. Pastoral population hardest hit by the famine of 1973 were the Afar. The establishment of commercial farms in the Awash Valley since the early 1960s with the aid of massive investments of foreign capital has undermined the pastoral economy and there is no doubt that the greater famine of 1972-73 owed much to it. The famine was caused in great part by development allowed and encouraged by government elites working in corrupt liaison with international capitalists (Flood, 1976).

On the one hand the commercial large-scale irrigation schemes increasingly expanded since the early 1960s depriving local people of pastoral resources, on the other hand the catastrophic droughts with large livestock mortalities began to occur approximately every seven to ten years. Therefore, much of the time between droughts has been spent re-building

herd numbers which again is affected by another drought event before fully recovered¹³². When drought hits, pastoralists have no longer drought escaping areas as season grazing lands are already lost to other uses. They are also less able to venture long distance migration as they have no security in previous receiving areas due to competition over use of scarce resources with neighbouring groups. As a result of all these overlapping factors the Afar pastoralists have become more vulnerable to vagaries of nature and famine in recent decades.

iii. Vulnerability to increased violent conflicts. As stated above conflict can be caused by many factors such as poor governance, unequal resource allocations, uncertain rights over land, spillovers from national and international level conflicts, easy availability of firearms, large-scale cattle theft for sale by criminal elements and in some parts of East Africa deep-rooted social and cultural patterns of raiding (Morton *et al.*, 2006:4). Conflicts can occur between pastoralists and farmers, between them and government, and among pastoral groups. In relation to these causes and types of conflicts, the Afar pastoralists are not exception. They have experienced conflicts with government, and inter and intra clan or ethnic conflicts that resulted from competition over resources (water points and key grazing areas), animal raiding, alienation of rights over communal lands, etc. These types of conflicts form the traditional ones which are long standing. However, nowadays conflicts between Afar and other neighbouring groups have been recurrent and more violent that result in huge damage in terms of human life and property. Moreover, as stated in Chapter 4, they have been beyond the traditional conflict management institutions. A case in point is the violent conflict between Afar and Issa-Somali. At least three factors contributed to such escalation of violent conflicts.

The first is the continuous incursion of Issa into the Afar territory and the squeezing of the Afar pastoral groups into marginal lands by such incursion and loss of key resource areas to non-pastoral uses (irrigation schemes, wildlife reserves and parks).

The second is the increased competition between Issa and Afar to control the Addis Ababa-Djibouti highway which has a greater economic significance. Prior to the establishment of regional administration on the basis of ethnicity, the conflict between the Afar and Issa has been mainly to get access to Alledoghi plain and water points surrounding it. Nowadays, whereas the Issa push to control the highway and get access to the Awash River, the Afar want to keep the route fully under their domain and to maintain access to Alledoghi plain for dry season grazing. As a result, the Alledoghi plain has remained as battle field for two groups. Moreover, both parties compete for putting settlements along the highway in order to control trade route and truck-stop economy.

The third is the prolonged and recurrent drought that aggravated conflicts between Afar and other neighbouring groups, as pastoral groups move deep into settled zones and other localities. In times of drought, the fertile pasture along the Awash River provided some security as an alternative source of water and grazing. Nowadays, such key resource area is unavailable for the pastoral group. Therefore, drought has a role in triggering violent conflicts, as the Afar pastoralists or other pastoral groups (e.g. Karrayu, Issa) move deeper into settled zones and as competition for water points and key grazing resources intensifies between different neighbouring pastoral groups.

¹³² The recorded drought periods include 1972-73, 1984-1985, 1996, 1999-2000 and 2003.

In general the continuous incursion from Issa, loss of key resource areas along the Awash River banks, and recurrent drought have been exposing Afar pastoral groups to various violent conflicts which often result in loss of livestock and human life. Consequently, the local Afar are more vulnerable to the risk of violent conflicts now than they were in the past.

Chapter Six

Case Study: The Aghini Clan/Pastoral Community

Background

In this chapter I seek to place the local people's perspective in the context of the research problem stated in Chapter 1. Accordingly, the present chapter discusses the perspective of local people on livelihood resources and their trends, vulnerability to famine/food crisis, external interventions and local responses to environmental stress and livelihood shocks. Earlier in Chapter 3, I have discussed pastoralists' vulnerability to multiple risks and their coping and adaptive strategies mainly by drawing on secondary materials and empirical researches undertaken in East Africa and in Ethiopia in particular. The discussions in Chapter 3 have revealed that pastoralists' subsistence livestock production in East Africa and in Ethiopia has been affected by multiple risks - recurring drought being the main natural risk factor that constrains pastoralists' livelihood. And yet most of the earlier empirical works and theoretical perspectives reviewed for this research have shown that the underlying sources of vulnerability lie mainly in social and political processes rather than in natural factors. Accordingly the main sources of pastoralists' vulnerability in East Africa and in Ethiopia are ecological changes (crisis), social-political processes (political and economic marginalization), conflict, poor governance, market forces, etc. This is, therefore, in line with one of the hypotheses of this research that is stated in Chapter 1, section 1.3.3 (no.1). If this is the case at the regional and national level analysis of the sources of vulnerability, it is equally important to explore the local people's perspective on livelihood trends, sources of vulnerability, external and local responses to recurring food crisis. My aim in this chapter is, therefore, to situate the research problem within the local context (local pastoral community) that goes in line with two other hypotheses indicated in Chapter 1, section 1.3.3 (i.e. no. 2&3). Therefore, the focus of the present chapter lies on the source of local people's livelihoods, their risk perception, vulnerability, external responses, and adaptive and coping strategies developed by the local people as responses to adverse circumstances. As indicated in the methodology section in Chapter 1, primary data was generated at the community level through household surveys, individual and focus group interviews, observations and case history narratives. Accordingly, the analysis presented in this chapter is based on both quantitative data (household survey data) and qualitative information.

6.1 Local Livelihood Resources and Their Trends

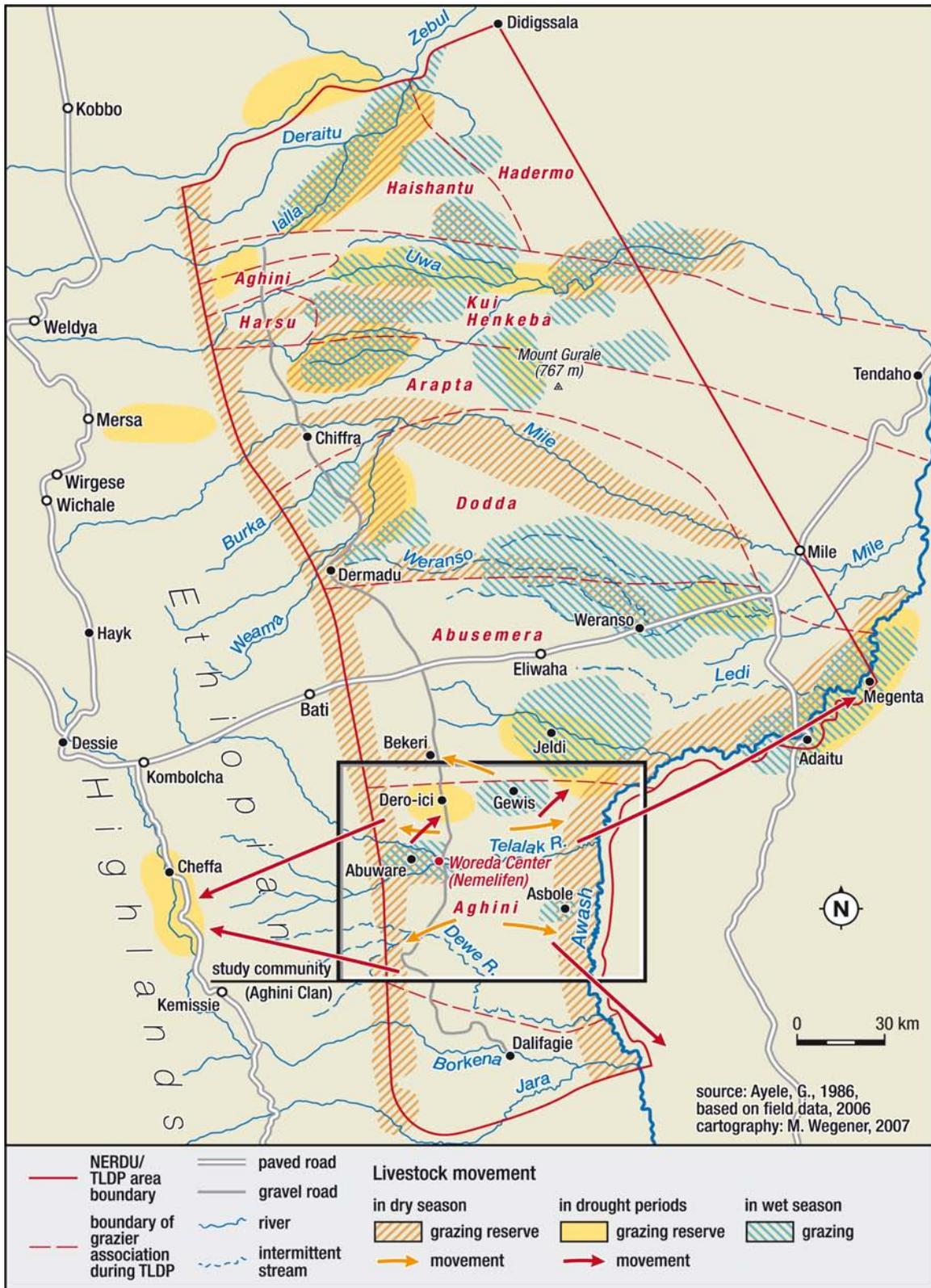
Different livelihood strategies and activities depend on availability and access to basic productive resources and social assets. Livelihood assets can be grouped into natural, physical, human, economic/financial and social capitals (Ellis, 2000; Carney, 1998; Scoones, 1998). The overall livelihood strategies of communities depend on access to these assets, and the environment (i.e. political, organizational and institutional infrastructures) in which these assets are combined for production and consumption purposes (Ellis, 2000; Rass, 2006). This section is not intended to elaborate theoretical discussions on the entire livelihood assets. It

rather focuses on the assets/capitals identified by the local people as central to pursuing their livelihoods. Most of my informants have stated that natural, financial, social, physical and human capitals play vital roles to pursue various livelihood activities. The following sections describe the types of assets considered by the local people as essential for pursuing their livelihood strategies and activities.

6.1.1 Natural Resources

The immediate environment strongly shapes the mix of livelihood strategies in pastoral communities. Natural capital refers to natural resource stock from which resource flows useful for livelihood are derived. Natural resources consist of land, vegetation, water, wildlife, etc. As it is true in many pastoralist societies, the Afar pastoral system relies on these key natural resources. The vital natural resources in the study community include pastures, water points (ponds, wells and rivers), browsing trees, and farm plots found along the river banks (Telalak, Wata, and Gewis Rivers). The availability and accessibility of these environmental resources is crucial for pursuing livestock production which is the mainstay of the local people's economy. Growing food crop, which is being taken up by some individuals and households, also depends on the availability of river water, farm plots (enclosures), river diversion furrows, and labour with a required skill. The following paragraphs present an assessment of these key natural resources from the perspective of the local people.

i. Pasturelands/Rangelands: Rangelands with productive and diverse natural vegetation represent the fundamental resources for pastoral livelihood. Pasturelands that are available within the immediate environment of the local people and/or in distant places are among the resource bases for the local pastoral system. Rangeland productivity depends largely on rainfall patterns as well as on the composition and diversity of natural forage vegetation. Whenever there is normal rainfall distribution and pattern during the main rainy season (*Karma*) in July-September, and in the short rainy season (*Sugun*) in March-April, the local herders can get forage (grass and herbaceous) for much of the year in their clan territory. Whenever some shortage of feed occurs in their immediate environment during such seasons, herders compensate the deficit through moving herds to sites beyond their traditional grazing zones (see map 9). If the dry season is prolonged, herders will drive their stock into the dry season retreats (i.e. river banks, flooded areas and wetlands).



Map 9 Livestock Movement during Dry and drought Periods to grazing reserves

As shown in map 9, some of the previous distant grazing areas of the Aghini clan included Ba'adu, Megenta, Weama, Weranso that are situated in the Afar Region, and Cheffa wetland (Borkena Valley) located in the Amhara Region. Though these areas are still important dry season and/or drought retreats, they lack sufficient forage to accommodate all migrating herds during feed stress. This is due to failure of rainfall in the highlands, land use changes, and reduced flooding of the major rivers (Awash, Awra, Gulina, Borkena). Seasonal flooding has been reduced by irrigation practices in the highland catchments, changes in the course of the Awash River and construction of dikes for flood protection. Currently, areas that provide grazing reserve when other areas fail to produce forage are under pressure and do not provide sufficient fodder for mobile herds because of land use changes, risk of conflict and loss of pasturelands to non-pastoral activities. Moreover, the participants of the focus group interview stated that essential grass types were abundant in their localities some three to four decades ago. Nowadays, however, pastureland in the area has been reduced mainly due to bush encroachment. Invasive plants that were either rare or unknown in the past are increasingly expanding and undermining undergrowth or important grasses. Some of the invasive bushes/plants identified by the informants include *Geydeberara*, *Bangui* (*xanthium Abyssinicum*), *Merkato* (*acacia mellifera*), and *Adedoyta*.

In most cases the local people reported that pastureland in their locality and beyond has been reduced in the past several decades for a number of reasons. Pasture availability has declined as a result of impacts of recurring drought, invasive bushes, encroachment of agricultural frontiers, and expansion of large-scale irrigated farms in the dry season grazing areas found along the banks of the Awash River and its delta. My key informants have articulated how each of these factors has affected their pastoral system. This point will be elaborated in section 6.3 that deals with ecological/environmental and social changes taking place in the study community and beyond. In this section I describe the existing key sources of fodder for livestock within the immediate environment of the local people. During my field study I attempted to identify important localities where the key fodder resources occur in the study area (see box 6.1 below).

Box 6.1 Some Key Resource Areas in the Community and Livestock Movement Patterns

1. Natural Vegetation Fodder Distribution

In the study community the distribution of available resources is governed by the drainage system, and perennial and seasonal water resources that originate from the upper catchments. Neighbourhoods which are currently the main sources of livestock fodder in the area include depressions /river gorges and ridges/hills. These are described as follows:

1.1. River Valleys/banks where fodder is available:

Awarena-Areda Kebele Administration (KA): The area from *Abomsa* to *Abarume* is a forest area where trees and bushes with fodder value are currently available. This locality also provides some grass during the rainy season.

Gewis and Hamedidas KA: These areas are located above the all weather road (i.e. to the west part of the district). Currently localities like *Sifi* and *Hina* are key resource areas. These areas are situated mainly along the riverbanks. During the rainy season these areas provide some grass. During dry or drought seasons herders collect tree leaves and pods of standing trees found in these localities.

Kersana-Hujuba: This area is found along the sides of seasonal streams of *Kersa* and *kile'el-dora*. Palatable trees and bushes are found in this locality and livestock rely on such feeds. This area also provides some grass during the rainy season.

Bank of Taa River: *Taa* is a seasonal river where trees and bushes are found along its banks. From this locality, herders use leaves of trees, and bushes to feed their livestock. Some grasses can be available at this locality during the rainy season.

Medera, Dida & Ayo: These localities are found along the sides of Telalak River particularly near the border between Oromo and Afar communities. These areas have trees and bushes whose leaves are used as fodder for livestock. They also provide some grass during the rainy season.

Aware (seasonal river): Trees and bushes are found along the course of this river. Tree leaves and pods are used for animal feed. This area also provides some grass during the rainy season.

1.2. Ridges or hills where some palatable bushes and trees are available:

Mudeno: It is found in *Awarena-areda* KA. There are trees and bushes whose leaves and pods are used as fodder for animals. Trees such as *Kukuksa (dichrostchys cineria)*, *Uddaito (balanites aegyptica)*, *Jejeba (berchemia discolor)*, *Serekto, Ledo*, etc are found in *Mudeno* neighbourhood.

Areda: It is located in *Awarena-areda* KA. Plants such as *Kukuksa, Uddaito, Jejeba, Serekto, Ledo*, etc are also found in *Areda*. Leaves of these trees are used for animal feeding.

Eyira: It is located in *Awarena-areda* KA and some palatable trees and bushes are found in this locality.

Wahay: It is located in *Awarena-areda* KA and some palatable trees and bushes are found there.

In the past (i.e. in the 1980s) these ridges/hills had some grasses. Currently they have few grazing areas since bushes and trees such as *Merkato* and *Adedo* have already invaded all these ridges and hills.

2. Livestock Movement Patterns

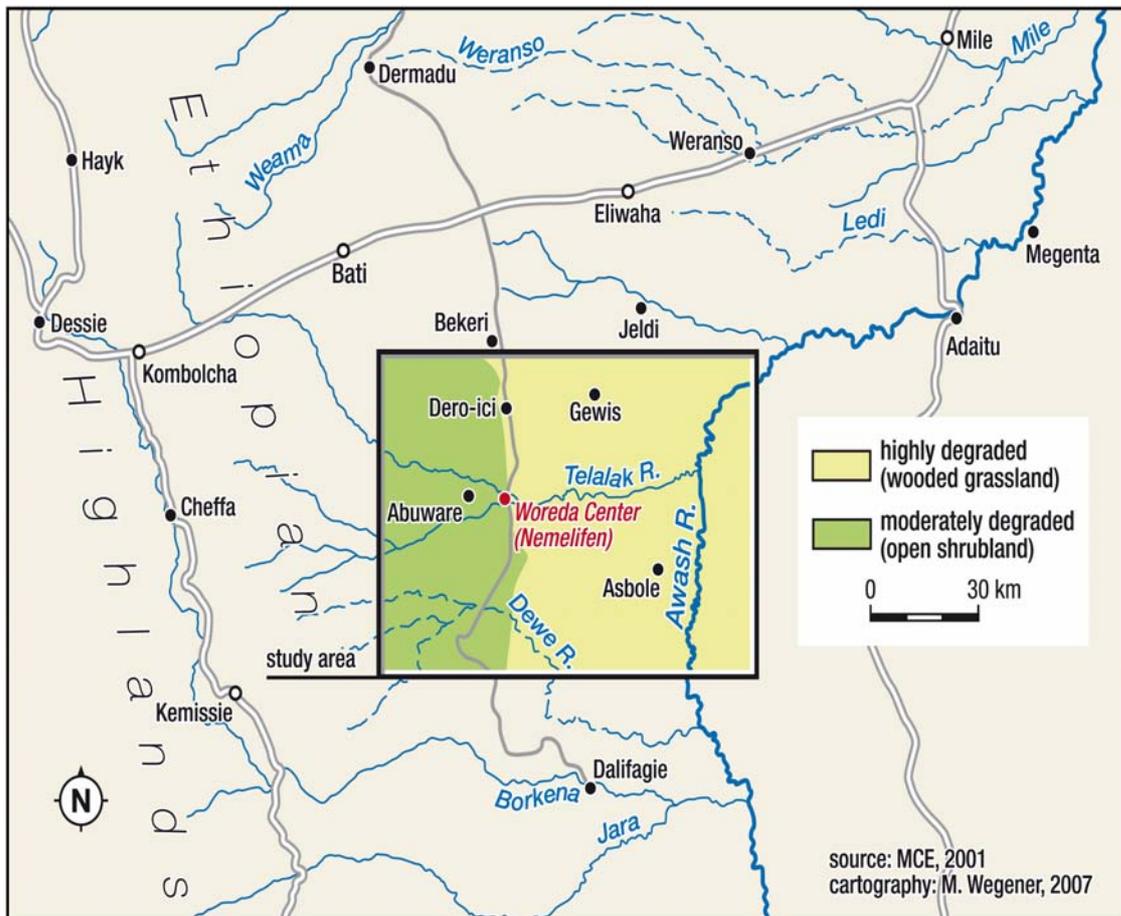
The relative availability and distribution of natural vegetation forage vary within the Telalak district and the movement of herds is pursued accordingly. The relative resource endowment and movement of livestock in the Woreda is described as follows:

- The eastern side of the Telalak Woreda (i.e. below the main road) is good largely for goat rearing. As the western side of the Woreda is infested by ticks that attack goats, it is less favourable for keeping goats in this locality. On the other hand the western part of the Woreda is also good for camels since there are large browsing trees on which they rely during fodder stress.
- Herders who live on the Awash River side rear both camels and goats, though the area is more suitable for goats than for camels. In times of fodder scarcity for camels, the local people move their camels towards the west part of the Woreda (above the road that connects the district to the Bati-Asayita road).
- Those villagers living in the intermediate zone (i.e. both sides of the all weather road) rear camels, goats, sheep and cattle, though the area is more suitable for camels. In times of fodder scarcity for cattle, herders move stock close to the foothills (i.e. escarpments) found at the buffer zone bordering the Telalak district and Oromiya zone of the Amhara Region.

Source: Focus Group Interview, December, 2005

As it is described in box 6.1, the local people sub-divided grazing lands into what are locally called *Ala* (ridges or mountainous area) and *Kalo* (swamp and marshy areas or river valleys). *Ala* is a ridge or mountainous area with high potential for livestock production. It is mainly used during the rainy season. On the other hand *Kalo* embraces swampy or marshy areas or river valleys which are usually located along riverbanks. *Kalo* areas are mainly used during the dry season. Accordingly, the livestock movement pattern relies on the spatial and temporal availability of grazing resources and browses in *Ala* and *Kalo*. However, this traditional practice of range management is diminishing due to increase in human population, drought consequences, overgrazing, bush encroachments and frequent changes in river courses.

ii. Vegetation (Browsing Trees and Bushes): The second key pastoral resources identified by the informants are browsing trees. According to a previous study (MCE, 2001) carried out on land use and land cover in the Afar Region, two major types of vegetation occur in the Telalak district. These are open shrubland and wooded grassland. The shrubland is mainly found in the west side of the district and is dominated by trees such as acacia thicket. Wooded grassland occurs in the eastern part of the district (see map 10).



Map 10 Types of Vegetation Cover in the Study Area (district)

During the fieldwork I tried to identify the most important browsing trees/bushes in the study community. The identification was made in focus group interviews with knowledgeable informants. A series of interviews with informants were carried out to record important fodder plants, preferences of browsing animals and seasonal preferences (dry or wet). The local people have a thorough knowledge of important fodder plants, fodder preferences and the selective eating habit of the different types of animals. The types of desirable fodder plants, their availability and suitability are presented in Table 6.1 below.

Table 6.1 Some Important Browsing Trees/bushes, and Parts Used as Sources of Animal Feed in the Dry and Wet Seasons¹³³

Local/vernacular name	Scientific name	Part browsed	Type of browsing animal for a plant	Season when a plant is preferred
Adayto	<i>Salvadora persica.L</i>	leaves	Camel & goat	Dry season
Adimegari	*	“	Camel, cattle & goat	Wet & dry seasons
Addo-hadita/hamai	<i>Delonix elata (L) Gamble</i>	“	Camel & goat	Dry season
Amayto	*	“	Camel & goat	Wet season
Ame-ada (bush)	*	“	Camel & cattle	Wet season
Bobo-auyto	*	“	All species	Wet season
Bunket (bush)	<i>Tribulus terrestris</i>	“	All species	Wet season
Dabayto	*	“	Camel & goat	Dry season
Dedebayto/Jejeba	<i>Berchemia discolor</i>	“	Camel, cattle & goat	Wet & dry seasons
Do-auto (bush)	*	“	All species	Wet season
Eibeto	<i>Acacia tortilis</i>	leaves & fruit	Camel, cattle & goat	Dry season
Fley-mäe	*	leaves	Camel, cattle & goat	Wet season
Genselto (bush)	*	“	Camel	Wet season
Germoita/gerento	<i>Acacia oerfota/nubica benth</i>	leaves & fruit	Camel and goat	Wet season
Gerssa	<i>Dobera glabra</i>	leaves & fruit	Camel, cattle & goat	Drought period
Hebeleyta/habeli	<i>Grewia villosa willd.</i>	leaves	Camel, cattle & goat	Wet season
Helal (bush)	*	“	All species	Wet season
Hemeraysa	<i>Acacia brevispica Harms</i>	“	Camel	Wet & dry seasons
Hidayto	<i>Grewia ferruginea hochst.</i>	“	Camel, cattle & goat	Wet season
Humura (roka)	<i>Tamarindus indica (L)</i>	“	Camel & goat	Wet & dry seasons
Keselto	<i>Acacia nilotica (L) Del</i>	“	Camel & goat	Dry season
Kukuksa	<i>Dichrostachys cinerea (L)</i>	leaves & fruit	Camel, cattle & goat	Wet & dry season
Kurbeyta	<i>Commiphora sp.</i>	leaves	Camel & goat	Wet season
Kusra	<i>Ziziphus spinna Christi (L)</i>	“	Camel, cattle & goat	Wet & dry seasons
Kuti-gera (bush)	*	“	Camel & cattle	Wet season
Medera	<i>Cordia sinensis lam</i>	leaves, fruit	Camel, cattle & goat	Drought period
Merkato	<i>Acacia mellifera (vahl.)</i>	leaves, fruit & flower	Camel and goat	Wet & dry seasons
Orma/ormaito	<i>Boscia angustifolia A.Rich</i>	leaves	Camel	Dry season
Rigidi-Adoyta	*	“	Camel & goat	Dry season
Subahe (bush)	*	“	Goat	Wet season
Subla	<i>Ficus sycomorus L.</i>	“	Camel & cattle	Dry season
Uda/udaito	<i>Balanittes aegyptica (L) Del</i>	leaves & fruit	Camel, cattle & goat	Drought period
Uly-yayto (bush)	*	leaves	Camel & cattle	Wet & dry seasons
Wa-aroyta (bush)	*	“	All species	Wet season
Yemaruhta	<i>Blepharis persica Burm.fil</i>	“	Camel	Dry season

Source: Focus Group Interview (elders, religious leaders, clan leaders), April 2006.

* Scientific name not identified.

¹³³ Some of these sources of feed are getting scarce in recent decades. These are described in Table 6.8 under section 6.3.1.

In general the local people use various woody plants for a wide range of purposes¹³⁴, the primary being a source of livestock feed. Livestock feed resources are mainly obtained from browse (woody plants and bushes), and natural pasture that are available in the district. Natural grazing and browse constitute the major feed sources to the entire livestock. In the household survey, respondents were asked, “what are the current sources of animal feed in the locality”. As it can be seen in Table 6.2 below, about 91% reported ‘brownses’ as the major source of livestock feed followed by ‘natural grazing’ (78%). The use of crop residue and hay is limited in localities that are close to neighbouring highland crop cultivators. In the study community animal fodder was not conserved some three decades ago. But in recent years some individuals have started to conserve feeds in the form of hay or crop residues either through preparing or purchasing from neighbouring crop cultivators.

Table 6.2 Feed Sources Reported by respondents (multiple Responses are Possible)¹³⁵

Sources of feed	Respondents (n=60)	Percent
Browse (trees and bushes)	55	91.6
Grazing (grass)	47	78.3
Crop residue	7	11.6
Hay (prepared or purchased)	2	3.3

Source: Sample Household Survey, December, 2005.

iii. Water Resource: Water resource is the third key resource for the pastoralists. It is a determinant of pastoral movement/migration. The local people rely on both permanent and seasonal sources of water for human and livestock consumptions. Both underground and surface waters are the basis for survival of the local people and their livestock. The major sources of water in the locality are rivers and shallow wells. The local people have their own classification of the sources of water. These sources are described below.

1. *Dahara* (river): This type of water source accounts for the greatest part of water resources in the community for both humans and animals. Rivers such as the Awash, Telalak, Wata and Gewis are the main water sources for both human and livestock consumptions during dry and wet seasons.
2. *Ela* (traditional shallow wells): These are hand-dug holes located by the side of intermittent or perennial streams. *Elas* may be dug by all villagers or individuals. *Elas* are mainly found close to the courses of streams or depressions located within the limits of 40-60 meters from the main streams. They are permanent sources that provide water for both human and animals in dry and wet seasons. In fact the yields of some *Elas* fluctuate depending on seasons.
3. *Derra* (springs): are mainly found on upper catchments and along the banks of some permanent rivers. These sources provide water during wet and dry seasons. In recent decades, however, some *Derras* that were situated along the banks of perennial rivers

¹³⁴ Other purposes of woody plants include house construction, firewood, fencing, source of food, shade, medication and for preparation of implement and household utensils.

¹³⁵ In the household questionnaire there were single and multiple response questions where sampled households have single and multiple responses accordingly. In case of latter, the percentage of responses (respondents) will be greater than 100%.

- have dried up. In the past good days, some *Derras* especially those found along permanent rivers were used to last up to eight months.
4. *Booy* (small pit/hole along river banks): *Booy* is made by excavating sandy soil along banks of intermittent rivers. In recent decades water supply from *Booy* has been unreliable due to decline of water in the intermittent rivers. It lasts only for two-three months after the rainy seasons. In the past it lasted up to five months due to the reliability of *Sugum* and *karma* rains.
 5. *Dora* (natural ponds or reservoirs): These sources have been available mainly in the depressions/cavities, and were used to last up to six months in the past good days. They are naturally formed as rainwater descends from the highlands and foothills and is collected in the depressions or cavities. When it rains heavily in the upper catchments, some valleys or depressions are filled with rainwater descending from higher slopes. Such sources of water were very common before the 1980s. Nowadays they have become rare as the amount of rainfall and flooding have been reduced in the area. Moreover, in certain localities where *Doras* are available, many gullies are formed nowadays. Consequently whenever it rains, the rainwater or the flooding water easily gets outlets and thus water is not retained anymore. As a result currently *Dora* is no more source of water in many localities.
 6. *Medira* (artificial temporary ponds/surface water catchments): These sources are formed by harvesting rainwater. Herders make catchments to collect rainwater during rainy seasons. *Medira* is a temporary source that is used during the rainy seasons. Currently this source, however, has been unreliable due to uncertainty of rainfall and invasion of *Merkato* plant into the catchments. Water yield and period of supply from *Medira* often depends on the amount of *Sugum* and *Karma* rains.
 7. *Dedaa* (reservoirs along riverbeds): Large holes found on riverbeds, especially pits or hollows in hard rocks that hold waters of intermittent rivers or streams. These sources are remains of torrent on hollow rocks/pits that are found along river courses. When it rains at highland areas, water descends along river courses and concentrates at rocks hollowed by torrent. Water yield and period of supply from *Dedaa* depends mainly on the amount of rainfall at headwater areas.

As the above local classification of water points indicates, during the wet season water is usually distributed across the community lands in ponds, surface water, and seasonal streams and rivers. During prolonged dry season and drought periods, the local pastoral groups rely on few permanent rivers (Telalak, Wata and Awash River) and on some shallow wells. The watering points are mainly situated along Telalak, Wata and Gewis river. Some shallow wells are also found along the banks of perennial streams.

In general terms the informants stated that water yield from all the aforementioned sources declined as compared to the years before the 1984 drought. Particularly in the past fifteen years, some sources of water have dried up, as drought has become recurrent. As a result only permanent rivers and deep wells are the reliable sources for dry and drought seasons. Thus during the dry season the local people have to travel long distances to reach permanent sources. This is elaborated under section 6.3.2.

iv. Farm plot: Though crop cultivation is not aggressively undertaken by the local people, it is carried out by some households independently or in cooperation with migrant crop-

cultivators (Oromo, Amhara and Argoba) at a very small-scale level. Of the total sixty sample households, more than half of them (n=31), reported that they have adopted growing some food crops (e.g. maize, sorghum). Asked when they first started, 16.1% of them have started in the 1980s, 32.3% in the 1990s, and the rest, 51.6%, have started since 2000.

On the other hand, some informants reported that growing food crop as supplementary source of food grain was started before the 1980s. They indicated that prior to the 1980s very few individuals had tried opportunistic rain-fed crop cultivation in some neighbourhoods where rainfall was reliable and sufficient to grow maize. In recent decades, however, opportunistic rain-fed crop cultivation has been rare, as rainfall has been unpredictable. And individuals and households have resorted to small-scale irrigation through river diversion using gravity. Therefore, having plots of land or (enclosures) along the banks of permanent rivers has been vital to grow crops as supplementary source of food. As a result individuals or households are striving to make enclosures and furrows along river banks, where suitable flatland can be available for small scale irrigation and gardening.

6.1.2 Financial Capital (Livestock Assets)

Financial capital consists of money or other savings in liquid form. In the study community context livestock, which are easily disposable asset, represent financial resources. In the local community livestock represent the most important form of financial capital for the pastoral households, both in terms of stock and flow. Livestock are the primary sources of pastoral income, saving, loan, gift, investments and insurance.

In the study community, traditionally (i.e. four decades ago) where the local people lived under stable conditions, their staple diet consisted of mainly milk, butter and meat. Whenever they needed some grain, clothing and other consumer goods, they used to obtain them in exchange for butter or live animals from the neighbouring communities. At that time, as there were no local markets in the study community, crop cultivators and individual merchants from neighbouring highland areas came to the pastoral settlements and bartered their crops, locally-made clothes and other goods. As livestock products, which traditionally constituted the local people's staple food, have dwindled over the years due to ever-shrinking pastoral resources and drought related factors (feed stress and high livestock mortality), purchased grain has gradually constituted the major portion of their diet. At the same time local people's needs for manufactured goods (sugar, tea, clothing, footwear, coffee, tobacco, and spices) have increased. Consequently, the local people have become dependent on the market for selling stock, and purchasing grain and other goods and services. These economic demands and environmental factors have resulted in the high rate of animal marketing. In this respect the local people have resorted to rearing more small stock and offering small ruminants at local markets of nearby towns. Therefore, small stocks, especially goats are often regarded as sellable substitutes for cattle or camels in the light of increased pressure to purchase grain and manufactured goods. In reply the question of "which kind of stock they sell in times of financial need", household survey respondents said "goat or sheep". The informants also said that goats and sheep can be sold anywhere anytime. In this sense small ruminants represent financial resources as they can be easily converted into cash in times of need.

Most of the households own some animals from various species. Of the total 60 sample households surveyed for this study, all sampled households possess small stock (sheep and goat), 93.3% of them own cattle, 76.6% possess camels and 70% own donkeys. In terms of herd composition small stock make up 67.5% of the total livestock herd; cattle constitute 15.1%; camels 14.6% and donkeys 2.8%. Over the 60 sample households, the average numbers of small stock, cattle, camels and donkeys are 30.8; 6.9, 6.6 and 1.3 respectively.

Informants¹³⁶ claimed that livestock asset holding both at household and community levels has been declining in recent years. Before the 1980s, when grazing resources were abundant in the immediate environment and in the dry season retreats, cattle were very dominant and important sources of food for household consumptions and exchanges. In recent decades pastoral households have shifted their emphasis from cattle and sheep to goats and camels as the former are more vulnerable to recurring drought impacts and grazing stress. A number of informants reported that goats and camels are becoming more important both as store of wealth and livelihood resources in the area, as they are well adapted to the changing and drought-prone environment. According to the informants, camels and goats can better survive feed stress through browsing trees and bushes. In this connection, a 61-year-old informant, Mohammed, recalled the advice of grandfathers to the local herders. He said, “Our grandfathers have advised us to take care of camels and goats and rely on them, not to trust cattle, as the former are more resistant to hardship and drought than the latter”. Another informant, Mamedo claimed that “the time for cattle is gone”. In relation to this, he further narrated as follows:

Cattle are seriously affected by recurring drought and rapidly changing environment in our locality (i.e. loss of pasture/grass). There is no better place into which we move our cattle. All Afar localities are affected and have become the same. Since the Afar’ culture and way of life (i.e. livestock rearing) are similar everywhere, all pastoral communities have been affected by drought and lack of pasture (grass). Nowadays, we tend to choose rearing camels and goats, since they to certain extent resist drought and survive in the present environment as compared with cattle or sheep. Until now we couldn’t foresee anything other than keeping goats or camels when and where circumstances allow us (*Individual interview, December, 2004*).

The informants also indicated that changing emphasis from grazers to more browsers is not the response only to ecological changes (loss of grass) and drought risk. It is also a response to increasing demand for cash for purchasing food grain and other manufactured consumer goods that have become the major components of diet. Currently goats are an important source of cash as they reproduce quickly. In this connection an informant stated that “goats are nowadays like ready cash kept in the pocket”. On the other hand cattle yields (i.e. milk and butter), previously used as sources of cash and exchange for food grain, have declined in recent decades. In addition a camel, which relies on browsing also, provides more milk yield than a cow. A summary of the focus group interview with informants presented in box 6.2 below illustrates further how the relative importance of various animal species has shifted over the past decades.

¹³⁶ In this chapter whenever it is necessary real names of informants are replaced with pseudonyms to keep anonymous.

Box 6.2: Changing Importance of Livestock Species over Time

A. Before the 1980s:

1. **Cattle:** From the time of Emperor Menelik II to the beginning of the *Derg* regime cattle were dominant species and were seen as sign of wealth status due to the following reasons:
 - *Cattle milk production and productivity:* Cattle milk has been considered by herders as having high value for human consumption.
 - *Butter production:* Milk yield was high at the time and thus butter production fetched good cash to be used for purchasing of food grain and other manufactured goods. Moreover, butter has demand from highlanders since they prefer butter churned from cattle milk. At the time butter could be stored and sold to purchase food grain from highland markets. On the other hand camel milk is not churned into butter. Thus cattle milk has been highly valued.
 - *Multiple-purposes of cattle:* At the time grain food was not very much known among many pastoral households. Thus cow milk and butter constituted the core diet of the community. Moreover, hides of cattle were /are used for making shoes (*Kabela*), mat, and other household materials and utensils.
 - *Availability of excellent types of grass:* At the time the environment was suitable for cattle, as the dominant herbaceous were grasses, especially *Durfu* and *Melif*. Thus the local people were able to rear more cattle that outnumbered other species.
2. **Camel:** At the time the second sign or indicator of wealth status was camel. Though camel's milk is not churned into butter, it is a good source of food. Camel can be milked anytime and anywhere. Camel milk is often shared among neighbours and to Afar and non-Afar guests to show hospitality. Moreover, camels provide more milk during dry season than cattle do.
3. **Sheep:** Sheep constituted the third rank in measuring wealth status and in terms of fetching a good price in highland markets.
4. **Goat:** Goats, which are sources of milk and butter, were ranked fourth before the 1980s.

B. In recent decades:

The relative value of the above species has shifted in the past two to three decades on basis of their tolerance of extreme conditions (drought consequences) and ecological changes taking place in the study community. Accordingly the current importance or rank of animal species is as follows:

1. **Camel:** Camels are tolerant of drought by relying on browsing plants or trees which are inaccessible for other animals. Moreover, camels have the most varied feeds during late dry season or drought periods than other stocks. On the other hand cattle rely mainly on grass or pasture which has been now scarce in the study community. Thus camels have been preferred by the local people and then they are taking over the previous rank of cattle. (But this doesn't mean in terms of stock holding size, it is rather in terms of preference to possess).
2. **Goat:** Currently the second valued animal species are goats which also rely on browsing and have tolerance for drought consequences.
3. **Cattle and sheep:** These species are currently ranked third, as they are less tolerant to drought, feed stress and scarcity of essential grasses.

Source: Focus Group Interview, April, 2006.

Changes in relative values of types of livestock:

In the 1980s the exchange rate was as follows:

- 1 camel = 4 cattle
- 1 camel = 48 sheep and/or goats.
- 1 cattle = 12 sheep and/or goats.

(Source, Ayele, 1986:87)

In 2005 the exchange rate was as follows:

- 1 camel = 5 - 6 head of cattle depending on size, age and sex.
- 1 camel = 35 - 40 goats and/or sheep depending on size, age and sex.
- 1 cattle = 7 - 8 goats and/or sheep depending on size, age and sex.

(Source: Individual Interview, April, 2006.

The shifting of herders' preference and choice from one type of animal species to the other shows the adaptive responses of the pastoralists to impacts of natural events, ecological changes and economic demands. Therefore, herders' drought response strategies can be determined in many ways. Concomitantly the social function of stock as sign of wealth status and prestige also shifted. For instance, the number of cattle population was used as sign of wealth in the past, whereas currently the number of camels is taken as sign of wealth. The local people also manage multiple livestock species in order to cope with drought risks and adapt to ecological changes.

Therefore, it is because of both, ecological changes and economic demands, that the local people have tended to shift emphasis from more grazers to more browsers. This indicates the dynamic and flexibility of the local pastoral system and its adaptability to the ecological and socio-economic changes. In other words it shows the change and continuity of local pastoral system through adapting to the adverse circumstances. However, as the survey result has shown above, it should be noted that the local people are still pursuing with rearing multiple species, though the past few decades have witnessed a continuing decrease in number of cattle and emphasis has shifted to browsers, especially to goats. And yet the herder's reliance on small stock indicates a greater and more frequent drought risk, even though the local pastoral system has maintained a species mix.

6.1.3 Social Capital (Social Networks and Mutual-help)

All livelihood resources (natural and physical) described earlier are productive assets. These material resources and labour form the basic components for the sustenance of livelihoods. However, livelihood is more than earning incomes. And it encompasses intangible assets as well as social institutions (kin, family, village, social relations and property rights) that are required to support and sustain a living. Therefore, equally important for sustenance of livelihoods are forms of social capital which include social support networks, informal transfers, participation in social institutions and other social relations. Social capital consists of any assets such as rights or claims that are derived from membership of a group and it includes the ability to call on friends or kin for help in times of need.

In the context of the study community the forms of social capital are manifested in mutual-help and cooperation, kinship relations, clan membership, bond-friendship or association, and reciprocal social obligations. Particularly kinship relations, mutual-aid cooperation and bond-friendship are crucial forms of social capital through which the local people get access to productive assets (stock transfers) and other supports (donations) in times of need. Any member of a kinship group/clan, or affiliated to non-kin through bond-association could call on members for support be it food, cash or labour, or security (i.e. protection against external threats).

In the study community mutual help/cooperation among clan members is a social obligation that is expected of each fellow member. Moreover, establishing bond-friendship is common in the local community. The community members maintain strong internal ties, social network and mutual-aid systems that provide safety nets in times of crisis. Members of a clan group could get help with money, food, labour and any protection through mobilizing

informal transfer systems and networks. In general terms it can be said that the local people have strong informal safety nets to help each other in times of stress. This aspect is further elaborated in section 6.6.2.1.

6.1.4 Physical Capital (Infrastructures)

The physical capital refers to ownership of critical infrastructures and services for water, communication, movement, transportation, and access opportunities for market or urban centers. These community level assets increase local people's orientation towards outside of the community and provide opportunities for trade, market and integration. They facilitate integration of remote pastoral groups to other areas which provide complementary resources (health care, market exchanges, cereal supplies, water) especially during critical times.

As stated earlier the local community had very limited access to physical infrastructures during the previous governments. In recent years there has been a good investment in infrastructures and services. Some of the existing physical infrastructures include district administration centre and sector offices, local market, road access, schools, health station, health posts, relief food distribution centre, telephone, etc. These physical infrastructures have greater potential to improve opportunities for trade, market integration and drought risk management. The local people's view on the current development of infrastructures and services will be discussed in section 6.4.3.2.

6.1.5 Human Capital: Labour Availability, Literacy and Health Status

In the asset-based approach human capital is a key component of livelihood resources. Health status and education are vital for revealing human capital which is one of the assets influencing livelihood activities and strategies. Pastoral strategies of migration, of keeping a variety of animal species as well as splitting them according to types of animal, age, sex, and productivity can be seen as a direct adaptive response/strategy. However, the success of such strategies also depends on human factors like the availability of labour to be deployed for various types of activities, and on availability, within household and the community, of skills and information upon which decisions can be made.

In the context of the Aghini pastoral community, human capital refers mainly to the availability of adult labour (physical labour capacity) both at household and lineage levels, and to education (literacy) and health status that expand opportunities to pursue different livelihoods including non-pastoral activities (i.e. crop cultivation, migration for seasonal works). The three elements of human capital are elaborated below.

i. Availability of Labour: A pastoral household needs adequate labour for management of livestock and other pastoral resources. As one strategy of adaptation, pastoral households rear multiple-herd species with different feeding habits. Various animal species require different environmental niches allowing seasonal accessibility of forage to grazers and browsers. In order to access and utilize the preferred fodders that vary temporarily and spatially, a certain number of able-bodied persons are required for the management of herds. For instance a household needs at least two adult able-bodied persons (e.g. husband and wife) and a working

child. Thus a household with less than two adults and working child may need access to labour from outside of the household (i.e. from kinship group, lineage/sub-clan).

In the study community, households and extended families mobilize and coordinate resources, particularly labour in order to use available resources efficiently. They usually organize labour on the basis of age, sex, lineage and kinship relations and common residence. They also regroup stock accordingly. Children of the affiliated households, kinship groups and neighbourhoods herd small stock together. Adult persons often take care of large stock and oversee working children and the security of clan territory and community. Table 6.3 shows the most important activities at household level and task divisions among household members.

Table 6.3 Important Activities at Household Level and Task Division among Household Members

Type of Activity	Women	Men	Children
Keeping cattle		x	x
Keeping goat	x		x
Keeping camel		x	
Taking care of kids and calves	x		x
Marketing	x	x	
Selling camel and cattle		x	
Selling small stock (goats and sheep)	x		
Milking cow	x	x	
Milking camel		x	
Milking goat	x		
Fetching water	x		x
Collecting firewood	x		x
Preparing food	x		
Fencing		x	
Constructing animal kraal		x	
Constructing hut	x		

Sources: Key Informant Interviews, December, 2004

In the local community close kinship groups and families often mobilize their labour forces and use them efficiently through regrouping stock on the basis of age and herd species. Informants claimed that labour shortage has not been a significant problem, as households with labour deficit could access it from kin, lineage group and bond-friends in times of need. In fact a number of informants remarked that hadn't labour been mobilized on the basis of lineage and kinship, it could have been a problem to pastoral households particularly for those with aged people, infirm, orphans and disabled persons. Close kin as well as clan members have social obligations to such groups of people and to support households with labour shortage. Therefore, the availability of adequate adult labour both at household, lineage and clan levels is crucial to the local pastoral production system and protection of the clan group from external threats. Labour shortage at lineage and clan levels has more implications than at individual household level. It is because individuals or households with labour stress could call on their kin, lineages, affine and clan group as far as labour is available thereof.

Therefore, individual households with labour shortage could mobilize their kinship relation to overcome the deficit.

On the other hand my key informants felt that labour shortage might be a problem in the future if young people migrate or drop out of the pastoral system, and many households take up more non-pastoral activities. Currently some young people tend to take up other non-pastoral activities (animal trading, urban business, seasonal labour, government employment, etc). In fact these activities can be considered as income diversification mechanisms to supplement pastoral livelihoods. Yet, the informants said, these may have some effects on the availability of and access to labour within the pastoral system which requires much labour for the reasons mentioned above.

ii. Literacy: The options for various livelihoods and the capacity to expand opportunities rely not only on productive factors (assets), but also on social factors such literacy and health status. Therefore, addressing vulnerability and capacity requires the linkage between the productive (i.e. economic) and reproductive (social) factors. For instance investing in education services is an essential investment in the productivity and capabilities of people, which expands their opportunities to diversify livelihoods and spread risks. In relation to this I attempted to assess literacy level, the local people's attitudes towards educating children (i.e. formal education) and their views on the benefit of education in expanding opportunities for their children. This is presented in the following paragraphs.

As it is true in most pastoral communities in Ethiopia, literacy rate is very low in the Afar Region. According to 2005 Demographic and Health Survey (DHS) of Ethiopia (CSA, 2006:18-19) the proportion of men and women with no education was high (i.e. 80% and 87% respectively). In that respect the study community is no exception. In a household survey carried out for this research, household heads were asked to understand the basic literacy for every household member with age seven and over. Out of the total population of 381 people with age seven and over, 12.6% (n=48) were able to read and write at the time of survey, and 87.4% (n=333) could not. These figures indicate that literacy level is very low as it is true in all marginalized pastoralist societies in Ethiopia.

A better indicator is the school attendance ratio (i.e. rate of children in schooling). In the Afar Region the net attendance ratios (NAR)¹³⁷ for primary schooling and secondary schooling are 15.3% and 5.3% respectively (CSA, 2006:20). This low enrolment might be attributed to a number of factors which include marginalization of local community, inadequate educational facilities, cost of education, parents' ambivalent/negative attitude to educating children, low quality of education, etc.

Government neglect of the area, lack of schools and parents' ambivalence towards educating children were the possible explanations for a low literacy rate in the context of the study

¹³⁷ The NAR indicates participation in primary schooling for the population age 7-12 and secondary schooling for population age 13-18. It is a total population of official school-age population that is attending primary or secondary schooling. The official primary school-age is 7-12 years and the secondary school-age is 13-18 years (CSA, 2006:20).

community. It is only in the past ten years that schools have been built within the Telalak district. Informants from the District Education Department also reported that parental preference for sending children to formal education was very low in the past due to preference of using children’s labour for livestock activities. Very recently the local people tend to show a more positive attitude to educating children. Parents tend to see education as an option for expanding opportunities for their children in the future. This is partly attributed to the current opportunity for educated Afar to get jobs in government offices. Therefore, some parents have started sending their children to formal schools in recent years.

During the fieldwork the respondents were asked, “have you ever sent your children to school?” 38.3% (n=23) of the sample households replied in the affirmative, whereas 61.7% (n=37) in negative. Those household heads who replied in the positive have furnished reasons for sending children to school. As shown in Table 6.4 below, the reasons include “advantages of education in creating opportunity for jobs” and “educated children as asset for parents in particular and for the community” in general.

Table 6.4 Respondents’ Reasons for Sending Children to School (multiple responses are possible)

Reasons for sending children to school	Frequency (n=23)	Percent
Educated children can get job in government offices	23	100.0
Educated children help their parents	15	65.2
Educated children help their community	8	34.8
Education makes it easy to pursue livelihoods other than pastoralism	6	26.1

Source: Sample Household Survey, December, 2005

Those respondents who responded in negative also provided their reasons. As show in Table 6.5 below the main reasons for not sending children to school’ include, “inaccessibility of schools” and “the fact that children’s labour is required for livestock activities”.

Table 6.5 Respondents’ Reasons for Not Sending Children to School¹³⁸

Reasons for not sending children to school	Frequency	Percent
Inaccessibility of schools	17	46.0
They have to keep cattle	10	27.0
Inability to afford for school materials and other expenses	3	8.1
Have no school age children	7	18.9
Total	37	100.0

Source: Sample Household Survey, December, 2005.

In general the literacy level is very low in the study community. As indicated above, various factors could involve for such outcome. As shown in Table 6.5 above both the supply-side failure (inaccessibility of educational facilities) and the demand-side factors (i.e. unable to send children to school due to cost of education and preference of using children’s labour for livestock herding) have affected education outcomes in the local community. According to

¹³⁸ Respondents were asked to identify the most relevant reason for their respective household at the time of the survey.

participants of focus group interview, problems related to education are inaccessibility and cost of accommodation for students who want to attend school located at the Woreda center.

The implication of the low level of human capital is that members of the local community have less opportunity to engage themselves in non-pastoral activities as they are less-equipped to take up reliable sources of livelihoods. For instance, as a number of informants indicated and household survey result has shown, out-migration for searching opportunity was found to be low in the study community. A number of informants attributed this to lack of education, exposure or experience, language barriers, and lack of skills required for performing activities in urban settings and in agriculture. To illustrate about 'lack of exposure and experience', an informant said, "one doesn't opt for something which one doesn't hear about or see it".

iii. Health Status: Health status of the bread earners is central in pursuing livelihood activities. Healthy persons can engage in livelihood activities which enable them to support their family. Therefore, health status influences the capacity of individuals or community to engage in various livelihood activities. The main health risks in the locality under consideration are malaria and occasional outbreak of meningitis. These types of diseases affect the local people seasonally. Inadequate health service is another constraint for the well-being of the community members. At the time of the fieldwork there was no sufficient health service in the district. In fact health posts were constructed in some Kebeles in 2003. However, they did not begin functioning due to lack of health personnel and other inputs. Therefore, patients have been taken to the Woreda health station which is too far for many pastoral communities. Informants further noted that the Woreda health station had no adequate personnel and inputs, let alone the health posts. Health problems and inadequate health facilities and services compounded with seasonal food insecurity have adverse effects on the local people's health status.

The preceding sections have discussed important local resources/assets and offered an assessment of the livelihood resources from the local people's perspective. These resources entail natural, social, physical, financial and human capitals needed to pursue different livelihood strategies and activities in the study community. Generally the local people have perceived that key pastoral resources (productive assets) have been depleting over several decades for reasons that shall be discussed at length in section 6.3. In the following section, I shall discuss the current livelihood activities of the local people under consideration.

6.2 The Livelihood Activities/Strategies in the Study Community

6.2.1 Livestock Production and Crop Cultivation

As stated earlier, livelihood strategies/activities pursued by the local people depend on availability of and access to assets/capitals. Natural resources (pasture, water and farm plot), livestock and social capital form the crucial assets from which the local people derive their livelihood activities. In this connection I attempted to involve the local people in exploring what activities form their livelihood systems. Household survey respondents were asked to identify the types of activities in which they and their household members engaged

themselves during the twelve months before this survey. As depicted in Table 6.6 below livelihood activities, which most respondents reported, include livestock rearing (59 respondents), crop cultivation (15 respondents), trading in livestock (4 respondents) and running small shop (4 respondents). Few respondents stated small retail trading in various items (cigarettes, mats, and skins or *Chat /Catha edulis* - a stimulant plant) or rifles.

Table 6.6 Types of Livelihood Activities Pursued by Sample Households during the Twelve Months Preceding the Survey Period (Multiple Responses are Possible)

Livelihood activities	Responses	Percent
Livestock rearing	59	66.3
Growing food crops	15	16.9
Trading in livestock	4	4.5
Running small shop	4	4.5
Trading in cigarette, mat, skin, etc.	3	3.4
Working as guard (forest, office)	2	2.2
Trading in <i>Chat (Catha edulis)</i>	1	1.1
Trading in rifles	1	1.1
Total	89	100

Source: Sample Household Survey, December, 2005.

During the survey the sample households were also asked to identify their primary livelihood (s) in their respective households. In reply to this question, the majority of the respondents (96.6%) reported 'livestock production' as prime livelihood system. One respondent said 'crop cultivation' and another one reported 'trading in goods'. These results suggest that livelihood in the locality is dominated by livestock production. Therefore, though about half of the household survey respondents (i.e. 50%) mentioned additional livelihood activities as shown in Table 6.6 above, they largely rely on subsistence livestock production.

However, neither livestock production nor other secondary activities provides adequate food for the sustenance of the pastoral households in the study community. Asked whether their primary livelihood was enough to sustain their family all year round, only 10% of the respondents replied in 'positive', whereas most respondents (90%) said 'insufficient'. As a result, households seek other sources of food to overcome deficits. These include kinship support, reducing consumption, selling animals for purchasing grain, crop cultivation, renting out oxen, relief assistance, etc. Nevertheless, a number of informants reported various constraints that challenge both primary livelihood and other secondary activities (crop cultivation, trading, etc). The following case material, based on an interview with a household head, reveals constraints of crop cultivation.

Humedi, 42-year-old, is a resident of the pastoral community named *Melo-Bedu*. In April 2005, I held an interview with Humedi about his experience with regard to crop cultivation. Humedi used to practise small-scale irrigation at the Telalak River¹³⁹ to supplement his income from livestock production. He first started growing food crops during the last years of the Derg time i.e. around late 1980s,

¹³⁹ In the upper land this river is known by the name Cheleka, with headstreams Kersa, Abaha, Abonsa and others. It rises roughly from the hills northwest of Bati town. Some small-scale irrigation is practiced by the farmers in certain communities along this river (Degefa, 2002, p.22).

after he has seen his fellow villagers cultivating maize. He cleared a field along the bank of Telalak River. After some time, however, his farm plot was wiped out by a flood when it rained heavily in the upper catchments. When his field was affected by the change of the river course and the flood, he abandoned his enclosure and stopped cultivation for a while. Later he resumed cultivation in cooperation with two neighbours. But they did not continue cultivation due to the same flood problem which often wipes out irrigated fields and furrows along the river banks. As a result Humedi and his fellow villagers hired migrant labourers and tried to make better channels and embankments to irrigate more fields. Still the irrigation channels did not last long because of high river-runoff coming from upstream (highlands). The irrigation channels were often washed away whenever it rained heavily in the highlands. Moreover, Humedi and his neighbours also tried to grow maize with rain water (i.e. during summer). But they were unsuccessful owing to inadequate rainwater which resulted in wilting of maize crop. Despite all these constraints Humedi and his villagers, however, did not give up. With hope, Humedi and his five fellow villagers again cleared other fields along the Telalak River to grow maize. Then they have their own farm plot to work independently. They cooperated for communal activities like canal construction, maintenance of furrows, and river water diversion. They sometimes get good harvest and other time poor or no harvest at all due to flood or failure of rain (*Individual interview, April, 2005*).

The above case illustrates that individuals/households try to compensate deficits through growing food crops when food supply (yield) from livestock production is insufficient. They strive to combine livestock rearing with crop cultivation. However, constraints such as lack of capacity, flooding and changes in river courses, unreliable rainfall and loss of pasture have constrained pastoral households' attempts to diversify livelihood.

Given the current decline in subsistence livestock production, I asked Humedi how he would cope with this livelihood insecurity. He recognized that livestock production has been under extreme pressure everywhere in the Afar land. Humedi further illustrates this as follows:

Livestock rearing is under threat because of the recurring drought and lack of pasture which often lead to loss of large number of livestock. The time is not for livestock, because rainfall has been uncertain; whenever it rains grass does not sprout. Moreover, some important grass types have disappeared at all. In fact camels and goats could survive better than cattle. And yet, important browsing trees/bushes, on which camels and goats rely, are also getting scarce. Had it not been for lack of skill and other inputs, cultivation could have been a good source of food grain. Humedi viewed irrigated cultivation as viable activity. However, lack of capacity is the major constraint to do it. By capacity he meant the availability of trained farm-oxen, farm tools and skills for making stable channels and embankments for flood protection. Firstly, there is lack of trained oxen and of grass to feed them. Secondly, Humedi admitted that he lacks skill in ploughing. Hence, he uses only a hoe for cultivation. Humedi tried to engage in share-cropping arrangement with Oromo cultivators to get access to these inputs. But he did not succeed. Because the Oromo cultivators usually prefer sharing-crop contracts with the Afar who live close to them in order to secure feed for oxen and to avoid travelling long distances into Afar hinterland. Despite all these constraints Humedi wants to continue with animal rearing and crop cultivation simultaneously to sustain his family (*Individual interview, April, 2005*).

The case of Humedi indicates the local people's effort for adopting crop cultivation in order to supplement their income from the livestock production, and it reveals the constraints they

are facing in doing so. In this connection, I also interviewed experts from the Woreda Livestock and Agriculture Development Department about their views on local livelihood systems and constraints. One of my informants, Gedamu, an expert from the Department described crop cultivation and its constraints in the following manner:

Some households rely partly on crop cultivation. They supplement their sources of food from livestock production through growing maize or sorghum. And yet most of them do not do cultivation independently. They often do cultivation either through sharecropping arrangement or hiring migrant workers. They give their farm plots to Oromos on the basis of sharecropping arrangement in which they share the production equally. It is because of lack of oxen, tools and skills that the local people enter into crop-sharing contracts. In fact those who have oxen and tools tend to hire migrant labourers. Our department provides seeds for free. But many individuals do not often request seeds once they give their land for share-cropping. Many individuals/households do not tend to carry out cultivation independently since cultivation is cumbersome and requires some skills, heavy manual labour for which the local people are not well-equipped. Moreover, flooding is another limiting factor for traditional irrigation, since it washes away the furrows constructed to irrigate farm plots. Indeed there is no adequate support from the government to enhance traditional irrigation, despite the strong need expressed by the local people with regard to irrigation development on the banks of the two rivers (Wata and Telalak). For the local people the construction and maintenance of furrows require special skills which most of them lack. Consequently, they need external support (*Key informant interview, November, 2005*).

Generally the views of informants and Woreda experts indicate that there is a potential for irrigation development in some localities of the district to complement livestock production¹⁴⁰. However, the local people lack the capacity to enhance their traditional small-scale irrigation for reasons mentioned above. Moreover, high run-off originated from highlands affects crop cultivation, as it washes away furrows and farm plots, especially when it heavily rains in the upper catchments. Therefore, small-scale crop cultivation has been constrained by many factors. Trade and seasonal migration for work are additional non-pastoral activities for some individuals or households. These activities are discussed in the following sections.

6.2.2 Additional Livelihood Activities (Migration and Trading)

As stated in Chapter 3, livestock herders in East Africa increasingly engage in non-pastoral activities to augment income and to overcome shocks caused by drought, animal disease, market failure and insecurity. Therefore, livelihood diversification has become essential risk management strategy among pastoralists. In this instance the Afar pastoralists are no exception, though the degree of their involvement in non-pastoral activities varies from one locality to the other. Depending on the available opportunities, individuals and households take up crop cultivation, trading (livestock, firewood, charcoal); wage employment (hired labour, guarding); retail activities (running small restaurants, canteens and shops); rental of property ownership and sales (renting out farm-plots, farm-oxen). However, not all pastoral

¹⁴⁰ Some studies (e.g. MCE, 2001; MoA, 2000) also indicated that the Aghini locality has a potential for irrigated agriculture.

households and communities have equal access to these non-pastoral activities. With respect to the study community, crop cultivation, trading in livestock, petty trading and migration for wage employment have been reported as additional livelihood activities. Access to crop cultivation is already discussed in section 6.2.1 above. Therefore, here I discuss the local people's involvement in trading and migration for employment.

i. Migration: In the study community context 'migration' refers to travelling outside the Telalak district and temporally living elsewhere for the purpose of work. It includes seasonal and long-term (circular) migration. During the fieldwork, informants mentioned 'migration for employment' as one of the income generating activities. Some individuals, especially young and middle age people (both men and women) from the district migrate mainly to areas such Asayita, Dubti, Werer and Datbahari located within the Afar Region, and to the neighbouring countries - Djibouti and Eritrea (Assab).

Initial migrants to Djibouti, Assab and Asayita were economic role models especially to young people who do not have local employment opportunity. Until recently migration to Djibouti and Assab was the most preferred strategy for searching jobs. Traditionally, young and middle age people (both male and female) from Telalak used to migrate to Djibouti without any legal entry requirements. They spent part of the year looking for a range of employment opportunities in Djibouti. Young boys were employed as shepherds in the rural areas, while others in various types of casual work (loading-unloading, in construction sites, or as guards in private residences, business centres and bakeries). Many of the female migrants are engaged as domestic workers, doing laundry, house clearing and cooking activities. The life history of a female informant, Fatuma, a resident of Nemelifen settlement, illustrates this.

Fatuma was born in Awarena-Areda pastoral community. She married at very young age and later on she divorced her husband because of disagreement. In 1992 Fatuma migrated to Djibouti in search of employment. She happened to know about job opportunity in Djibouti from initial migrants, who went to Djibouti from her home village. For ten years she stayed in Djibouti where she worked as domestic worker (preparing food and washing cloths). At that time she was married to an Afar man who migrated to Djibouti and she had three children by him. Since 1998 Fatuma faced lack of job, as jobs became scarce in Djibouti due to influx of migrants following the Ethio-Eritrea border conflict. At that time she was not on good term with her husband. Thus she divorced her husband, and decided to stay no longer in Djibouti. As a result she returned to Nemelifen (district center) in 2002. Upon her return she brought only two of her children leaving the third child (the elder one) with his father living in Djibouti (*Key informant interview, April, 2005*).

Fatuma reported that the Ethiopian Afar had often migrated to Djibouti because of drought consequences and for searching jobs. Fatuma felt that in recent years many Afar migrants returned from Djibouti to their home country. She attributed this to the scarcity of jobs in Djibouti and the emergence of administrative centers, local markets and towns in the Afar region where few job opportunities had recently become available. She related this to her own experience as follows:

After she returned to Nemelifen (district center), she started running small petty trading (*Gulit*) by bringing some items from the Bati market. The items include grains (maize, chickpea, pea and bean), coffee and incense. She has a positive

attitude towards towns, district centers or newly emerging settlements, as they are becoming for the local people sources of jobs, business, services and weekly market centers. However, inadequate capital was the main constraint to expand her small business. And yet Fatuma decided to continue her trade even at its margin, as she had no other alternative. Her children's father did not support her. She has relatives in her home (pastoral) village. But she did not get support from her relatives, as they lost their stock during 2002/2003 drought. Thus Fatuma depended on her petty trade in order to feed her children and to cover expenses for their education. Fatuma also observed that very few young Afar women (girls) have started trading and *Chat* selling by learning from their neighbouring Oromo women. She attributed low participation of Afar women in trading to the lack of skills, capital and low exposure to town (urban) life (*key informant interview, April, 2005*).

Another important place for the Afar migrants was the town of Assab in Eritrea. Before the Ethio- Eritrea border conflict, many people used to migrate to Assab in search of a better livelihood or as strategy to survive crisis time or to accumulate assets (e.g. livestock). In recent years, however, migration for employment either into Djibouti or Assab has been constrained by the border conflicts and the policy of the Djibouti Government towards migrants. After the independence of Eritrea and the Ethio-Eritrea war in 1998-2000, migration to Assab has been difficult for Ethiopian Afar who look for jobs in Assab. In addition, following the recent decree released by the Government of Djibouti that prohibits aliens without work permit to live in Djibouti, many people were forced to leave the country. Afterwards it has been difficult for those Afar seeking to migrate to Djibouti for job opportunities. Moreover, informants claimed that job opportunities for the Afar migrants who managed to arrive in those receiving areas, have been scarce and unavailable nowadays. The following case illustrates this.

Lubak, a resident of Bedu pastoral community, said that some people had been migrating to Djibouti in search of employment during bad and good times. During the 1984/85 famine Lubak himself migrated to Djibouti and worked there for seventeen months. In the first eight months he worked as gardener and for the remaining nine months as a goatherd. At that time he left his wife and children with his brother in the home village, and he remitted some money to his family and relatives. After seventeen months he returned to his home village. Upon his arrival the situation in his home village has improved. Then he bought cattle and camels with the money he saved in Djibouti. However, his stock died during the subsequent droughts. He left with some camels which survived the drought. He didn't go back to Djibouti during the latter drought periods, as he realized the lack of opportunities in Djibouti. Nowadays, Lubak said, migration to Djibouti in search of jobs has been decreased. Firstly, job opportunities for migrants have become scarce in Djibouti. Secondly, the treatment of Djibouti Government to migrants has become hostile in recent years, because of high numbers of foreigners in the country (*Individual interview, April, 2005*).

The above case shows that the political processes (border conflict), the policy of the neighbouring countries and scarcity of jobs in receiving areas have constrained cross-border labour migration to Assab and Djibouti. Therefore, the local Afar migrate to large-scale plantation areas (Asayita, Dubti, Datbahari, Werer) and to other urban centres located within the Afar Region. They engage in loading and unloading; daily labour in construction sites, plantations; guarding governmental buildings and offices, etc. However, as both key informants and the household survey indicated, labour migration from the study community is

in general very low. For instance, out of the total 60 sample households interviewed, households with one or more members who migrated for seeking jobs during the twelve months preceding this survey were only four. This seems low given the recurrent food crisis in the locality, and it could be partly attributed to the food distribution in the district, and scarcity of jobs and lack of opportunities in the receiving areas. Moreover, it seems that individuals who engage in labour migration are not yet well-equipped to access non-pastoral employments with high returns in urban settings. And this might be one of the reasons that a number of labour migrants are employed in guarding. It was also observed that most of the seasonal jobs with high return have been taken up by non-Afar highland labour migrants as they are better-equipped to compete and take such advantages in urban settings.

Generally according to the qualitative information and the household survey result, labour migration as strategy of income earning/diversification was found to be low among the local people. And yet some individuals still go to various places for seasonal work to augment income deficits or to survive food crisis.

ii. Trading in livestock, goods and services: Non-pastoral employments in the study community are very limited. Yet some individuals and households engage in livestock trading, retail trade and small businesses. As shown already in Table 6.6 above, some individuals engage in livestock trading, and petty trading (selling *Chat*, tobacco, mats, skins). There are also households which run small shops, restaurants and tearooms in the Nemelifen settlement (district centre). But it was clearly observed that most of the businesses and retail trade activities in the district centre were controlled by non-Afar highland migrants (Amharas, Argobas and Oromos). For instance as of December 2005, there were 25 small shops, 21 restaurants and tearooms and 5 grinding mills in the Woreda centre (Nemelifen). As depicted in Table 6.7 below, most of these businesses are run by non-Afars who migrated from neighbouring communities into the district centre.

Table 6.7 Distribution of Business Owners (Afar and Non-Afars) in the Woreda Centre

Type of business	Owners*		
	Afar	Non-Afars	Total
Small shops	5 (20.0)	20 (80.0)	25
Restaurants and tearooms	3 (14.3)	18 (85.7)	21
Grinding mills	2 (40.0)	3 (60.0)	5
Total	10 (19.6)	41 (80.4)	51

Source: Based on the survey of business in the Nemelifen, December, 2005.

* Figures in the bracket are percentages.

Informants claimed that most of the individuals (both Afar and non-Afars) who run small businesses belong to relatively wealthy groups. On the other hand, according to some informants, the poor might participate in petty trading. However, they often lack initial capital and skill to undertake viable businesses and to compete with non-Afar business men (traders). In this connection, an informant from Nemelifen, explained the situation as follows:

... Mohammed lost his cattle due to recurring droughts since 1992. He has been a recipient of food aid since 1999/2000. Mohammed remarked that community members lack the capacity to pursue non-pastoral activities. This has led to seeking

government assistance in times food crisis. In order to take up alternative livelihood strategies, for instance petty trading or other business, it requires a certain capacity (i.e. start-up capital and skill). In this respect Mohammed said: “The poor has no alternative.” “If you are destitute, what can you do?” “I have a labour, but there is no project to work or even to sell my manual labour” (*Individual interview, December, 2005*).

In contrast, the better-off individuals invest their own initial capital (in cash or kind) in order to take up more viable activities or to make more profit, or to accumulate assets (livestock) as a strategy of buffering risks. Therefore, entry into secondary activities such as trading and small businesses is not equally open to individuals/households. Thus the poor need social networks to access informal cash transfer (informal loan) or support from kinship groups to engage in trading or other businesses. On the other hand, individuals/households with better initial assets (e.g. cash, skills and labour) have more opportunities to diversify their income sources or to accumulate wealth for risk reduction. The following case illustrates this:

Ali, a resident of Adalil village takes up three livelihood activities in combination as relying on one activity alone is no more viable to sustain his family. These include livestock rearing, crop cultivation and trading in livestock. He pursues trading in livestock whenever conditions (i.e. good returns or price at markets, animal health) allow him. Beginning 1992, Ali has undertaken trading in livestock (camels, or bulls or goats) depending on the demand for these animals in the terminal markets. Initially he began in camel trading by selling his he-camel to have initial capital. He sold his camel for 2000 Birr at *Bati* market and bought four young camels for prices ranged from 400-500 Birr per head. Having raised the young camels for two years, he sold them for prices ranging between 900-1100 Birr per head. In this way he made some profits. Then he bought bulls for the prices that ranged from 200-300 Birr per head. He sold them for prices ranging from 800-900 Birr per head after raising them for three years. As of 2004, he interrupted trading in camels and bulls. He switched to trading in goats, because of the following reasons: (i) camels have been very expensive and the profit that could be made per camel has been too marginal. The price difference between various markets has been minimal. (ii) At that time a camel disease broke out and killed many camels. (iii) Bulls are becoming more vulnerable to drought effects and feed stress along market routes and in the pastoral localities. Therefore, Ali has switched to trading in goats which have wider browsing range and can easily be moved to the market. He sometimes buys goats from *Dalifagie* and sells them at *Harawa* market located in the Oromo community. He buys a goat for a price of 80-100 birr at *Dalifagie* and sells at 120-130 birr at *Harawa* market (*Individual interview, December, 2005*).

Ali has also engaged in growing food crops. He started it nineteen years ago. He has a farm plot adjacent to the border between Afar and Oromo communities. He grows maize and sorghum (*Mashila*) and produces 7-10 quintals per harvest. He further narrated how he carries out crop cultivation as follows:

Ali carries out either irrigated or rainfed cultivation depending on seasons and availability of river water and rainfall. During *Karma* (main rainy season) he grows maize or sorghum using rainwater. Another time, especially during the dry season he uses river water for growing crop. Ali has a shortage of adult labour with the necessary skills in his household for crop cultivation. Thus he gets access to outside labour through two types of arrangements with neighbouring Oromos or Argobas: (i) he hires labourer at 500 Birr per year. In this arrangement he also provides hired labourer with food, or (ii) Ali allots farm plot to his ally in exchange for his service.

The choice between these two arrangements often depends on the preference of his ally (i.e. cash or allotment).

Ali lives in the same homestead with his father and four brothers. He has three wives and seven children. I asked him why he got married more than one wife. He replied that having many children and wives has economic advantage. Ali felt that “had it not been for more wives and children, he couldn’t have taken up more livelihood activities”. His Oromo wife lives in the Oromo community and engages in crop cultivation. One of his Afar wives lives in the Nemelifen and engages in selling food, tea and cigarettes. His third wife lives in a pastoral camp and engages in livestock rearing. Ali also considered “living in one corral compound with his extended family and kin” as an advantage, as it has helped him to mobilize more labour from his kin. Ali also receives support and advice from his father and brothers. Ali uses his household labour efficiently: (i) children often tend livestock, (ii) hired labourer works on farms and, (iii) Ali takes care of trading activity and oversees crop cultivation. In addition to these livelihood activities Ali has a plan to construct a house in the Woreda center (i.e. Nemelifen) either for running shop or for renting it out to earn additional income (*Individual interview, December, 2005*).

All the above case materials have demonstrated that livestock production is unable to provide sufficient subsistence for the pastoral households. As a result, pastoral households strive to diversify their livelihood strategies by engaging in non-pastoral activities. Nevertheless, as the above case also illustrates, the option for income diversification relies on some initial endowments (assets) in the form of cash, or skills or social networking and as well as on other opportunities like access to markets, infrastructures and urban centers. These conditions for entry into non-pastoral activities are inaccessible to many pastoral households. Livelihood diversification is still at a very low level in the study community, though some individuals/households engage themselves in crop cultivation, trading and labour migration whenever situations allow them to do so. Therefore, most pastoral households rely primarily on subsistence livestock production even at its marginality.

As stated earlier the relative success of livelihood activities and strategies can be influenced by contextual conditions at the local level and beyond. The contextual factors broadly embrace ecological, environmental and social processes. The following sections present the local people’s perspective on some of these contextual factors that influence livelihood activities and strategies in the study community.

6.3 Ecological/Environmental and Social Changes from the Local People’s Perspective

As indicated in section 6.1.2 the Aghini pastoral community live in semi-arid climate where options for rain-fed agriculture other than livestock rearing are very limited. Low rainfall and high temperature are the major constraints in the locality. Thus for many decades the Aghini community has relied on a pastoral production system. In recent decades, however, this long-standing pastoral system has been challenged by ecological/environmental changes which include (i) degradation of range resources, (ii) loss of water points, (iii) increased cycle of drought and changes in pattern and amount of rainfall (unreliability of rainfall), and (iv) loss of dry and drought retreats due to conflicts and resource use changes. These factors are elaborated in more detail below.

6.3.1 Degradation of Range Resources

Natural forage vegetation is the key resource for the livestock production. According to the informants some four decades ago both fodder trees and grasses were abundant in the study community. However, since the 1980s forage resources have gradually diminished due to impacts of drought, bush encroachment, deforestation and overgrazing. A number of informants reported that important browsing trees, palatable bushes, and grasses have become scarce in recent decades. They attributed this to the invasion of undesirable woody plants and bushes, drought consequences and cutting of trees for various purposes (timber, fuel-wood, charcoal, crop cultivation). This view of local people is consistent with a study report (MCE, 2001) that classified the eastern side of the Telalak district as highly degraded, and the western part as moderately degraded (see map 10). It is appropriate here to discuss the views of the local people on factors contributing to the degradation of natural forage vegetations in their community. The causes of the degradation from the perspective of the local people are explained in more detail below.

i. Bush encroachment and loss of palatable tree species: A number of informants claimed that bush encroachment began after the prolonged drought of the 1984/85. Since then unpalatable plants and bushes with less forage value have gradually become dominant and invaded pasturelands. Indigenous species such as *Merkato* (*acacia mellifera*), *Tikibleita* (*acacia senegal*) and *Adedoyta* have invaded pasturelands and depressed the growth of important perennial grasses. The local people felt that this has led to the deterioration and shrinkage of local grazing areas. Simultaneously some important types of grasses and palatable trees have become scarce over time. In relation to this I tried to identify indigenous trees which are important feed sources, but are getting scarce in the study community. These are given in Table 6.8 below.

Table 6.8 Some Fodder Trees and their Availability as Identified on the Basis of Knowledge of Informants

Afar vernacular	Scientific name	Parts browsed	Current status/availability
Adayto	<i>Salvadora persica</i> (L)	leaves and fruit (for camel)	scarce
Adeganto	<i>Acacia seyal</i> .Del.	leaves/foilage	-
Bunket	<i>Tribulus terrestris</i> (L)	leaves	scarce
Eibeto	<i>Acacia tortillis</i>	leaves and pods	only at river banks
Gerento	<i>Acacia oerfota/A.nubica</i>	leaves	scarce
Gersa	<i>Dobera glabra</i>	leaves	scarce
Hidaito	<i>Grewia ferruginea</i> (Hochst.)	leaves	scarce
Humraitto	<i>Tamarindus indica</i>	leaves	scarce
Kaselto	<i>Acacia nilotica</i>	leaves and pods	scarce
Kusraito	<i>Ziziphus spina Christi</i> (L)	leaves and fruit	scarce
Ledo	*	leaves (for dry season feed)	scarce
Segento	<i>Tamarix aphylla</i> (L)	leaves	scarce
Subula	<i>Ficus sycomorus</i> L.	leaves (for dry season feed)	scarce
Tikibleita	<i>Acacia Senegal</i> (L) willd	leaves and fruit	available
Yodikito	*	leaves	available

Source: Key informant interviews, April 2006.

* Scientific name not identified.

Of all plants listed in Table 6.8, *Gerento (acacia oerfota)*, *Adeganto (acacia seyal)*, *Kasulto (acacia nilotica)*, *Eibeto (acacia tortilis)*, *Bunket (tribulus terrestris)*, and *Hidaito (grewia ferruginea)* are excellent feed sources for camels. However, these plants are getting scarce in the study community.

In addition *Durfu (chrysopogon plumulosus)*, *Mussa (echinochloa colonum)* and *Melif (andropogon greenwayii)* are important grasses for cattle and sheep. However, within the past two to three decades these perennial grass types have also been rare in most grazing zones. A number of informants claimed that bush encroachment has depressed undergrowth including excellent grass types such as *Melif and Durfu*.

ii. Recurrent drought impacts and overgrazing: A number of informants stated that recurring drought has contributed to decline of natural forage. As drought has become severe and frequent over the past three decades, plant species such as *Habeli (grewian villosa willd)*, *Hidaito (grewia ferruginea hochst)*, *Debayto*, *Shirkto*, *Ermole*, *Subula/Subahi (ficus sycomorus L)* are getting scarce, whereas those with low fodder value are expanding.

As natural grazing has deteriorated over time, herders are increasingly facing shortage of livestock feeds. Consequently, herds concentrate in specific locations, for instance along the sides of water courses (rivers) and depressions/valleys where patchy forage resources can be available. The concentration of large stock in specific localities, in turn, has led to over pressure on existing plant resources and then to over-browsing and overgrazing. Moreover, during prolonged dry seasons and drought periods herders feed livestock with leaves, foliages and pods by cutting tree branches.

In general, drought impacts, overgrazing and deforestation have contributed to the decline of fodder production in pasturelands. However, the deterioration of natural resource base in study community is not attributed only to these factors. Other socio-economic factors such as emergence of new settlements (small towns), adoption of crop cultivation, and erosion of traditional resource management systems have also contributed to localized degradation of natural forage and deforestation. Each of these factors is discussed below.

iii. Emergence of new settlements and deforestation: Small towns and permanent settlements have emerged around administrative centres and along all weather roads followed the mid 1990s new administrative structure and decentralization process in the Afar Region. The demand for timber, poles and firewood supply has increased with the emergence and development of small towns and administrative centres. A case in point in the study community is the development of Nemelifen pastoral settlement into a town and district administrative centre. Some of the better-off individuals, traders and government employees have built houses in this town either for dwelling and/or for renting out. Some individuals living in pastoral villages have also put huts to seize plots in the district center. Therefore, individuals cut trees found along the river bank for the construction of houses. Furthermore, along with sedentarization, some pastoral households are adopting a new type of house that was not traditionally common in the community. Besides Afar men who married non-Afar wives have to construct this new type of house as their wives do not like to live in the

traditional Afar hut (*Ari*)¹⁴¹. The new type of house is adopted from highland areas and urban centers. Unlike the traditional mobile hut (*Ari*) that requires tree sticks/branches to construct it, the new type of house requires more materials, timbers and poles for construction. Consequently, this has led to the cutting of more trees.

In addition, the demand for fire-wood and the practice of charcoal making have increased with the development of permanent settlements and small towns. Traditionally the local people mainly collect dead trees or branches for fuel-wood supply in their pastoral villages/camps. Currently, individuals have resorted to cutting large trees for the purposes of charcoal, firewood and construction. Mainly non-Afar immigrants and neighbouring highlanders engage in charcoal making and firewood selling. As a result, the cutting of trees is intensified mainly along the river banks where most important forage tree species are found. This has contributed to the loss of trees that have fodder value for livestock.

iv. Adoption of crop cultivation and clearing land: In section 6.2.1, it is stated that individuals or households are adopting food crop cultivation in the study community. As response to recurring food shortage, pastoral households grow food crops (e.g. maize, sorghum) along the river banks by clearing lands where important browsing trees and bushes occur. Trees and bushes found on river banks are cleared mainly for small-scale irrigation, as rain-fed maize/sorghum growing has been unreliable. As a result, traditional rules that prohibited cutting trees have been violated, as individuals/households are increasingly involved in developing farm plots close to river banks. Trees such as *Segento (tamarix aphylla)*, *Gerento (acacia nubica)*, *Ledo*, and *Kusraito/Kusra (ziziphus spina)* have been affected while clearing land for cultivation.

Some informants claimed that violation of traditional rules began at the mid of the 1970s when the Third Livestock Development Project (TLDP) attempted to develop irrigated farm by clearing forest. At the time the TLDP cleared forests along the Telalak River for irrigated cultivation. Later on many individuals/households have continued clearing more fields for growing food crops. Consequently, traditional rules aiming at preserving forest have been gradually relaxed, as more individuals are involved in crop cultivation and in clearing more fields along river banks.

v. Pressure on natural resources and erosion of traditional resource management systems: Population increase (human and livestock), consequences of recurring drought, and overgrazing have exerted pressure on readily available natural resources in the immediate environment. This pressure has resulted in a widespread exploitation of rangelands and forage vegetation. Simultaneously mobility which underlines pastoral range management and conservation system is constrained by land use changes, loss of grazing lands to non-pastoral uses, conflict, and political instability. Therefore, scarcity and subsequent competition for rangeland resources have strained the traditional resource management systems such as pasture rotation, deterrent; grazing reserves, herd splitting to adjust to available fodders.

¹⁴¹ In addition to this the non-Afar women are not accustomed to some activities which are traditional women's tasks in the Afar community. These include backing *Ga'amo*; constructing the Afar traditional hut (*Ari*); loading and unloading items on camels; making various household utensils from skins and hides that are used by the pastoral group.

In the past good days, the local people utilized fodder resources in rotating not to deplete one resource or the other. Rotating use of resources is guided by traditional rules which every member has to observe. Thus, community members have had a shared consensus on the use, control and management of communal resources. However, traditional rules that govern access, control and use of resources have been ineffective in recent years. This is partly due to degradation and scarcity of resources that have brought stiff competition over the use of meager or poor fodder resources in order to sustain herds. As natural forage vegetation away from river banks is getting very scarce due to drought impacts, herders rely heavily on certain river valleys or localities for feeding their stock. Therefore, rules governing the use of common resources are no longer applied during extreme events as they were used to be in the past.

Indeed the local people have the tradition of protecting important indigenous trees that provide shading, famine food, and feed for livestock. If someone cuts trees that provide such uses, he is first warned by traditional authorities. In case of a repetition, he faces severe fine. If the culprit owns animals, he is fined at a rate of goat or cow per tree destroyed. The animal is slaughtered for feast. If the culprit doesn't own any animals, he is taken to a river with his hands tied behind his back. Then he is dipped in the river and whipped. However, in recent years traditional rules governing access to and use of common resources are undermined by land use/ecological changes, emergence of new settlements, resource scarcity and severe competition over resources. These factors and recurrent droughts make it difficult to preserve forests in the traditional way.

In general the above descriptions indicate the deterioration of key ecological resources (natural pasture and vegetation) in the study community. Forage resources are getting very scarce owing to population increase, drought impacts, deforestation and heavy pressure on existing resource for grazing, construction and fuel-wood collection. Woody plants found near settlements, towns and road sides, and at river banks are being cut for various purposes at alarming rate. Moreover, the local people do not plant or replace lost trees apart from protecting the existing indigenous useful trees. Land use changes, scarcity and competition over existing resources have also strained the traditional resource management systems. Therefore, drought consequences, overgrazing, deforestation and erosion of traditional resource management systems have led to the depletion of natural resources. This has severely affected the local livestock production in the study community.

6.3.2 Loss of Water Points

A number of informants reported that water points have either dried up or their water yield has decreased as drought cycle has increased in the past three decades. Some of these water points are presented in Table 6.9 below.

Table 6.9 Water wells dried up or their water yield has declined since the mid 1980s

Water points/wells	Location of wells in the district	Current Status
Kabuy and Megilel	Odelena-Asbole Kebele	water yield declined
Omo-Deraytu	Waydolelena Ye-alu Kebele	dried up
Bedu	“	“
Erkebtu	“	“
Beholy	Awarena-Areda Kebele	“
Deraytu	“	water yield declined

Source: Key informant interview with elders and clan leaders (December, 2005)

Some three decades ago, four of the aforementioned wells were used as sources of water for both livestock and human consumption. Since the 1984-85 prolonged drought these sources gradually dried up. For instance my informants mentioned that about forty households used to live close to *Beholy* well before the 1984-85 drought. After *Beholy* well dried up, villagers dispersed and changed the location of their settlements to get access to other water points. While some households which used the above source gradually moved their camps close to banks of permanent rivers, others shifted their location and dug another shallow well.

During my fieldwork, I also interviewed informants from the district (Woreda) government offices with regard to water resources. They reported that surface water and rainfall are declining overtime. In the district there are only three perennial rivers that flow year round. But the volume of water fluctuates and depends on the amount of rain water that descends from the upper catchments.

A number of informants reported the scarcity of safe drinking water in the study community. Many people use river water for human consumption. Moreover, permanent rivers are inaccessible for a number of pastoral villages/settlements. It takes hours for herders for collecting drinking water and for watering stock. This is particularly a burden for women and children, since fetching water is mainly their task.

Generally speaking it seems that under normal conditions the existing permanent sources yield enough water at least in terms of quantity.¹⁴² While some informants claimed that there is no problem related to quantity of water, other informants indicated that the water is not clean (judged subjectively). Even then, as presented in box 6.3 below, herders have to travel long distances for fetching drinking water and for watering their herds. This is partly because some grazing and browsing are far away from the permanent water sources¹⁴³. Inaccessibility worsens during prolonged dry season and drought periods. Neighbourhoods/villages with a problem of inaccessibility to water points are given in box 6.3 below.

¹⁴² The informants felt that the river water is the main source of human diseases as is is not safe for human consumption.

¹⁴³ During the wet season (*Karma*), herders may not venture distant migration, since ponds may be available whenever there is enough rain in their locality.

Box 6.3 Some selected neighbourhoods with the problem of accessible water points:

1. **Ay-ulidaba:** From this locality herders have to travel to Telalak River to get water.
2. **Odele:** In this locality herders use a hand-dug well. As water supply from the well is not enough to the villagers, herders travel for about 7-8 hours to reach other watering points in round trip.
3. **Seblel and Degoro Konta.** These localities are found in the Waydolelena-Yealu KA. In round trip, herders travel for about 5-6 hours to reach the nearest animal watering points.
4. **Ye-alu.** This locality is found in Waydolelena-Yealu KA. Gewis River does not reach to this neighbourhood. Thus the herders have to travel for some distances to get water from permanent sources.
5. **Sagantole and Eya-eya.** It is located in Odelena-Asbole KA. From this locality herders have to drive stocks for about 5-7 hours in round trip to reach watering points.
6. **Arebite:** It is found in Kulilina-Deta Kelaytu KA. The residents of this locality use hand dug wells for drinking water. And it takes about 7-8 hours in round trip for watering of livestock from other water sources.
7. **Awidi-melina Rassa, Alala-Sahinan, and Hadeluna-Boelisa.** These localities are found in Hebertuna-Rassa KA. Herders from the first village move animals for about 6-7 hours in round trip to reach water points; and herders from the second and third villages for about 5-6 hours.
8. **Ferona-Megenta KA.** This kebele most often faces water shortage.

Source: Key informant Interview, November, 2005

The distribution and types of water points influence the frequency with which animals are watered. The further the pastoral settlement and grazing area from the water sources, the more likely herders will be forced to practise alternative day watering of their animals. This is particularly the main problem for herders during the dry season where they will be forced to travel for longer hours to reach watering points. This, therefore, has a substantial demand on the labour to water animals, with loss of energy both to herders and animals.

6.3.3 Increased Cycle of Drought and Erratic Rainfall

The productivity of rangelands is determined by rainfall. In other words the productivity of pasture and browsing trees depends to a great extent on the amount and pattern of rainfall. The local people reported that the failure of major and minor rains that has been frequent in recent decades often leads to feed stress and then to high livestock mortality. As stated earlier, a number of informants perceived that loss of palatable trees and annual grasses has come with the increased cycle of drought since the 1980s. Many episodes of drought have affected the study community. A number of informants claimed that the frequency and severity of droughts has increased in recent decades. Accordingly they have identified drought (i.e. total failure of main and minor rainy seasons) as number one constraint to their subsistence livestock production.

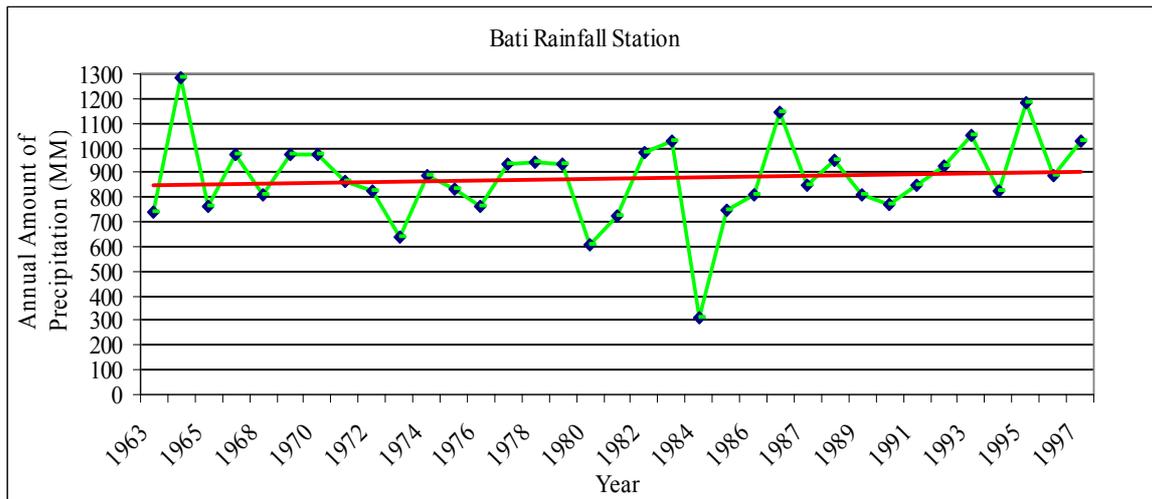
Moreover, unreliability of rain from year to year is also another characteristic of the rainfall in the local community. Most of the informants reported that rainfall has become extremely erratic in recent decades and its pattern has changed. In normal times the area receives two main rainfalls: *Karma* that occurs in the period July-September and *Sugum* in the March-April. There is also a shower of rain in January-February which is called *Dedaa*. In recent decades, informants said, *Karma* rain comes late and ceases shortly while *Sugum* rain comes

rarely. Moreover, the local people claimed that the amount of rain in both seasons has declined. The local people hold such impression because they felt that both the main and minor rainy seasons have shortened beginning the mid 1980s. According to the informants the study area received good rain in July-September (*Karma*) as well as in March-April (*Sugum*) before the 1980s. In the recent decade rain during these seasons has been more erratic as compared to the years before the 1980s. And yet, as shall be described below, the amount of annual rainfall might not decline in the study community. Rather the duration of rainfall has been reduced, while its intensity is higher during certain days or within a month.

Moreover the analysis of long-term rainfall data does not support the local people’s perception of decline in amount of rainfall. Although, there is no rainfall station in the study community, data from nearby stations (Bati and Eliwaha) were used to analyze rainfall trends in the area. As it can be seen from figures 6.1 and 6.2 below, rainfall data from these two stations did not show a declining trend over the years for which rainfall data is available. On the other hand national level trend analysis of annual rainfall shows that rainfall remained more or less constant when averaged over the whole country, while the declining trend has been observed over northern half of the country where Bati and Eliwaha stations and the study area are also found (NMSA, 2001:71-72). In this case the local peoples’ perception of rainfall trend goes with results of trend analysis done for the northern half of the country. This suggests that rainfall shows large spatial and temporal variation. Therefore, variability and changes in rainfall distribution have more impacts on the seasonal and spatial availability, and productivity of range resources in the study community.

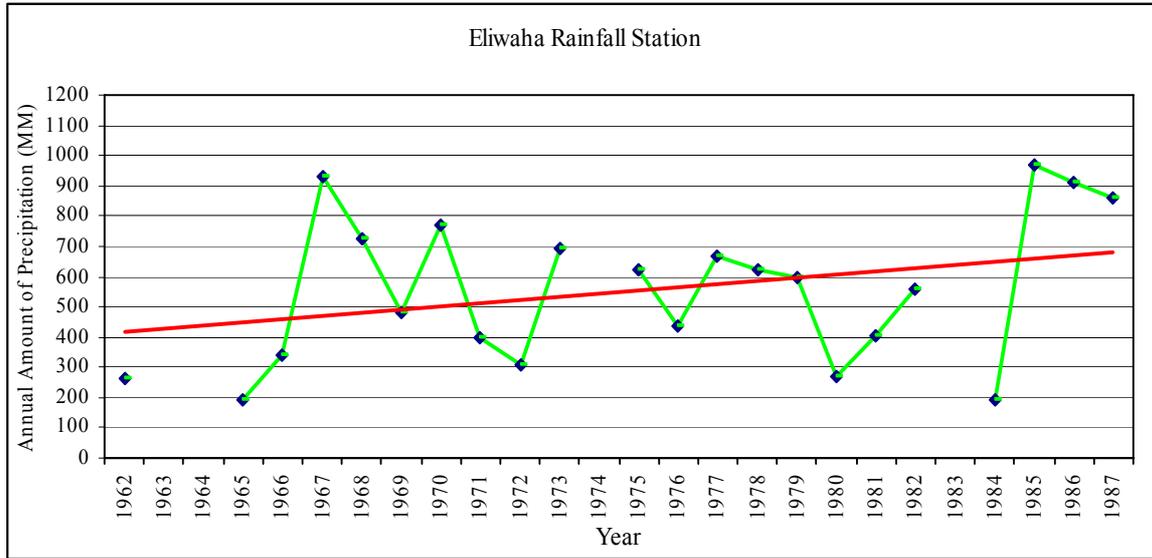
As can be observed from Figure 6.1, the three extreme dry years in the Bati station were in 1973, 1980 and 1984. Three of these dry years coincided with three known famine years (i.e. 1973-74, 1980 and 1984-85). Since the 1990s, drought occurred every 3-5 years.

Figure 6.1 Amount of annual rainfall in Bati Rainfall Station (1963-1997)



Source: Author’s construction based on NMSA data

Figure 6.2 Amount of annual rainfall in Eliwaha Rainfall Station (1962-1987)*



Source: Author's construction based on NMSA data
 * Data for 1963, 1964, 1974 and 1983 are not available.

In general terms significant changes in rainfall distribution in space and time, including an increased frequency of drought have contributed to local livelihood insecurity or vulnerability. However, such vulnerability is not caused by climatic extreme events (drought) and erratic rainfall alone. In other words the impact of drought on pastoral groups is determined by many socio-economic, political and institutional factors. Accordingly, as stated in the literature review, it can be argued that drought and rainfall variability are parts of the natural cycle in semi-arid areas. Furthermore, local livelihoods are sensitively adapted to the certainty that drought will come. Most importantly pastoral households can move from areas of drought to areas of better rainfall, when drought occurs. Nevertheless, mobility can still be constrained by many other factors such as land tenure systems, administrative actions, conflict and political instability, etc.

And yet the impact of drought is multi-dimensional in the study community. The direct impact on the pastoral groups is the loss of livestock which are the main sources of food, cash, wealth and social capital/relation¹⁴⁴. Drought also affects terms of trade as livestock price falls while food price rises. Therefore, extreme drought consequences undermine pastoralists' access to food and challenge their risk reduction strategies including mobility. In addition, as stated above, under the condition of degradation/loss of key resource owing to both external and internal forces, local communities are less able to cope with effects of extreme events (recurring droughts). If vulnerability to drought consequences is increasing as it does in the study community, the reasons therefore, have to do with declining ability to cope rather than increasingly frequent drought events. Then the question is why the local people's capacity to cope with drought consequences has declined.

¹⁴⁴ A multitude of ritual and social functions of livestock are characteristics of the traditional livestock production systems.

In general terms, the perceived sources of vulnerability from local people's perspective are what we call "the normal constraints" and disaster risks (drought, animal diseases). The "normal constraints" are like seasonal, annual and spatial variations of rainfall and thus variability in quantity and quality of the available forages. These constraints are always parts of the local pastoral system and ecology, and adaptive strategies have been developed to counteract their effects. However, the progressive losses of pastoral resources to non-pastoral uses, and external pressures combined with frequent drought and high mortality of livestock have gradually eroded the local people's capacity and challenged their long-lived adaptive strategies. Therefore, the underlying causes include the loss of key resources due to land use changes, restriction of mobility, conflict, political instability, and other market forces. In fact the pastoral households are still striving to cope with these constraints through their traditional adaptive and coping strategies. But the impacts of internal factors, external pressures and climatic extreme events have strained the effectiveness of adaptive responses. The local people's perceptions of risks and their adaptive and coping strategies will be discussed later in section 6.6. The following sections discuss the loss of key grazing areas (drought and dry season retreats), restriction of mobility and conflicts over resources.

6.3.4 Loss of Dry Season/drought Retreats and Restriction of Mobility

The local people traditionally move their herds to various dry season and drought retreats within the Afar land and beyond, according to where and when fodder is available. The most important dry season reserves include Beker, Awash, Abuware, and the foothills (see map 9 for the location of these places). Drought retreats included Megenta, Ba'adu, Jeldi, Gewis, and Cheffa (see map 9 for the location of these places). In recent years, however, most of these key resource areas have been unavailable to the Aghini pastoral groups due to degradation of grazing resources, land use changes and conflicts over the use of remaining scarce resources. A number of informants stressed the progressive scarcity of fodder in these dry season and drought retreats. In addition to the deterioration of rangelands, important migration areas such as Magenta, Ba'adu and Alledghi plain have been unavailable to the study community, mainly due to large-scale farm development in the Middle Awash Valley and the progressive incursion of Issa-Somali. Most of my informants mentioned that these areas were previously the main dry season and drought period retreats for their community.

As indicated earlier mobility is a key strategy for the pastoral systems in the arid and semi-arid zones, so as to seize the variable forage opportunity. Ecologically livestock feeds are unevenly distributed in the Afar arid and semi-arid environment. The pastoral ecology, the socio-economic and political contexts, in which the pastoral groups and their neighbours interact have been changed in recent decades. Livestock feeds are largely concentrated along the permanent streams, flooded plains, and banks of the Awash River. Moreover, the availability of natural forage in these areas varies seasonally. As a response to this variation in feed availability, pastoral groups follow seasonal patterns of mobility to exploit the advantage of feed availability in certain locations. When herders face scarcity or stress within traditional grazing zones, they drive their herds into areas inhabited by crop cultivators and into dry season grazing reserves. Nowadays such key pastoral resources, however, have been reduced by encroachments from commercial farms and national parks and they suffer from drought consequences. At the same time distant pastoral resources in the neighbouring communities have become unavailable during stress or drought time due to conflicts and resource scarcity.

As a result, seasonal mobility patterns in their territory and beyond have been constrained. In other words herders are facing environmental scarcity both in their locality, and beyond where they previously moved their herds to survive drought or feed stress. One of my informants, Mohammed, an elder from the study community explained the dilemma of herders in the following manner:

During severe drought we can move livestock to various places found within the Afar land. Nothing hinders us. However, there is no better area where we can get grass for our livestock. Every corner has been the same. Currently we are in dilemma and mostly we stay where we are. Our livestock are perishing right before our eyes, when drought occurs. This is the situation in which we find ourselves (*Individual Interview, 2005*).

The environmental scarcity (ecological change), apart from its impact on livestock production, has contributed to inter-group and enter-ethnic competitions over the remaining scarce resources. The point in case is the conflict between the local Afar and highland cultivators (Oromo and Amhara groups) over the use and control of scarce resources along the common border and in Borkena/Cheffa wetland. The highland peasants contest herders and herd movements into their locality and settlements claiming that herds would damage crops, enclosures, plantations, gardens, etc. The mobility of livestock into neighbouring highland areas during the dry season has also suffered from the regionalization based on ethnicity. Conflict, closed area development programmes in neighbouring communities, and privatization of shared grazing land at Borkena wetland have greatly reduced accessibility to grazing zones. Similarly the local Afar on their part have begun to contest the highland peasants moving down into foothills and in Afar localities in the belief that farmers would expand farm plots and cut important browsing trees. Moreover, the local Afar resist the expansion of peasant settlements across the territorial frontiers. The following section further elaborates on this issue.

6.3.5 Resource Conflicts with Neighbouring Groups

The relation between the Afar and their neighbours has been characterized by a mixture of cooperation, competition, and conflict over access to economic resources and power. Sometimes it has been characterized by mutually beneficial cooperation, and other times by competition and conflict. The Afar relation with their neighbours is dynamic and has been changing over time depending on socio-economic and political contexts in which natural resource competition occurs. Accordingly nowadays the Afar relationship with their neighbours is taking on new and dangerous characteristics that pose threats to the viability of their pastoral livelihood system and to the effectiveness of external development interventions.

These days, herders and neighbouring peasants are both facing scarcity of natural resources that are critical to their respective livelihoods. While the subsistence agricultural production is affected by recurrent drought, repeated crop failure, farmland scarcity and population pressure, the Afar subsistence livestock production is affected by the degradation of pastoral

resources¹⁴⁵ (pasture, browsing trees, and water points), animal disease and impacts of recurring drought.

For several decades herders and their neighbouring crop cultivators have strived to cope with such livelihood constraints through mutual cooperation and sharing natural resource found either at the buffer zones or in the hinterlands of each community. Households from both groups establish stock-alliance, bond-friendship and other resource sharing arrangements whereby they could reciprocate resources (oxen, labour, skill, livestock, grain, grazing right). However, in recent decades such exchanges of resources have been constrained by degradation of assets and natural resources, consequences of recurring drought and socio-political processes. Consequently pastoral and sedentary groups are less able to cope with environmental stresses, and natural and economic shocks.

As the critical resources of their livelihoods have been eroded over the past several decades, many herders and the neighbouring peasants could not get sufficient food for their households' consumption. Moreover, drought has become frequent in both communities and has led to catastrophes manifested in loss of livestock and crop failure resulting in chronic food crisis. Subsequently the scope of mutual cooperation between herders and peasants has been diminishing over time. All these processes have led to livelihood insecurity. Besides, as land resources, pasture land, water and vegetation which are critical to rural livelihoods have become scarce, herders and cultivators enter into intensive competitions over the control and ownership of the remaining scarce resources that are found at common borders or buffer zones. Thus traditional conflicts over natural resources have been further intensified.

The increased conflict over scarce resources between herders and neighbouring crop cultivators manifests itself in many ways. The following observations from the study area illustrate some of these manifestations.

- The neighbouring peasants covet to clear lands and to expand farm plots, particularly along the rivers and streams that flow into the Afar territory. On the other hand the local Afar need such localities to remain as open access for grazing, browsing and sources of water for their herds. These competing claims and counter-claims along the border have developed into clashes and violent conflicts in recent years.
- As some pastoral households have already started crop cultivation as a supplementary source of food, they want to divert rivers and streams for small-scale irrigation along the banks of the rivers. Similarly the neighbouring peasants desire to use river water at upstream for crop cultivation or horticulture. This again leads to competition over the control and use of water, particularly over lands found alongside rivers and close to common borders.
- Individual cultivators from the highlands occasionally descend down to Afar territories for collecting fire-wood and for cutting trees for poles, timbers and for

¹⁴⁵ Reduction of livestock feed has resulted from encroachment of grazing from agriculture, wildlife reserves, parks; invasion of inedible bush and thorny weeds (*prosopis juliflora*); increased human population and livestock, recurrent drought consequences, etc.

charcoal-making. As some trees are sources of fodder for browsers, the local Afar compete with fuel-wood collectors and charcoal makers.

- The neighbouring peasants make land enclosures close to escarpments and foothills for hay making or for grazing reserves. Whenever herders face shortage of feed for their stock, they move herds into these enclosures. This gain leads to a confrontation between herders and highlanders.
- During drought herders move their herds into settled highland areas and encroach on farm fields, plantations, enclosures and gardens. This often results in clashes between farmers and herders. This encroachment has increased in recent years, as the drought cycle became shorter in pastoral areas. In the past decades, the Cheffa wetland has been the main drought escaping zone for both herders, and the highland peasants who rear livestock too. However, in recent decades this key grazing area has been unavailable for drought period, as most of the communal grazing land has been privatized and converted into commercial farm and individual private holdings. Whenever the Afar pastoral groups move their herds to Cheffa in times of drought, they clash with farm owners and the surrounding peasants as the remaining pasture land could not accommodate all the traditional users of the wetland.
- The current political context has also exacerbated the traditional competition over access and use of resources (pasture and water) and territorial disputes. Claims and counter-claims over the control and ownership of resources found at the frontiers between pastoral and sedentary areas have escalated after the introduction of ethnic federalism. The nature of competition over land and natural resources is changing from access and use to permanent claim to own land and exclusive control of critical natural resources found at the frontiers.

Nevertheless, it can not be concluded that conflict between the two parties resulted only from competition over scarce resources. Although pasture resources are now scarce, the local Afar have interacted with neighbouring cultivators for several decades through establishing trade relations, stock-alliance, resource sharing, and bond-friendship and other social relations. And yet the current political processes have overwhelmed these areas of cooperation and relation. Let us look closely how the macro and local political processes have contributed to the conflicts between ethnic groups.

With the change of government in Ethiopia in 1991, the country has pursued an 'ethnic federalism' approach to governance whereby administrative boundaries (Regions) were redrawn along broad ethnic lines. Before this period the study community belonged to the highland government administrative provinces (Wello and Shewa). Followed the ethnic federal system, the Ethiopian Afar are consolidated into one regional state with five Zones and 29 districts aimed at ensuring self-administration. Accordingly the Aghini pastoral community was structured in one district administration. Likewise the neighbouring highlanders (i.e. the Oromos, Amharas and Argobas) who formerly shared the same provinces with local Afar, established their own districts on the basis of ethnicity. In the regionalization process, boundaries between regions and districts were to be drawn. However, the creation of

district boundaries is not without problems, since it involves a risk of conflicts between various ethnic groups over the lands found at the buffer zones and territorial frontiers. Therefore, regional and district boundaries are not still officially demarcated. Attempts made to create district boundaries along some frontiers have led to clashes between the local Afar and their neighbours. As these attempts to create boundaries were made without due regard to the local system of resource use, they led to claims and counter-claims over control of land and resources such as grazing areas, water points and forests. It seems that previously the local Afar did not tend to own land and landed resources along the buffer zones, as usufruct rights over grass, trees and water were respected, and agricultural encroachment was minimal. Nowadays, the redrawing of administrative boundaries along ethnic lines and the increased expansion of agriculture from highland areas have, however, brought insecurity with regard to traditional usufruct rights over landed resources. As a result, the local system of resource use has been transformed from use of the resources to the control of land. In the study area there are many contested localities at the territorial frontiers where local Afar are running into conflicts with Oromos, Amharas and Argobas. For instance some specific localities over which the local Afar and Oromos often clash are described in box 6.4 below.

Box 6.4 Some Localities contested by the local Afars and Neighbouring Oromos

1. **Digdiga/Sifi:** This locality is found along bank of the Sifi River and is used for grazing by the local Afars. Equally the neighbouring Oromos seek to clear this area for farming. Therefore, conflicts over control and use of this area have been frequent. For instance in a conflict that erupted in 2000, three Afars and two Oromos were killed, and another two Afars were severely wounded.
2. **Ali-Dora-Bururu.** This locality is found in Waydolalina Ye-alu Kebele Administration (KA). It is situated along the tributary of Gewis River and is covered with important trees and bushes which provide forage for livestock during the dry season. Important tree species whose leaves are excellent feed include *Eibto (acacia tortilis)*, *Kusra (Zizpphus spinna christi)*, *Humura (Tamarindus indica)* and *Subula (Ficus syscomorus)*. Herders shear tree leaves and feed camels and cattle during feed stress. The local Afars claim that they are the traditional users of Ali-Dora-Bururu since the reign of Emperor Menelik II. Currently they desire to maintain the existing trees and bushes in this locality for the dry season feed. Thus they strongly oppose the neighbouring Oromos who seek this land for crop cultivation.
3. **Kersa-Afa.** This area is found in the Waydolalina Ye-alu KA and is located in the confluence of the two Kersa Rivers. Previously the neighbouring Oromos grew food crops at Kersa-Afa. Nowadays they are forced to give up their farm plots due to conflict with the local Afars who also lay claim to this land.
4. **Ta'a river bank.** This area is located along Ta'a River and is found in the Telalakena Abaro KA. The Oromos sometimes used this locality for crop cultivation. In recent year it is abandoned due to a conflict that occurred in 2001 where two people from each group were killed. During the operation of Oromo Liberation Front (OLF) in the neighbouring Oromo community (i.e. 1991-1994), the local Oromos claimed that their territory historically reached to Sagatole (i.e. a locality found in the study community). This claim is strongly resisted by the local Afars.
5. **Aware river bank.** This area is suitable for crop cultivation either through irrigation or rainfall. Thus the neighbouring Oromos strongly covet to expand agriculture into the locality called Umuna or Abomsa. It is a place where a clash between the local Afars and Oromos first occurred in 1998. The informants alleged that the OLF fighters were available in this area and they trained and armed some Oromo youngsters. At that time the neighbouring Oromos constructed a house in this contested area and they claimed that the house was constructed for a mosque. But according to the informants, the local Afars later found out that the house was used by OLF sympathisers. When the Afars learned this, they destroyed the house during night time considering that the house has been put to grab the land and to expand agriculture into their territory. As a result a conflict broke out and an Afar was killed in that incidence. This locality still remains an area of contention between the local Afars and the neighbouring Oromo crop cultivators.

Source: Focus Group Interview, April 2005

In general the macro and local political processes have affected the traditional conflict management systems. Traditionally resource conflicts, animal raiding and theft between Afar and their neighbouring groups were resolved through assembly of elders drawn from both sides. Nowadays however, working arrangements and alliances, which have helped for generations, have become ineffective. This in turn led to a regular intervening of the third actor (the government and its agencies) when conflicts erupt between the local Afar and their neighbouring groups. Accordingly, the government has initiated the establishment of joint peace committees at several administrative levels (Region, Zone, District and Kebele) in order to manage and resolve local conflicts. However, these committees were less effective in monitoring and deterring conflicts at the local level due to a number of factors. Some of these factors are described below.

i. Ambiguity of boundaries between ethnic regions and districts: The government is still reluctant to officially delimit boundaries between districts. The local Afar and the neighbouring Oromos claim territories along the borders. Each of them put their territorial boundary into another's territory. In this case, the committees at all levels face difficulty to monitor and control conflict instigators.

ii. Group and/or tribal favourism and patronage: The informants from both sides accused each other of failing to notify transgressors and to respect joint-decisions passed during sessions of conflict resolution, and of hiding or siding with culprits. In this case the committees face difficulty to identify instigators of conflict.

iii. Poor governance at the local level: The local government institutions such as Woreda and Kebele Administrations, police and judiciary are responsible for local good governance. However, there are inadequate responses by local officials to deter tensions and reconcile differences between communities. The local people, both Oromos and Afar accused of local officials for their inability to contain conflicts and to render legal solutions. Moreover, the informants from Oromos community accused the Afar local authorities of siding totally with their clan members, and even some of them were involved in instigating territorial claims.

iv. Scarcity of resources and drought consequences: The livelihood systems of both herders and peasants are based largely on the environmental natural resources. Nowadays both groups are facing environmental scarcities, frequent droughts and livelihood insecurity. While herders covet to move their herds into the foothills and escarpments, the highland peasants seek to expand agricultural fields into these same areas. Consequently, competition over the scarce resources has been intensified. Moreover, herds are moved into the highland areas during severe droughts. The neighbouring crop cultivators saw this movement as a high pressure on their environment, as its frequency has increased in recent decades owing to the recurrent drought consequences¹⁴⁶. Therefore, drought-induced herd migration contributed to the exacerbation of conflicts between the local Afar and the sedentary crop cultivators.

As stated above herder-peasant traditional skirmishes often triggered by resource competitions have been exacerbated by the processes of regionalization which brought new administrative boundaries defined along the ethnic lines¹⁴⁷. Consequently, resources hitherto shared between ethnic groups via various reciprocal arrangements have been the areas of contention in attempts by each party to gain control on resources at buffer zones. As a result, traditional conflicts over the use and access of resources have been transformed into control and ownership of resources and then into political confrontation between the local Afar and the neighbouring ethnic groups. In fact, in most cases symbiotic relationships have evolved between the local Afar and the highlanders, marked by trade and exchanges, cemented by intermarriage and stock-alliances. However, once conflict breaks out, ethnicity or clan

¹⁴⁶ In 2004 an estimated of 80,000 heads of cattle were moved into the neighbouring communities (Cheffa) from the Afar districts (Telalak, Dewe and Semu-robi, etc).

¹⁴⁷ While addressing group rights, Ethnic federalism in Ethiopia has overemphasized differences and fuelled inter-ethnic conflicts in different parts of the country in attempt to redraw artificial boundaries between two or more ethnic groups whose action spaces overlap formerly by consent involving reciprocal arrangements with regard to usufruct rights over the resources at the territorial frontiers.

membership can become a significant factor around which forces can be mobilized. This has currently created frustration, tension and suspicion between Afar and their immediate highland neighbours. Therefore, such changing context of resource claims and counter claims combined with the current political processes have impacts on long-standing relations and cooperation between herders and highland peasants.

6.3.6 Local People's Perception of Risks and Livelihood Trends

i. Perceived risks: In the preceding sections I have attempted to delineate the local livelihood resources and their trends; livelihood activities and strategies; and ecological and social changes in the study community. This section presents the perception of local people on risk factors, and how the local people perceive the trend of their wellbeing or livelihood within the past three to four decades.

In Afar pastoral system or elsewhere the constraints to livestock production can be broadly categorized into, (i) "normal constraints" - like seasonal, annual, spatial variations of rainfall and thus variability in quantity and quality of the available forages; (ii) "disasters" (for instance rainfall variability can turn into drought; endemic diseases into epidemics; and stock theft/traditional animal raiding into violent conflict) where individual stock owners or all pastoral groups face catastrophic stock losses; (iii) "irreversible changes" - such as population pressure and constant loss of pastoral lands or key pastoral resources to non-pastoral activities (Cossins, 1983:4).

In recent decades subsistence livestock production has been severely challenged by population increase, extreme climatic events, animal diseases, land use changes and loss of land to non-pastoral uses (cash economy and conservation area). The livelihood analysis made in section 6.2 above has also revealed that livestock production forms the prime activity of the pastoral households in the study community. However, it is less able to provide livelihood security for herders. A number of informants blamed for this challenge the deterioration of pasture land resulting in grazing shortage, decline of yield, and mortality of livestock during severe feed stress.

During my fieldwork I attempted to explore what the local people are considering as main constraints to their livestock production. A number of informants have identified a mix of constraints stated above. These include recurrent drought, erratic rainfall, depletion of pasture land, loss of dry season/drought grazing areas and incursion of the Issa. In section 6.3 earlier, some of these constraints and the trends of forage resources (quantity and availability) have been already discussed. Therefore, in the following section, I will discuss risk factors perceived by sample survey households and the self-assessed trends in the well-being of pastoral households.

The local people's perceptions of risks are based on their local and indigenous understanding of reality in their given geographical settings. Therefore, the local people's understanding and perceptions need to be read in association with their given environmental niches as well as with the cultural settings in which they live. During the field study sample households were asked to identify the risk factors for their livelihood. Their responses are presented in Table 6.10 below.

Table 6.10 Risks Perceived by Sample Households (Multiple Responses are Possible)¹⁴⁸

Perceived Risks	Responses (n=60)	Percentage
Recurrent drought	60	100%
Loss of dry season/drought grazing areas	58	97%
Livestock disease	56	93.3
Animal raiding by Issa	17	28.3
Water shortage	3	5%

Source: Sample Household Survey, December, 2005.

As shown in Table 6.10, the most common risk factors reported by the sixty sample households are related to drought. The local people perceived that the frequency and severity of droughts have increased in the past two decades. Based on their experience with previous drought episodes and change in rainfall pattern in their locality, most of my informants perceived that the period of drought occurrence has shortened in recent years, and both the main and minor rains have become unreliable. As can be seen in Table 6.11 drought cycle has shortened since 1990s. Moreover it can be noted that each drought resulted in loss of livestock and in food crisis or catastrophic famine. And the local people relied on external food aid to survive the crisis periods. In relation to this an informant said, “If Allah does not give us rain or the government stops food distribution, we would die from hunger.”

¹⁴⁸ In the household questionnaire there were single and multiple response questions where sampled households have single and multiple responses accordingly. In case of latter, the percentage of responses will be greater than 100%.

Table 6.11 Major Drought Episodes and their consequences in the Study Community

Drought year	Reported causes	Consequences	Internal responses to food crisis/famine	External responses to food crisis/famine
1957-1958	Failure of <i>Karma</i> rain	Food crisis/hunger Loss of livestock	Moving livestock to Awash Collecting wild foods Mobilizing informal mutual support	No external response
1973-1974	Failure of <i>Karma</i> and <i>Sugum</i> rains	Famine/hunger Loss of human life Loss of livestock. Displacement of the local people	Moving livestock to highland areas (Cheffa), Ba'adu, Megenta, Gura-alie, Asayita Mobilizing informal mutual support Collecting wild foods/fruits	No external response from the central government. Sultan Ali Mirah distributed maize to those herders who migrated to Asayita.
1980-1981	Failure of <i>Karma</i> rain	Food shortage Loss of livestock	Moving livestock to highland areas (Cheffa), Ba'adu, Megenta, Gura-alie, Asayita Mobilizing informal mutual support	No external response
1984-85	Failure of <i>Karma</i> and <i>Sugum</i> rains	Famine Loss of human life Displacement of the local people Lack of feed and water. Loss of livestock	Moving livestock to Cheffa, Bati, Mile, Megenta Mobilizing informal mutual support Collecting wild foods/fruits	Emergency food aid by the Government and NGOs Irrigation development by Livestock and Meat Board (MLB)
1992-1993	Failure of <i>Karma</i> and <i>Sugum</i> rains	Severe food crisis Displacement of the local people Feed stress Loss of livestock	Moving livestock to other places (Cheffa, Bati, Mile) Mobilizing informal mutual support	Relief food distribution by the Government
1996-1997	Failure of <i>Karma</i> rain and poor <i>Sugum</i> rain	Severe food crisis Feed stress Loss of livestock	Moving livestock to Ewa, Wama (zone 1) and Cheffa Mobilizing informal mutual support	Relief food distribution by the Red Cross Society
1999-2000	Failure of <i>Karma</i> and <i>Sugum</i> rains	Severe food crisis Feed stress Loss of livestock	Moving livestock to Ewa and Cheffa Mobilizing informal mutual support	Relief food distribution by the Government
2003-2004	Failure of <i>Karma</i> rain	Severe food crisis Feed stress Loss of Livestock	Moving livestock to Ewa and Cheffa Mobilizing informal mutual support	Relief food distribution by the Government

Source: Group Interview, December 2005.

A number of informants felt that drought is likely to come and its consequences on their livestock production would be severe. This is because they are less able to cope with drought consequences due to feed stress, loss of drought retreat zones, restriction of mobility, and insecurity or conflict in previous migration areas. Therefore, livestock producers' vulnerability to drought is increasing, and thus its consequences are worsening as herders' are less able to cope with the next drought. In general the local people perceived drought as number one risk followed by loss of dry season/drought escaping grazing areas due to either depletion of key resources thereof or loss of land to non-pastoral uses. In this connection, a number of informants mentioned such areas as Megenta and Ba'adu that have become unavailable to them due to land use changes, depletion of resources and insecurity/conflict.

As it can be seen in Table 6.12, livestock disease is the third most important risk in the study community. During my field study I attempted to record the types of animal diseases through interviewing key informants. These are described in Table 6.12 below.

Table 6.12 Common Diseases Affecting Livestock in the Study area¹⁴⁹

Local name	Scientific name	Species affected
Agala	Mange	Camel, sheep, goat, cattle,
Duleli	Bottle jaw	Sheep
Geramole	*	Camel
Gosso	*	Camel
Gubulo/Sangite	CBPP ¹⁵⁰ and pasteurellosis	Cattle
Habib/Abib	FMD ¹⁵¹	Cattle
Haraite/Harayti	Blackleg	Cattle
Inkata	Lice	Sheep, goat, cattle
Kiribi	Faciolasis	Cattle, sheep
Sole	Traypanosomiasis	Cattle

Source: Key informant interview, December 2005.

* Scientific name not identified.

A number of informants reported that most of these debilitating and endemic diseases are widespread mainly due to livestock movements. The transmission of animal diseases is also exacerbated by drought-induced long distance migration, when herders are compelled to move their stock into remote areas in search of pasture and water. The local Afar and highlanders move their herds into the Cheffa valley during severe drought periods. Every drought period, up to 80,000 animals may concentrate in the swampy areas with high risk of diseases. Moving livestock to Cheffa constitutes a high risk of disease transmission, as various herds from different areas come closer due to shrinkage of grazing lands. This increases the chance of introducing alien diseases or the spread of existing endemic diseases. Moreover, there is no regular disease diagnosis and monitoring to control animal diseases in the study community. Informants stated that it is only when a disease becomes epidemic that

¹⁴⁹ Local names of diseases and types of animals affected are identified by local people. Scientific names are identified from secondary sources.

¹⁵⁰ Contagious Bovine Pleuro Pneumonia

¹⁵¹ Foot and Mouth Disease

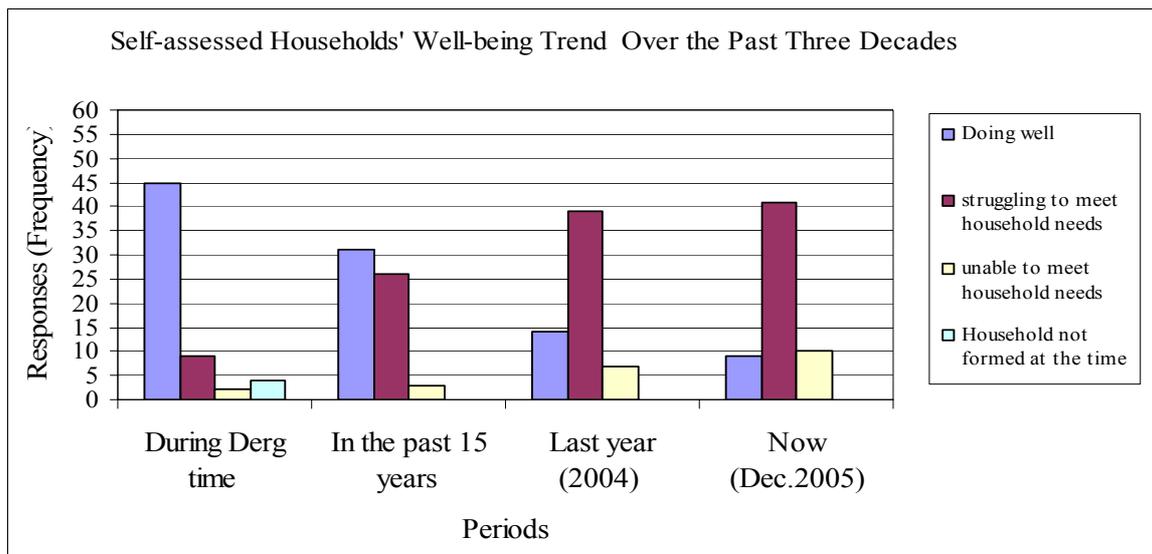
the government departments try to reach some pastoral camps. Therefore, the local people perceived the spread of animal diseases or outbreak of epidemic diseases as risks to their subsistence livestock production.

As shown in Table 6.10 water shortage is reported by few respondents (5%). This is because of the presence of two small perennial rivers (Telalak and Wata) that cross the district from the west to the east, and the Awash River. The key informants also indicated that water shortage is mild in terms of quantity. Rather their concern is about the quality of water (subjectively judged) and accessibility, as there is a lack of safe drinking water for human consumption and distance factor in some communities for watering livestock. This later point is already discussed in section 6.3.2 earlier.

In general the household survey results have shown that the major risks perceived by the sample households are drought risk, loss of key resource areas and livestock diseases. Likewise key informants identified additional risks such as scarcity of pasture, conflict with Issa and livestock raiding, increase in price of grain and fall of livestock price during drought.

ii. Livelihood Trends/well-being: In the household survey respondents were asked to assess their relative well-being at the time of the survey and in the past (i.e. last year, during the present government and the previous Derg regime). As it can be seen in figure 6.3 below, the respondents' well-being has deteriorated within the past three decades. Currently most of the households are struggling to meet household needs through depleting (selling) their assets and receiving support from government during severe crisis time. This suggests the increasing vulnerability of households to chronic food insecurity. As depicted in figure 6.3 below for earlier years, these same households were able to meet their needs from own livestock production.

Figure 6.3 Self-assessed trends in the well-being of households in the past three to four decades



Source: Based on the household survey, December, 2004

Given the local livestock production system is under stress for the reasons mentioned earlier, the sample households were asked to provide their views on the viability of pastoralism in the future. The majority of the respondents (91.7%) reported that pastoralism would be less viable and they attributed this to stresses such as drought, increased shortage of forage and livestock disease. On the other hand 5% of the sample households said pastoralism will always be there. Only two respondents reported difficulty to predicate about the future of pastoralism. Similarly the sample households were also asked to identify which livelihoods would be viable for their respective households in the future. 68.3% (n=41) of the respondents reported “combining animal production with crop cultivation” as viable activity, and 21.7% (n=13) said “combining livestock rearing with trading in animals and goods”. Whereas 6.7% (n=4) said only crop cultivation, 3.3% (n=2) said livestock rearing only.

In general some four decades ago, the local livestock production system was more resilient and could provide livelihood security for herders. Currently, however, this subsistence livestock production is less able to provide livelihood security due to multiple constraints mentioned earlier. The local actors (pastoral groups) have realized that their livelihood system is under stress and is less able to cope with severe food crisis. Therefore, the logical questions that should be raised include, (i) How do the local people forecast and communicate risks within the community and to external actors? (ii) How do they respond to livelihood stresses? (iii) What are the previous and present external interventions to mitigate problems of pastoralists? Do the external interventions consider what the local people perceive as problems? These and other issues are critical to explore the relation between the local actors and external actors, and to understand the current adaptive responses.

As discussed earlier in Chapter 3, the present formal EWS monitors food and food-related factors and market behaviour mainly for emergency responses during food crisis. It focuses on monitoring food situations rather than livelihood systems and local responses (traditional early warning systems, adaptive and coping strategies). Incorporation of local responses into formal EWS helps redress the food-biased approach in designing external responses.

In the study community there have been, from time to time, attempts made by external actors to mitigate the problems of pastoral households. These external interventions include livestock sector development projects, irrigation development, provision of infrastructures and service, and famine disaster responses. The subsequent sections discuss the views of local people on external interventions and responses; traditional early warning systems; and adaptive/coping strategies pursued by the local people.

6.4 Views of Local People towards External Actors and Interventions

6.4.1 Local People’s Relations with External Actors (State and their Neighbours): Past and Present

The previous regimes (i.e. the Emperor and the Derg) introduced modern administrative structures and bureaucracies in order to change the traditional authorities and to control social organizations. The Imperial Government promoted some clan chiefs to the position of *Balabat* to incorporate traditional authority into the government structure. At the time the *Balabats* were used as intermediaries between the local people and the State. They acted

between the State and local community particularly in representing their clan to outsiders, maintaining peace and order and collecting taxes. In doing so the Imperial Government favoured certain chiefs (clan and lineage heads) who were involved in tax collection and controlling local security. In relation to this Gamaledin (1993:53) noted that “the Ethiopian Government had little knowledge of the structure of authority among the Afar, and at times this meant the appointment of minor *Makaban* (chiefs) to the position of *Balabat*, while senior *Makaban* were made *Chika-shum*, a lowly rank normally given in the highland Ethiopia to a village head”.

The introduction of *Balabats* affected the traditional political authority. The local *Balabats* used the government office to promote their personal and their lineages’ status. Previous studies confirmed this view of the local people. In relation to this Cossins (cited in Gamaledin, 1993:53) recorded that “the introduction of *Balabats* caused political havoc, because some Afar *Kidho Abba* (lineage heads), with aspirations to power, began to use the government to promote their personal and their lineages’ rise in status, by petitioning either to the Sultan of Aussa or district and provincial government for official positions”

A number of informants reported that the Imperial Government did not bring development work into their locality. Development activities undertaken by the Regime were concentrated in the settled highland areas to which the local community was annexed only for the purpose of administration. It is true that many local communities were annexed to highland areas mainly for administrative control from the highland through the introduction of the *Balabat* system into traditional political structure. Therefore, the local people stated that their community was marginalized by the Imperial Regime in terms of development, infrastructures and social services. Manifestation of marginalization included lack of participation in making decisions on matters affecting the local people’s interests; exclusion from national political affairs and lack of representation in the center; loss of economic benefits and pastoralists’ retreats to peripheries as a result of agricultural expansion, promotion of commercial farms, and shrinkage of grazing lands.

In addition, the local people’s relation with neighbouring highlanders was characterized by an increase of conflicts during the Emperor’s time. The informants reported that conflicts among clans and with neighbouring sedentary cultivators were rampant. In this connection one of my informants stated as follows:

Livestock feed was abundant during the Emperor’s time. But various conflicts with raiders (Oromos and Waggirats) were the main threats at the time. Particularly the Waggirats repeatedly invaded our area, killed persons, and raided large number of livestock. After the Emperor’s time, there was not invasion from neighbours except animal theft, boundary disputes and sporadic skirmishes at the border areas. But the current relation with our neighbours still needs proper handling. “If we shake river water, it becomes dirty, and thus we should avoid this to get it clean” (*Individual Interview, December, 2004*).

A number of informants reported that conflicts between neighbouring sedentary communities, especially with Oromo crop cultivators and agro-pastoralists, and the Waggirats were violent

during the Emperor Haile Silassie time¹⁵². As a result, killings and livestock raiding were rampant at the time. Informants attributed this to some cultural factors such as cultural conception of masculinity, traditional animal raiding, and killing for trophy.¹⁵³ Historically and as well as recently, the neighbouring ethnic groups have raided various settlements in the study community. During my field study I attempted to record some of those incidents by asking key informants. These are given in Table 6.13 below.

Table 6.13 Series of Incursions/raids by Oromos, Waggirats and Amharas

No.	Locations/settlements attacked	Raiders	Afar killed	Livestock raiding?	Period of incursion (approximate year)
1	Arumeda/Sebilele	Amhara from Shewa	40	no	Emperor Menelik II time ¹⁵⁴
2	Nemelifen	Amhara from Shewa	25	yes	“
3	Odele	Waggirat from Tigray	10	yes	Emperor Haile Silassie time (about in 1934/35)
4	Aware war	Waggirat	60	yes	Emperor Haile Silassie time (about in 1942)
5	Aware	Waggirat	20	yes	Emperor Haile Silassie time (about in 1943)
6	Kelkelti-Aware	Oromo	14	no	Emperor Haile Silassie time
7	Rokaa-Aware	Oromo	4	no	“
8	Endeldina-rokaa	Oromo	1	yes	“
9	Ay-uli and Gawto	Oromo	4	yes	Emperor Haile Silassie time (<i>Keda Deben</i>) ¹⁵⁵
10	Amno-dora	Oromo	4	no	“
11	At different localities at the border	Bandits from Oromo area	-	yes	Various times during Imperial Period (1930-1974)
12	Gewis	Oromo	5	no	1992
13	Endeldi-Aware	Oromo	1	yes	1997
14	Abaro	Oromo	2	no	2002

Source: key informants (elders, clan leaders, Woreda officials), December, 2006.

As shown in Table 6.13 these series of raids by neighbouring groups indicated that historically the local Afar relation with their immediate neighbours was very hostile. Animal raiding, killing and looting were rampant some three decades ago. Consequently, the study community has suffered a lot from insecurity, loss of livestock and human life.

During the Derg regime, administrative reforms were made following the 1975 land reform. Like in the highlands of Ethiopia, the *Balabats* system in the local community was considered as corrupt, backward and exploitative by the Derg Government. In some agro-pastoral and

¹⁵² Though most of the informants are reluctant to share information whether their community was involved in counter-raiding and revenge, I was able to understand that revenge was also a driving force of the raiding chain, once an incidence occurred.

¹⁵³ Killing for trophy is not practiced nowadays.

¹⁵⁴ Menelik II, Emperor of Ethiopia from 1889-1913.

¹⁵⁵ Famine that occurred in 1973-74 is locally named *Keda Deben* which is literally meant “great famine”.

semi-settled areas pastoralists' associations were introduced to replace *Balabats* and to abolish their privileges. However, though the *Balabat's* office was abolished, the establishment of pastoralists' associations did not take place in the study community under consideration. Instead hand-picked individuals named as clan representatives (*Yegosa-Teteri*) were assigned to act between the Derg Government and the local community. How this was undertaken in Afar communities is already discussed in Chapter 4, and it applies to the study community too.

The relation between Afar and the state deteriorated after the abolishment of the Aussa Sultanate in 1974. A number of informants held the view that the Derg Government was even more hostile to the Afar than the Imperial Government. My informants stated that the Derg army harassed the local people and killed many Afar particularly in Asayita (Zone one) and in Zone three, while they were moving in search of grazing land and water. Some informants claimed that the Derg army killed more people than the traditional rivals the Issa did. At the time the army labeled the young Afars carrying rifles as sympathizers to the rebel groups of ALF and TPLF¹⁵⁶. The Afar often carry rifles. But it is not to fight the government army, but to protect their stock from wild animals and raiders.

These days some informants claim that the incumbent Government is better than the previous two regimes in some instances. It established some schools and health station and constructed road access in the district. In times of food crises it also distributed relief food in the district. Some informants felt that the current Government is less hostile in its pursuit when inter and intra-clan conflicts break out. It tries to handle conflicts through approaching conflicting clans and their leaders, and to discuss and solve their own problems at the community level.

Traditional dispute resolution institutions and decisions with regard to disputes are backed by the state authorities. Nowadays, the local Afar who possess rifles have been formally registered. Thus they have no fear of confiscation of rifles, except in some towns where rifles are prohibited¹⁵⁷. Informants from government institutions stated that the Woreda administration tries to mediate conflicting groups through involving their clan leaders. However, though the local people have a rather positive attitude towards the current Government, they state that it has done little with regard to constraints of their livelihood system and involvement of traditional authorities in development activities and decision making processes. The issue of local governance from the perspective of the local people will be further discussed in section 6.4.3.1 below.

Generally speaking, the Derg regime and incumbent Government have provided few support services to the local community, including livestock development support services, infrastructure and relief food distribution during severe food crisis. The following section presents the local people's experience with the previous and current development interventions undertaken in the study community.

¹⁵⁶ Afar Liberation Front (ALF) and Tigray People Liberation Front (TPLF).

¹⁵⁷ Individuals are not allowed to carry a rifle in some towns (e.g. Werer, Bati) except if they are elected leaders or if they have a permission paper from their respective Woreda administrations.

6.4.2 Local People's View on External Interventions and Local Governance

6.4.2.1 Development Interventions and Responses to Livelihood Shocks/Famine

As indicated above the local people stated that they have always been neglected by the successive Ethiopian governments. First and foremost their pastoral territory was partitioned into two provinces (Shewa and Wello), and was administered by non-Afar people from distant urban centres located in the highland. Secondly their locality has been long denied of infrastructures and social services (road, transport, markets, and administrative centres, health and education facilities). Until only ten years ago such facilities were nearly absent in the district and the local people had to travel to the settled highland areas and distant urban centres (Bati and Kombolcha) to get such services and facilities.

Generally speaking external support and development interventions in the study community have been very limited. Efforts to strengthen local capacity and to respond to local economic shocks have remained marginal in the past several decades. As stated earlier, external responses to the previous famine crises (e.g. 1957-1958, 1973-1974 and 1984-85 famines) were either absent or late. Moreover external development initiatives like the livestock support services, infrastructure and irrigation development introduced by the Third Livestock Development Project (TLDP) did not sustain longer.

The TLDP was operational in the rangelands of the country. It was initiated in 1975 with the first large-scale pastoral livestock development programme through three development units. One of the units was the North-East Rangelands Development Unit (NERDU) which included the current Telalak district (for TLDP area in the Afar region see map 9). NERDU's objectives were (i) restoring traditional grazing system, (ii) intensifying the use of land and water resources and, (iii) increasing the value of livestock marketed. Major activities implemented in the Unit were range management; veterinary services; access road construction; supplies and services; trials and studies; training and information. Of these activities, it was reported that NERDU achieved some improvements in range development (i.e. demarcating seasonal grazing reserves and designing irrigation for forage development), veterinary services, access roads, etc. (Bonger, 2002:3). The local people I interviewed also recognized some of these improvements, especially veterinary services and road access at the time. However, the services did not continue any more. Once the project terminated due to security reasons, the services were interrupted in the Aghini community.

6.4.2.2 Local People's Views on Livestock Development Programme and Irrigation Development

The first large-scale livestock development intervention in the study community was that of North-East Rangelands Development Unit (NERDU) which was one of the project units of Third Livestock Development Project (TLDP)¹⁵⁸. It aimed at providing technical support to livestock production, and provision of infrastructures and introducing irrigated crop-

¹⁵⁸ Most of the local people call this project by the name "Siga Board" which means Livestock and Meat Board (LMB) established in 1964 to assist the livestock sector development. After this institution a series of livestock development projects like SLDP, TLDP, NERDU, and SORDU were initiated.

cultivation in the Aghini pastoral community. Hussein, a 60-year-old informant recounted how the TLDP/NERDU started operating in the Aghini pastoral community:

Keda Deben (great famine) occurred in 1973-74 in the community. It occurred due to the failure of the main rain (*Karma*). Some people migrated to Asayita. During the next *Karma* there was a shower of rain. Then *Hida* and *Hebele* trees provided fruits and the local people relied on these wild foods. Thus, we called this period *Hida-Karma*, as *Hida* provided food fruit and we relied very much on wild foods to survive the crisis. At that time government officials came and observed the local people eating wild fruits. Thus food-for-work (FFW) was introduced in our locality by the TLDP. Following this famine the TLDP/NERDU also developed irrigated farms along the Telalak river bank for crop cultivation. We participated in construction of the irrigation scheme through FFW, and received grain in exchange for our labour. The produce from the irrigated farm was also distributed to the local people. Thenceforth some individuals and households began to adopt irrigated crop cultivation along the banks of Telalak and Wata Rivers (*Individual Interview, April, 2006*).

Most of my informants recalled the TLDP/NERDU with a mix of feelings regarding its benefits for the local people. A number of informants saw the TLDP/NERDU as beneficial to the local community in terms of animal health, disease control, road access and irrigation development. However, these services and infrastructures did not sustain in the community. In relation to this a 70-year-old informant, Abdela recounted as follows:

I remembered that the TLDP operated in many clan territories (communities) that are now located in zones 1, 4 and 5 of the current Afar Region. One of these clan territories was ours (i.e. Aghini community). The TLDP's camp sites were attacked during the civil war between the Derg regime, and TPLF and ALF. At that time many Afar were also injured. As the war intensified into the south and the Government Bank at Bati town was looted by insurgents, the project staff stationed in our locality began to have fears about their security. As a result, they closed their camp sites and left our area. Before they left, the TLDP staff gathered our clan leaders and handed over infrastructures (veterinary clinics, cooperative shops) and the farm oxen to the community. However, after the withdrawal of the TLDP's staff, the services and infrastructures stopped functioning in our community due to lack of inputs and supplies (medicines, budget and transport) and absence of local level governmental organization (*Individual Interview, April, 2006*).

On the other hand very few informants perceived the programme as one that contributed to deforestation along the Telalak River banks and to the erosion of traditional rules governing access to and use of forests. In relation to this, participants of a focus group interview stated the situation in the following manner:

Since the TLDP had started clearing trees and bushes along the Telalak River banks for irrigated cultivation, the local people continued clearing land for growing food crop. Then individuals began to transgress traditional rules aiming at preserving forests found along the river banks. Those who engaged themselves in irrigated crop-cultivation had begun to violate traditional rules mainly during the Derg regime (i.e. in the 1980s). After the 1984-85 famine some households have continued with clearing more forests for crop cultivation (*Focus Group Interview, December, 2006*).

With regard to the involvement of local people in the TLDP and coordination of activities, Abdela and other informants claimed that the TLDP was well-coordinated and it provided relevant services and supports to the local people. Abdela added:

The TLDP was able to mobilize the local people through clan leaders to implement its activities. Clan leaders were involved in mobilizing clan members to participate in the project works. The project staff/experts showed a high commitment and worked hard with the local people. The TLDP also worked according to our preference of activities. Its activities included provision of livestock vaccination, establishment of infrastructures (e.g. dips at Gewis and Hujuba localities) and irrigation development. Important development works were undertaken at the time as compared to the current ones. Currently there is more rhetoric about *Limat Sira* (development work) from the government and others. But nothing is observed on the ground. We do not know about other regions. Currently there is a lack of coordination of activities and people's participation in our community. Obviously our local leaders (district authorities) know that we have many problems. But they don't involve us while planning and implementing activities (water points, health post, schools, ponds, and the current construction of an irrigation dam at Telalak River) (*Individual Interview, April, 2006*).

As the above case shows, the local people had the impression that there was a good coordination and communication among the TLDP staff, clan leaders and local people. The local people held this impression because central places and infrastructures with easy access to pastoral villagers were established for vaccination of livestock and provision of other veterinary services. As stated above, though the programme activities were better coordinated and contributed to animal health, disease control and the introduction of irrigation, the service did not sustain any longer in the local community. As war and conflict between the Derg government and the then rebel groups (ALF and TPLF)¹⁵⁹ intensified during the mid 1980s, TLDP terminated its activities in the locality. The infrastructures and services, which were put in place, stopped functioning due to lack of budgets, technical know-how and local organizational set-up to take over the activities.

In general terms the local people's perception of the TLDP happened to be positive, as it provided them with livestock health services and infrastructures, though they were unsustainable due to both external and internal factors already mentioned earlier. Even though a number of informants did not stress it, the TLDP had also some negative consequences on the local pastoral resources. The TLDP brought an increase of livestock population, overgrazing and deforestation along the river banks. Erosion of traditional rules governing the use of natural resources had also ensued after individuals/households began to clear forests and make enclosures along the sides of rivers for growing food crop.

The project also demarcated tribal grazing areas or reserves, and developed watering points. This led to the concentration of herds in certain localities. Moreover, the project encouraged livestock accumulation without considering its impacts on the available pastoral resources. For instance a study undertaken at the time recorded that the density of the cattle population increased by 6% from May 1973 to 1978 and small stock increased by 10% during the same period, because of the livestock disease control programme of the TLDP/NERDU (Ayele,

¹⁵⁹ Afar Liberation Front (ALF) and Tigray People Liberation Front (TPLF).

1986:90). This led to an increased herd size in the area as it was not accompanied by efficient animal off-take due to the lack of a stock route system and an accessible market. All these factors led to the degradation of natural resources and overgrazing. Therefore, the current ecological crisis (decline of forage resources) that herders have been facing has its root in this externally imposed development intervention. In fact a number of informants tended to attribute the current ecological crisis mainly to impacts of recurring drought and bush encroachment. And yet the overall observation of the qualitative information suggested that degradation of forage resources can be attributed to the interplay of both internal and external factors including population increase (both livestock and human), disruption of traditional resource management systems, loss of distant grazing areas to non-pastoral uses, agricultural encroachments, consequences of recurrent drought, inappropriate external interventions, etc.

6.4.2.3 Local People's Views on the Previous Disaster Responses

The other intervention in the study community is relief food assistance in times of famine crises. A number of informants claimed that external emergency relief assistance was nearly absent during the Imperial Government. They attributed this to inaccessibility of their locality to government agencies and NGOs; failure of local officials residing in highland towns to assess local economic shocks; and to overall neglect of their community by the previous governments. For instance during the 1973-1974 famine, the local people relied on wild foods and on their mutual-aid support systems (i.e. sharing the available food among relatives, kinship groups). In relation to external support, an elder informant, Mohammed, narrated as follows:

During the 1973-74 famine (which is locally called *Keda Deben*) clan leaders were called to the Bati town and asked by the local governors about the situation of famine crisis. Clan leader Muhaita from Telalak, and Seko from Burka (Kassa-Gita) were asked to explain about the magnitude of the famine crisis and to declare according to the principles of the Qu'ran that all their community members had nothing to eat so as to get assistance from the government. The clan leader from Telalak refused to declare that everybody had lost livestock, while the clan leader from Burka community declared and received some assistance. Mohammed said, "Muhaita's argument was that he couldn't declare that every member had nothing, because some might have and others might not. Therefore, the clan leader from Telalak refused to make an appeal according to the principles of the Qu'ran". He rather requested the governors to extend the assistance to those who were most affected. But the governors disagreed with his suggestion, and assistance wasn't given to the victims of the 1973-74 famine in the Telalak area. Therefore, the local people were left to cope with the famine with their own mechanisms (*Individual Interview, December, 2004*).

A decade later another severe famine occurred in 1984-85. Among the local community this famine is also known by the name *Keda Deben* which literally means "great famine". A number of informants recalled the mass displacement of local people to distant relief camps and mass deaths both in relief centres and on the way to relief camps and urban centres. At that time the Derg Government did not respond timely to the crisis. Thus local people had to migrate to distant relief distribution centres (shelters) established at Bati, Mile and Elidar towns which are located along the main road that connects Afar land with highland areas.

Many informants claimed that the human death toll on the way to and in the relief camps was very high.

Let us have a story in the words of an informant, Haiso, who migrated to a relief camp, and lost his sisters, finally went to Djibouti during 1984-85 famine and returned to his home village in 1993. At that time Haiso was a 17-year-old boy attending Qu'ran School in Oromo community at the initial phase of the 1984-85 famine. He narrated his experience in the following manner:

...when I came back from Qu'ran school located in Gerfa, nearly all the cattle had perished in my home village. Some emaciated goats and camels were staggering in the village. The local people were dispersing to different directions in search of food. I and my mother took one camel to the market and sold it for 90 Birr. Such size of camel could be sold for 3,000 Birr nowadays. We bought some grain with that money and returned home. My father planted maize along the river bank and the maize crop was in green. As time went on, we ran out of food and had to move as our neighbours did. In the meantime we heard that the Afar and Oromos from various drought-stricken localities migrated to Bati town, and grain assistance was distributed by the government. Having left my father to take care of emaciated goats and camels, to wait and harvest the maize, my mother and my sisters went to Bati town. It took us two days to reach Bati town. As soon as we arrived we met one person whom we knew. He was a chief of the Afar. He told us that the Oromos displaced from their villages were taken to resettlement sites in southern Ethiopia, while the Afar were moved to Mile and Asayita. He advised us (i.e. Haiso's kin and other villagers) to move to Mile, and relief food would be given there. Therefore, we were taken to Mile by truck, and other groups of people to Asayita. A huge number of Afar displaced from various localities was concentrated in an emergency relief center at Mile town. The famine victims took a shelter in a plastic tent and it was congested. They were starved and weak. Initially there was neither enough food nor water or medical treatment. As a result cholera epidemics broke out and many people, especially children died from the epidemics. I remembered that 30-40 persons died per day and 3-5 persons were buried in one pit (grave). In a week time I myself lost my six sisters, of whom four died in one day and the remaining two in another day. In the beginning it was really horrible in the relief camp, as a large number of people died each day. After that tragedy, "Red Cross"¹⁶⁰ arrived and provided the victims with adequate food (milk powder, *Fafa*, cooking oil, grain) and medical treatment. More doctors and nurses arrived and rescued those who were lucky to survive from cholera and hunger (*Individual Interview, April, 2005*).

The above description concurs with the political-economy argument that considers 'government inaction' as famine causation. As the case material has shown, there was no timely response from the government to the 1984-85 famine crisis in the study community, as it was true in other parts of the country. It was after the drought-victims had already left their locality and gathered in urban centres and relief camps that the government and NGOs tried to distribute emergency relief food. Consequently, in addition to deaths from hunger, the starved people were exposed to epidemics which took many lives in the relief camps¹⁶¹.

¹⁶⁰ International Red Cross Society.

¹⁶¹ During the initial phase of 1984 famine camps or shelters were found to be breeding grounds for diseases, and later on government and foreign agencies became aware of that and discouraged people from going to shelters and provided food for people to take back to their villages (Alula, 1992).

At the time it was not only drought related-famine and epidemics that had affected the local community. The informants reported that the age-old enemy group, the Issa-Somali raided the Afar pastoral villages and killed villagers during the 1984-85 famine. Haiso narrated the situation as follows:

..... my father and other villagers were killed by Issas during the 1984-85 famine year. At that time my father and a few villagers were striving to stay at their home village when we (i.e. Haiso, his mother and sisters) and other villagers left our locality. Haiso said, "At the time the Issas were not hit as much by the 1984-85 drought related famine". The Issas were able to raid the remaining animals and attacked those Afar who stayed behind in our locality. Since the Afar were heavily hit and weakened by the famine, the Issas were able to invade the Afar localities. They were able to reach even to the Oromo territory by crossing all the Afar land. It was during that invasion that my father and other fifteen Afar from my home village were killed by Issas. In addition to famine, we also faced severe attack from the Issas.... (*Individual Interview, April, 2005*).

As indicated above the two severe famines that the local people recall very well are the 1973-1974 and 1984-85 famines. The local people perceived these famines as the most severe ones that led to loss of many human lives and livestock population¹⁶². A number of informants stated that the previous governments did not respond timely to avoid these drought-related famines in the local community.

The above case reveals the failure of previous governments to respond timely for saving human life. After the 1991 political change in the country, severe food crises also occurred in the study community. These included the 1997, 1999/2000 and 2003 severe food crises. In the following section I seek to present local people's views on current development interventions and how the current government has responded to these food crises.

6.4.3 Views of Local People towards Current Development Interventions and Disaster Responses

The local people perceive the current Woreda administrative structure as a positive measure, as they have established their own self-administration on the basis of traditional territorial incumbency. As stated earlier, their clan territory was previously partitioned into different districts and they were administrated from distant centers mainly located in settled highland areas. Currently the local people have their own district centers where they get access to administrative, social, judiciary and political services. Moreover, political and managerial positions in the district are held by the indigenous people. Nevertheless, the local people are not satisfied with local governance, appointment of authorities (representatives) and approaches to development activities. A number of informants stated that development activities are not well-coordinated and traditional leaders and community members are not involved in process of planning and prioritization of development works and decision making processes. Besides, the informants rated the commitment of local leaders as low. These and

¹⁶² Ironically during the 1984-85 famine the meat industry expanded; restaurants and consumers in urban centers and a meat canning factory at Kombolcha obtained livestock at extremely low prices. Cattle were exported from the area to other regions and across borders through the port of Assab (Alula, 1992:34).

other dissatisfactions of the local people with respect to development activities are discussed in the following section.

6.4.3.1 Externally Initiated Development Activities and Local People's Participation

Nowadays there are two leaderships or overlapping authorities at the local level. The formal leadership authority (Woreda and Kebele administrations) established by the government, and traditional authorities (elders and clan leaders). The general assumption is that a formal leadership is established with the 'participation of the local people', while the clan/elders leadership is a long-standing traditional authority' which is still significant in the local pastoral community. In the same way we can assume that the two authorities overlap mainly at the grassroots level. And the formal leadership is expected to involve the traditional authorities in all local affairs. The degree of the involvement of the local people may vary from one locality to another. The view of the local people with regard to local people's participation is elaborated as follows.

i. Representation and community involvement: During the field work my informants raised very crucial issues regarding the role of local formal leadership in development activities. These issues include representation, commitment of local leaders to and coordination of development activities, and participation of community members in the planning process and prioritization of development activities.

The informants questioned the representativeness of the current formal leaders to the interests and concerns of the local people compared to traditional leaders. The community members and their traditional authorities were and are very close to each other, and have mutual interests and concerns within the community and beyond. Traditionally the *Makaban* (clan chiefs) seek legitimacy from their people before they claim that they are representatives of their community to the government and take actions which may affect the local people. During the previous regimes certain *Makaban* drawn from traditional leaders, worked on behalf of the local people to link the community with the State or external actors. This has been already discussed in section 6.4.1 above.

Obviously there is currently a physical proximity between the State elites and the local people via local formal leadership established by the State. Formal governmental institutions and departments are also physically close to the local people. However, the formal leaders and the local people lack a common understanding with regard to local problems. Moreover government institutions/departments in the Woreda lack insights into the concerns and problems of the people, and they are restrained by lack of commitment, capacity and skilled human resource. The formal authorities and line departments do not entertain the local people's priorities while providing services for which they are established. The local state elites are much younger than traditional leaders. They are political appointees with different interests. In this connection participants of a focus group interview narrated as follows:

Nowadays there is more rhetoric than action with regard to local problems. The current authorities are submissive and receive whatever comes from the above without consulting whether the local people accept it. The fact that the current leaders are opportunistic individuals who aspire promotion in their official position,

they do not consider the local people's concern and priorities. Thus they passively accept everything as it flows from above, even if the community members do not want it (*Focus Group Interview, April, 2006*).

It is true that traditionally the local people listen more to their clan leaders than to State elites and formal leaders. Likewise traditional leaders on their part consult and involve their clan members before they accept and decide about anything that emerges within the clan or comes from outside. This is the tradition among the Afar. On the other hand, most informants claimed, the State elites do not involve the traditional authorities and the community members during planning of development activities (i.e. irrigation, water points, schools, health posts). The local elites have more contacts with higher level officials than with traditional authorities. Therefore, there is a communication gap between the local elites and the community members with regard to selection and planning of development activities. Most of my informants felt that the local people haven't been involved in deciding the types of interventions. In this connection, participants of a focus group interview stated as follows:

We do not know about other Regions, but in our district the plans often come from the above (i.e. from the Region or the Federal government). For instance we have health posts constructed in various localities of our district. Had we been involved before construction, the government would have not put such health posts in the forests where nobody is using them. Had the choice been given to the local people, they would have preferred to have river diversion, or water supply, or growing fodder (*Focus Group Interview, April, 2006*).

Though the local elites do have some knowledge about the problems of the community, they are not able to plan and implement development activities in consultation with local people. Rather they try to implement what is given from the above. Thus the development approach is still top-down.

It seems that the previous pastoral development project has influenced the perception of the local people with respect to the current development approach. A 65-year-old informant (Kefina) narrated his assessment of the local leadership and development activities by comparing his experience of the TLDP with the current approach as follows:

External support like that of the Third Livestock Development Project (TLDP) has not yet come again to our locality. Since recent past there is no development activity which could mobilize the local people (men and women). Empty rhetoric is pervasive. There has just been a lot of talk about *Limat* (development) from the Woreda authorities and from above (i.e. from Region and Federal). At the time of the TLDP empty rhetoric had no place. By then anyone who talked a lot was not looked for. Nowadays the local leaders have been too many in our community and in Amhara locality too. In the past local leaders were few and they were committed to work and to make people work hard. For instance during the TLDP there were two key leaders (foremen): one from the above (i.e. from the TLDP) and the other from our clan. The local community members nominated their leaders. First our clan members were introduced to the foreman who was assigned by the TLDP. Then we were asked to nominate our own leaders who worked with the foreman. Whenever work-group or clan leaders made mistakes, we could appeal to those key leaders. Nowadays, it is quite different. Firstly local leaders are too many from both sides. Moreover, responsibilities and roles are not sorted out and tasks are mixed up. Local leaders are made too many only to get salary, not to work for the people. Moreover,

they do not consult us about our problems and kinds of support we need. In fact relief assistance just comes into the community when there is famine (drought). Nobody understands the real problem of our community. Everyone wants to become a leader (office holder) in one way or another without commitment to work for us. During the TLDP we were consulted through our clan leaders about what was better for us and about what should we do on our part. Then the agreed upon activities were pursued together according to our *Ada* (customary law) (*Individual Interview, April, 2006*).

Kefina further added that coordination of activities and commitment of foremen and work groups were high during the TLDP. He stated the work principles and ethics of the TLDP as follows:

At the time when the TLDP was operating in our locality, the foremen worked equally with us at field level. They worked with us and simultaneously controlled tasks and activities. Nowadays leaders in any position talk a lot but work less with the villagers. They are unable to be exemplary to the community members. The TLDP tasks were also assigned to each work group and each worked hard to accomplish those tasks. At the time even work quota were assigned to aged persons based on the assumption that their kin groups should perform their work quota. It was the responsibility of the able-bodied kin to carry out the work quota of aged-people and others. Nowadays everybody wants to be a leader (office holder) only. Nobody wants to simultaneously work and guide activities. This was not the case during the TLDP (*Individual Interview, April, 2006*).

A number of informants also considered the current consultation with community members as “endless public meetings on empty rhetoric and promises about *Limat*” (development work). In the past whenever an external body wanted to consult the local community, it was *Edola* (elders’ council) which was first consulted. Nowadays, the youth are consulted since they have assumed the current political positions in many Kebele administrations. And very few hand-picked individual elders are also involved. If local authorities/external bodies involve elders at all, they usually invite only those whom they know or whom they have prior relations, since there is allowance for those invited for meetings or consultation forums. Thus elders’ councils (*Edola*) are rarely involved only when the authorities need them. This suggests the communication gap between local people and external actors regarding development problems, priorities and approaches.

As discussed in Chapter 3 (in sections 3.3.4.2 and 3.3.4.3), the present government has prescribed various kinds of pastoral development interventions in its rural development programme. However, except few efforts in the provision of social services and infrastructures (e.g. health, education, road access), other interventions (irrigation, drought mitigation, rangeland development, water supply, etc) are not yet available to the pastoral community. According to the informants these kinds of interventions constitute the priorities of the local people.

ii. Development support services: The informants claimed that there is not significant development support for enhancing livelihoods of the pastoral households. Though there are some improvements in the area of social services and infrastructure, there is not adequate support for enhancing livestock production, and crop cultivation which the local people want to pursue as additional source of food. Many pastoral households use only traditional hand

tools like hoes for subsistence crop cultivation. The capacity of the local people to construct viable channels for river diversion is very limited. Moreover, as most individuals/households are new beginners who lack farming skills, trained farm-oxen, and tools, they often arrange share-cropping contracts with neighbouring crop cultivators. Thus the local people seek external support to pursue growing food crop independently. However, such kind of support so far is not available to the local people.

The above descriptions suggest that the local formal leadership is less committed to people's participation, preferences and development priorities. The informants felt that the community members and their traditional authorities are not involved in the local development planning and decision making process. Contrary to the present vow made by the Regional and Federal governments with regard to grassroots' participation and local development priorities, the informants claimed that the previous external intervention (e.g. TLDP) was more participatory than the current ones. They stated that the TLDP made prior consultation with clan leaders and local people during its intervention in the community. The traditional authorities were involved in the selection of irrigation sites, vaccination and veterinary sites (e.g. dips), and development of access roads, etc. Vaccination centres such as Humena-asu (located at Gewis) and Kebmi (located in Aware and Hujuba localities) were established with local people's consent concerning the centrality of sites for all pastoral villagers. A number of informants have a good impression of the TLDP, primarily because of the bigger benefits it renders to the local people. Animal diseases were curtailed, and the livestock population had increased during the TLDP period. At that time most of the local people had no difficulty to get access to livestock development services.

Nowadays, however such facilities and services are unavailable to most pastoral villagers. In fact livestock health technicians from the responsible government department try to reach some neighbourhoods for monitoring livestock diseases and for providing vaccinations. But they could not reach all pastoral villages due to inaccessibility, problems of coordination and lack of central locations to conduct vaccinations. Some informants reported that the technicians and their guides tried to go around very few villages just to extend their stay in the field in order to gain more allowances. The Kebele chairpersons often took the technicians first to vaccinate their stock and that of their kin. On the other hand the Woreda livestock experts stated that they provided services to the extent that their capacity allows. Thus they mentioned lack of capacity to reach all pastoral villages due to shortage of supplies, late arrival of veterinary drugs, lack of transport, and mobility of herds, drought-induced migration, and inaccessibility. In general both the views of the local people and of the experts indicate that the existing livestock health services in the district are insufficient and poorly coordinated due to shortage of supplies and transport, neglect and biases of Kebele authorities, dispersal of herders into various locations and inaccessibility of pastoral villages. This suggests a low level of capacity to manage livestock disease risks which the local people have identified as one constraint to their livestock production.

iii. Pastoral Community Development Project (PCDP): PCDP has three main components (MoFA, 2003, 6). They are:

a. Sustainable livelihoods: This component is aimed at establishing decentralized and participatory planning procedures at the community/kebele and Woreda levels. This

subcomponent includes staff and community capacity building; a community investment fund (CIF); and strengthening technical and social support services.

b. Pastoral Risk Management. Increasing community awareness of disaster risk¹⁶³, improve the accuracy of risk assessment and support strategies for risk management. This subcomponent includes the development of a community-based early warning system; disaster contingency planning; and the establishment of a disaster preparedness and contingency fund (DPCF).

c. Project Support and Policy Reform. This component provides operational support to PCDP management and Government policy formation. It includes support project coordination and monitoring and evaluation; address policy and institutional reforms to strengthen pastoral livelihoods and reduce risk; and build knowledge of pastoral systems and society.

In the study community PCDP has been started by the end of 2005. It launched community development activities which include construction of infrastructure and social services (school, health posts, etc) and capacity building aimed at strengthening the Woreda EWS through staff training, and providing materials.

PCDP has started its activities first with establishing health post and schools. The local people, however, did not consider these infrastructures as first priority, since there are already health posts and schools which either don't function or are not furnished with the necessary facilities and personnel. Rather the local people see livestock health services, growing fodder and irrigation development as their first priorities. They need external support first in the areas of crop cultivation and planting fodder plants. In fact these priorities are also the components of the PCDP, but they are among future activities. Therefore, PCDP's plan is to start first with provision of social services and then to carry on other support programmes in the future.

I asked my informants whether PCDP first started its activities in consultation with the community so as to consider local concerns and priorities. The informants reported that it first consulted the elected leaders of Kebele Administrations. The PCDP staff called the Kebele authorities and informed them about predetermined project activities (i.e. health post and school construction and training). As my informants indicated, some individuals reacted to the PCDP staff at the time of consultation as follows:

Your project activities are like that of the government. It seems that you are not from non-government organization¹⁶⁴. Because you have brought the same activities that the government is doing in our district. We need a type of development work and support that can help us to curb problems such as drought and shortage of livestock feed (*Individual Interview, April, 2006*).

¹⁶³ The PCDP project document envisaged that pastoral communities are unaware of disasters risks. However, this is not true with regard to my study community. The local people are aware of risks that affect their livelihoods.

¹⁶⁴ At the beginning some people perceived PCDP as non-government organization.

The implication of the above reaction is that there was a gap between PCDP and the community members in priority setting with regard to local problems and development activities. Whereas the local people stated that the existing health posts and schools are non-functional and thus no need to add more, PCDP said its first priority is to construct such facilities and to proceed with others at another time. On the other hand, the local people's priority is to tackle fodder shortage and to develop irrigation for growing food crops. Therefore, there is a gap between the external interventions and the local people's development priority and concerns.

The current government has frequently expressed its willingness to give more importance to grassroots' participation in its decentralization process and decision making. Moreover, the premise behind the design of PCDP is to establish decentralized and participatory planning procedures at the community and Woreda levels, enabling men and women in pastoral communities to identify, prioritize and design and implement micro projects and programmes (MoFA, 2003:5). Therefore, the main question that needs explanation is why it was not possible to involve the local community members in setting activity priority. It is stated that PCDP has consulted the Kebele and Woreda authorities that represent formal government institutions/authorities. On the other hand, at the community level there are traditional authorities that the local people keep in high regard for their advice and decisions. Clan members consider traditional authorities as true representatives of their interests and concerns. As stated above, however, neither these authorities nor community members did take part in the decision of PCDP's activity priorities that were implemented during my field study. Therefore, the level of participation was limited to information sharing with 'elected leaders' of the Kebele and Woreda administration. Consequently, local people's concerns and priorities were not considered by external actors. This indicates that the local people's perception of local problems and priorities differs from those of external actors.

6.4.3.2 Local People's Views on the External Responses to Famine (Food Crisis)

The Government policy and approaches to disaster management have been discussed in Chapter 3. This section presents local people's view on the external response to food crisis. A number of informants felt that currently some improvements are witnessed with regard to institutional response to food crisis compared to the previous times. The perceived improvements are manifested in risk assessment; relief food distribution and beneficiary selection; and other social services that may contribute to enhance local capacity. Each of these perceived improvements are described in the following paragraphs.

i. Early warning system (emergency need assessment): In the district assessment of drought risk has been started by the Government in recent years. Though it is hasty and superficial, EW teams (assessment missions) drawn from the Afar Region, Federal agencies and NGOs occasionally visit the district offices in order to assess the conditions of pasture, livestock and food shortage. This kind of assessment was absent before ten years ago. However, some informants remarked that assessment teams didn't so far involve the local people and their clan leaders. Assessment missions overlooked traditional leaders (authorities). They often met the Zonal or district authorities and some selected government institutions. The Woreda officials occasionally send their assessment reports to the Zonal office which in turn passes reports to the Region. Apart from these there is no, however, direct communication between

drought risk assessment teams, and the local community and their traditional authorities. Therefore, risk communication between affected people and external actors is not adequately considered by the national early warning system. Moreover, the periodic risk assessment is oriented almost exclusively to calculating food aid to the needy people (i.e. emergence need assessment).

ii. Establishment of relief food distribution centre in the district: During the 1984-85 famine food aid was distributed after the affected people gathered in relief distribution or urban centres such as Bati, Eliwaha, Mile and Asayita. In recent years there is comparatively timely food aid distribution, though the amount is small to reach all the needy¹⁶⁵. Unlike the previous governments, food aid nowadays arrives before the needy people are dislocated from their pastoral villages. The federal Disaster Prevention and Preparedness Agency (DPPA) has established emergency relief food outlet in the district and distributes grain to the affected Kebeles. During the 2003 severe food crisis there was a monthly distribution of wheat and cooking oil to the drought victims. Though local people were not satisfied with the size of the rations and sometimes with late arrival of food, they saw the establishment of food distribution centre within their district as improvement in external disaster responses. There has been a problem of food transporting and a mass displacement during severe food crisis. Thus the food distribution centre in the district has avoided travelling to distant food distribution centres.

iii. Food aid targeting (beneficiary selection): The process of selecting beneficiaries of food aid involves three steps: (i) selecting drought affected kebeles, (ii) identifying sub-clans within each Kebele, and (iii) selecting needy households/individuals within sub-clans. The criteria for selecting beneficiaries are mainly related to asset status of households and social status of individuals. Precedence is given mainly to (i) orphans, (ii) aged and infirm persons, (iii) households with only small animals (goats), and (iv) households with few cattle. Households or individuals with camels and many cattle do not get food aid.

Food aid beneficiary targeting, especially the selection of affected Kebeles is undertaken by the Woreda Disaster Prevention Committee (WDPC) in consultation with elected Kebele leaders. Once the Kebele is targeted, the selection of beneficiary households or individuals within clans/sub-clans is carried out by clan leaders and elders through general assembly of clan/sub-clan members. This targeting process is mainly undertaken in order to comply with the government procedure of beneficiary targeting. However, once households or individuals receive their food rations, they may redistribute a portion of their rations to their kin group through informal transfer mechanisms (i.e. reciprocal arrangements, sharing food). Therefore, the current beneficiary targeting opens room for involvement of clan leaders and elders in selecting more vulnerable groups. In relation to this a number of informants remarked that involvement of representative traditional leaders in beneficiary targeting and in food distribution avoids favourism and nepotism.

¹⁶⁵ The official minimum size of ration is 15kg of grain per month per person. The local people claimed that they often received less than this size (i.e. about 10-12.5kg). Reducing the size of rations to individuals in order to accommodate a greater number of beneficiaries overall pertains in other regions of Ethiopia as well (Lind and Jalleta, 2005).

iv. Development of infrastructures, social services and administrative centres: Nemelifen, a small rural settlement growing into a small-town, has been the administrative centre of the Telalak district since 1994. Before this year it was a very small pastoral settlement with scattered traditional Afar huts (*Ari*). At the time the Government employees of the district were stationed in Eliwaha town and they used to come occasionally for working in Telalak. The informants reported that Nemelifen and other settlements are emerging and growing due to:

- regionalization process and the establishment of Afar regional administration after the change of Government in 1991,
- establishment of Woreda administrations and their respective centres and sector offices,
- establishment of local markets,
- construction of access roads, especially the road from Kassa-Gita to Dalifagie,
- construction of schools, health station, health post, relief food distribution centre,
- construction of the water points, and other service like telephone, shops, mosques, police station, etc.

The development of these services and infrastructures has created opportunities for small businesses, trade, and access to information, transport, etc. These developments have also increased the orientation of community members to the larger society. Therefore, a number of informants perceived these services and infrastructure as enhancing their capacity for risk management, as they can create access to markets, and create opportunities for taking up non-pastoral activities.

iv. Other development supports: These included supports provided by NGOs. At the time of my field study WFP and Farm-Africa were providing supports to the local people in the areas of education and livestock health respectively. School children feeding programme was supported by WFP/UNICEF. This included provision of food to school children. Special support or incentive (food and cooking oil) was given to girls for attracting them to school.

Farm-Africa provided goat loans to poor women and supported livestock health services. It provided support to poor women. Up to 60 poor women were provided with goat loans for rearing, each with four female goats. Each beneficiary was expected to give offspring to other poor women in the neighbourhood. In addition to this, Farm-Africa provided training for animal health workers drawn from pastoral villages. These community workers would be organized into veterinary drug vendors' association in order to supply drugs to the community on cheaper prices.

Farm-Africa also tried to support irrigation development through providing tools and seeds to pastoral households engaged in growing food crop. However, it has stopped supporting irrigation due to the following reasons:

- Lack of follow-up by the pertinent government office to facilitate this type of intervention.
- The impact of 2002 drought crisis.

- Conflict between Afar and Oromo over the use of the irrigable land,
- Changes in type of support by the Farm-African. It shifted to provision of goat loan for poor women.
- Shortage of budget for supporting irrigation.

Some informants also complained about the Farm-Africa intervention. Firstly, they said that it scaled down its activity, whereas it initially promised to support many pastoral villages. Secondly, it did not proceed with supporting irrigation development. Thirdly, some informants did not appreciate the scheme of goat loan. They felt that it was not a preferred intervention. In relation to this, participants of a focus group interview stated as follows:

Our problem is not lack of goat as such. Our goats are perishing before our eyes due to recurrent drought. The threats are animal disease and drought that decimate stock, goats or cattle. Otherwise poor women could get such goats from their kin group/clan. To our knowledge the appropriate support for poor women could be to provide capital to run business like trading, running tearooms, shop, and grinding mill (*Group Interview, 2006*)

Generally local people's experience with previous external development interventions has shown that most infrastructure and services put in the locality were not sustainable, though they provided short-term benefits, especially for livestock development. A case in point is the TLDP. Moreover the current development interventions pursued by the Government (e.g. PCDP) and NGOs (e.g. Farm-Africa) did not consider what the local people have considered as their development priorities and concerns. The implication is that there has been a gap between local people's perception of problems and their solutions and that of external actors while planning and implementing development activities. In general it can be said that the local people seek external support to curb problems which they consider as major constraints to enhance their capacity in reducing risks such as drought, feed stress, livestock diseases and famine. Though the local people saw the public transfer (i.e. food aid) as critical to survive the crisis periods, they expect more support from government and NGOs for mitigating these risks. In relation to this, after a lengthy group interview during the field work, one of the participants asked me to pass the following message to the government. He remarked in following manner:

I guess you might be one among officials or the government proxy (*Yemengist Tewokay*). I do think that you wouldn't have spent with us all this time without any purpose or mission. In our community we had seen that livestock rearing was viable in the past. Nowadays it is not as it was in the past good days. As we all told you, livestock rearing is now in a crisis. The government is supporting us with food knowing that we are facing food crisis. The government is like a father and mother who take care of their children. What I want you to communicate to the government is that we need also its support to us and our children to enhance crop cultivation and pursue it rigorously in the future (*Focus Group interview, August 2005*).

6.5 Traditional Early Warning Systems and Risk Communication

The formal EWS has been discussed in Chapter 3, and it is stated that its coverage for pastoral areas has been limited and certain indicators are used for monitoring famine/drought risks. It focuses on highland, crop-producing areas, and has no effective presence in lowland pastoral areas where a substantial part of national food insecurity is located. Except some attempts by NGOs there is not adequate livelihood monitoring to understand context-specific vulnerability. Moreover the national EWS has not yet integrated traditional early warning systems. These gaps explain partly the inappropriateness of previous approaches to disaster (famine) prevention. And yet, as stated in section 6.4.3.2 formal EWS shows some improvements in disaster responses in recent years as perceived by some informants.

In this section I present the traditional early warning systems and ways of communication that the local people utilize for disaster prediction and warning against it. I also attempt to explore the extent to which the formal EWS involves the local people during monitoring and assessment of risks. The sources of data used in this section are mainly from interviews with elders and local officials.

The Aghini pastoral system is close to transhumance which relies mainly on key resources that can vary between seasons within a year. Thus the local people routinely monitor these key resources as their availability varies spatially and temporally. As their ecology is highly variable herders are always keen to monitor their natural environment as well as social settings so as to seize opportunities and to get prepared for coping with natural and livelihood shocks and environmental changes as well. For herders no rain means no pasture. In that case monitoring routinely the behaviour of weather (i.e. rainfall), performance of natural vegetation in the locality and beyond, and relations with neighbouring ethnic groups is crucial for herders' mobility. Therefore, it is on the basis of these prior assessments that the local herders predict and react to events that affect their livelihood system. Let us look closely how the local people gather information, articulate their problems and take actions/decision to survive stresses or shocks.

6.5.1 Predicting Weather Conditions (Drought and Rainfall)

Having mentioned that “only almighty Allah knows what would happen”, informants mentioned some signs and indicators of drought that they have experienced in their life. They often recall signs of previous drought years and try to use them for predicting about the future. A number of informants have identified three ways to forecast rainfall. These include observing: (i) the behaviour of domestic animals, (ii) weather changes and, (iii) the appearance of stars. Each of these is briefly presented as follows.

i. Watching the behaviour of livestock: My informants stated that “the Afar are homogenous groups who keep cattle, camels, goats and sheep”. Therefore, they routinely scrutinize changes in the behaviour of their domestic animals in order to predict events. The local people believe that livestock show certain behaviours with the coming of certain events. As shown in box 6.5 below my key informants identified certain behaviours of livestock that the local people use them to predicate about rainfall.

Box 6.5 Some behaviours of livestock that are used as indicator of coming rain:

- With the rain coming goats are observed playful (gamboling).
- Goats make a sound of “*boof... boof...*” indicating the coming of rain.
- Goats bleat when the coming season is good.
- Goats begin mating when the coming season is good, or with coming of rainfall.
- Cattle begin mating with coming of rainfall.
- Cattle produce “*Arefa*” (lather) in their mouth with coming of rainfall.
- Cattle shake their legs, as if in anticipation of mud removed.
- Cattle refuse to come out of kraal with coming of rain. They refuse to move to grazing area (field).
- Camels face north and shake their head with coming of rain.
- Camel facing east indicating the appearance of six-grouped stars which indicate the coming of rainfall.

Source: Key informant interview, December, 2004

ii. Observation of weather behaviour: The local people observe changes in weather (i.e. wind and temperature). Wind and temperature are signs of good rain or drought. If heavy wind is missing before the start of rainy season, it indicates drought/poor rain. The informants believe that cold wind indicates poor rain.

iii. Watching the appearance of stars: The appearance of “star with long tail” from the north direction is used as an indicator of drought. When this star appears before dawn is breaking, it indicates the imminent of drought. The informants associated some of the previous droughts to the appearance of such star. These droughts included: (i) the 1973-74 drought that is locally called *Gere-alie*, (ii) the 1984-85 drought and, (iii) the 1991-1992 drought. The informants reported that before the occurrence of each of these three droughts, “a star with long tail” was seen.

There are individuals who watch stars (i.e. “star counting”). Persons with this expertise are called “*Hutuk Beya*”. They predicate whether there would be good or poor rain. This is basically to watch “stars expected to appear in the east direction”. The type of star used for prediction is called *Kayma* (i.e. a 6-star group). When *Kayma* appears in east, camels see it first and then all camels are seen facing to the star. It is believed that this indicates the coming of good rain.

iv. Observing the behaviour of birds, bees and wild animals as indicator of drought. Some of these are presented in box 6.6 below.

Box 6.6 Some behaviours of birds, bees and wild animals that are used as indicator of imminent drought:

- Bees desert their hives from hill sides and migrate to river sides.
- A bird, locally known as “*Andula*” produces a noise that resembles a noise of baby camel.
- Birds often come very close to homesteads/yard searching feed and water.
- Hyenas and foxes give little whimper (barking few times, i.e. less than three times).
- Many weakened apes will be seen everywhere.
- Monkeys and apes often come close to homesteads/yard.
- Warthog starts attacking goats.
- Wild animals (carnivorous ones) start eating tree leaves, barks and roots.
- Wild fowl often comes close to the homestead.

Source: Key informant interview, December, 2004

6.5.2 Scouting and Assessment of Fodder and Water Situation

The local Afar have traditional grazing areas for the dry and wet seasons. These areas are already described in section 6.1.1 (see also map 9). The local people manage rangeland resources to make sure that there is enough water and pasture during the dry season and drought. They do this by moving their herds to areas where the resources are available. Therefore, surveillance/assessment of the availability of grazing and water is routinely conducted by herders. A team of range scouts called *Eddo/Addo* assesses the state of rangeland and water. Scouting groups, which mainly entail young men, undertake the surveillance and assessment responsibilities. Persons elected for *Eddo* should be reliable, well-respected, gentle and calm and capable of walking long distances. A team of range scouts (*Eddo*) has several specific tasks when assessing rangelands. Some of the tasks are given in box 6.7 below.

Box 6.7 Specific tasks of *Eddo/Addo*:

- Assess if an area have recently received rainfall, for how long and how much.
- Check how much fodder and water are available, and whether the quality is good enough for different livestock types.
- Estimate how long animals can graze on a particular site.
- Check whether there are rival groups or diseased animals in the area.
- Discuss the information gathered with elders and clan leaders, and add more information through *Dagu*.

Source: IIRR, 2004:42

The scout team also uses *Dagu* (traditional information exchange network) and the advice of the knowledgeable and traditional experts who forecast the upcoming rain. Therefore, *Dagu* adds to the information collected by the *Eddo*. Finally the scouting team reports back to the

community elders and clan leaders about the situation on the availability of feed, water, and estimates for how long feeds and water can sustain the existing stock.

Once the rain situation is forecasted, and information is gathered on water and pasture availability and security situation, the clan leaders, elders and the scout team plan how to utilize the existing resources. The number of livestock and length of time to stay on a particular site is determined. In general the main preparatory steps for livestock movement include:

- Gathering information on the availability of grass and water in order to move herds to areas where these resources can be available.
- Selecting appropriate route and area to drive livestock safely,
- Regrouping (splitting) herds according to their types (i.e. cattle, camels and goats in separate groups; dry cows and camels, etc) and determine range of distance from home villages or localities, and between herding groups.
- Selecting and assigning leaders for each migrating or herding group.

Leaders of herd movement should have prior knowledge about receiving areas. They are expected to be well-informed to lead and manage the livestock movement, and to negotiate with the neighbouring clans in order to avoid risk of conflict. The leaders can punish individuals who may misbehave or violate rules of herd movement.

The local herders use the selected rangeland for two-three months. If herd movement is to distant areas (i.e. beyond 100 kms or 8-10 days travel), huts may be dismantled and movable household utensils are taken while other heavy ones are put on big trees found in the base camp. If mobility is within 100 kms radius, base camp and huts can be moved to the new camp site. But nowadays long distance movement has been constrained by scarcity of pasture, loss of key migrating areas and conflicts¹⁶⁶. Therefore, under normal conditions herd mobility is ventured mainly within short distances, and sometimes, especially during severe dry season/drought to distant neighbouring highland areas (e.g. to Cheffa wetland for shorter period).

6.5.3 Traditional Communication System (*Dagu*)

i. Dagu as information gathering and exchange system: The Afar traditional verbal communication system is called *Dagu*. It is the main information gathering and exchanging system among the Afar. When two or more persons (be they know each other or strangers) from different areas meet on the road or elsewhere, they sit down and spend sometime on exchanging information about conditions of grazing, water, livestock, market and price, disease outbreak, conflict and casualties, local politics, etc. *Dagu* is a two-way communication about problems of family, community, and local as well as regional issues. Its main purpose is to exchange information about availability of resources, well-being/security of pastoral villages, and socio-political events in various places.

¹⁶⁶ At different times the Afar scouting teams clashed with Issa-Somalis. This often happens when the scouting teams from local community cross the Awash River to reach Megenta, Ba'adu and Alledeghi plain. For instance the Issas killed five members of a scouting team in 1995.

In Afar society any passerby is expected to share information at least on the abovementioned issues whenever he/she meets any member from his/her own clan or other clans. *Dagu* can take place between people of any age and sex. Elders and clan leaders can speak first. Informants stated that in Afar culture any newcomer is welcome and is first provided with seat, food and water. Then the host would ask the guest to narrate about the situation of his/her locality and what he/she has observed on his/her way. The host on his/her part would do the same. Box 6.8 depicts issues that are often addressed through *Dagu* when two persons meet anywhere.

Box 6.8 Some Issues often addressed while conducting *Dagu* among the Afars:

- How are your family and neighbours?
- Where are you from? Which clan do you belong?
- Where did you spend last night? With whom?
- Whom do you know here?
- Where are you going?
- What have you seen on the way?
- What is happening along the way?
- What is the situation of grass/pasture, water, and livestock?
- What about disease outbreak? etc.
- What about clan conflict and causalities? etc.

Source Key informant interviews, December, 2004

It can be said that the Afar regularly exchange and communicate information about new developments, events and phenomenon among themselves through the institution of *Dagu*. Members of the community also consult elders about problems and get advice for decision-making. Generally speaking, through regular verbal exchange of information (*Dagu*), community members get access to advice, and information needed to undertake both individual and collective actions. *Dagu* is also used to pass information that people have heard over radio.

ii. *Dagu* as risk communication and warning: Many informants mentioned that “begging is a shameful act in their culture”¹⁶⁷. According to the informants the community members help each other, and one is not expected to beg. Instead he/she can call on his/her kinship or clan groups for support in times of need. Therefore, information sharing through *Dagu* is also a common communication system in order to solicit and get support from clan members; to exchange information about opportunities; and to take collective action against any threat to the individual member or to the group. Moreover, *Dagu* enables people to find pasture and water during drought, and warn others of threats such as drought, insecurity and disease outbreak. The local Afar also use firing and shouting (*Eei Eei*) to alert people for emergency and support from neighbours and other clans.

¹⁶⁷ In the study community the term ‘begging’ is not used to explain the act of asking support, as it has derogatory meaning. Claiming support is a right for the disadvantaged. Providing support is a social obligation for the donor, as he often considers it as investment.

In general sharing information and ensuring collective security have been highly valued among the Afar. Withholding information from the community or clan group is unacceptable in the Afar *Ada* (customary law), and any deviation involves punishment. Every member is expected of passing and sharing information on what he/she observes and hears about. Therefore, the local Afar often use *Dagu* to get information about key resources/grazing areas which are located in far away areas (e.g. Yangudi-Rassa, Megenta, Gedamaytu, Adi-ferewo and Cheffa wetland). The Afar also get information on security situation of distant places, communities, and markets through *Dagu*. In this way community members and neighbours keep on informing each other about opportunities and threats.

On the other hand some informants felt that the practice of *Dagu* is decreasing nowadays. They attributed this to the following factors:

- Development of towns and permanent settlements.
- Some people, particularly the youth are becoming reluctant to divulge information, as individualism, suspicion and distrust are increasing among young generation.
- The young generations do not tend to spend much time to hold *Dagu*.
- Individuals currently have begun to use transport and thus have fewer opportunities to observe various environments, to meet others and exchange information about various localities and events.
- Individuals nowadays have no adequate resources or capacity to host guests and conduct *Dagu*.

These factors may suggest that the advent of modern transportation, increased mistrust/anonymity among new generations, and resource scarcity have effects on the traditional information network. And yet a number of informants have acknowledged that *Dagu* is still an important information communication system among the pastoral Afar. This system is very efficient and useful in the Afar pastoral areas where communication facilities are almost non-existent. Moreover, if *Dagu* is integrated into the formal early warning system, it can enhance risk communication between the local people and external actors.

6.5.4 Views of the Local People on Risk Communication to External Actors and Responses

During the Imperial time, the informants said, there was no formal communication system between the state and the local people with regard to famines and responses. At the time only clan leaders attempted to report about different crises (e.g. drought, disease epidemics and invasions by Issas and Waggirats) to the local officials (governors). However, there was no response from Imperial Government and the local governors.

Limited external response, especially in the form of relief food distribution was started during the Derg Regime. Nevertheless, it was not efficient intervention as food assistance did not arrive timely. This was particularly witnessed during the 1984-1985 catastrophic famine where most pastoralists were forced to leave home villages and migrate into relief distribution camps and nearby urban centers due to failure of the Derg Government to respond early.

Some informants felt that drought risk communication to external actors (Government agencies and NGOs) and drought relief intervention (food aid) have witnessed some improvements in recent years compared to the periods of previous regimes. Nowadays assessment teams occasionally come to the district to assess drought situation and food crisis. The clan leaders also report on drought and livestock disease to the Woreda officials. Usually the Kebele authorities or leaders communicate about events (food crisis, disease outbreak, conflict) to the Woreda administration which in turn passes reports to the Regional pertinent offices through Zonal administration.

However, the views of informants were mixed with regard to effectiveness of current external responses. Some informants remarked that external responses to food crisis were not as expected. These groups of informants claimed that relief food arrived late and stopped early (i.e. without warning recipients and before the situation is fully improved). Sometimes food distribution is curtailed as soon as rain starts. This, for instance, occurred in the month of August 2005 when immediately rain began. Consequently, the local people had to sell some of the remaining stock to survive this critical period. Since the local people continued with appealing for assistance, food redistribution was resumed in the month of December, 2005. This view of the local people with regard to delay and early cessation of food distribution has much truth and concur with results of some crisis assessments (Lautze *et al.*, 2003; 219; USAID, 2004:2). This is partly attributed to inadequate risk assessment and weak early warning systems in the pastoral areas. Both Government agencies and NGOs mostly rely on “emergency need assessment” and “ad hoc assessment” than on regular monitoring of pastoral livelihood systems while designing their responses. Moreover, assessment missions cover limited part of the pastoral areas due to inaccessibility, conflict and other logistic and resource constraints. Therefore, these factors affect the phasing out and the coverage of external interventions.

Other informants felt that the government did what it could, given that: (i) drought has been a recurring event in recent decades, (ii) livestock production has been under stress, (iii) increased number of affected people, and (iv) wild foods, which were once important sources of food during food crisis, have become scarce. Therefore, these later groups of informants have realized that their livelihood system has been under stress due to recurring drought consequences. More people are vulnerable to drought as they are less able to cope with food crisis triggered by drought consequences. As a result, they are forced to rely on relief food assistance. Therefore, for these informants it seems that government’s intervention to avoid famine is modest given the recurring food crisis and the mounting of needy people in recent years. These informants could hold such perception of the current government response as they compared it with that of the previous regimes.

It is true that some evaluations of government response have reported that the Ethiopian government has avoided the recurring food crisis from developing into types of famine that historically plagued the country (Lautze *et al.*, 2003; Lind and Jalleta, 2005). However, the government’s intervention is still emergence-oriented without addressing the structural problem of food crisis in the pastoral community. In relation to this, I interviewed a number of informants to share their views about “what should be done to tackle recurring food crisis in their community?” Having acknowledged that “rainfall has been unpredictable and it is in

the will of Allah”, most of them have suggested some adaptive responses. These include (i) pursuing rearing more goats and camels as they are less vulnerable than other species, (ii) irrigation development for crop cultivation, if external support is provided for river diversion, (iii) taking up other non-pastoral activities (e.g. trading, wage labour). These suggestions to overcome food crisis are consistent with activities (e.g. enhancing existing livelihoods, livelihood diversification) that are proposed by the current discourse on risk reduction.

In the preceding sections I have attempted to assess the external interventions and crisis responses from the perspective of the local people. The next section deals with local responses to livelihood shocks and environmental changes. It attempts to discuss what the local people are actually doing to adapt or cope with livelihood shocks. In that case three key questions will be addressed. They are (i) how far have pastoral strategies (pattern of mobility, herd structure and livelihood activities) of the local people changed, (ii) to which extent have individuals or households altered their coping strategies, (iii) how effective are the existing coping strategies given the mounting crisis in the study community. These and other related issues will be the focuses of the next discussions.

6.6 Adaptive Responses and Coping Strategies in the Study Community

In section 6.3.6 above, attempt is made to identify the major risks from the perspective of the local people. The following paragraphs discuss how the local people are currently responding to environmental stresses and livelihood shocks (food crisis). As stated in Chapter 3, adaptive responses/risk management strategies and coping mechanisms may overlap. One’s adaptive/risk management strategy may be other’s coping strategy. Therefore, the way in which these strategies are presented in the following paragraphs is for the convenience of presentation rather than a watertight distinction between categories of strategies.

6.6.1 Adaptive Strategies

As stated earlier, the local people have faced deteriorating ecological situation which has severe consequences on their subsistence. In this connection the survey households and informants were asked to identify adaptive strategies currently used by the local people to cope with the ecological/environmental stress and livelihood insecurity. The household survey respondents (Table 6.14) and key informants identified various adaptive strategies. The major ones are described in the following paragraphs.

Table 6.14 Adaptive Strategies Reported by the Sample Households (Multiple Responses are Possible)

Adaptive strategies	responses (n=60)	percentage
Combining herding with non-pastoral activities (trading, cultivation)	59	98.3
Changing the composition of herds	56	93.3
Herd splitting and mobility to areas where fodder can be available	26	43.3
Leaving livestock under the care of bond-friend/kin	18	30.0
Seeking daily labour	2	3.3

Source: Sample Household Survey, December, 2005.

i. Combining animal rearing with non-pastoral activities: As it can be seen in Table 6.14, the local people employ various adaptive responses to environmental stress, drought and decline of livestock production. Combining crop cultivation with livestock rearing is one of the adaptive responses to the decline of livestock production. As yield from livestock has dwindled over time, some pastoral households have begun growing food crops along the banks of perennial rivers. In this connection Mohammed, an elder from Gewis village stated that households which practise irrigation are relatively better-off nowadays. He illustrated this by using a saying from Afar. “Additional is always good, even an ocean needs tributary”. Therefore, according to Mohammed, combining livestock production with cultivation is better than having only one, as one supplements the other. Moreover, participants of a focus group interview also reinforced Mohammed’s idea by illustrating risks associated with taking up one activity alone:

A total shift to crop cultivation has also risk. If all people take up crop cultivation, it will involve a risk of losing animals which provide many advantages. Livestock provide food, cash, savings and raw materials for making household materials and utensils. Practicing irrigation on river banks also involves a risk of flash flood due to high run-off from highland areas or change of river course. In that case nothing will be left on farm plots. An animal may die from effects of drought; at least its skin can be sold. Moreover, irrigation requires good tract of plain land like that of Asayita area (Awash delta). In Asayita there are cotton plantation and food crop cultivation because of the availability of good irrigable flat land and the Awash River. Developers use tractors to plough, and grow cotton or food crops whose residue can also be used for animal feed. In such area irrigation practice has more advantage than livestock production. But in an area like that of ours where the topography is hilly, and river water or rain is unpredictable, a complete shift to crop cultivation is not possible (*Focus group interview, December, 2004*).

This case material suggests that the tendency is not to view cultivation as alternative to livestock, but as complementary. The local people strive to combine livestock rearing with crop cultivation instead of shift from one activity to the other in order to avoid risks associated with pursuing only one activity. Currently small-scale crop cultivation occurs on riverbanks, as rainfall is inadequate for rain-fed agriculture. It is undertaken mainly along the banks of perennial rivers (e.g. Telalak and Wata) by diverting river water. Out of the total 60 sample households, 48.3 % (n=29) possessed farm plots (enclosures) along the riverbanks. Of these households who had plots of land, 76% of them owned less than 0.5ha and 7% between 0.5 and 0.75ha. The rest 17% owned 1-1.5ha.

Generally in the Aghini pastoral community context crop cultivation takes mainly a form of small-scale irrigation system. Cultivators use low input methods including hand-tools, manual labour and traditional irrigation methods such as furrows and channels. Few individuals, who are usually relatively wealthy, hire migrant cultivators for growing food crop. Thus, the wealthy have access to labour and farm-oxen from highlanders to work on larger farm plots. Others often enter into crop-sharing arrangements with highlanders, whereby they divide the produce equally.

ii. Changing herd composition and herd diversity: Changing herd composition and diversification are the second adaptive responses to environmental changes and risks of drought. The local Afar reported that traditionally their original herd composition included

cattle, camel, sheep, goat, donkey, horse and mule. Nowadays, mule and horse are no more in the composition of herds. Cattle population was dominant in the herd prior to the 1980s, as pasture was abundant in the locale and as well as in areas away from the district. In recent decades following the degradation of pasture in the immediate environment and traditional resource base in distant migration areas, the local people place much emphasis on keeping camel and goat than on cattle. It is because the former are relatively tolerant to drought consequences and can survive on existing patchy, browsing trees and bushes during feed stress. Special grass types have been increasingly scarce owing to shrinkages of pastureland, bush encroachment and recurring drought. Therefore, adjusting herd composition is used by the local people as a strategy to adapt to changes in natural forage vegetation and to cope with drought effects. Simultaneously, the local people still continue with keeping multiple-species in order to reduce risks and exploit various environmental niches. In general, depending on the situations, the local people employ the strategies of adjusting herd composition and keeping of multiple species as insurance against drought risks and environmental stresses.

iii. Herd mobility/tracking environmental resources: The third strategy employed by the local pastoral groups is tracking their variable environment. This strategy involves the matching of available feed supply with animal numbers at a particular site. It involves seizing opportunities when and where feeds are best available. During the wet season the eastern side of the Telalak district (i.e. Asbole) is flooded by rain water descending from highlands and it receives some rain. At this period, grasses quickly sprout and some dwarf bushes give fresh leaves. Unless the local people quickly seize this opportunity, flash grasses and leaves will quickly wilt and disappear. Therefore, the local people move their herds to such area in order to seize this opportunity. Moreover Asbole locality is endowed with salt-lick which livestock feed. At the same time the foothills and the escarpments are left fallow during the wet season and reserved for the dry season. When dry season sets in the local people gradually drive back their herds from Asbole to such reserves (see map 9). If dry season becomes severe and prolong, they will disperse their herds deep into Awash River banks and flood plains or into the Cheffa wetland located in highlands. Therefore, herd mobility or tracking the environment is an important strategy used by the local pastoral groups to exploit variable natural grazing.

iv. Herd splitting/dispersion: Among the pastoral households it is common to establish bond-friendship, stock-alliances and other networks of support on which individuals and households rely in times of need. In times of feed stress, households which have such relations split their herds and give out part of stock to their partners to survive drought period or feed stress. This strategy is a reciprocal arrangement between the local Afar and the Oromo agro-pastoralists in order to cope with feed stress. As all areas are not equally affected by drought or other disasters, the local Afar send part of their stock to their kin or bond-friends to prevent some core animals (e.g. female stock). Yesuf's case illustrates such kind of relation established between the local Afar and their neighbouring Oromos.

Yesuf is a resident of Nemelifen. He attended Koran school in the early 1980s at Gerfa village situated in Bati Woreda. He has maintained his relation with sons of his Koran teacher (Sheikh) who died some ten years ago. Yesuf and such Oromo family support each other in times of need. The Sheikh is survived by his wife and two sons: the elder son migrated to Djibouti and the younger one is a breadwinner for the household. The elder son didn't remit money to his kin. When the younger son faces food shortage/crisis, he visits Yesuf's family and requests some support.

In 2003 he came to Yesuf's mother and received two quintals of wheat and one goat (*Mukit*). In January 2005 the younger son also came to Yesuf and asked assistance. Yesuf gave him 270 Birr to buy food grain. Likewise Yesuf sends his livestock to his bond-friend in Gerfa when there is drought or shortage of animal feed in his community. Depending on the seasonal availability of grain food, grass and fodder in their respective localities, Yesuf and his bond-friend support each other through such reciprocal arrangements and by dispersing livestock to overcome feed stress and consequences of recurrent drought (*Individual Interview, December 2005*).

v. Drought feeding strategies: The local people also employ different drought feeding strategies to survive their key stock during severe drought. These involve extensive lopping of trees, collection of tree pods, barks, stems and other green plants. In times of feed stress, the local people collect pods of acacia and transport them to feed emaciated animals which are unable to move to distant places. Trees, whose fruits and pods are essential to livestock feeding, include *Keselto (acacia nilotica)* and *Eibeto (acacia tortilis)* that are found mainly along the banks of Wata, Telalak and Gewis rivers (see also table 6.1 for other palatable plants). Herders also move their stock to such areas and feed them by chopping down tree leaves. However, in recent years trees are getting scarce due to deforestation, charcoal making and expansion of farm plots along river banks.

Traditionally hay making is not practised in the study community. Very recently some individuals, who live close to highland areas, have started preparing hay and storing for dry season. Besides, the neighbouring Oromos and Amharas harvest grass and make hay. Thus some better-off individuals or households from Afar locality also purchase hay and stalks or grazing rights from these neighbouring groups to feed emaciated animals.

vi. Developing water points: In order to cope with water scarcity in the study community, the local people dig shallow holes, build small surface water catchments or excavate rain-water retaining trough. The practice of retaining water in natural water storage along water course or canals is also practised in some localities. On the other hand installation of hand pumps, deep wells and development of water catchments are among the government-supported responses to water scarcity.

6.6.2 Risk Management Strategies and Coping Mechanisms

In section 6.6.1, I have discussed the local people's main adaptive responses to environmental stresses, feed shortage and drought consequences. The local responses that are presented in the preceding section are adaptive strategies. In response to recurring food crisis, the local people also employ various coping mechanisms. Individuals and households in the study community utilize a variety of strategies to manage risks and to cope with food crises. While some of the strategies aim at reducing risks, other strategies are employed for coping with effects of crisis. These strategies are discussed in the following sections.

6.6.2.1 Risk Mitigation/Reduction Strategies

All actions that are taken up before a shock occurs can be considered as risk reduction strategies. As indicated above the most important risk mitigation strategies in the study community include the combination of livestock production with crop cultivation and trading,

and informal insurances (stock transfers, stock alliances and social networking). Livelihood diversification strategies, which help minimize risks in the study community, have been discussed in section 6.2. The present section focuses on (i) resource transfer/sharing systems and mutual aid institution among kinship groups, (ii) forging bond-friendship and stock-alliance, and (iii) renting out oxen to crop cultivators. Based on the local people's perspective, these risk reduction strategies are elaborated below.

i. Mutual-support and resource transfer/sharing systems: The pastoral households do not rely only on herd and resource management strategies to survive drought consequences and livelihood shocks. They also rely on mutual-aid associations and resource sharing mechanisms in times of need. The social and economic organizations of the Aghini pastoral community are based on clan and kinship systems whereby members call on their kinship group in times of crisis. Mutual-support is often based on lineage, kinship relations, bond-friendship and neighbourhood. In this connection the study community has a number of mutual-aid and stock-transfer mechanisms that enable different members to build up their own herds and to recover from crisis. Individuals/households linked by decent or affinal relationship also exchange gifts (in kind or cash) at birth, marriage and during other ceremonies (circumcision, funeral, religious feasts).

The fact of being pastoralist coincides with the fact of being owner and herder of livestock. Therefore, it is through the possession of animals that the full personality of human being, from birth to death, is realized. The following case material from the study community illustrates how an individual acquires herd from birth through to the later life.

A child receives different gifts from his parents, kin groups and relatives. Upon birth a child acquires a gift of a cow or a female-camel from its mother's father and his father too. Upon birth umbilical cord of a baby is cut and tied onto the neck of an animal which is intended to be given to the child. While cutting the umbilical cord during delivery a midwife asks the baby's mother "in whose name could she cut the cord?" If the mother's father is alive, the mother would say, "in the name of her father" and the new born baby is called by the name of its mother's father. A piece of cut from the umbilical cord will be taken first by mother's father. Then the umbilical cord is sewn onto a small pouch and tied round the neck of cow or camel for two to three days. This signifies that this animal is given to the child. This gift is called *Muga'ata*. The same piece of umbilical cord, if it is not lost in those two to three days, will be returned to the child's father who is also expected to do the same, i.e. hanging the pieces on cow or camel. This again means his father provides the new born baby with an animal. This gift from the baby's father is called *Hundu'beta*. As the boy grows older, he could receive more gifts from his other kinsmen (his aunt, uncle, etc). These animal gifts are kept in his name and could form the core herd by the time he gets married and establishes his independent household. When his father passes away, he will have a share from his father's stock too. The inheritance of stock after the death of a father is usually made according to *Sharia* law. Birth gifts are obligations according to the Afar *Ada* (customary law). In addition to the gifts mentioned above, a boy could also acquire gifts of stock during circumcision and marriage. But these later gifts are not obligations. They are often provided on the basis of one's choice and willingness. In one's later life, gifts are also received if one faces misfortunes and loss stock due to disasters, diseases, raiding, theft, etc. These gifts and supports are exchanged mainly among close relatives or kinship groups. These transfers aim at tackling shortage of food and

breeding stock to the recipient. For the donor it shows the solidarity and goodwill to the recipient (*Focus group interview, March, 2005*).

The above case illustrates how individuals or households build up herds and reciprocate stock all along their life cycles. In general the Aghini pastoral community has strong informal safety nets to support their members in time of stress and to build up stock. My informants identified a number of traditional mutual-aid and stock-transfer mechanisms practiced by pastoral households and kinship groups. Some of these are presented in box 6.9 below.

Box 6.9 Traditional Mutual-Aid and Stock-transfer Mechanisms:

1. *Heraya*: A support to a destitute is called *Heraya*.
2. *Hantita*: Free loan of lactating animals to a destitute household.
3. *Erbonta/Irbu*: If a herder faces misfortune or loses his livestock due to disease, drought, raiding, etc, he calls on help from the community members, and such assistance is locally called *Erbonta*. Assistance can be camel, goat and cattle. The basis of assistance is kinship relation, clan membership or neighbourhood. This kind of assistance is often facilitated by *Fe-entu* (a leader of *Fimaa*).
4. *Ala*: When a bond-friend (*Takaysa*) comes from a distant place seeking assistance, his partner provides him with a stock from his herd and requests also contribution from his neighbours. Such type of assistance is called *Ala*.
5. *Muga'ata and Hundu'beta*: Animal gifts given to a child upon birth. These gifts serve as seed animals to establish independent household at the later life.
6. *Ari-orba (Bara-Orobi)*: When an individual first marries or establishes household, relatives/kinship groups give a gift which is locally called *Ari-orba* or *Bara-Orobi*.
7. *Haray*: Kind of support given for financing wedding.
8. *Digbi-Hara*: A small stock requested to slaughter during wedding.
9. *Harata*: Contribution made to somebody who lacks enough money to buy rifle.
10. *Ebini-Hada*: When one household receives many guests, its neighbours contribute food to serve the guests. This kind of support to a neighbour is called *Ebini-Hada*.
11. *Ula-Haraya/Hula-korro*: It is a gift or assistance given to an individual whose wife gives birth.
12. *Medili Hara/Haraya*: animals begged for wounded/injured or sick person consumption.
13. *Rebey Hara/Haraya*: Assistance or support provided to a person whose family member died. It can be in kind (grain, animal) or cash.
14. *Zakhat*: It is a compulsory form of stock distribution. Religious leaders impose a form of "animal tax" on rich, and number of animals contributed is proportional to the herd size.
15. *Eesiy*: An individual who is less fortunate can 'steal' animals from the herd of a rich local community member or his kin group. However, he has to inform first the clan leader about his intention.

Source: Key informant interviews, April, 2006

All these redistributive mechanisms and stock-transfers enable the pastoral households and individuals to establish their own herds; recover from crisis; meet social obligations and to perform various social ceremonies. The reciprocal arrangements and gifts also reinforce social ties and establish networks of support on which individuals and households rely in times of need. Nowadays, however, a number of informants noted that most of the traditional mutual-aid institutions have been undermined by deepening poverty in the one hand and the gradual development of individualism especially among the youth, and changes in attitude towards property on the other hand. Though the ethos of mutual-help is largely still there, the amount contributed to compensate loss is far less than what it is used to be in the past. Therefore, traditional ways of crisis/risk management mechanisms have been constrained by mounting

poverty at household and community level and resulted in the decline of amount of support. On the other hand because of mounting poverty and inequality among pastoral households over the past decades, it has been a pressure for those who have assets, as they have social obligation to share to and support their kin groups.

ii. Establishing bond-friendship/association: The pastoral households and individuals establish supportive social relationships both within and beyond the community. The Aghini Afar living close to the Oromo and Argoba communities interact intensively and forge close friendship. This relation binds together families or individuals from these ethnic groups, and thus mutual support is common in such relations. The Afar call their bond-friends *Takaysa*. In principle an individual has to have a friend (*Takaysa*) within his clan group or from other ethnic group(s).

Bond-friendship between individuals can be established in many ways. Some may inherit from their parents. For instance if an Oromo and an Afar have bond-friendship, such relation is handed down from them to their sons. Bond-friendship can also be established when individuals know each other while working or keeping cattle together, interacting through market, moving herds from one area to the other. For instance during dry season the Afar move their livestock into Oromo locality. Similarly the Oromos move their livestock into the Afar locality during summer. During such movements and contacts individuals come to know each other and later become good friends (*Takaysa*). However, the formation of bond-friendship between individuals has to be sanctioned by elders, as it involves admission of someone into one's clan group or community. After two individuals agree and decide to be friends, their relation has to be formalized in the presence of elders. First the potential friends declare their bond-friendship in the presence of elders by presenting their justification. Having heard their reason, the elders give their blessing to the friends and advise them to keep their promise, to stay as close friends, and help each other during bad and good times. Their relation is expected to last long and to be inherited by their children.

According to informants, establishing bond-friendship has many advantages for both partners and their respective kin groups/communities as well. This relation helps individuals or partners to:

- get access to rights for pasture (free access to grass) and farmlands,
- practice irrigated farming along riverbanks independently or in cooperation with sedentary cultivators (Oromos and Amharas),
- lease farm plots to neighbouring crop cultivators,
- leave livestock at friends care when drought occurs,
- obtain support when one loses animals or sources of livelihood due to crisis,
- ease mobility barriers, and secure information on forage availability,
- gather information with regard animals looted or lost. The Afar make markings on their stock. Herders use such markings to trace their animals via bond-friends,
- maintain solidarity,
- reduce tension and mediate conflicts between groups,
- facilitate inter-marriage arrangement.

Some informants perceived that new practices also came along with forging friendship and intermarriages with the neighbouring communities. These include new dressing and hair style, adoption of cultivation and new food habit. The pastoral people have begun wearing long skirt, trouser and shirt which were unknown in the past. Nowadays the local people also cut their hair short. Grain food becomes an important component of the local people's diet.

iii. Renting out farm-oxen to neighbouring crop cultivators: Renting out oxen to lowland Oromo crop-cultivators has been an important strategy of obtaining food grains (maize and sorghum). It has been also used as risk reduction strategy, as it enables ox-owners to store some grains for a stress time and to disperse bulls during drought. This reciprocal arrangement has been an age-old source of food grain to the Afar living close to the farming community. Many informants have traced the commencement of this practice back to some four decades ago. In those days the Oromos had large landholdings where they needed more farm oxen for ploughing. In the same way, the local Afar had many oxen/bulls at the time. Therefore, the Afar have seized this opportunity by renting out oxen to crop cultivators in exchange for grains. Recently this practice is, however, being reduced due to decline of oxen population in the pastoral community, and recurring drought, and decline of landholding and repeated crop failure in the farming community. Moreover, in recent years the highland cultivators have begun receiving cash credit from the government to buy farm-oxen. Consequently, the demand for oxen from cultivators has declined in recent decades. Informants reported that in the past good days a wealthy individual could rent out as many as 15 farm oxen to neighbouring crop cultivators. Currently the number, however, has gone down to three to six oxen. Some pastoral households/individuals still rent out oxen to crop cultivators. The following case material illustrates how various reciprocal arrangements are practiced between the local Afar and neighbouring crop cultivators:

Hassen, a 45-year-old, is the resident of Gawto village, and rents out six oxen to neighbouring Oromos. Hassen inherited four oxen from his father. The other two oxen are from own investment. Hassen's father used to rent out oxen to his Oromo allies for past four decades. Thus Hassen has taken over the practice from his father and has continued renting out oxen to his father's allies (*Takaysa*) to receive agricultural produce depending on mutual agreement. The rental for a well-trained ox is three quintals of grain per one harvest. Therefore, Hassen receives three quintals of maize or *Mashila* (white sorghum) per ox. In December 2005 he collected the rental of two oxen (i.e. 6 quintals of sorghum) for his household immediate consumption. Hassen has also stored the payment of four oxen (i.e. 12 quintals) with his partner for future use. As he expected some food shortage in 2006, he stored the grain to collect by then. If there would be no food shortage, he would sell his reserve to convert it into cash. Hassen said that he would continue renting out his oxen until they become too old, after which he would sell them and buy young bulls for renting out again. Hassen also seeks support from his ally for training young bulls. In most cases Hassen rents out oxen to his father's *Takaysa*. Hassen has maintained this relation with his father's *Takaysa* not only to rent out oxen, but also to inherit his father's bond-friendship, mutual support and gift exchange networks. Moreover, Hassen's *Takaysa* acts as middleman whenever Hassen needs to rent out oxen to other crop cultivators. Hassen and his *Takaysa* support each other by exchanging gifts too. For instance at different times Hassen gave two oxen, three goats and one camel to his *Takaysa*. Likewise Hassen has received grains from his *Takaysa* at various times. For instance in 1996, when there was severe food shortage in the Afar locality, Hassen obtained grain from his *Takaysa* (*Individual Interview, December, 2005*).

The above case material illustrates the complexity and various forms of reciprocal arrangements between Afar pastoral households and neighbouring crop cultivators. The case also reveals that reciprocal arrangements are inherited or inter-generational in which one type of relation is further forged into different forms of cooperation and networking in order to meet various needs, to reduce risks and to cope with resource shortages and crises. Therefore, pastoralists, such as Hassen, who have farm oxen, still use various reciprocal arrangements with neighbouring crop cultivators to obtain grain food and to survive crises periods by dispersing stock to their allies.

6.6.2.2 Households' Coping Strategies to Seasonal Food Shortage (Crisis)

A number of informants reported that their community has experienced recurring food crises over the past decades. In this connection the survey households were also asked whether 'food supply from their primary livelihood system is enough to sustain their families throughout the year'. In reply to the question, most of the respondents (90%) said 'insufficient'. And they had to find other sources to supplement income from the livestock production. Consequently, individuals and households have employed a variety of strategies to cope with food deficits/crisis. According to the key informants, important coping mechanisms include reducing consumption, collecting famine foods, calling on kin for support, relief assistance, etc. Likewise, as depicted in Table 6.15 below, the sample households also reported similar types of coping strategies that are derived from various livelihood strategies.

Table 6.15 Households' Coping Strategies for Food Crisis (Multiple Responses are Possible)

Coping strategy	Respondents (n=60)	Percent
Relief food assistance	51	85.0
Support from kin and bond-friends	28	46.7
Reducing consumption	25	41.7
Selling animals and purchasing grain	20	33.3
Growing food crops	10	16.7
Trading (livestock, <i>Chat</i> , etc)	7	11.7
Renting out room	4	6.7
Renting out oxen to crop cultivators	4	6.7
Remittance	3	5.0
Borrowing cash from traders	2	3.3
Daily labour wage	2	3.3
Tending livestock	1	1.7
Zakhat	1	1.7

Source: Sample Household Survey, December, 2005

Households' coping mechanisms presented in Table 6.15 can be classified under four categories. These are formal and informal transfer systems (relief food distribution, remittance, kinship support, informal loan); consumption based (reducing consumption); exchange and market based (trading/retailing, food grain purchase through livestock selling, renting out assets); and production based (crop cultivation). Accordingly the majority of the food deficit households (85%) overcame food crisis through formal transfer (i.e. external food

assistance). Mutual-support networks (46.7%), reducing consumption (41.7%), selling of livestock (33.3%) and growing crop (16.7%) were also reported to be important ways of deficit management strategies. The household survey results suggest that the local people mainly rely on external food assistance and on their informal-support systems to cope with recurrent food crisis. As shown in Table 6.15 individuals and households use various ways of coping mechanisms in times of severe food crisis. The following section elaborates the most common coping mechanisms in the study community.

i. Reducing food consumption and adjusting food composition: In times of food crisis, the pastoral households cut back the number of daily meals, and change the types and composition of diets in order to survive crisis time. Asked how many times a day did adults and children eat during the worst month of food stress, 33.3% of the households said one meal a day, 63.4% two meals and only 3.3% reported three meals a day. With regard to children, 93.3% of the respondents said that children ate two meals a day and 6.7% said three meals. As Table 6.16 below shows, in both cases (i.e. adults and children), most of them ate twice a day during food stress. In fact most of the key informants indicated that the local people usually eat twice a day. Therefore, cutting back the number of daily meals from two to one is an indicator of severe food stress from informants' perspective.

Table 6.16 Number of Meals per Day during Severe Food Crisis

Number of daily meals	Adults		Children	
	Frequency	%	Frequency	%
Once a day	20	33.3	-	-
Twice a day	38	63.4	56	93.3
Three times a day	2	3.3	4	6.7
Total	60	100.0	60	100.0

Source: Sample Household Survey, December, 2005

Pastoral households resort not only to reducing the number of daily meals, but also to changing the types and composition of foods to survive the crisis period. Accordingly, the simple crisis diets in the study community include *Muki* (soup) and *Niffro* (boiled grain). Households with food deficit also balance the available food with demand by mixing foods (e.g. milk with salt and water) and eating simple and cheap foods like boiled or roasted grain.

ii. Preserving and storing food: This involves slaughtering animals to preserve as dried meat. The local people process and preserve some dried meat for crisis time. These foods can be prepared from cattle, sheep and goat meats. Foods are also prepared from grains and preserved to overcome crisis period. The following are among foods prepared from meat and grain for crisis time and long journeys:

- *Tobno*: It is a camel meat boiled, cooled and stored in a *Kora* (wooden container). It can be kept for three months. It is served mainly for sick or wounded person to recover quickly.
- *Dubele*: It is a camel meat sliced into long thin strips and dried on racks or ropes. When completely dry, the meat is pounded and mixed with salt and stored in moisture-tight container for a year.

- *Alok-halo*: Roasted barley or sorghum. Dried dates are added and can be taken on long journeys. It can stay for one year.
- *Birkuta*: It is thin dry bread prepared from grain (corn flour). It is baked on a round stone set on firewood. It is shredded and dried. If it is made with butter it can be kept for a long time.
- *Muffae(Ga'amo)*: It is made from corn or sorghum flour. It is baked in specially-designed oven. It can be eaten fresh. If it is kept for future use, it is dried and pounded into rough flour.

iii. Selling animals and purchasing food grain: Selling livestock is a normal phenomenon among pastoral households to meet household needs which require cash. During food crisis the sale of live animals is adopted by a number of individuals/households as animal products (milk and butter) are insufficient to meet household consumption. They begin with selling small stock like kid/lamb (*Bakal*), sheep and goats. Then they move on to selling young cattle, and then cows and finally selling camel as a crisis escalates. During the household survey asked “why they sold livestock before the survey year”, most of the households (93.3%) sold live animals mainly for purchasing food grain. This figure indicates the dependence of local people on grain for household consumption. As depicted in Table 6.17 below the second and third strong responses to the same question were for buying ‘clothing’ (78.3%) and ‘consumer goods’ (35%) respectively. 18.3% of the respondents sold live animals to save money for future which implies destocking.

Table 6.17 Reason for Selling Animals before the Survey Period (Multiple Responses are Possible)

Reasons for selling live animals	Respondents (n=60)	Percent
Purchase of food grain	56	93.3
Buying cloth	47	78.3
Purchasing consumer goods (tea, sugar, coffee, tobacco)	21	35.0
Saving some money for the future	11	18.3
For medical expense	3	5.0
Purchasing grass or enclosure from neighbouring Oromos	2	3.3
Building house in Nemelifen (district center)	1	1.7
Hiring labour for cultivation	1	1.7
For school expense	1	1.7
Settling loan	1	1.7

Source: Sample Household Survey, December, 2005

iv. Collecting wild foods: Individuals and households resort to consuming ‘famine foods’ such as leafy plants and plants with seed, berries and fruit, and roots in times of severe food crisis. During my field study I attempted to record some famine foods through interviewing knowledgeable elders. The most important fruit-producing plants are presented in Table 6.18 below.

Table 6.18 Wild Fruits, Leaves and Roots Used as Famine Foods

Local name	Scientific name	Parts eaten	How is it prepared?	Is it available currently?	Who collects?
Adayto	<i>Salvadora persica. L</i>	Fruit (Omili)	- Fruit can be eaten fresh, or juice can be prepared from the fruit	Available	Children
Adedoyta		Gum (Hamuka)	Gum (Hamuka) can be eaten	Available	Children and women
Busunkuley		Root	The root can be eaten	Not available	Children
Jejebaytu	<i>Berchemia discolor</i>	Fruit (Jejeba)	The fruit can be eaten	Available	Children and women
Gersa	<i>Dobera glabra</i>	Fruit: . Cover (Mudu'a) . Seed (Gersa)	- Outer cover can be eaten - Seed is boiled and eaten	Available only in certain localities	Women
Habeleyta	<i>Grewia villosa willd</i>	Fruit (Habele)	The outer cover is removed and its inner part can be eaten	Available	Children and women
Hidayito	<i>Grewia ferruginea hochst.</i>	Fruit (Hida)	The fruit can be eaten	Available	Children and women
Humra (Roka)	<i>Tamarindus indica (L)</i>	Fruit (Humura)	Raw or roasted fruit can be eaten	Available	Children
Kusra	<i>Ziziphus spinna Christi (L)</i>	Fruit (Kusura)	The fruit is eaten	Available	Children and women
Mederto	<i>Cordia sinensis Lam</i>	Fruit (Medera)	The fruit is eaten	Available along river banks	Children and women
Muka		Root	The root is eaten	Not available	Children
Semery		Root	The root is eaten	Available	Children
Sunkehayu		Fruit	The fruit is collected and eaten	Available	Children
Urayto		Fruit (Ura)	Outer cover of the fruit is eaten	Available	Children
Uda	<i>Balanittes aegyptica (L) Del</i>	- Fruit (Uda-korkor) - Gum (muchu)	- The fruit is eaten - Its gum chewed	Available	Children

Source: Interviews with Key informants (elders and clan leaders), December, 2005

As it can be seen in Table 6.18, the local people use a variety of fruits, seeds and roots as sources of food in times of food stress. However, the informants remarked that wild foods have become scarce in recent decades due to deforestation, bush encroachment, and drought consequences.

v. Mobilizing social networks and kinship relations: As stated earlier sharing food and cash among kin and relatives is a common practice in the study community. Clan members have strong social obligation to share resources in times of crisis. The “your pocket is my pocket” mentality is deeply entrenched. Someone who sells animals may be obliged to share the income with lineage or sub-clan members. Particularly in times of extreme stress better-off individuals have an obligation to share what is available at their disposal to the needy kin and relatives. Individuals and households with food shortage can call on their kin for support and receive donations which can be in the form of grain or cash.

In the household survey, respondents were asked “whether their community members help each other during bad and good times”. And all the respondents replied in the affirmative. They stated that “if they have a problem and need cash or food, they can get donations from relatives, clan members, bond-friends”. “Asked about how many people could they request for assistance”, the respondents mentioned many potential donors ranging from four to fifty as shown in Table 6.19 below.

Table 6.19 How many people you could ask for help if you face problem?

Number of potential donors	Frequency	Percent
4	2	3.3
5	3	5.0
6	2	3.3
10	15	25.0
15	7	11.7
20	16	26.7
25	4	6.7
30	6	10.0
40	3	5.0
50	2	3.3
Total	60	100.0

Source: Sample Household Survey, December, 2005.

The sample household heads were also asked “whether they had ever received assistance from their kin”. 90% (n=54) of the sample households replied in positive and only 10% (n=6) had never asked for assistance in the past. As Table 6.20 below depicts, the kind of assistances reported by many respondents were livestock (74.2%), cash (15.1%) and labour (4.5%). Very few respondents mentioned grain, rifle, oxen loan and remittance.

Table 6.20 Types of Assistances Received by Sample Households in the Past (Multiple Responses are possible)

Types of assistance	Responses (n=54)	Percent
Livestock	49	74.3
Cash	10	15.2
Labour contribution	3	4.5
Rifle	1	1.5
Free use of oxen	1	1.5
Grain	1	1.5
Remittance	1	1.5
Total	66	100.0

Source: Sample Household Survey, December, 2005.

Similarly the survey respondents were asked “if they received any assistance/support from anyone outside of their household in the last 12 months before the household survey”. In reply to this question they stated various types of assistances that they received during one year period. These are presented in Table 6.21 below.

Table 6.21 Distribution of Responses by Types of Assistances Received during the 12 Months before the Survey (Multiple Responses are Possible)

Types of assistance/supports	Responses (n=54)	Percent
Livestock gift	24	30.4
Free labour	23	29.1
Cash gift	14	17.7
Cash loan	6	7.6
Food or grain gift	6	7.6
Hantilla/Hantita (milk animal)	2	2.5
Free use of camel	2	2.5
Free use of oxen	1	1.3
Grass hay	1	1.3
Total	79	100.0

Source: Sample Household Survey, December, 2005.

As shown in Tables 6.20 and 6.21, the common types of assistance received by the needy households in the past and now are mainly livestock, labour, cash and food. These donations are extended mainly from kin, clan members and from non-Afar bond-friends.

In recent years, following the administrative decentralization process and the establishment of district administrations and offices in the Afar Region, some individuals have got employment in government offices, departments and projects. Thus salaried persons, who live outside of the community, have a social obligation to share some cash to their relatives or kin living in the pastoral settlements. This suggests that kinship relations, clan affiliation and bond-association are crucial informal safety nets for individuals/households to help each other in times of crisis. Therefore, individual or household level crisis could be managed through mobilizing such social networks and mutual support systems.

However, in recent decades the efficiency of such safety nets is limited, when a crisis strikes the larger community. Moreover, given the scarcity of assets and resources in recent years, the amount of support/assistance has been declining. This point is reflected by both, key informants and household respondents. A number of informants claimed that the extent of support in their community has decreased in recent years, as asset holdings and capacity have been eroded due to impacts of recurring drought and shortage of forage resources that have led either to sale of stock and mortality of livestock or decline of milk production. The household respondents also supported the view of informants, and they also identified two major reasons for decline in the amount of support. They include losses of resources (livestock assets) both, at household and community levels, and severe reduction of milk yield. Consequently, local informal transfers of livestock, cash and food among pastoral households are less able to provide safety nets in times of severe crisis. This in turn has led to increased dependence of the local people on external food assistance in times of severe food crisis.

vi. Seeking relief food: In times of famines/severe food crises, the local people rely on relief food distribution. As indicated earlier, the local community has been stricken repeatedly by famines/food crises within the past decades. The most crippling crises in the local community were the 1973-1974 and 1984-1985 famines, and the 1999/2000 and 2003/2004 severe food crisis. During the latter two catastrophes the local people relied mainly on emergency relief food distribution from the government and NGOs. Therefore, relief food distribution saved the lives of thousands of hungry people during the previous famines. A number of informants have fervent evidence to this fact. An informant from the pastoral village said, “Had it not been for relief food distribution in 1999 and 2003 food crises, thousands would have perished just like that occurred in 1984-1985 famine.”¹⁶⁸

As indicated in Table 6.15 most of the sampled households (85%) mentioned ‘relief food assistance’ as one mechanism of survival in time of severe food crisis. Therefore, the local people’s dependency on relief food has been increased in recent decades, as pastoral households are less able to cope with severe food crisis through their indigenous coping mechanisms.

In the preceding sections I discussed the main adaptive responses and coping strategies adopted by individuals and households in the case study community. In this connection, it should be noted that not all individuals or households have equal access to each strategy owing to varying access to initial assets and opportunities. Moreover, coping mechanisms and adaptive responses may overlap, and one’s coping mechanism can be other’s adaptive strategies. Therefore, it is important to explore the reason for taking one or the other strategies. Accordingly during field work I attempted to make a matrix of adaptive/coping strategies adopted by wealth groups, as sources from which coping strategies derived vary mainly according to initial assets that an individual or a household possesses. The matrixes were done through focus group interviews with knowledgeable elders. These matrixes are presented in Tables 6.22 and 6.23.

¹⁶⁸ All over the country the total number of population affected by the 1999 and 2003 famines was about 10 and 14 million respectively.

Table 6.22 Matrix of Coping Strategies and Wealth Groups¹⁶⁹

Types of coping mechanisms	wealth groups			
	very poor	poor	middle	rich
Disposal of animals and save some money for future			x	x
Eating cheap foods (boiled or roasted grain)	x	x		
Eating wild foods (fruits, roots)	x	x		
Selling hand craft	x	x		
Migration for seasonal labour	x	x		
Mutual-aid support/cooperation	x	x	x	x
Reducing the number of meals and amount of food	x	x		
Renting out oxen in exchange for grain			x	x
Selling livestock for purchasing food grain	x	x	x	x
Splitting family members and put under the care of relatives	x	x		

Source: Focus Group Interview (elders and clan leaders), December, 2005

Table 6.23 Matrix of Adaptation/Risk Reduction Strategies and Wealth Groups

Types of adaptation/risk reduction strategies	wealth groups			
	very poor	poor	middle	rich
Crop cultivation			x	x
Formation of bond-friendship and mutual-aid association	x	x	x	x
Movement of livestock to other places	x	x	x	x
Renting out oxen in exchange for grain,			x	x
Splitting livestock and leave them under care of others		x	x	x
Trading in livestock, and in other items (chat, tobacco)		x	x	x

Source: Focus Group Interviews (elders and clan leaders), December, 2005

As it can be seen in the above tables, some adaptive and coping strategies overlap across the wealth groups. On the other hand, some kinds of strategies show some variation in terms of wealth groups. For instance as depicted in Table 6.22 (see rows 6&8) mutual-aid/cooperation is fairly accessible to all wealth groups, whereas renting out oxen is more open to wealthy households. Therefore, the differential opportunities to various strategies are influenced by the initial endowment i.e. prerequisite resources (animals, labour, skills, cash, and social networks) from which strategies are derived. For instance, the possibility of selling animals in order to meet food deficit or renting out oxen to access food grain, is dependent on the availability of extra animals or farm-oxen respectively. Likewise the possibility of earning

¹⁶⁹ Regarding livestock wealth, there are no figures on exact number owned by households. My informants, however, distinguished between wealth groups on the bases of herd size and its composition. Accordingly (i) households with 25-30 camels, 30 cattle and 100 or more goats and sheep are considered as rich, (ii) households with 15 camels, 10-15 cattle and 40-50 goats and sheep as middle, (iii) household with 4-5 camels, 6-10 cattle and 20-25 goats and sheep as poor; (iv) households with 2-3 cattle and 15-20 goats and sheep very poor (Focus group Interview, April, 2005).

additional income for a household from non-pastoral activities or seasonal work is influenced by the availability of skilled labour in a household.

Generally pastoral households' decision making about the kinds of adaptive/coping strategies is influenced by many factors namely prerequisite resources, economic status, severity of food/cash shortages, as well as by possibilities, options and constraints offered by the ecological and socio-economic systems at a given time and space. Therefore, a complete understanding of the pastoral households' decision with regard coping mechanisms requires considering all these factors. Moreover, in recent decades the local people tend to adopt various coping strategies which were not in the traditional livelihood activities/strategies. This suggests that the primary livelihood system (livestock production) has become structurally vulnerable. Therefore, some of the coping mechanisms are being incorporated into the local economic activities and are becoming adaptive responses to pastoral households. In this connection typical examples are crop cultivation and seasonal migration for work. Though these secondary activities have constraints, they are now becoming adaptive responses in the local community, as traditional subsistence livestock production is less able to provide livelihood security. Some three to four decades ago they were undertaken mainly as coping mechanisms for certain periods or seasons. Currently a number of individuals and households are taking them as their secondary activities.

6.6.2.3 Concluding Summary

The case study on the Aghini pastoral community has revealed that the local peoples' livelihood system relies heavily on the utilization of natural resources and on strong social capitals (mutual-help and social networks). Natural resources such as pasture, vegetation and water are very crucial to the local pastoral system. The local peoples' livelihood does not rely only on the natural and physical resources, but also on social capitals and social institutions.

Clan and its segments are responsible for deciding and distribution of livestock over the resources of grazing and division of labour necessary for the management of various herds. Clan system ensures members' equal access to communal pastoral resources, and controls the management and use of communal resources. The local people have appropriate social organization (kinship/clanship) and customary laws to manage and utilize the varying resources. The local environment does not have sufficient pasture in a given area. Therefore, herders adopt suitable strategies (mobility, herd splitting, herd diversity, etc) to seize the varying resources. This is an appropriate type of resource management.

Kinship/clanship is also the basis of mutual support and cooperation in times of need. Asset transfers and resource redistribution among the local people are made according to kinship/clanship and other relations. Livestock and other resources are often considered as collective property to kinship groups. Therefore, kinship system discourages individuals from depleting resources; and even excludes those members who do not adhere to the customary laws. The kinship system often encourages accumulation of stocks by members or kin during normal time and redistribution when members face shortages of productive stocks. Therefore, informal safety net arrangements such as kinship relation, stock alliance, social networking, mutual cooperation and resource sharing play greater roles in maintaining pastoral practices in an uncertain environment that involves various risks (raiding, animal epidemics, conflicts, vagaries of nature, etc). Individuals/households and social groups can mobilize informal

safety nets to get access to resources and to cope with shocks or stresses. Kinship groups have a shared claim and right in each other's stocks. In times of need, sharing resources is a social obligation among members. The "your pocket is my pocket" mentality is deeply entrenched among the local people.

The indigenous adaptive strategies, mutual support systems and suitable social organizations have maintained the resilience of the local people. In recent decades, however, these mechanisms of resilience have been challenged by multiple internal and external factors. Firstly, the natural resource base has been eroded over time. This is attributed mainly to environmental degradation, bush encroachment, recurring droughts and loss of dry/drought retreats owing to external interventions and mounting conflicts with neighbouring groups. Depletion of key pastoral resources (pasture, vegetation and water) within the immediate environment and in dry season/drought retreats has been the main predicament for the local pastoral production. This is further exacerbated by cyclic droughts. Secondly, the traditional social organizations have been affected by external interventions (imposition of centralized administration and alien institutions; inappropriate land policy and livestock development projects; expropriation of land; conflicts, etc). Thirdly, the failure of external actors for providing suitable infrastructure and services to pastoral groups. The complex interplay of these factors has made livestock production difficult for the local people. As a result, traditional adaptive strategies and informal safety net arrangements are less able to buffer herders against stresses. This in turn has led to livelihood insecurity. Drought-related food shortage, which could previously be managed by informal safety net arrangements, has now become beyond the capacity of the local people. Consequently, many pastoral households rely on external food assistance when drought strikes the local community. When the whole community is stricken by drought, mutual support networks are less able to provide a buffer against shocks. The cumulative effects of frequent droughts have resulted in further erosion of assets at household and community levels. Thus recovery takes longer time.

In fact, as discussed in the preceding sections, individuals and households are adopting additional activities (crop cultivation, trading and labour migration). However, these activities also have risks. For instance crop cultivation has a risk, as it is equally affected by drought and shortage of rainfall. Livestock trading is affected by market uncertainty, disease outbreak, lack of feed, etc. Labour migration requires the availability of extra labour, and the necessary skills to succeed in urban and agricultural based activities.

In recent years more vulnerable groups have emerged, as the local resource base and informal safety nets are less able to support community members who lost assets. These included asset-poor households; small stock owners; families without working members; widows; aged persons; households with limited access to social networks; etc. Indeed the local people have claimed that they are all at risk, as a single year drought is sufficient to trigger severe food crisis in their locality. And yet the above-mentioned groups of people are more vulnerable, as the traditional informal safety nets are less able to support them.

Generally the case study has revealed that pastoral households have become more vulnerable to drought-related food crisis over time. Moreover, transfer of food, stocks and cash among pastoralists through informal safety nets is very limited during drought. In conclusion it can be said that the local peoples' resilience is mainly based on their resource base, appropriate type of communal resource management and utilization, suitable social organization, and strong social safety net arrangements based on kinship. Therefore, as the literature review in

Chapter 2 (section 2.6.3) has shown, resilience is related to social capitals of the communities and integrating features of their social organizations. This suggests the need to consider these properties of communities and societies in external interventions intended to enhance local people's capacity.

Chapter Seven

Summary, Conclusions and Recommendations

7.1 Focus of the Study and Summary of the Research Arguments

This research has attempted to investigate the underlying causes of vulnerability to famine /food crisis among the Afar pastoralists in north-east Ethiopia. Accordingly it seeks to make an assessment of historical socio-political processes, ecological changes and extreme weather events, and of their consequences on the local people's livelihood systems. In that respect an attempt is made specifically to examine livelihood resources and their trends; ecological degradation; external encroachments and to assess indigenous adaptive responses and external interventions adopted to cope with various stresses.

As shown in Chapter 1, this study is designed to address three principal research questions. The first deals with the investigation of underlying causes of pastoralists' vulnerability to famine/food crisis. In relation to this it is argued that pastoralists' vulnerability to famine has increased as a result of both internal and external factors. In addressing this question an assessment of factors both, at macro (regional/national) and micro (community) levels, is made on the basis of secondary and primary data respectively. Accordingly, factors related to ecological degradation, socio-political processes and recurrent droughts, etc. are examined (Chapters 3, 5 & 6). The extent of these problems at the macro level is assessed mainly based on secondary data (Chapters 3 & 5), while the magnitude of these problems at micro (community) level is assessed on the basis of primary data gathered through a household survey, and individual and focus group interviews (Chapter 6). The main focus of the analysis at the community level is on the local people's perception about livelihood resources, well-being trends and risk factors which affect their traditional subsistence.

The second question deals with examination of traditional early warning systems, indigenous responses, and risk communication among pastoralists and to external actors (government agencies and NGOs). In this respect an attempt is made to identify indigenous early warning systems and to assess external interventions and disaster responses with emphasis on the local people's view on institutional (public) responses in times of food crisis (Chapter 6).

The third question deals with the assessment of the local people's adaptive and coping strategies to the ecological changes and recurring food crisis. In addressing this question attempt is made to show how the local people have reshaped their adaptive responses and coping mechanisms in the face of mounting external pressures and crises. In this respect, analyses of traditional adaptive responses to the variable environment and ecological changes and of coping mechanisms to recurrent food crisis are made using mainly the primary data gathered from the local pastoral community (Chapter 6).

Generally speaking the central argument of this study is that pastoralists' vulnerability to famine and food crisis has increased overtime because of the complex interplay of multiple factors such as environmental or ecological degradation, socio-economic destabilization, political processes, severe droughts, etc. This research highlights how these factors have led to an increased vulnerability and livelihood insecurity among the Afar pastoralists. It is stated

that despite efforts of internal and external actors, vulnerability of the pastoral groups to famine has increased over time. Specifically three arguments are addressed through analyzing both secondary and primary data. These are:

- i. The Afar pastoralists' vulnerability to famine crisis has increased over the past decades because of the combined effects of drought, ecological crisis and external pressures (encroachments, loss of key pastoral resources, violent conflict and political instability).
- ii. Pastoral households/communities are currently less able to cope with stresses through their traditional coping and adaptive strategies.
- iii. Consequently, pastoral households/communities have become more dependent on public transfer (food aid) to cope with recurring food crisis.

7.2 Some Reflections on Theoretical Arguments and Approaches on Disaster Causation

As noted in the preceding Chapters, the outline of this research has been structured to suit an approach of presenting discussions at macro and micro levels. Chapter 2 discusses the relevant concepts, theories and disciplinary perspectives in disaster research. The main aim of the literature review in Chapter 2 is to orient the present research approach by drawing on the current theoretical arguments and approaches concerning disaster causation or vulnerability to specific disaster (e.g. famine). Accordingly, the review of the literature on disaster and its causation has revealed that the causes of a disaster are to be seen primarily in the context of socio-political processes and not in natural factors. Therefore, the search for causal factors has to focus on understanding these processes rather than on natural hazards whose damaging effects vary according to individuals' or social groups' positions in a given socio-political and economic arrangement. This suggests the socially differentiated vulnerability to disaster in a given community/society.

As elaborated in Chapter 2, the current tone of the literature is that disasters are the outcome of socio-political and economic processes; and the appropriate approach for disaster prevention is to manage risks and reduce vulnerability by tackling root causes rather than focusing on natural events. Natural hazards (i.e. drought, flood) are events which are often beyond individuals' or social groups' control. And yet, better social, political and economic arrangements are able to cope with the damaging consequences of such events. Therefore, the level of individuals' and social groups' vulnerability to varying risks depends on their status and relations in social and economic arrangements to predict, manage and reduce risks or to cope with consequences.

Individuals and social groups are more or less able to cope with disasters depending on the degree of exposure to natural hazards/risks, and the social, political and economic factors that either enhance or constrain their capacity for reducing risks or coping with effects. In this respect the concept of vulnerability represents this situation and it contains three elements - the present status of individuals and social groups, the extent of external stress and the capability to cope with and adapt to external stresses. Therefore, the analysis of social vulnerability better captures why people/social groups in a specific context are more or less capable to cope with risks. As noted in Chapter 2, the perspective of social vulnerability has gained a substantial attention in the literature and is used as one perspective/organizing framework in disaster research.

Social vulnerability perspective emphasizes the importance to focus not on natural events, but to take the social systems and power relations. In that case vulnerability is determined by social systems and power, not by natural forces; and it needs to be understood in the context of political and economic systems (Blaikie *et al.*, 2004). This indicates the need to look at the wider societal components. This in turn suggests the political economy approach, which considers both an individual human action and broader societal contexts (i.e. political and economic systems). Therefore, adopting a broad perspective/theoretical orientation, which focuses on the social, political and economic processes, captures better the underlying cause of a specific disaster.

In general terms the theoretical argument is that natural events, such as drought and flood hazards, don't necessarily lead to a disaster. Therefore, whether a drought leads to famine disaster depends on other factors. For instance the droughts of 1984 in Ethiopia and Sudan showed that a protracted drought resulted in famine disaster, as the cumulative impacts of preceding rain shortfall eroded livelihood assets and capacity of households to cope with effects and to recover from successive shocks. At that time the droughts were preceded by at least two years of below-average rainfall and thus households' vulnerability to famine had already increased through depletion of food stock and capital assets (Webb, 1994:174).

Each famine, therefore, has its own specific causes in each context and this requires exploring the causal factors thereof. In the East African context, a prolonged drought appears to be a primary agent of famine. In Ethiopia the main disaster that has repeatedly stricken the country is drought-linked famine. Famines, which have plagued the country within the past several decades, have been blamed principally on the drought episodes. Since the early 1980s drought-related famines/food crises have become frequent. As depicted in figure 3.2 (Chapter 3) there was no single year, where there was no food crisis in the last two decades. Every year about 5-6 million people have been in need of food assistance. This indicates the structural vulnerability of rural households to food crisis.

And yet successive Ethiopian governments have every time attributed famines mainly to drought and/or failure of rainfall that have led to crop failure and livestock mortality. Therefore, famine disaster has usually been theorized mainly as failure of food availability because of natural events (drought, pest). Accordingly the government and NGOs response to the famines has been emergency response (food aid) to save the lives of victims. Therefore, the recovery and development aspects, and livelihood protection are missing. In relation to this a previous study has put it clearly in this manner. "At best, relief food aid has simply kept people in a holding pattern. It has not built assets nor has it secured livelihoods" (USAID, 2004:13).

In this connection, some authors and critics (e.g. Mesfin, 1986, 1991; Dessalegn, 1991, Degefa, 2005) have challenged the position of successive Ethiopian regimes with regard to causes of famine and responses arguing that socio-political and economic processes, and institutional and policy failures have played a primary role in creating vulnerability to famine more than the natural factors. These processes have led to a loss of peoples' livelihoods that in turn made producers vulnerable to the consequences of slow-onset natural events (drought, disease, crop pests) or shocks. This suggests that the genesis of food crisis (famine) must be understood as an interaction of institutional, economic and political variables. Likewise it is argued that the inappropriate theorization of famine causation has resulted in ineffective

external interventions or responses which focus on emergency food aid without considering livelihood protection.

Therefore, the conclusion is that natural events like droughts don't necessarily lead to famine in all contexts. It is only when livelihood assets are eroded, opportunities are constrained and people are not well-prepared that the consequences of natural events develop into famine or food crisis. This suggests that production or yield failures caused by drought do not become famines unless other conditions are propitious. Here comes the issue of vulnerability to risks (i.e. the degree of exposure) and the capacity of households/communities to reduce risks and/or cope with shocks. Therefore, the current approach in social sciences research with regard to disaster causation is to look at the interrelationship between natural risks and vulnerability. Vulnerability and natural risks are two factors which reinforce each other, and lead to disasters through their cumulative effects (Blaikie *et al.*, 2004). The Sustainable Livelihoods Approach states that households/communities access a specific set of assets (capitals) and livelihood strategies are mediated by transforming structures and processes. In this approach the connection between access to resources (assets) and vulnerability context (shocks, trends) is emphasized. According to the political economy approach, the current pastoralists' predicaments and vulnerability to famine disaster can be better explained in terms of social, economic and political factors than natural factors.

From the above description of perspectives, it can be concluded that vulnerability to a specific disaster can be better captured by examining broader societal contexts (social, political, institutional, economic arrangements) as well as ecological/environmental factors, as it is difficult to separate human and natural systems in practice. Accordingly, the present research has adopted a broader theoretical orientation which emphasizes the socio-political processes as well as ecological/environmental factors in its arguments pertaining to vulnerability of social groups under consideration.

The preceding paragraphs present a brief restatement of the research questions, a general description on basic arguments, and some reflections on the perspectives adopted in addressing the research questions. The general conclusions of this research are given in the following sections.

7.3 Conclusions

7.3.1 The Research Problem in Context

In addressing the basic research arguments, I have first attempted to look at the general situation of pastoralism and pastoralists' predicaments in selected East African countries by making an extensive review of the secondary information (Chapter 3). The analyses of the secondary data showed that pastoral groups in East African countries have been marginalized in many aspects.

In the past, pastoralists have proved their efficient and adaptive livelihood systems in making use of arid and semi-arid environment, which could not be used for conventional agriculture without huge investment and technology. However, in attempts to utilize the pastoral areas for national development goals and for commercial farms (export markets), pastoralists in East Africa have been gradually deprived of their key pastoral resources as communal lands are lost to various non-pastoral uses. Key resource areas have been taken over for the purposes of

large commercial farms, ranches, national parks, conservation areas, game reserves, etc., dictated by macro policies (national and/or international). Encroachments from the neighbouring crop cultivators upon pastoral areas have also intensified over the past decades. Moreover, conflicts and political instabilities (both internal and external origin) have been pervasive in the pastoral areas of East Africa. The combined effects of these external pressures and encroachments have led to environmental scarcity and ecological marginalization of pastoralists. Pastoral groups have gradually been pushed into risky environments and into the marginal areas with poor fodder resources.

Furthermore, the national states in East Africa have usually adopted agriculture-biased policies and development approaches which have affected pastoral production systems. In most cases pastoral areas were largely excluded from development and infrastructure investments. Thus they are poorly served with social and economic services. The analyses of the national policies, programmes and projects have also revealed that pastoral groups were not involved in the design and implementation of externally-initiated interventions. The national development programmes were mainly geared to the extraction of pastoral resources for the national economic goals and export markets without considering the livelihood bases of the pastoral communities, and their social and political structures. Moreover, the pastoral groups have not been represented in the national political and economic spheres. All these deprivations designate the economic and political marginalization of pastoralists in East Africa.

As noted in Chapter 3, pastoralists in East Africa have been subjected to multiple marginalizations (ecological, economic and political). These marginalizations combined with ecological crisis have brought far-reaching consequences on pastoralists' traditional subsistence. Natural resources, traditional organizations, institutions and traditional authorities vital for pastoral production practices have been undermined by external encroachments and conflicts. Pastoral communities' traditional coping and adaptive strategies to their variable environment, economic shocks and environmental stresses have also been challenged. Consequently, pastoral communities are less able to continue with their traditional livelihood systems which are benign to their fragile and varying environment. Moreover in recent years, extreme climatic events, epidemic diseases, flood, conflicts and political instability have become frequent in the pastoral areas. These factors within the context of multiple marginalizations have eroded the capacity (resilience) of pastoralists.

In general the macro level analysis of secondary data has clearly revealed that pastoralists at the Horn of Africa have become more vulnerable to multiple risks (drought, flood, epidemic diseases, market exclusion and violent conflicts) than they were in the past. The overlapping of these and other external factors on pastoralists' action spaces at the local level have put pastoralists at risk of severe food crisis/famine which they are less able to overcome without public transfers. Consequently, the majority of the pastoral households have increasingly become dependent on humanitarian food aid to survive famine and to recover from drought consequences. In that respect the Afar pastoralists in Ethiopia are no exception. On the basis of field study results, the following sections have highlighted the underlying factors for the Afar pastoralists' vulnerability to famine/food crisis, and the external and indigenous responses.

7.3.2 Frequent Drought and Vulnerability to Famine

As discussed in Chapter 3, within the past three decades drought frequency and severity have increased in the pastoral areas of Ethiopia. The cycle of drought that was once in every ten years before three decades has shortened, and drought occurs in three - five years in the recent years. With an increased frequency and severity, drought impacts have become cumulative where pastoral communities and households are less able to cope with subsequent droughts.

Like in other pastoral areas of Ethiopia, cyclical droughts affect the pastoral and agro-pastoral systems in the Afar region, especially by reducing forage availability thereby leading to a high mortality of livestock. Drought also increases livestock vulnerability to a range of diseases by weakening the animals. A number of things happen when drought occurs in the pastoral communities. The major ones include:

- Pastoral households lose their stock through increased mortality.
- Stocks are emaciated and fetch low prices.
- Pastoral households/communities are forced to sell more stocks, and livestock prices decline sharply. This results in a further erosion of assets (e.g. livestock).
- Grain prices soar, as the neighbouring grain supply communities are also affected by drought.

In addition to these direct impacts on livestock production and purchasing power, drought also contributes to conflicts between the Afar pastoral groups and their neighbours, as herders are compelled to drive their stock into the settled highland areas during drought periods. In general, it seems that pastoralists can still move from areas of drought to areas with better rainfall and feed availability. However, herd mobility to drought retreats is currently constrained by the loss of distant grazing areas, land use changes, violent conflicts and political instability. Thus drought impacts on pastoralists are determined by its severity and by many other factors such as mobility restriction, market forces, conflict/insecurity, and political instability as well ecological factors. Therefore, as noted in Chapter 5, it can be concluded that drought impacts on Afar pastoralists have become severe, and vulnerability to drought-related famine has increased.

Likewise the community level analysis made from the local people's perspective has also strengthened this conclusion. As it is discussed at length in Chapter 6, drought is perceived as a prime risk by the local people under consideration. The local people claimed that drought frequency and severity have increased since the mid 1980s. Repeated failures of *Karma* and *Sugum* rainfalls have disastrous effects on the seasonal availability of forage vegetation, grass and water. Therefore, recurring drought, failure of the two main rainfalls or erratic rainfall have become the main constraints to the local subsistence livestock production. These events often lead to a high mortality of livestock and decline of yields. In addition to these direct impacts on livestock assets, drought also contributes to a fall of livestock price, as many herders are compelled to sell many stocks for purchasing food grain, which nowadays constitutes the major portion of diet. While livestock prices fall, grain prices rise. This reduces the purchasing power of the pastoralists. Consequently, market forces operate against the local pastoral groups. All these factors constrain the capacity of herders to cope with drought consequences, as their ability to purchase food sharply declines.

In the future, as part of the global climate change, drought is likely to become more frequent and more severe. Such an increase in the frequency of drought will go hand in hand with a continued increase in vulnerability to famine or severe food crisis in the arid and semi-arid areas where pastoral groups are living (see map 1 for drought probability in pastoral areas of Ethiopia). This suggests the need to take drought and drought management seriously in policies and development programmes towards the dry lands and their inhabitants.

It has been argued that drought, rainfall variability and thus fodder variability are parts of the pastoral ecology. And herders have adapted to these phenomena and make use of most of the arid and semi-arid environments. This suggests people - environment interactions through adaptive processes in order to cope with “normal constraints”. However, pastoral ecology is not a discrete and bounded system. It transcends the micro environment and interacts with a wider society which lies beyond a locality. Hence, external factors have an influence on micro-environment dynamics and processes. Here comes the importance of political economy. The broader socio-political and economic processes influence the actions/strategies of the local actors and their environment. State - society relations, government policies and political processes can influence access, use and management of resources. As noted in Chapters 5 & 6, within the past five decades the Afar pastoralists are progressively losing their key resource areas because of external encroachments, land use changes and the resultant ecological collapses. Within the past four decades, the complex interplay of these factors at different levels within the context of political and economic marginalization of the pastoral groups has destabilized the Afar traditional pastoral livelihood systems. In that respect, some conclusions are given in the following sections.

7.3.3 Environmental/Ecological Degradation

Environmental crises facing the Afar pastoralists are results of the interplay of both internal and external factors. These include prolonged drought, unreliable rainfall, bush encroachment, human and livestock population increase and external interferences (i.e. state-sponsored livestock development interventions, resettlement and large-scale irrigation). According to the present study these factors are found to be the main reasons for the deterioration of rangelands/pastoral ecology.

Recurring droughts and shortages of rainfall have led to the decline of grazing and browse. As noted in Chapter 6, the loss of excellent grass types and palatable tree species is attributed to recurrent drought impacts, overgrazing and over-browsing. Recurrent droughts have undermined the growth of herbaceous and palatable plants, and this is gradually followed by bush encroachment resulting in the deterioration of rangelands. Therefore, drought consequences and bush encroachment have contributed to the degradation of rangelands.

The earlier livestock development programmes introduced the delineation of tribal grazing zones, development of water points and provision of veterinary services. These external interventions have brought changes in the patterns of mobility, land use and traditional resource management systems. The programmes also contributed to an increase of livestock population and concentration in certain localities resulting in an overuse of forage resources. Moreover, the external interventions have attracted the neighbouring non-Afar groups into the pastoral territories. This was witnessed during the operation of the Third Livestock Development Project (TLDP) in the study community, as the Oromo agro-pastoralists

encroached upon the Afar tribal grazing reserves. Therefore, inappropriate external interventions contributed to the degradation of rangelands.

As noted in Chapter 5 the Awash River Valley, the life-belt of the Afar pastoralists, has been subjected to various state-sponsored encroachments since the 1960s. Key pastoral resource areas have been affected by large-scale-irrigated agriculture, crop cultivation and increased sedentarization and resettlement. Most of the large-scale development schemes were established on the fertile flood-fed lands and dry season/drought fallbacks which were frequented by mobile pastoral groups. Thus external encroachments have brought far-reaching impacts on natural forage and the ecology as a whole. Particularly the advent of large-scale commercial farms in the Middle and Lower Awash Valley has brought adverse repercussions for the Afar pastoralists. Generally the following consequences were observed:

- Loss of key pastoral resources (dry season and drought retreats, flood-fed grazing areas and water points).
- Deforestation and loss of desirable plant species used as livestock feed.
- Expansion of alien tree species and undesirable indigenous woody plants.
- Reduction in the flow of the Awash River.
- Change of the Awash River course resulting in a flood hazard.
- Disruption of traditional mobility and resource management systems.
- Sedentarization and privatization of communal lands which are coveted by pastoralists.
- Human and livestock health problems emanated from chemicals used in the commercial farms.
- Conflict and resource competition among Afar clans, and violent conflicts with neighbouring pastoralists (Issa, Karrayu), and with park and state authorities.

All these consequences have resulted in an increase of environmental scarcity and marginalization of the Afar pastoralists. Significant pastoral resources have gradually become scarce and unavailable to large parts of the pastoral population. On the one hand both human and livestock populations are increasing, on the other hand forage resources are depleting and pastoral lands are increasingly used for non-pastoral uses. Consequently, herders are gradually pushed into resource poor and marginal areas where they cannot get adequate pasture and water during dry season and drought periods.

Though the local people have time-tested adaptive strategies to cope with seasonally and temporally variable environment, the traditional strategies are overwhelmed and constrained by the external pressures. Therefore, herders are currently less able to cope with environmental crisis and extreme weather events through their traditional resource management strategies. Moreover, traditional resource management systems and rules regulating resource use and control are undermined by the external encroachments. This has many implications for natural forage production. Firstly, though local people have a reverence for indigenous trees, they often do not replant trees. Secondly, at community level so far no natural resource management activities are undertaken by the government. Thirdly, new settlements and small towns are emerging and expanding in the Afar Region. Consequently, cutting trees for construction, firewood and charcoal is intensified along the road sides, and near the rural settlements and towns.

Generally speaking the results of this study have shown that the natural resource-based economy of the Afar pastoralists is destabilized by environmental/ecological crisis and mounting external interferences. As it is clearly illustrated in Chapter 6, the local people observed a downward trend in their livelihood resources and a disruption of traditional strategies within the past thirty years. These processes have directly affected the local livestock production systems and represent high risks for food crisis for the Afar pastoralists.

7.3.4 Socio-political Processes: State-Society Relation and Government Policies

In addition to natural extreme events (drought) and ecological collapses, the Afar pastoralists have been marginalized from the centre in terms of economic benefits and representation in the national politics. This economic and political marginalization has put the pastoralists' livelihoods and interests at a margin. Thus the local people are less able to protect their subsistence base and interests.

As it is summarized in the preceding paragraphs, extreme weather events, and resource degradation (environmental crisis) have posed serious threats to the local pastoral systems. And yet my argument is that the Afar pastoralists' livelihood insecurity and/or their increased vulnerability to famine disaster are better explained by broader socio-political processes that have taken place within the past five decades. These processes included political incorporation to control traditional social organizations; lack of respect for communal land rights; biased government policies and inappropriate livestock development programmes; conflict and political instability; unavailability of infrastructures, services and opportunities. These external socio-political, institutional and economic processes are largely beyond the local people's control. Thus pastoral groups are unable to protect their traditional institutions, land possession rights and their livelihood systems.

i. Political incorporation and loss of independence (self-administration): As noted in Chapter 5, during the past hundred years the Afar people have lost their relative independence and resource base due to historical political processes emanated from the center. Especially within the past five decades the Afar have gradually lost part of the fertile lands of the Awash River valley and their independence (traditional self-administration) because of excessive state interventions. Because of the fact that the Afar land occupies a strategic position for the country's economy and politics, the central state has increased its presence (i.e. militarization and modern bureaucratic structures) in the region to avert external threats and to control the former Addis Ababa-Assab road and the Addis Ababa-Djibouti highway.

Successive Ethiopian governments attempted fully to incorporate the indigenous political structure and authorities into the modern bureaucracy and administrative structures. The introduction of centralized governmental administration has undermined traditional socio-political organizations. Some appointed clan leaders took advantage of the new power relationships to ascend to higher political positions in order to enhance their influence and power and that of their respective clan groups. At different times the local elites collabourated with state authorities and have often become unable to represent and express the interest of the larger pastoral population. This has weakened clan cohesion, and disrupted traditional mutual support systems and rules governing the management and use of communal resources.

In particular pastoralists were not represented in the national political and economic arena during the previous regimes. Policy decisions and externally-initiated development

interventions in the pastoral areas were pursued in favour of politically dominant groups both at national and local levels (i.e. highlanders and selected clan leaders respectively). Consequently, the local people have been unable to protect their customary rights over their communal lands and livelihood systems from external encroachments. This is one manifestation of political marginalization of large parts of the Afar pastoral population. Therefore, the state - society relation remained rather hostile, especially after the advent of large-scale commercial farms in the Middle and Lower Awash Valley. The political decision of the central state for the appropriation of communal lands and their allocation for large-scale commercial farms effectively denied the local Afar access to the most fertile pasture lands, weakened reciprocal arrangements among clans and fuelled inter-clan conflicts. The allocation of lands for state-sponsored large-scale schemes has still continued. The current government launched two big projects (Tendaho and Kessem- Kebena) aimed at establishing sugarcane plantation and two sugar factories in the Middle and Lower Awash River Valleys by developing 100,000 hectares of land. Some sources indicated that the project would displace pastoralists, menace their livelihood systems and affect flora and fauna¹⁷⁰.

The current government claimed that the new policy of ethnic federalism opens opportunity to the Afar people to leave behind instability, economic stagnation and marginalization that have characterized the region's past. Indeed the Ethiopian Afar are consolidated within one region with powers of self-administration. And yet change that benefits the majority of the Afar is far from assured. The imposition of the top-down formal administrative system has continued at the grassroots level. State formal institutions resorted to earlier, inappropriate models. Currently the consolidation of modern administrative structures has continued in the name of "elected Kebele and Woreda administrations". In relation to this an earlier study report recounted as follows:

The state system now in Ethiopia is that of federation among ethnic-based regional governments. The federal arrangement gives exclusive powers to regional governments on matters of internal affairs, including development planning. However, this has exacerbated the political marginalization of pastoralists, as the plight of pastoral communities is entirely left to "their" governments. The regionalization of the state system, i.e. the federal arrangement was decided with a complete exclusion of civil society at large. Civil society had no role in electing its own leaders, as elections in Africa are normally foregone conclusions. Those who rule pastoral areas today are not elected in the proper sense of the term (*Melaku, 2000:80-81*)

The same author further noted that appointment in Ethiopia is not on the grounds of merit but on grounds of political loyalty to the ruling party (*Melaku, 2000:81*). Likewise the local people observed that community members and traditional authorities are not involved in decision-making processes and in asserting their representation. They reported that participation is limited to only information sharing with some handpicked individuals or clan leaders. In particular, loyalty rather than qualification rationale for appointment, and poor governance, favourism and embezzlement have become pervasive in the local formal government. Therefore, although the government has claimed the full participation of traditional authorities and the devolution of power in its pursuits of decentralization process, it is not yet evidenced at the grassroots level. Consequently regional development and utilization of regional resources are no longer controlled by the Afar people, but by state elites.

¹⁷⁰ The Afar Human Rights Organizations (AHRO), July, 2007 (press statement by the organization).

ii. Inappropriate government policies toward pastoral lands and pastoralism: The policies of the previous regimes were based on wrong assumptions on pastoralism and on pastoral land, and biased against the needs of pastoral groups. Firstly, the pastoral way of life (particularly mobility) was perceived by state authorities and planners as backward and constraint to development, provision of services and security. Secondly, large tracts of pastoral land were considered as vacant, unutilized resource to be used for national development. Thirdly, development programmes and policies were designed mainly to extract resources of pastoral areas for the purpose of national economic development goals without considering pastoralists subsistence. The establishment of commercial farms and delineation of conservation areas have deprived pastoralists of their key pastureland, watering points and migration routes. Furthermore some attempts (e.g. resettlement and irrigated pasture) undertaken by the previous governments to compensate displaced pastoral groups were unsuccessful, as the interventions did not consider pastoral way of life. Land expropriation for non-pastoral purposes has also exacerbated resource use conflicts, intra and inter-clan clashes and violent conflicts with neighbouring ethnic groups (Issa, Karrayu), as groups compete over the use of the remaining resources. The state intervention and its policies also exacerbated drought consequences, as mobility and traditional common resource management systems have been disrupted. All these processes of land alienation have led to ecological and economic marginalization of the mobile pastoral groups. Therefore, the objective of resource use does no longer serve the interests and needs of the Afar people, but either “national” interest and/or the interest of government officials and affiliated clan leaders.

iii. Inappropriate livestock development intervention: Livestock support services (e.g. market routes, veterinary services) envisaged by the previous governments favoured the commercial value of livestock for export market and livestock off-take for meeting the demand of meat canning industries established in the highland urban centers. At that time the subsistence economy of the pastoral groups was not appreciated. As a result, the previous development interventions were of the resource-extractive nature rather than enhancing pastoral livelihood systems. Besides the extension services in semi-settled areas favoured crop cultivation within valuable grazing areas, and blocked herd movement which is one of the key strategies for the mobile pastoral system. Therefore, inappropriate external interventions disturbed traditional strategies developed by pastoral groups to maintain the fragile balance between humans and livestock, and the natural environment. Especially increased livestock population accelerated by the interventions brought about overgrazing and land degradation in many pastoral localities.

Currently there is a policy emphasis on sedentarization of pastoralists and crop-cultivation along the banks of rivers. Sedentarization, however, is not an option for vast majority of the Afar population. Like other pastoral communities in East Africa or elsewhere, the Afar pastoral system has evolved in response to hostile environmental conditions and the fragile ecosystem which renders other models of existence impracticable, since they may disturb the fragile arid and semi-arid ecosystem. Overdevelopment of one aspect of the system may encourage depletion of others. For instance expansion of water resources typically encourages overgrazing; inappropriate cultivation techniques can lead to rapid soil salinization and infertility. Such consequences have been witnessed during the previous livestock development projects, and at the irrigation schemes. Therefore, the fragility of the arid and semi-arid ecosystem of the Afar region dictates a culturally and ecologically adapted approach to development. This suggests the need to focus on promotion of various pastoral modes of life and reconciliation of pastoralism with needs of other developments.

iv. Lack of infrastructures and social services: During the previous governments, even now the Afar pastoralists are marginalized in terms of the provision of infrastructures and social services. At that time infrastructures and social services were established in towns which emerged with the advent of commercial farms and sedentarization in the Awash River Valley. Facilities were established mainly to serve non-Afar migrants and employees of large-scale plantations. Educational and health services, road access, transportation and communication were nearly absent in many pastoral communities. This is the main reason that the Afar region is now characterized by the lowest educational and health status and by lack of trained manpower. Currently, although the situation of infrastructures and social services has improved as compared to previous times, the Afar pastoral areas are still poorly served and deprived of basic social services. These inequalities and the exclusion from participation in the national politics and development processes have made the local people's livelihood susceptible to natural and economic shocks.

Currently, as noted in Chapter 6, the local people consider infrastructures and social services as enhancing their capacity to cope with drought, as they have greater potential to open opportunities for trade, market, and livestock diseases control. Therefore, community infrastructures and economic services have a major role in enhancing local people's capacity for risk management.

v. Political instabilities and conflicts: Historically as well as currently the Afar region has been exposed to various adverse historical circumstances and political instabilities. Firstly, due to colonial consequences the Afar were partitioned into three states, Ethiopia, Djibouti, and Eritrea (the then colony of Italy). Secondly, within Ethiopia the Afar localities were annexed to different provincial administrations (Wello, Tigray, Shewa, Hararghe, and Eritrea). These historical political processes have resulted into two circumstances.

The first is the partition of the Afar land among three states and strict control by respective governments on the Afar contacts with their kin groups across borders, whereas the pastoral groups do not recognize the colonial boundaries. While neighbouring states put strict control on their borders and on the economic and political activities of the Afar within their boundaries, the pastoral groups continue their close contact with their kin groups across the borders. Therefore, during border conflicts and wars between states, pastoral groups were accused of smuggling weapons and of collabourating with other forces (i.e. internal insurgent groups and foreign forces). This has led to unfavourable state-society relations where the local Afar were at different times affected by militarization, civil unrest and harassment and killing by the armed groups.

Secondly, the aspiration of the Afar for unity (i.e. independent Afar state in the Horn) is also one of the causes for civil unrest in the Afar region. As a result, the Afar region has been affected by the consequences of civil strife and border conflicts within the past four decades. During the civil war the Afar region, especially the northern part was a war zone for many years. During the war between the Derg Government and separatist insurgents (TPLF, EPLF, ALF), the Afar pastoralists were severely affected by militarization, landmines, displacement and violent clashes between civilians and armed groups. At the time of civil war pastoral mobility, traditional resource management, livestock support services and cross-border livestock trade were adversely affected. In recent border conflict/war between Ethiopia and Eritrea, many Afar localities have been affected by landmines, displacement and loss of

grazing areas. Moreover, the border conflict disrupted cross-border livestock trade, labour migration, contraband trade which the local Afar use as strategies to cope with natural and economic shocks.

Furthermore, in recent years conflicts between Afar and their neighbours have become more violent within the context of resource scarcity and national political processes. Traditional conflicts over use and access to natural resources at territorial frontiers have been transformed into control and ownership of resources and then into political confrontation. Therefore, recurring conflicts have become impediments to local livelihood strategies and external development interventions.

In general the historical socio-political processes, ecological collapses and external encroachments have led to entitlement failures and livelihood insecurity among the Afar. These include, among others:

- Depletion of forage resources which are vital for local pastoral systems.
- Inability to produce sufficient food from the livestock production.
- Decline of purchasing power due to loss of livestock assets and price falls, and rising price of food grain.
- Decline of entitlement on calling (i.e. weakening of informal support systems, inadequate formal transfer or delay in external support).
- Disturbance of traditional adaptive responses to seasonally and temporally variable environment.
- Unfavourable state-society relations because of inappropriate land tenure policies, lack of respect for customary land rights and expropriation of local resources.
- Lack of trust in the government formal administration due to lack of commitment, non-participatory, patron-clientele system, clan favourism, and corruption.
- Persistence of political marginalization of pastoral groups due to lack of effective local representation and participation in the national political processes.

The conclusion is that famine and increase of vulnerability are not primarily the consequences of drought, but of external domination and uneven development. As a result, pastoral households/communities are increasingly dependent on public transfers (traditionally known as emergency food aid) in order to survive crisis periods. On the other hand, the basic interest of the Afar lies in managing the integrity of their resource bases and maintaining the social and political institutions underlying their traditional pastoral systems. However, the combined impacts of external encroachments, various violent conflicts and ecological collapse within the context of the political and economic marginalization have resulted in pastoralists' livelihood insecurity and vulnerability to famine.

Although the country has avoided mass mortality linked to famine, there are continuing threats to food security and nutrition, and an upward trend in the needy population requiring food aid. This indicates that external interventions have not addressed the structural vulnerability of the pastoral households to famine. Therefore, within the context of decreased resilience and chronic food insecurity, famine is still imminent in many pastoral areas. There

is strong evidence that severe food crisis persists in many pastoral communities since the 1990s¹⁷¹. And it can develop into famine, if the state and/or aid agencies fail to respond.

7.4 Recommendations

The previous sections highlight the findings of this research and it is stated that pastoralists are increasingly vulnerable to famine, as their livelihood resources and strategies have been destabilized by the internal and external factors. In this section I recommend some ideas for consideration in risk reduction and in enhancing pastoralists' resilience.

i. (Drought) risk management: Recurring droughts have become the number one risk for the study community. Pastoralists face a natural risk of drought. As this study has indicated, the likelihood of drought is high. And yet drought is manageable, although it is difficult to avoid it. The current experience suggests the need to devise risk mitigation strategies for pastoral areas. Therefore, government as well as NGOs need to visualize workable strategies in order to mitigate impacts associated with drought. For this to happen, effective disaster management systems should be put in place. The current decentralization should serve as the ideal way to collect and compile context specific information and design interventions appropriate to local agro-ecological environments and livelihood systems. For this to be achieved:

- The effective presence of formal early warning system (EWS) at the local level and incorporation of traditional early warning systems for risk communication among local actors and to external actors. This helps design context specific responses.
- Broadening the objective of the current EWS. The current information systems are geared towards servicing the needs of food-aid oriented disaster relief organizations. Information needed mainly for emergency food assistance is gathered by government agencies and NGOs. This is mostly dictated by Food Availability Decline Approach. This approach should be augmented by context-specific models (entitlement failure, livelihoods crisis, and health crisis). Therefore, a greater range of information on livelihood patterns, ecological zones, institutions, historical trends and processes could be gathered, analyzed and utilized for designing context-specific risk management strategies.
- Building up the capacity of local government institutions and traditional institutions through staffing, materials, training and communication systems.

ii. Strengthening the provision of health and educational services and infrastructures: As noted from the study community, health and education institutions are ill-equipped in terms of personnel, materials and other inputs. While most of the health posts were not functioning, schools lacked teachers, water supply and school materials. The regional and federal governments should allocate an adequate budget to furnish health and school facilities. Road access, local markets and transport are also equally important to facilitate the development of

¹⁷¹ For instance, some sources (e.g. Devereux *et al.*, 2002:53) labelled the 1999-2000 food crisis as famine. Given the number of people affected, the damages to livelihoods and human development, and the loss of human life, there is no question about whether the 1999-2000 crisis was a famine. On the other hand the state authorities did not agree with it saying that the crisis did not reach to the level of famine.

alternative income-generating activities. These community level assets help enhance the capacity of the pastoralists to cope with risks.

iii. Livelihood diversification: Communities which rely on single economic activity are more vulnerable to economic shocks than communities with diversified livelihoods or income sources. Communities with diversified livelihoods can better cope with shocks. The Afar pastoralists rely mainly on livestock production, though some households are currently taking up additional activities. Generally speaking livelihood diversification both, at household and community levels, is very low in the study community and in many other Afar communities. And yet individual households are striving to take up complementary income-generating activities. This effort has to be supported by external actors. Therefore, government and aid organizations should focus on enhancing alternative income-generating activities and adaptive responses that are already taken up by pastoral households. Depending on the local context, external interventions may include:

- Enhancing growing food crops by diverting streams and rivers (i.e. small-scale irrigations).
- Provision of credit for livestock trading or petty trading, and for fattening goats when forage conditions are good.
- Establishing livestock market associations and protecting pastoralists from effects of rising grain prices and of falling of livestock prices.
- Provision of non-formal education and skill training for adults aimed at creating an enabling environment for job opportunities.
- Expanding formal education for school-age children to create opportunities for the youth in the future.

iv. Protection of livelihood (resources): The importance of livestock production both, as a livelihood system and as food source for pastoralists is apparent. However, past and present experiences in Ethiopia have shown that external interventions focus on saving human lives ignoring livelihoods. The existing early warning systems are entirely focused on food needs. They failed to link warnings with livestock-related pre-planned intervention actions at various stages of the drought cycle. Early warning systems often report the general situations of humans, livestock, water, and pasture without any reference to the course of action to be taken for saving livelihoods. In deed the saving of livelihoods, in the pastoral context, is of paramount importance as saving human lives. This becomes apparent in view of the decreasing wealth status of pastoralists caused by drought and complex socio-political and economic processes. As noted in Chapter 6, livelihood resources and strategies of pastoral households/communities are increasingly declining. Therefore, enhancing or protection of livelihoods should be recognized as being as important as saving human lives. Livelihood support interventions must be based on an analysis and understanding of the characteristics and dynamics of local context-specific livelihood systems. They should be oriented towards household/community assets and activities considered important to enhance survival and to build resilience. According to the perspective of the local people considered in this study, livelihood interventions should focus on:

- Natural assets (forage development, pastureland, water development, developing cultivation plots).

- Social assets (collective action, conflict resolution institutions, mutual support institutions, traditional authorities, participation in local decision-making processes).
- Human capital (educating children, school children feeding, health services, food aid).
- Physical assets (livestock disease surveillance, road access, river diversions, irrigation channels, water points, markets, tools, seeds, etc).

v. Conservation of natural resources and rehabilitation of pasturelands: Preserving and protecting environment/ecosystem is crucial for supporting pastoralists' livelihoods. The structure of the formal early warning system does not adequately capture the long-term processes that generate a slow-onset emergency. As indicated in Chapter 6, environmental scarcity has been a threat in the Afar region. Environmental degradation and eco-system disruption is intensified due to population pressure, sedentarization and lack of control over land use management. Existing farmlands are intensively cultivated and new lands are brought under cultivation or lost to other non-pastoral uses. Loss of grazing land in many localities has contributed to further overgrazing. Charcoal and firewood production have continued in an unregulated manner. Uncontrolled off-take of main rivers and tributaries also continues in the headwaters. Loss of control over the upstream affects tributaries of the main rivers flowing into the Afar land. Changing courses of main rivers in Afar has also affected the flood-fed dry season grazing areas. All these environmental stresses have direct impacts on the pastoralists' livelihood bases. Therefore, the federal and regional governments should consider natural resource conservation and watershed management as emergency issues. Designing and implementing appropriate conservation measures such as dams, water run-off catchments, bunding, and afforestation can be feasible for protecting natural resources.

Furthermore, in some places of Middle Awash Valley lands formerly used for state farms (e.g. Meteka farm in Gewane) are returned to the local communities. These lands can be rehabilitated through irrigation or flooding, and can be used for dry season/drought period grazing. If the returned farms and other pasture lands are rehabilitated by the government and NGOs through participation of traditional users, they can accommodate large number of pastoral population.

vi. Conflict management and resolution: It is repeatedly stated that conflicts among clans and with neighbouring groups have increasingly become violent. Moreover, the existing traditional conflict management institutions are overwhelmed by external political processes and are weakened over the past decades. Government-initiated peace committees at different levels are also unable to bring durable peace. In most cases joint-decisions are not respected by conflicting parties due to poor local governance, clan or group favourism, lack of commitment and trust, and the government reluctance to demarcate official boundaries of district administrations. The long-established reciprocal arrangements between herders and crop cultivators are increasingly constrained by the political processes, and mounting scarcity of resources at the buffer zones. Therefore, government and other external actors should search for mechanisms to maintain good relations between herders and the neighbouring groups. The following may be some ways to achieve this:

- Revitalizing the traditional conflict resolution institutions through bringing together elders and religious leaders from both parties and providing training and other supports.

- Enhancing contact points and relations between competing groups through organizing meetings/discussion forums and by establishing social and economic services (religious centers/mosques, schools, health centers, local market services, etc).
- Strengthening the existing reciprocal arrangements (crop-sharing arrangements, oxen-renting, farmland renting, bond-friendships, market relations, inter-marriage, exchanging Qu’ran teachers, etc.).
- Ensuring traditional rights of the local people to communal lands and water points on the territorial frontiers.
- Developing joint-development projects which involve both herders and their neighbours (e.g. water points, irrigation schemes, etc).
- Enhancing cooperation and developing confidence/trust between formal government authorities and traditional authorities.
- Building up the capacity of local governance (Kebele and Woreda administrations) and peace committees to resolve conflicts and to tackle partisanship of local authorities to their respective groups.
- Ensuring the enforcement of the joint-decisions, and hold accountable those who fail to respect decisions of the peace committees.
- Avoiding as much as possible development projects that may lead to local resource scarcity and conflicts.
- Mapping and officially delimiting administrative boundaries through involving all claimants of the border lands or other resources.
- Avoiding the current overemphasis by local state elites on differences and ethnic politics, as it adversely jeopardizes the existing social and economic relations between ethnic groups.

vii. Ensuring land tenure security and controlling privatization of communal lands: The land policies of previous and current governments have not brought land tenure security both in sedentary and pastoral areas. In Ethiopia land is “public property” under which farmers and pastoralists have usufruct right on land. Under this system (i.e. state ownership of all land), tenure security is unpredictable. The state or its surrogate can exclude others from access to land or evict others with a short notice, if it wishes. On the other hand, among the Afar, land is communal property of clan groups. In the communal property regime, however, individual/group rights to pasture, cultivable land, wells, and residential sites are recognized, clearly defined, and could be inherited without power to alienate clan ownership of land.

The Afar pastoral groups have a strong attachment to clan territory. The clan institution regulates land ownership and ensures the entitlement of the entire members of a clan to productive resources on which pastoral life relies, namely land, water and pasture. This communal property regime is flexible and environmental responsive institution that has made possible pastoral movements to seize opportunities within varying environment. Access to and use of land and other related natural resources are governed by the Afar customary law (*Maada*) that ensures tenure security for members. Thus the right to exclude rests with the group and this is backed by the customary law.

However, the introduction of modern commercial farms, agriculture and development of settlements in the Middle and Lower Awash Valley has affected the customary tenure system. These developments have brought land use changes and led to privatization of important

lands along the banks of the Awash River. Better-off Afar, clan leaders and non-Afars have owned individual holdings in such areas and expanded farm fields for food and cash crop cultivations. Land privatization and land use changes have led to economic differentiation among the Afar where some wealthy Afar and clan leaders have benefited more from these land use changes. Nowadays various stakeholders compete over formerly irrigated lands and returned to the pastoral community, and over the new potential lands in the Middle and Lower Awash Valley. These include:

- Local pastoral groups (the traditional users/claimants) who seek mainly to maintain their communal lands for grazing or to lease them to developers depending on the land use type. These groups also include agro-pastoralists who dispute against investors and clan leaders to have access for land at their convenience. On the contrary most pastoralists seek either to keep lands for grazing or to lease it to investors.
- Absentee herders who own small-scale irrigation and seek to expand their land holding as well as to rear animals.
- Individual non-Afar investors who seek to invest in large-scale commercial farms. These investors often deal with clan leaders to rent in farmlands, as most clan leaders and elders want to lease lands to investors.
- Federal and regional governments which seek either to establish large-scale farms/plantations or lease out lands to developers.

In absence of land use policy, the poor have become the losers. Investors and wealthy groups seek to grab areas adjacent to the river banks. These competitions among various stakeholders for lands in the Awash River Valley will further lead to shrinkage of pastureland, decrease of water from the Awash River, and resource conflicts among various clans. This in turn will further jeopardize the environment, the local pastoral systems and small-scale crop cultivations already pursued by pastoral households along the Awash River.

In general the Afar are nowadays gripped by four main stresses: recurrent severe drought; environmental scarcity; external pressures from Issa, investors and highlanders; and violent conflicts and political instability. In all these cases the losers are the Afar. Given these crises, access to pastureland, (river) water and vegetation is now crucial to the Afar subsistence. Therefore, the government has firstly to protect traditional communal land rights of the indigenous people from external encroachments, and secondly to design appropriate land use management policy and plan in order to accommodate the interests of the diverse stakeholders. Failing to do so would inevitably lead to perpetual poverty of the Afar pastoralists, destitution and in turn to permanent dependence on outside aid.

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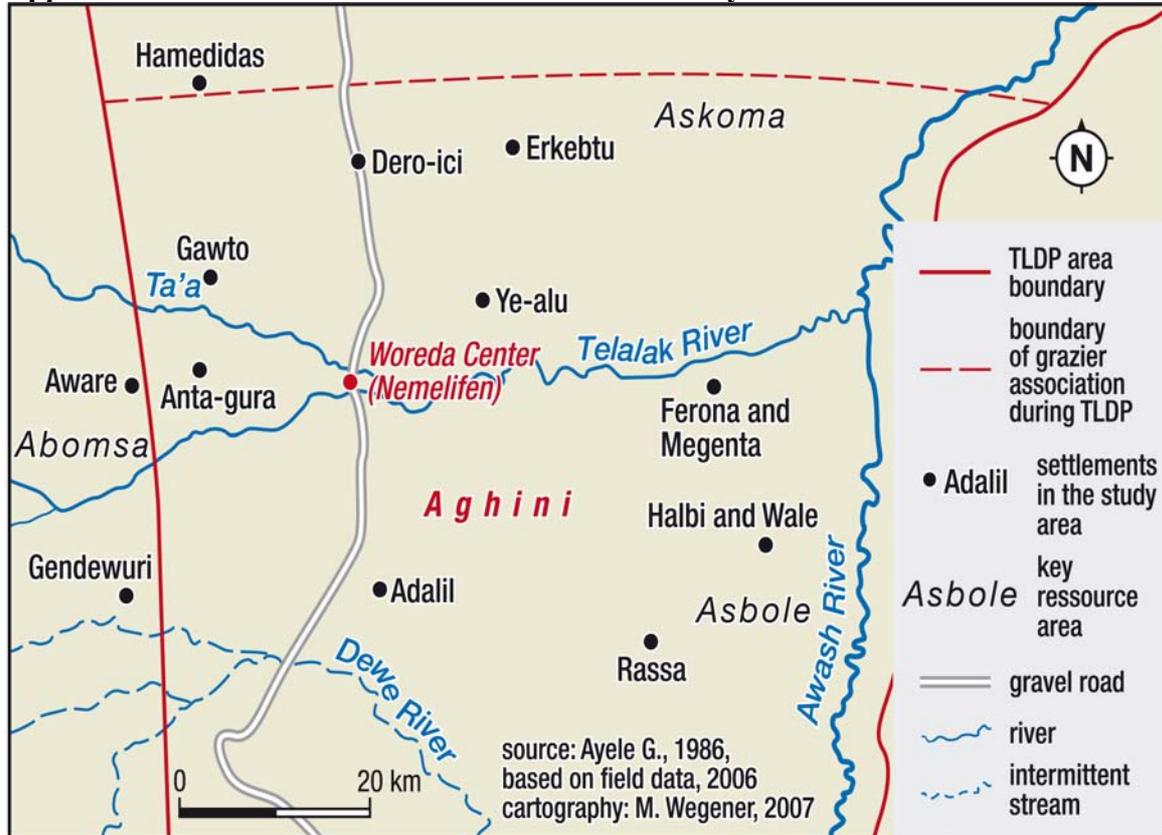
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Appendices

Appendix 1: Location of Some Settlements in the Study Area



Appendix 2: Number of Sample Villages and Households for household Survey

Clan Group	<i>Fimaa</i> group	Sub-clan	Name of the KAs/settlement	Sample Households
Bahiri-Aghini	Dofeyay	Häränunto	Odelena-Asbole KA/Asbole	5
		Egahilela	Waydoläläna-Ye'alu KA/Yealu	10
	Näsär			
	Bärakabsuma	Dumayto		
		Afnado-sära	Telalakina-Abaro KA/Abaro	5
		Seka		
		Arkeka	Awarena-Areda KA/Aware	10
		Modayto		
Megenta Aghini		Ayta-assosa	Geysuna-Däwe KA/Adalil	10
		Tämiti		
		Näsär		
Mix	Mix	Mix	Nemelifen settlement (district center)	20
Total			6	60

Appendix 3: List of Sub-Clans and Lineages of the Aghini Clan

Clan	Sub-clans	Lineages
Aghini	Afinaro-sara	Haisto Obakarto
	Alisara	Momito
	Arkera	Hamoma Ositie Salinto Salinto-Hamoma
	Asmela	Data-Alitie Dawido
	Ayta-Asos	Yayigitie
	Dofeyay	Dabale-Hamado Haran-nunto Ut-bento
	Dumayto	Dabale-Hamado Deda-dumayto
	Egahilela	Hawasesa Hermitie Salinto Sene-Hagayto Ydigite
	Hamada	Haran-nunto
	Modayto	Hawasesa
	Nasir	Haistamadanto Harakalu Hawasesa Korafto Leko-Hamado Suginina
	Nasir-Maganta Agini	Haistamadanto
	Seka	Alibagido Aliseka Namagali
	Tamiti	Geas Haistamadanto Harakalu
Wagab	La-adoda	

Sources: Focus Group Interview with elders and clan leaders, December 2005.

Appendix 4: DATA COLLECTION INSTRUMENTS

4.1. Checklist for Qualitative Data Collection in the Study Community.

Broader topics /issues	Study units/sites	Sources of information	Methods of data collection
1. Disaster and natural events (recurrent drought risk, uneven rainfall) and their effects on the livelihoods of local people	The Aghini pastoral community/district	Elders, clan and religious leaders. Local authorities/leaders	Key informant interview Focus group interview
2. Ecological changes (loss of vegetation, pasture, grass), change in migration patterns and routs and their consequences on livelihood systems	Pastoral key resource areas and their status	Clan leaders Users of key resource areas. Local government personnel	Key informant interview Focus group interview Observation
2. Trends in pasture availability and livestock movement	The previous and the current key resource areas The previous and the current migration routs.	Clan leaders Users of key resource areas Local government personnel	Key informant interview Focus group interview Observation
3. Trend in livestock population (depletion of household and community assets, changes in number and composition of livestock)	The Aghini pastoral community level	Clan leaders Users of key resource areas Local government personnel	Case history of asset status Recording current asset status
4. Change in social structure and institutions (lineage, homestead, household, conflict resolution institutions like Fimaa)	Clan and lineage groups Traditional authorities and institutions Customary laws	Elders, clan and religious leaders	Caste study of selected social institutions Key informant interview Focus group interview
5. New developments (social services and infrastructures, emergence of new settlements, shops, markets, business, trade) and their role in creating other livelihood opportunities	District centre (Nemelifen) Pastoral settlement	Afar and Non-Afars traders Individual residents in the Woreda centers and in pastoral settlements	Key informant interview Focus group interview
6. Historical and current account of community and state relation	The Aghini pastoral community and local formal governance	Elders Clan leaders Local government personnel	Key informant interview Focus group interview
7. Intra-clan and inter-ethnic conflicts - conflicts over resources or borders with neighboring communities (Issa, Oromo, Amhara, etc)	Key resources areas where conflict is prevalent Pastoral groups and highlanders	Conflict cases Elders, clan and religious leaders Groups who were/are involved in conflicts Conflict resolution meetings Local government authorities	Case history of the selected conflict cases Key informant interview Focus group interview
8. Intra and Inter-ethnic cooperation, economic and social relation, social net working and mutual support	Neighboring communities Market places Bond association	Elders, clan leaders and religious leaders Non-Afar immigrants, traders	Key informant interview Focus group interview
9. Traditional early warning systems (<i>Dagu</i> - traditional information communication), coping mechanism and livelihood strategies adopted by the local communities	The Aghini pastoral community/district	Elders, clan and religious leaders	Key informants interview Focus group interview

4.2 Questionnaire for household survey

A1. Household Profile

1	2	4	5	6	7	8	9	
ID # 01 for the head	Name of household members	Relationship to household head (write code)	Age	Sex: male =1; female =2	Labour capacity (write code)	Literate (yes=1; no=2)	Grade completed (0 if none)	Attending school now Yes=1; no=2
01								
02								
03								
04								
05								
06								
07								
08								
09								
Codes: relation to household head 01=household head 02=wife 03=son 04=daughter 05=son-in-law 06=daughter-in-law 07=brother 08=sister 09= friend (Takaysa) 10= other (specify)_____		Codes: labour capacity 1=child (too young to work) 2=working child (herding livestock, doing domestic chores) 3= adult (able to do full adult work) 4=elderly (not able to do full adult workload) 5=permanently disabled 6=chronically ill (unable to work for the past three months)						

A2. Homestead and Household Structure

13. In your community do the local people have permanent camps/settlements? If yes, why?
1. Because of limits imposed on the livestock mobility
 2. Because of limits imposed on grazing land
 3. other (specify) _____
14. Did you live in this village all the year?
1. Yes all the year
 2. Only part of my family
 3. Other (specify) _____
15. Do you move corral compound?
1. Yes
 2. No
16. If yes, why?
1. When the huts become old and fall down
 2. In search of grass and water
 3. To avoid animals disease
 4. Other (specify) _____
17. How far is the corral compound moved?
1. Not very far
 2. Very far
 3. Five kms away from my former place
 4. Other (specify) _____
18. Why are several sub-divisions in your corral compound? (multiple responses are possible).
1. I own many cattle and one sub-division is not enough for them
 2. I usually have a separate sub-division for each kind of livestock so they do not harm each other
 3. Separate sub-divisions are needed when some cattle are affected by disease
 4. I can't get milk if cows and calves are kept together
 5. Other (specify) _____
19. Are there two or more huts in your compound? If yes, why?
1. I need more than one hut for the family because I need an extra one for guests
 2. I have two wives, and each wife needs a separate hut with her children
 3. My married son is living in compound
 4. Other (specify) _____
20. Is there more than one household living in your compound? If yes, why?
1. We are brothers
 2. We help each other and live together
 3. We are members of the extended family
 4. We are afraid of the Issa
 5. Our cattle are together
 6. Other (specify) _____
21. Where do you have residence?
1. Only in the pastoral village
 2. Only in the town.
 3. In both
22. Do you split your family into pastoral villages and towns /Nemelifen?
1. yes
 2. No
23. If yes how do you manage the relation between these homes?
1. Assign children to pastoral village activities
 2. Assign one wife to the pastoral village and the other to the town
 3. Put livestock under the care of kin groups or relatives
 4. Other (specify) _____

B1: Household livelihoods /activities/

In last 12 months what types of activities the members of your household carried out in order to earn food or income?

24	25	26										
Activity	Code	Who does the work or activity?										
Livestock rearing	01	00	01	02	03	04	05	06	07	08	09	77
Crop cultivation	02	00	01	02	03	04	05	06	07	08	09	77
<i>Non-pastoral activities</i>												
Sale of wood or charcoal	03	00	01	02	03	04	05	06	07	08	09	77
Sale of poles	04	00	01	02	03	04	05	06	07	08	09	77
Trading in chat	05	00	01	02	03	04	05	06	07	08	09	77
Trading in livestock	06	00	01	02	03	04	05	06	07	08	09	77
Trading in grain	07	00	01	02	03	04	05	06	07	08	09	77
Food preparation and sales	08	00	01	02	03	04	05	06	07	08	09	77
Running shop	09	00	01	02	03	04	05	06	07	08	09	77
Renting out oxen	10	00	01	02	03	04	05	06	07	08	09	77
Renting out camel	11	00	01	02	03	04	05	06	07	08	09	77
Renting out land	12	00	01	02	03	04	05	06	07	08	09	77
Food aid	13	00	01	02	03	04	05	06	07	08	09	77
Migration for daily labour	14	00	01	02	03	04	05	06	07	08	09	77
Other (specify)												
	15	00	01	02	03	04	05	06	07	08	09	77
	16	00	01	02	03	04	05	06	07	08	09	77
	17	00	01	02	03	04	05	06	07	08	09	77
		Codes 01-09 in the rows refer to the ID # of HH members Code 00 stands for non-household members who contributed in the work Code 77 stands for one who was dead, but now not listed in the household profile										

26. Currently which is the primary livelihood system for your household?

1. Livestock production
2. Crop cultivation
3. Trading in livestock
4. Trading in other marketable goods
5. Other _____

27. Is the income from the primary livelihood system enough for your family round the year?

1. Yes
2. No

28. If no, how do you overcome the deficit? (multiple responses are possible)

1. Borrowing from traders
2. Kinship support
3. Support from Takaysa
4. Relief assistance
5. Reducing consumption
6. Eating wild foods
7. Other (specify) _____

29. Which are your sources of cash income in the past 12 months?

1. Sale of cattle
2. Sale of sheep and goat
3. Sale of camel
4. Sale of fuel wood
5. Sale of handicrafts
6. Trading in livestock
7. Other (specify) _____

30. For what purpose did your use the cash? (multiple responses are possible)

1. To buy food grain
2. To buy other consumer goods (coffee, salt, sugar, etc)
3. To buy cloth
4. To buy chat
5. Other (specify) _____

B2: Adaptive responses (additional activities)

31. Which activities does your household resort to other than primary livelihood system?
1. Rain-fed crop cultivation
 2. Small scale irrigated farming
 3. Trading in livestock
 4. Trading in Chat
 5. Running shops or small restaurants
 6. Migrating into other places in search of job
 7. Other specify _____
32. What are the reasons that led your household to resort to one or more of the above activities?
1. Loss of livestock due to drought
 2. The difficulty to rely on livestock production alone
 3. As additional source of cash income
 4. Shrinking or lack of pasture for livestock rearing
 5. Other specify _____
33. If you are engaged in trading for what purpose do you spend your profit?
1. Capital development
 2. Restocking
 3. Buying food
 4. For medical expenses
 5. Sharing to kin group
 6. To run other business
34. In your community who are mostly involved in trading livestock?
1. Mostly the poor households
 2. Mostly wealthy households
 3. Both
 4. Other (specify) _____
35. How do you evaluate viability of animal rearing for future?
1. Less viable
 2. Remain the same
 3. More viable
 4. It is difficult to predict
36. If less viable, why?
1. Recurrent drought risk
 2. Further lack of pasture
 3. Lack of water
 4. Animal disease risk
 5. Animal raiding by Issa
 6. Other (specify) _____
37. Which livelihood system (s) will be viable for your family in the future?
1. Rearing livestock
 2. Cultivation of crops
 3. Combining animal production with crop cultivation
 4. Combining animal production with trading
 5. Trading in animal and other marketable goods
 6. Other (specify) _____
38. What strategies do you practice to deal with environmental stress (loss of pasture and vegetation)?
1. Herd splitting and mobility to areas where fodder can be available
 2. Change in the composition of the herds
 3. Mutual help and stock transfer
 4. Market strategy (livestock disposal)
 5. Shift to other activities
39. During the last 12 months did any one from your household travel outside the Woreda to look for work?
1. Yes
 2. No

If yes, fill the following table

39	40	41	42	43	44	45
Who went ID # from table 1	Destination: 1= Bati town 2=Oromia zone 3=Asayita 4= Dubti 5=Djibouti 6=Eli-waha 7= Mile 8=Afdera 9=other (specify) ____	Season: 1=Hagay 2 = Sugum 3 = Gilal 4 = Dedaa 5 = Karma	Period of absence: (no. of months)	What did he bring to the household: 1=cash 2=food 3=cloth 4= nothing 5 =other (specify)	What is that income used for: 1=food 2=clothing 3=livestock purchase 4 = support to relatives 5=other (specify)	How was the migration funded: 1= own saving 2= borrowing from relatives 3=other (specify)
	1 2 3 4 5 6 7 8 9	1 2 3 4 5		1 2 3 4 5	1 2 3 4 5	1 2 3 4
	1 2 3 4 5 6 7 8 9	1 2 3 4 5		1 2 3 4 5	1 2 3 4 5	1 2 3 4
	1 2 3 4 5 6 7 8 9	1 2 3 4 5		1 2 3 4 5	1 2 3 4 5	1 2 3 4
	1 2 3 4 5 6 7 8 9	1 2 3 4 5		1 2 3 4 5	1 2 3 4 5	1 2 3 4
	1 2 3 4 5 6 7 8 9	1 2 3 4 5		1 2 3 4 5	1 2 3 4 5	1 2 3 4
	1 2 3 4 5 6 7 8 9	1 2 3 4 5		1 2 3 4 5	1 2 3 4 5	1 2 3 4
	1 2 3 4 5 6 7 8 9	1 2 3 4 5		1 2 3 4 5	1 2 3 4 5	1 2 3 4

46. Do you think that there are poor, middle and rich people in your community?

1. Yes
2. No

47. If yes, what criteria are often used to differentiate these groups of people?

1. Number of livestock
2. Cash
3. Owning gun
4. Being a clan leader
5. Other (specify) _____

48. To which group does your household belong? _____

C: ASSETS

C1: Livestock holding and access

46	47	48	49	50	51	52
Type of livestock	Number owned (including those which are looked after and those which are partly owned)	Number held (total number held in a household)	In the past 12 months have you borrowed livestock? If yes, 1 = for free (hatilla) 2 = in return for labour 3 =in return for cash 4 = other _____ 99 =NA	In the past 12 months have you lent out livestock? if yes, 1 = free (hantilla) 2 = in return for labour 3 =in return for cash 4 = other _____ 99=NA	What are the sources of fodder in wet season? 1=grazing 2= trees and leaves 3=crop residues 4 = other (specify) _____	What are the sources of fodder in dry season? 1=grazing 2= trees and leaves 3=crop residues 4 = cut and carry (grass, leaves and tees) 5= hay 6 = other (specify) _____
A. Oxen			1 2 3 4 99	1 2 3 4 99	1 2 3 4	1 2 3 4 5 6
B. Heifer			1 2 3 4 99	1 2 3 4 99	1 2 3 4	1 2 3 4 5 6
C. Cow			1 2 3 4 99	1 2 3 4 99	1 2 3 4	1 2 3 4 5 6
D. Bull			1 2 3 4 99	1 2 3 4 99	1 2 3 4	1 2 3 4 5 6
E. Calf			1 2 3 4 99	1 2 3 4 99	1 2 3 4	1 2 3 4 5 6
F. Goat			1 2 3 4 99	1 2 3 4 99	1 2 3 4	1 2 3 4 5 6
G. Sheep			1 2 3 4 99	1 2 3 4 99	1 2 3 4	1 2 3 4 5 6
H. Camel			1 2 3 4 99	1 2 3 4 99	1 2 3 4	1 2 3 4 5 6
I. Donkey			1 2 3 4 99	1 2 3 4 99	1 2 3 4	1 2 3 4 5 6
J. Other			1 2 3 4 99	1 2 3 4 99	1 2 3 4	1 2 3 4 5 6

C2: Changes in livestock numbers in the last 12 months

53	54	55	56	57	58	59
Type of livestock	Total number that have died: 0= if none	Total number slaughtered: 0=if none 99 =NA	Total number bought in cash: 0= if none	Total number sold: 0= if none	Total number given away as gift: 0= if none	What was the cause for those animals who died or disappeared: 1 = age 2 =diseases 3 = lack of fodder due to drought 4 = Raided by Issa 5 = Theft 6 = attacked by wild animal 7= other (specify)_____
A. Oxen						1 2 3 4 5 6 7
B. Heifer						1 2 3 4 5 6 7
C. Cow						1 2 3 4 5 6 7
D. Bull						1 2 3 4 5 6 7
E. Calf						1 2 3 4 5 6 7
F. Goat						1 2 3 4 5 6 7
G. Sheep						1 2 3 4 5 6 7
H. Camel						1 2 3 4 5 6 7
I. Donkey						1 2 3 4 5 6 7
J. Other						1 2 3 4 5 6 7

60. Why did you sell livestock this year (refer column 57 in the above table)

1. To avoid drought risk /disposal of animal
2. For purchasing food
3. For buying cloth
4. Purchasing other consumer goods
5. Other (specify) _____

61. Which factors have affected your animal husbandry? (Multiple responses are possible).

1. Loss of grazing due to bush encroachment
2. Recurrent severe drought
3. Livestock diseases
4. Scarcity of water
5. Raiding by Issa
6. Other (specify) _____

62. Where do people from this village go to buy or sell livestock, or other commodities?

Market or town	Use of the market (Tick all that apply)				Average travelling time from the centre to village	
	Buy grain	Sell livestock	Buy livestock	Buy other commodities	On foot	By vehicle
A.						
B.						
C.						
D.						
E.						

63. How many livestock did you have before the 1984/85 famine?

1. Camel _____
2. Cattle _____
3. Goat _____
4. Sheep _____

5. Donkey _____
 6. Other _____
 7. I did have livestock by the time
64. Was the livestock production adequate to provide food for your family before 1984 famine?
1. Yes
 2. No
65. Is current livestock production less viable than it was before the 1984 drought?
1. yes
 2. No
66. If yes, why is the traditional livelihood strategy (livestock production) less viable now?
1. Environmental changes/degradation of pasture
 2. Prolonged drought or severe recurrent drought
 3. Population increase
 4. animal epidemics
 5. Other (specify) _____

C3: Grazing land and herd movement

67. Have you lost your traditional grazing land/dry season grazing area?
1. Yes
 2. No
68. If yes, why?
1. Grazing land is converted into other uses
 2. Conflict with neighboring groups
 3. Agricultural expansion from highland areas
 4. Depletion of pasture
 5. other (specify) _____
69. What happened to your household when you lost grazing land?
1. I lost my livestock
 2. I started crop cultivation
 3. I had to move my livestock to distant places
 4. I had to confine livestock close to my village
 5. Other (specify) _____
70. Did you move livestock as you did it before 20 to 30 years?
1. Yes
 2. No
71. If no, which factors have led to further reduction of livestock mobility?
1. Risk of Conflict with Issa
 2. Risk of animal disease
 3. Risk of animal raiding
 4. Other (specify) _____

C3: Land

72. Does your household own farming plot?
1. Yes
 2. No

If yes,

73	74	75	76	77
Plot type	When did you start having your plot? (Year)	Plot size (owned)	Types of crop planted: 1= maize 2= sorghum 3= vegetables 4=onion or potato 5= fruits 6=other	How the land is cultivated: 1=myself 2= renting out 3=sharecropping 4= support from friend (Takaysa) 5= hiring labour 6 other
Irrigated land			1 2 3 4 5 6	1 2 3 4 5 6
Rain fed located near homestead			1 2 3 4 5 6	1 2 3 4 5 6
Bush field far from home			1 2 3 4 5 6	1 2 3 4 5 6
Other			1 2 3 4 5 6	1 2 3 4 5 6

78. Why have you started cultivation?

1. For additional sources of food or income
2. Since animal rearing alone has been less viable
3. Since I saw my village fellows
4. Since I saw neighboring Oromo groups
5. Other (specify) _____

79. If you use sharecropping to work your farmland, how do you share the produce? (Questions 79-82 are based on the column 5 in the above table)

1. Sharing the produce equally
2. I give one third of the produce to sharecropper
3. Other arrangement (specify) _____

80. If you use hired labour, how much money did you pay? _____ Birr per day

81. What is the source of money for hiring labour?

1. Sale of livestock
2. Sale of crop
3. Sale of milk
4. Other (specify) _____

82. Why did you use sharecropping arrangement or hiring labour to carry out cultivation?

1. Lack of skill to carry out cultivation
2. Shortage of labour
3. Lack of tools
4. Lack of traction power
5. Other (specify) _____

C4. Human and Social Capital

C4.1 Human

83. Do you send your children to school?

1. Yes
2. No

84. If no why? (Provide the most relevant reason to your household)

1. They have to keep cattle
2. Inaccessibility of schools
3. Other (specify) _____

85. Why is it important to educate children? (Multiple responses are possible).

1. Educated children help their parents
2. Educated children can get jobs in government offices
3. Brings skills for farming
4. Makes it easy for them to pursue livelihoods other than pastoralism
5. Educated children help their community
6. Other (specify) _____

86. Do the community members support each other during bad and good times?
1. Yes
 2. No
87. If your household had a problem and needed money or food urgently, would you be able to get it from your community or from relatives?
1. Yes
 2. No
88. How many people could you ask for this kind of help? Number _____

C4.2 Informal Transfers

89. Have you ever received assistance from your kin?
1. Yes
 2. No
90. If yes, what was it
1. Livestock
 2. Cash
 3. Gun
 4. Other (specify) _____

In the last 12 months has your household receive any of the following types of assistance from anyone outside the household?

Item		From whom					Why						Where do they live							
91		93					94						95							
Hantilla (lending milk animal)	<u>Yes</u>																			
	1	2	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	7
Livestock	1	2	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	7
Cash	1	2	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	7
Cash loan	1	2	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	7
Food or grain	1	2	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	7
Free labour	1	2	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	7
Free use of oxen	1	2	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	7
Free use of camel	1	2	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	7
Other	1	2	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	7
			Code: 1= relatives/kin 2= own clan members 3= other clan members 4= non-Afar friends (Takaysa) 5= other specify —					Code: 1= food shortage 2= to buy consumer goods 3=for marriage ceremony 4= funeral ceremony 5= loss of stock 6= other (specify)___						Code: 1= same Village 2 = Nemelifen 3= Oromiya /south Wello zone 4 = Dubti 5 = Asayita 6 = Djibouti 7 = other her (specify) __						

C4.3 Formal Transfers

In past 12 months which of these types of assistance did your household receive from government or aid agencies?

FFW	FFC	Free food aid	Faffa (supplementary food)	Free cash	Tools	Livestock
96	97	98	99	100	101	102
1=Yes 2 = no	1=Yes 2 = no	1=Yes 2 = no	1=Yes 2 = no	1=Yes 2 = no	1=Yes 2 = no	1=Yes 2 = no

103. What is the reason that your household was the beneficiary of above assistance?

1. Severe food shortage
2. Loss of livestock
3. It is a free distribution
4. Other (specify) _____

D: Current Food Security and Consumption

104. During the last rain season, did your household suffer any shortage of food?

1. Yes
2. No

105. If yes, in which months was food shortage most acute for your household? Write the month _____

106. During that worst month, how many times a day did the adults and children in your household eat?

	Number of meals per day
A. Adults	0 1 2 3 4
B. Children (school-age and working children)	0 1 2 3 4
	Code: 0=sometimes passed a whole day without eating anything

107. In your household, how many months did the food shortage last? Write the Number of months. _____

108. Yesterday (if it is non-fasting day) did any adults or children in your household eat the following types of food?

Types of food	Adults ate		Children ate	
	110		111	
109	Yes =1	No=2	Yes=1	No=2
A. Milk	1	2	1	2
B. Meat	1	2	1	2
C. Mufae (locally made bread)	1	2	1	2
D. Boiled or roasted grain	1	2	1	2
F. Muki	1	2	1	2
G. Injera	1	2	1	2
H. Potatoes	1	2	1	2

I. Pasta	1	2	1	2
J. Wild roots and fruits	1	2	1	2
K. Other (specify)	1	2	1	2
L	1	2	1	2

E. Self Assessment

112. In the periods given below is or was your household situation better, the same or worse?

Categories	Now	Last year	In the last 15 year (EPRDF)	15 years ago during Derg regime
A. Household not formed at that time		0	0	0
B. Doing well: <ul style="list-style-type: none"> Able meet household needs by your own effort, making some extra for stores, saving and investment (e.g. buying livestock, or other assets) 	1	1	1	1
C. Doing just okay: <ul style="list-style-type: none"> Able to meet household needs but with nothing extra to save or invest 	2	2	2	2
D. Struggling: <ul style="list-style-type: none"> Managing to meet household needs, but by depleting productive assets, or sometimes receiving support from community or government 	3	3	3	3
E: Unable to meet household needs: <ul style="list-style-type: none"> Dependent on support from the community or government 	4	4	4	4

Hiermit erkläre ich, dass ich die Arbeit selbstständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt habe.

Ali Hassen

Hiermit erkläre ich, dass ich weder diese noch eine gleichartige Doktorprüfung an einer anderen Hochschule endgültig nicht bestanden habe.

Ali Hassen