

A Thesis Submitted for the Degree of Doctor
of Area Studies

Re-harmonizing the Changes in
Livestock Mobility, Land Use and
Sedentarization in Hamer,
Southwestern Ethiopia

エチオピア西南部ハマルにおける家畜の移動
性、土地利用、定住化に関する変化の再調和

SAMUEL Tefera Alemu

March 2015

Doctor of Area Studies

A Thesis Submitted for the Degree of Doctor
of Area Studies

Re-harmonizing the Changes in
Livestock Mobility, Land Use and
Sedentarization in Hamer,
Southwestern Ethiopia

エチオピア西南部ハマルにおける家畜の移動
性、土地利用、定住化に関する変化の再調和

SAMUEL Tefera Alemu

ሣሙኤል ተፈራ አለሙ

Graduate School of Asian and African Area Studies
Kyoto University

March 2015

Acknowledgement

I would like to acknowledge Hamer women and men for sharing the information discussed in this paper. I am particularly grateful to all people in my Hamer host villages, friends, and colleagues in Arba Minch, South Omo Zone and Addis Ababa.

Over the past six years starting from April 2009, I have had the opportunity to conduct research on the socio-ecological systems and livelihood dynamics of the agro-pastoral Hamer people of the Lower Omo River Valley in Southwestern Ethiopia. My pre-doctoral study focused on livestock mobility, socio-political and livelihood activities of the Hamer. This was the basis for my doctoral field research where I have further analyzed past and present processes and practices of land management, aspects of conflict and sedentarization in Hamer district. I, therefore, would like to thank the government of Japan (MEXT), ITP, the Educational Unit for the study of Connectivity of Hills, Humans and Oceans, and Center for On-site Education and Research at Kyoto University (Explorer program) for sponsoring my postgraduate study and field work activities.

Both my pre-doctoral and doctoral field research would have not been fruitful without the great support I have received from the people and pertinent governmental and non-governmental organization officers in Hamer district and South Omo Zone Administrative Offices in Jinka. My special thanks goes particularly to Bono Belanta and Oyita Kota, who have been willing to host and guide me throughout the course of my studies. I would like to thank Kole Kilkila,

Shada Kulo, Elias Koreto, Ayalkbet Getachew, Awoke Aykie, the late Shelo Girma, Zerihun and Seble (May God rest their souls in peace), Kore Aska, Wele Kala, Samuel (my name child in Hamer) and his siblings, Hailu Birnas, Nigussie Hailu, Tassie Ayike, Shada Kala, Wele Abebe, Gelo Koya, Zelalem Adane, Choke Bejie, Gayito Kilkila, Robel Kilkila, Yeshe Kilkila, Oyita Murso Oyita, Tile Bonko, Tsegaye Ginbare, Jemo and his family in Beshada, Peter Dimarko, Hamlet Adem, Bitsit Elias, Seifu Lemma (DVM), Berki Belayneh, Abel Woldemariam, Ayko Gudree, Tseganesh Hailu, Dagne Gebre, Adisalem Habtamu, Almaz Yaya, Wondimu Kifle, Azmach demissie, Filfilo Fitae, Fasil Abate, Alemitu Getachew, Etenesh Eshetu, Dejene Demisse, Bizuneh Kifle, Birhanu, Galshi, Kedrala Gezahegn, Alemu W/Selassie, Florence Asebe, Haila, Wele Muga, Duka Alego, Meshi Algo, Ente Algo, Jegi Algo, Kejia Alego, Acho, Goiti, Omele, Gadi, Kuri, Bejie, Ankesi, Geldi, Ivo, Sisayi, Zenebe, Fantahun Sitotaw, Wondyifraw Baykeda, Dibo, Mulugeta, Pepsi, Mamush, Gimete Girma, Wondifraw Abera, Henok, Efrem, Tesfaye, Mulugeta Muluneh (Owner of Dinknesh Ethiopia Tour), Lomo, Geletu, Kifleyohanness Birhane selassie, Misrak Assegid, Zerihun Ibrahim, Tewodros Daniel, Yodit Abera, Biruck Dessalegn, Dilu Shaleka (PhD), Hibete Tesfaye, Zeremariam Fre (PhD), Mamo Hebo (PhD), Walelign Workneh, Bizuayehu Tebejie, Sosina Walelign, Ermias Walelign, Fiona Flintan, Tadesse Daba (PhD), Petros Thomas (PhD), Chie Ikeda, Yan Yin Zi, Derejie Tsegaye (PhD), Sarah Tewolde-Berhan (PhD), Emiru Birhane (PhD), Michaela Pelican (PhD) and all the people in Weniyaiki Lika, Dembayite, Qiana, Zeleketa villages and staff members of Turmi

municipality, South Omo Research Center, Buska Lodge and people whose names I did not mentioned here.

I am very much indebted to my academic supervisors, Professor Shigeta Masayoshi, Professor Ohta Itaru and Associate Professor Yamakoshi Gen, for their critical comments and unreserved encouragement during my study at Kyoto University. This goes also to my colleagues Shinichiro Hisada and Ikeda Aino for their support and encouragement.

I would like to give credit to Roman Abera and Tefera Alemu (my parents) who taught me to work hard, to be considerate to others and live up to my visions. My siblings Kiberalem Tefera, Dawit Tefera and Pawlos Tefera were also there for me in their constant support and love. My special thanks goes to my dear wife, Hiwot Walelign for her love and care and my two sons, Fiker and Amen for being part of my life and for enduring the challenge of staying away from home.

I thank God every day for He has made this long journey possible.

Contents

Acknowledgement	i
List of tables, figures, plates and abbreviations	vii
Abstract.....	xii
Chapter 1 Pastoralism, land and development interventions in Ethiopia.....	1
1.1 Overview of pastoralism in the Horn of Africa.....	1
1.2 Policy context in the past and at present in Ethiopia	2
1.3 Development interventions in pastoral regions of Ethiopia	4
1.3.1 Overview of past interventions.....	4
1.3.2 The situation in Hamer district of South Omo Zone	7
1.4 Organization of the dissertation	9
1.5 Statement of the problem	10
1.6 Objectives	12
1.7 Research methods.....	12
1.8 Hamer district and rationale of site selection.....	13
Chapter 2 Ethnographic accounts, livelihood and cooperative interaction	15
2.1 Introduction	15
2.2 Socio-political organization	16
2.2.1 Perko	17
2.2.2 Donza	17
2.2.3 Zersi	17
2.2.4 Bitu	18
2.2.5 Ayo	18
2.2.6 Gudli.....	20
2.2.7 Jilo.....	20
2.2.8 Moara.....	21
2.3 Moiety and clan	21
2.4 Household organization	22
2.5 Gender division of labor.....	22
2.6 Income generation and economic activities.....	24
2.7 Livelihood and highland-lowland dichotomy	26
2.8 Cultivation of food crops	30
2.9 Cooperation and rituals.....	34
2.9.1 Sorghum cultivation in promoting cooperative interaction	36
2.9.2 Significance of social rituals for cooperative interaction	37

2.9.3 Cattle leaping	38
2.9.4 Cooperation during livestock mobility	40
Chapter 3 Livestock mobility and management.....	45
3.1 Introduction	45
3.2 Livestock mobility and seasons.....	47
3.3 Herd types and mobility.....	49
3.4 Mobility and herd size	53
3.5 Types of mobility and grazing enclosures.....	56
Chapter 4 Land enclosures: Opportunities and socio-ecological challenges	59
4.1 Introduction	59
4.2 Enclosure development in Hamer	61
4.3 History and processes.....	62
4.4 Productive Safety-Net Program (PSNP) and enclosures.....	64
4.5 Existing trends in land enclosure activities	65
4.5.1 Individual enclosures.....	67
4.5.2 Joint enclosures	68
4.5.3 Communal enclosures	70
4.6 Prospects and challenges in enclosure management.....	75
4.7 Community initiatives and environmental conditions for success	77
4.8 Challenges from conflict.....	79
Chapter 5 Re-Settlement, villagization and ritual non-cognizance	87
5.1 History of re-settlement programs in Ethiopia	87
5.2 Types of settlement in Hamer district	89
5.3 Settlement strategies	95
5.4 Past and current villagization schemes	97
5.4.1 Quma villagization program.....	97
5.4.2 Targets of the villagization program	98
5.4.3 Reasons for settlement	98
5.4.4 Prospects and challenges	99
5.5 Moving into the new villages	104
Chapter 6 Summary and Conclusion	109
References.....	117
Tables	127

Figures.....	135
Plates	140
Appendix.....	159

List of tables, figures, plates and abbreviations

Tables

Table 2.1 Activity profile of gender-based labor divisions

Table 2.2 Seasonal and farm calendar in Hamer district

Table 2.3 Engagement of eight households for subsistence and income

Table 2.4 Livestock population size in Hamer

Table 2.5 Sorghum varieties in Hamer

Table 3.1 Herd mobility in three regimes

Table 4.1 Enclosed land coverage with support from PSNP in Hamer district

Table 4.2 Household's involvement in enclosure activity at BB's village

Figures

Figure 1.1 Ethnic and place map of the research area in South Omo Zone, SNNPR

Figure 2.1 Rainfall during the farming season in Turmi

Figure 2.2 Kinship diagram of AA and SA

Figure 3.1 Schematic representation of livestock movement

Figure 4.1 Schematic representation of I, J2 & J3 type enclosures with member households

Figure 4.2 Controlled grazing movement of a cow and its calf inside Q communal enclosure

Plates

Plate 2.1 MK's farm near Dimeka town

Plate 2.2 A Hamar man tilling land using oxen

Plate 2.3 A Hamar boy performing the rite of transition near River Keskie (Turmi)

Plate 4.1 Individual enclosure near Turmi town

Plate 4.2 Sorghum crop and space for grass in W village

Plate 4.3 Small goat under tree shade in W village

Plate 4.4 Gulley adjacent to an enclosure in Q village

Plate 4.5 Aloe species next to trenches in Q village

Plate 4.6 Grasses near a trench in Q village

Plate 4.7 Tower to store hay in Q village

Plate 4.8 Dry pond in Q village

Plate 4.9 Half-moon micro catchments in Q village

Plate 4.10 Grass for sale in Turmi market

Plate 4.11 A back load of grass for sale in Turmi market

Plate 5.1 Rainbow over a Hamer homestead in W village

Plate 5.2 A Hamer village

Plate 5.3 Aerial view of W settlement near Turmi town

Plate 5.4 Goat kraal in front of a public meeting space in W village

Plate 5.5 Temporary farming season house inside a farm field near Turmi town

Abbreviations

ABE: Alternative Basic Education

ADLI: Agricultural Development Led Industrialization

C: Communal enclosure

DPCF: Disaster Preparedness and Contingency Fund

EPRDF: Ethiopian People's Revolutionary Democratic Front

ETB: Ethiopian Birr (Ethiopian unit of currency)

GO: Government Organizations

GTP: Growth and Transformation Plan

HD: Herd camp Destocking

HR: Herd camp Restocking

I: Individual enclosure

IFAD: International Fund for Agricultural Development

IIRR: International Institute of Rural Reconstruction

J: Joint enclosure

JIRDU: Jigjiga Rangeland Development Unit

MoARD: Ministry of Agriculture and Rural Development (Ethiopia)

MoFED: Ministry of Finance and Economic Development (Ethiopia)

NGO: Non-Governmental organizations

NCFSE: National Coalition for Food Security in Ethiopia

NERDU: Northeast Rangeland Development Unit

PCDP: Pastoral Community Development Project

PDO: Pastoral Development Office (Hamer District, South Omo Zone)

SDPRP: Sustainable Development and Poverty Reduction Program

SORDU: Southern Rangelands Development Unit

PASDEP: Plan for Accelerated and Sustained Development to End poverty

PSNP: Productive Safety-Net Program

SLE: Sustainable Livelihoods Enhancement

SNNPR: Southern Nations, Nationalities, and Peoples' Region

UN: United Nations

UNOCHA: United Nations Office for the Coordination of Humanitarian Affairs

USAID: United States Agency for International Development

VD: Village herd Destocking

VR: Village herd Restocking

WB: World Bank

Abstract

The Hamer are agro-pastoral people who predominantly depend on livestock husbandry for subsistence. Herding livestock involves seasonal migration to grazing pastures, salt, and water. Due to insufficient rain in the lowlands, sustaining agricultural activities has been challenging despite the gradual increase in agrarian activities. Yet, the pastoral way of life is unquestionably dominant. Mobility to agro-pastoral neighborhoods have enhanced trade interactions and encouraged the Hamer's growing interest and skills in farming. Hence, in the relatively fertile areas of the district, they practice farming with oxen. Mobility also resulted in economic interdependence—trade and the essential integration of farming with the pastoral system. This had contributed to the exchange of goods and the change to a more sedentary lifestyle.

The overall objective of this dissertation is to enhance our understanding of the socio-ecological changes and continuities in livestock mobility, rangeland resource use and settlement patterns in Hamer. It particularly examined the emerging trends of 'privatizing' lands, communal rangeland management and resource ownership through grazing and farm land enclosures at the Individual, Joint, and Communal forms of engagement. It thoroughly discussed the development of land enclosures in terms of processes occurring at the aforementioned three levels of participation and examined the opportunities, challenges, and short and long-term consequences related to this endeavor from both popular and environmental perspectives.

Based on ethnographic fieldwork and case studies, the discussions consolidate the nature of interactions between the development and evolution of enclosures on the one hand, and the extant social systems and patterns of livestock mobility and farming on the other.

At different occasions, pastoralists in Ethiopia have been encouraged to settle and practice agriculture. Despite these efforts, however, the Hamar maintained their mobility in search of better pastures, water and areas for flood retreat cultivation. In due course of time, they have experienced changes over the course of different regimes. For instance, distance to herd camps has increased, leading to less frequent visits to villages, and mobility between herd camps has increased in frequency due to livestock population growth and increased competition.

Changes in mobility patterns over the last eight decades have resulted in increased encroachment into territories beyond the Hamar jurisdiction. Disruptions in rainfall, frequent droughts and shrinking of grazing land have also rendered preexisting alliances vulnerable to conflict. In the context of such conflicts, efforts to manage land for grazing, crop production, and income generation have gradually increased at the Individual, Joint, and Communal forms.

Land use changes evolved gradually and the successfulness of interventions on land was dependent on the origin of the initiative and the nature of the land in question. However, the current discourses in the processes of formation of new settlement schemes through villagization programs in the district may mark the

coming of visible changes in livelihood at landscape scales. The discussion on the perception and response of the community involved in the sedentarization program indicated the significance of local rituals and sense of people's attachment to their land. A rift exists between policy and local perception on the core values of the livelihood, questioning the sustainability of the settlement schemes underway. Examination of trends on land interventions reveals that land use changes are likely to limit herd mobility in the service of grazing in the years ahead as land policies continue to favor settled agriculture over pastoralism.

Land enclosures are contributing to household subsistence by enabling households to produce food crops, generate income from the sale of grass, and cope dry seasons by reserving grass. However, multiple claims of resource rights due to increasing competition may promote confrontations in the future particularly through possible disruptions of existing livestock mobility routes and grazing patterns. In the aftermath, coupled with the commencement of commercial agricultural projects and villagization schemes, such changes in resource use patterns will affect existing inter-ethnic power relationships between the Hamar and their neighbors.

Through the leading role of customary institutions, the enforcement of codes of conducts and engagement in peace dialogues, the Hamar are responding to the changes in a way that re-affirms their interest. Such harmonization is evolving out gradually from within in response to ecological and socio-political changes affecting Hamer people's livelihood. The re-harmonization of the internal changes with regional and federal state development interventions, however, is either

missing or ignorant of the changes in the district. In addition, the contribution of cultural rituals in development planning was not taken seriously. Hence, in the absence of common understanding of national and regional land use change patterns, participatory planning and decision making strategies, guiding the implementation of development interventions make it hard to ensure genuine re-harmonization.

Key Words: Change; Enclosure; Farming; Livestock; Mobility; Settlement; Hamer

Chapter 1 Pastoralism, land and development interventions in Ethiopia

1.1 Overview of pastoralism in the Horn of Africa

Over half of the world's pastoralists live in the African drylands and three-quarters of the Pastoralists in the continent are found in four countries of East Africa: Ethiopia, Kenya, Somalia, and Sudan (Galaty, 1994: 186). Pastoralists utilized a range of grassland habitats, bush and shrub land, sandy lowland and loamy highland pastures by combining livestock keeping and rain fed cultivation (Galaty, 1994: 185). Pastoralism as a production and resource management system, therefore, has shown remarkable resilience and it is the most dominant land use form in the dry lands of Sub-Saharan Africa (Ibro *et al.*, 2004). Hence, it played a central role in the local and national economies of countries in East Africa.

The many millions of pastoralists who inhabit Africa's dry lands and the often-vibrant economy they sustain is testimony to the resilience of pastoralist livelihood systems, but these systems are also very vulnerable. Hence, pastoral communities in the dry lands of Eastern Africa are increasingly becoming vulnerable to food and livelihood crises. Climatic shocks such as droughts and floods have increased. Man-made forces such as the ban on meat exports to the Gulf region and overtaxing a finite natural resource base are worth mentioning (UNOCHA, 2007).

Livestock and human populations are growing as the pastoral resources on which they depend are diminishing, both in terms of grazing area and range productivity (Helland, 1977:22-26). However, no other reason is more central to the problem than the persistent cycle of inappropriate policy and practice in the region. Policies that are neither consistent with needs nor responsive to the uniqueness of the pastoral system are primarily to blame for pastoral vulnerability (Humanitarian Policy Group, 2009).

1.2 Policy context in the past and at present in Ethiopia

The classification of Ethiopian agriculturalists as seed farmers, enset and tuber bearing plant farmers, or pastoralists is based partly on climatic and ethnic factors, but mainly based on livestock husbandry and the need to move from one place to another to find new grazing pastures (Westphal, 1975). According to Westphal, past invasions and migrations have led some farmers into areas where rainfall is adequate for arable farming, but many of these farmers continue to focus primarily on raising livestock, and areas even suitable for intensive farming do not produce crops.

In spite of the economic significance of rangelands to Ethiopia, which was estimated to raise 40% of the cattle, 75% of the goats, and 25% of the sheep, significantly contributing towards Ethiopia's leading livestock holding in every category, very little attention was given to pastoral areas until the mid-1960s (Desta, 1999: 10-11).

Pro-agriculture policy bias failed to genuinely recognize existing customary land use forms (Abbink *et al*, 2014: 8) and regarded pastoral lands as inefficient and ‘unutilized empty spaces’ (Makki *et al.*, 2011: 3) open for huge capital investment. This narrowed down the policy space for pastoralism and the problems that come along with prioritizing agriculture failed to properly support subsistence production systems of the rural poor. Prolonged drought incidents, global market pressures and donor driven policies also contributed to the government’s interest in pushing for agriculture based development policy. These policies resulted in interventions that have their roots in the legal provisions that do little to support pastoralism as a vibrant time tried system (Abbink *et al.*, 2014; Abza, 2011).

Despite the legal recognition of pastoralists and their rights in the constitution (Morton, 2005: 13, Samuel, 2014:100) and regional land administration proclamations (Abebe, and Solomon, 2013: 189), pastoralism as a livelihood option has continued to receive less attention from the state. Such a discourse has contributed to inefficient delivery of communication, health and educational services. This has a major challenge to pastoralism and left pastoralists vulnerable to frequent asset shocks.

However, there are commending on-going institutional efforts to help the voice of pastoral people be heard nationally. One of such initiatives was taken when the Pastoral Affairs Standing Committee was established in 2002. According to Morton (2005: 13) the Committee possesses much greater powers of formal parliamentary oversight, but is much less independent of the government with

limited members chosen by the parliament from non-pastoral and pastoral constituencies.

The Growth and Transformation Plan (GTP), which is phasing out in 2015, has encouraged the involvement of private investors in large scale agricultural production and expansion of irrigation development activities (MoFED, 2010). However, with an aim to establish effective public service delivery, investment and disaster management in the arid and semi-arid lowlands to improve pastoral livelihoods, alleviate income and non-income poverty and reduce vulnerability, the Ethiopian government in collaboration with the World Bank and IFAD started implementation of a 15 years Pastoral Community Development Program (PCDP). The first phase of the program included 32 districts in Afar, Somali, Oromia and Southern Nations, Nationalities, and Peoples' Region (SNNPR). According to the project review report, 2,065 community sub-projects were implemented by communities up on prioritized Community Action Plans. The program follows a multi-sectoral approach involving different stakeholders for implementation of its targeted plans that include communities, district, regional, and federal level authorities, NGOs, UN agencies, WB and IFAD.

1.3 Development interventions in pastoral regions of Ethiopia

1.3.1 Overview of past interventions

Somali, Afar and Borena make up large proportions of the land size and population number of pastoral regions as compared to pastoral zones in SNNPR

particularly in South Omo Zone¹. The natural settings of these pastoral lowlands are more suitable for pastoral livestock production than rain fed crop production providing livestock serving multiple functions for milk, meat, manure production and draught power (Desta, 1999).

Since mid-1960s, Ethiopia has established large rangeland and livestock development projects. In collaboration with Ethiopian Ministry of Agriculture and the USAID, livestock market center and water resources development project was put on in Borena. The creation of the Ethiopian Livestock Meat Board as a specialized agency involved pastoral areas through the provision of veterinary services that was vital in the facilitation of another USAID project, the Arero Range Pilot Project (1965-1975). This project aimed at improving the living standards of pastoral communities in Yabellow and Abernossa along with increasing livestock off take from an area 2,332 km² for commercial market purposes (Desta, 1999: 13).

The Second Livestock Development Project (1973-1981) and the Third Livestock Development Project (1975-1984) proceeded by a fund from The World Bank and African Development Bank respectively. Although the war between Ethiopia and Somalia in 1977-8 destroyed stock route facilities and market places established by the former, it aimed at developing an integrated market and stock route system in the Southern rangelands through the provision of water points, improved livestock off take and better market opportunities. The later project of the

¹ Hamer, Erbore, Kara, Benna-Tsemay, Nyangatom, Mursi, Bodi, and Dassenetch inhabit the southwestern lowlands of the Omo River basin.

two envisioned large-scale pastoral development intervention to develop three areas; the Southern Rangelands Development Unit (SORDU) in Borena, the Northeast Rangelands Development Unit (NERDU) in Afar and the Jigjiga Rangeland Development Unit (JIRDU) in Somali region. It aimed to restructure traditional livestock production systems to raise living standard of pastoral people in the areas mentioned (Desta, 1999: 20-22).

Accordingly, provision of veterinary services, water and infrastructure development, training of rural population, capacity building of livestock sector government institutions, conducting appropriate research were components included together with programs on water-spreading, stocker/feeder and market. It operated on the philosophy that tighter control over stocking rate contributes to better rangeland productivity through voluntary based herd adjustment by pastoralists that takes the concept of carrying capacity into account.

In 1962, Awash Valley Authority was setup as an autonomous public organ to coordinate and administer natural resource development in the Upper and Middle Awash that granted land to concessionaires on the basis of the Constitutional provision making pastoralist land the property of the state. Large scale irrigation based state farms were established along the Awash River where construction of dykes reduced grazing availability in the plains and prevented annual fertilization of the land through the deposition of silt (Samuel, and Flintan, 2007: 50). Unlike the previously described livestock and range development projects, the large scale state irrigation projects did not comply with the desires of the Afar and Kereyu pastoral communities. It can be noted that irrigation based

state farms during the Socialist government and leasing land for private investors by the current regime are attributing to scarcity of grazing land despite the significance attached to the projects in bringing direct foreign investment to Ethiopia.

1.3.2 The situation in Hamer district of South Omo Zone

Pastoralism among the Hamer people involves raising cattle, sheep, and goats, and most recently, camels for their livelihood where seasonal migration in search of grass and water is the central aspect of the mobile system. However, in Buska, Shanko, and the Beshada highlands, locations relatively fertile in the Hamer district, the soil retains moisture after it rains. In such places the Hamer till the land with oxen to grow food crops.

A household survey by the district PDO (2005) identified 35% of the Hamer as agro-pastoral, and the remaining 65% as predominantly pastoral. However, Strecker (1976: 47) argues that the Hamer should not be labeled solely as pastoralists or agriculturalists since their culture is a combination of both. Strecker reports that the Hamer can be classified as 60% agriculturalist and 40% pastoralist. According to him, unlike the PDO (2005) report, the percentage of the pastoral Hamer population in the district is less than the agro-pastoral Hamer in proportion. The Hamer still continues to produce sorghum, although a pastoral lifestyle is unquestionably predominant. However, whether the transition to an agricultural livelihood is a response to the changing climate or an influence from the state requiring the Hamer to settle is debatable.

Grazing movements to areas inhabited by agrarian and agro-pastoral societies, as well as trade interactions, have contributed considerably to the Hamar's growing interest and skill in farming. In a similar case the majority of the Afar people in northeastern Ethiopia mainly relied on pastoralism for subsistence except for the Afar of the Ausa area whose livelihood depended on agriculture, local and external trade on top of pastoralism (Getachew, 2001: 35-36). Getachew (2001: 98-100) further noted changes in the new type of land use and the introduction of new farming techniques despite failures in settlement schemes that aimed to change the pastoral Afar into self-sufficient sedentary farmers.

In addition to such trade interactions and movements for better pasture and water resources, government² and non-governmental organization programs such as PCDP and PSNP contributed immensely to people's involvement in communal range land rehabilitation activities. In Eria embule *kebele*³ of Hamer district the rehabilitation activity introduced the concept of communal land enclosure which was pushed by the community at the beginning. Through continuous discussions and experience sharing visits to Borena in Oromia Regional State, the community enclosed thirteen hectare land where bush clearing and conservation techniques helped the re-growth of lost grass species and sown seeds. The locality has become a model and recently enclosing lands on private basis has become a practice.

² According to MoARD (n.d.), 16,292 hectare of potential agricultural investment land was ready for lease in the Hamer district while 15,000 hectare is already transferred. The document further entailed the establishment of a regional team that had conducted preliminary assessment in five districts of South Omo zone.

³ It is an Amharic language term (the official national language of Ethiopia) to refer to the smallest administrative unit in Ethiopia's governmental structure).

Pastoralist Community Development Project has multiple components under its Sustainable Livelihood Enhancement (SLE) and Disaster Preparedness and Contingency Fund (DPCF) projects. However, only one project was completed with a focus on pasture improvement under SLE and thirteen completed with one ongoing under DPCF during the beginning phase of the project life.

1.4 Organization of the dissertation

The dissertation is organized into five independent and interrelated chapters and a concluding chapter that caps the discussions in all the chapters of the dissertation.

Chapter 1 reviews literatures on pastoralism and past and present development interventions in dry land part of the country, problem statement and objectives of the research, and the methods.

In Chapter 2, I will provide an ethnographic account of the Hamar, their socio-political organization and agro-ecologic based dichotomies. The chapter provides an account of the growing, though gradual, trend of the Hamar people's engagement in agricultural activities while highlighting on the role of women in transforming farming activities.

Chapter 3 examines the changes that have affected rangeland resource use and herd mobility patterns among the Hamar and the impact of enclosures on livestock mobility.

Chapter 4 discusses land use changes particularly the development of rangeland enclosures in terms of processes occurring at Individual, Joint

(dyadic/triadic) and Communal forms of engagement in Hamer district. It examines the opportunities, challenges, and short and long-term consequences related to this endeavor from both popular and environmental perspectives. The discussion in this chapter treats pastoralist land enclosures at the scale of households and homesteads.

Chapter 5 elucidates the settlement patterns, the process of formation of new settlements and the on-going social re-organization of the Hamer into villages in response to sedentarization policy programs. It also addresses the existing gaps in policy and the local perception of social units to the program. Through an emphasis on the significance of local rituals and sense of people's attachment to their land, the rift between policy and local perception will be analyzed. Based on reviews of previous literatures on resettlement programs in Ethiopia, the chapter challenges the program in Hamer district providing cases as evidence to open an argument for further discussion.

1.5 Statement of the problem

The Hamer people share the problems and challenges of herding societies in the Horn in general and in Ethiopia in particular. Challenges from global climate changes, conflict and mismanagement of natural resources, absence of appropriate land policies and implementation strategies to harmonize state and regional laws with community use patterns and tenure arrangements are worth noting. In Ethiopia, despite proclamations stating broad principles on the utilization of land for appropriate land use practices by land holders, the development of specific policies and guidelines for appropriate land use and land management remains unaddressed (ARD, 2004). Such gaps in policy and practice specifically in the area of land use

planning continued to tenure insecurity, fragmentation of land, conflict and mismanagement of rangeland resources.

Bush encroachment, for example, has increased with a rise in population of both human and livestock. Towns have expanded along road establishments bringing in changes in land use and at the same time resulting in an influx of non-Hamer settlers and its subsequent demographic consequences in the research district.

Recurrent drought and lack of rain in farming and wet seasons forced the Hamar to push their herd camps further beyond the Hamar territory. Coupled with the growing proliferation of arms, competition of pasture has been observed to affect intra and inter-ethnic relationships. Intensification of the existing farming system and enclosing of lands for grazing have shown a growing trend among the Hamar in an effort to harmonize their livelihood with ongoing social and ecological changes. However, external interventions that aimed at tackling the adversaries of the changes were conservation biased. According to Homewood (2005), sustainable management of natural resources, and particularly conservation interventions, has tended to focus on technical issues of matching off-take to production and institutional capacity building has become a new technical fix when the contribution of social institutions in the management of resources is often ignored.

The main problem, therefore, is in part the lack of detailed understanding of existing social units and institutions at local level, the challenges from socio-

ecological changes, and the way how the changes can be re-harmonized with existing and upcoming policy and development planning. I believe that the community initiatives to harmonize the changes affecting their livelihood deserve due attention from development planners. This in turn calls for a re-harmonization of the efforts from the stakeholders involved to accommodate the present and future needs of the community in order to achieve a common goal.

1.6 Objectives

The research aimed to enhance our understanding of the socio-ecological changes and continuities in livestock mobility, rangeland resource use and settlement patterns among the Hamar along with the challenges and opportunities of a transforming local livelihood. It also investigated emerging trends of ‘privatizing’ lands to claim resource ownership through the establishment of land enclosures of different types.

1.7 Research methods

This study relied on both primary and secondary sources. Primary data were collected through ethnographic field research using a participant–observation approach, supported by interviews and focus group discussions, in different villages across the district. The majority of the primary data was collected through ethnographic field research that I conducted from 2010 to 2013. I was based in Wonyarki Lika village, which is about 3 kms northeast of Turmi town. I stayed with a Hamar host family which gave me opportunities to attend and observe socio-cultural and political events in the village and beyond.

Purposive and systematic sampling techniques were used to ensure participant representativeness and agro-ecological diversity. Structured and semi-structured questionnaires were introduced into the overall survey to generate quantitative data, and personal life experiences were collected via in-depth interviews. In an effort to minimize the limitations of this research and maximize the validity of the results, personal observations, various communications, and documents were reviewed to provide triangulation and crosschecks. These measures further ensured that participants were thoroughly briefed on the nature of the research and could provide informed consent.

1.8 Hamer district and rationale of site selection

Hamer district is located in southwestern part of Ethiopia, in South Omo Zone (Figure 1.1). I stayed in different villages in the districts mainly in the dry lowlands spending most of my time with my host family Wonyarki Lika village. Since the day I read ethnographic based novels about the Hamer by Fikremarkos Desta (1995) when I was junior high school student, and my first physical encounter with them in 2006 in Yableo (Borena) pastoralist youth form organized by SOS Sahel Ethiopia, I developed a growing interest to know the Hamer and conduct an ethnographic study with them.

During the course of my stay at the Graduate School of Asian and African Area Studies in Kyoto University, I was privileged to access materials concerning them of which the majority focused on abstract and material culture while physical anthropological study was inadequate. I, with a background of resource

management, therefore, proposed to conduct an ethnographic study of socio-ecological systems in Hamar to make contributions in that line of thought.

South Omo is home to many ethnic groups rich and diverse in terms of livelihoods, cultural values and resources. The ever changing power relationships and dynamics of land and resources based disputes and settlement mechanisms; the ease to notice livelihood under modernization in the face of the rapidly growing tourism industry and establishment of huge land intensive State and non-State commercial projects makes South Omo a destination for both leisure and venue for academic exchange.

Chapter 2 Ethnographic accounts, livelihood and cooperative interaction

2.1 Introduction

The Hamer people live in the Hamer district of the South Omo Zone, Southern Nations, Nationalities, and People's Region (SNNPR). Figure 1.1 shows map of the research area, which is located at 5°10' N and 36° 40' E (Wikipedia, 2014). The Erbore, Beshada, and Kara also reside within the Hamer district, which is bordered by the Ari, Benna-Tsema, Mursi, Dassenetch, and Nyangatom ethnic groups (Figure 1.1).

According to the Ethiopian Population Census Commission report (2008), the estimated population of the Hamer people is 59,160. Farming, herding livestock, and beekeeping are basic livelihoods associated with the area's economy. Elders claim Hamer territory is located between the Keskie and Balah rivers in the district. These geographic features define territorial jurisdiction and mark the site for the rite of transition into adulthood. Vegetation in the district is mainly acacia dominated bushes and shrubs with a bimodal rain that range from 250 to 800 mm to support sorghum and maize.

Rain in September, October and November is very important, for small ruminants such as goat and sheep, and its failure may induce mobility. According to the Hamer pastoral development office (PDO), the district has 8,865 hectares of

arable land and 225,434 hectares of grazing land. The forest area accounts for 10,000 hectares that, when combined with area covered by bushes and shrubs, totals 250,939 hectares.

2.2 Socio-political organization

The Hamar has defined social hierarchies and traditional institutions governing norms and responsibilities in the day to day life of the people although external fixes undermined or otherwise ignored the potential contribution of socio-economic institutions for pro-community development. According to my observations, entitlement of such social positions was not necessarily age dependent. However, elders have a great respect and role in the Hamar socio-political and cultural life. Belongingness to a certain clan or family root often plays an important role in the power dynamics and livelihood of the Hamar society. I will describe the type and nature of offices held by persons, group of individuals and then explain the clan structure, marriage relationships, responsibilities and power associations to make my paper easily understandable.

Recently, according to an elder⁴, the generation's attitude towards cultural institutions and norms is being eroded. Elders are concerned about an increasing influence of the state in the service of elders in cultural institutions. The following is the list of offices held by persons and groups of persons in Hamar.

⁴ I held the discussion with the elder, AA in Turmi town on September 2010.

2.2.1 Perko

Although it doesn't exist now, the person holding this office belonged to the Binas moiety with a responsibility of protecting possible drought, war and livestock diseases. The office holder used to carry rhino horn as a tool to perform this ritual of protecting the people.

2.2.2 Donza

Donza is a household head, and an assembly of such heads of household forms well respected, matured, wise elder council which is in charge of leading the people (*zersi*) under God (*Barjo*)⁵. The council of *donza* is responsible for settling disputes among people. However, *donza* refers to someone who has passed the rite of leaping over cattle and started a married life. Whether young or old, the social system recognizes and respects him as an adult. He is involved in any discussion in the village pertaining to any issue. Some men may become *donza* at younger ages while others attain it lately because of social arrangements and family related reasons sometimes causing delays in the rite of transition in to adulthood.

2.2.3 Zersi

It is a collective term to describe the common people. People of a specific locality or together with others will make discussion on security, relevant social matters. The *zersi* participates in day to day social encounters including cursing enemies, giving blessings to livestock and the land, and execution of orders and assignments given by the council of *donza* and other leaders' decisions.

⁵ *Barjo* is the supreme of all. He is the creator of the people and the land.

2.2.4 *Bita*

It is a higher position in the Hamar social authority and political life and is passed hereditarily. It is above the people and provides rules and regulations for them. It represents the Hamer *zersi* and provides the rules with a blessing. Among the Hamer, there are now four *bitas* whose rule extending from Keyafer to the border with Dassenetch. According to my respondents, these *bita* came from different places to the present day Hamar and have different levels of acceptance. Strecker (1976) referred it as *gudli* of the whole or part of the tribe and associates the Ethiopian conquest and the Italian occupation to have taken much of the mystical power⁶.

2.2.5 *Ayo*

The *ayo* is responsible to mobilize the people. It serves as speaker and messenger of a specific locality. *Ayo* are chosen by the people. Previous *ayo* recommend nominations of someone whom they think are matured enough to handle socio-politic matters and the *zersi* will discuss and approve the nomination with a blessing in a public meeting called *osh*. *Ayo* is chosen from Binas moiety. Misha and Adessa clans of the Galabu moiety cannot be appointed as drought is believed to happen if they give blessings. Cattle are slaughtered and the *ayo* to be steps on the intestinal waste of the slaughtered cattle and is given a big sword symbolically to sworn as representative of the people. “Now it is like a child game” an old man responded, angry about the violation of customary procedures to elect

⁶ He further explains that the Hamar estrangement of the *bita* up on return from exile.

an *ayo* by the state. It is a social responsibility for the *ayo* that involves long and risky tours to make sure the interests and entitlements of the Hamar are safeguarded. *Ayo* are everywhere in the Hamar land (*pe*). They are burdened with social tasks and have little time for their private affair. To acknowledge their devotion and commitment the Hamar people pays them back with the provision of goats and cereals. This has continued till the later years of the end of the socialist regime in Ethiopia led by Colonel Mengistu Hailemariam. According to the elders I contacted, since the coming into power of the Ethiopian People's Revolutionary Democratic Front (EPRDF), the *ayo* have started receiving money from the government in return to their as 'government messengers'. *Ayo* SK for instance is paid 500 Ethiopian Birr (ETB) per month and sometimes 600 ETB though he is chosen by people without government intervention.

The elders underscored a significant state influence in the affairs of the *ayo* through government nominations without the consent of the Hamar people and working against the traditional norms. As a result, currently many *ayo*⁷ incapable of listening to each other and work in accordance with the traditional norms were said to exist in Hamar. The *ayo* can summon the people for public meeting (*osh*). Whenever it deems necessary issues of reconciliation, punishment, warning and important social matters are discussed. The people provide goat/sheep for slaughter to be served during the meeting.

⁷ Strecker (1976) mentioned 45 *ayo* to have existed during the transitional government period in Hamar district.

2.2.6 *Gudli*

This is a hereditary authority. *Gudli* is highly respected personality whose community service grants him the honor to make prayers to God (*Barjo*) for the rain to come at times of drought and the bees to enter into the hive. *Gudli* also curses *Geleb*⁸, *Bume*⁹, Borena and other enemies who are supposed to be hostile to the Hamar. The *gudli* are known for being wise and making sacred rules (traditional secret spiritual arrangements referred to as *denb*) where coffee making is an integral part of the ceremony. The *gudli* also provides a fire from his house to the people in the village during the start of a new farming season¹⁰. This symbolizes renewal and starting of a new season by removing the ashes of the previous year from the house and starting with a new one.

2.2.7 *Jilo*

Jilo is a secretly chosen individual by the people without the knowledge of the *gudli* and *bita*. His role is to make a sacred rule (*denb*). Particularly when *bere*, *kilkila* and *duka*¹¹ months approach, he creates fire and utters out ‘*burkie keye*’. This literally means ‘disease go away’ (like chasing a sorghum disease that damages the seeds called *shqela* and other sorghum worms. For this post the council of the *donza* chooses calm, wise and good person and the people give blessing up on approval.

⁸ It is a term the Hamar use to refer to the Dassenetch.

⁹ Refers to the Nyangatom.

¹⁰ This can be compared with the *okoruwo* (sacred fire) of the Himba people of Namibia by which the Hamar claim blood ties according to an oral story I was told by some Hamar.

¹¹ These are names of months in Hamar language literally corresponding to January, December and March respectively.

2.2.8 *Moara*

“No one knows their origins. Neither are they assigned.” They make use of sandal shoes throwing it up and down repeatedly. *Moara* can tell whether one who is ill dies of a disease or survives. It resembles the work of fortune telling. They order one to slaughter an animal and throw out body organs, boil coffee and rinse it out for the sprits. They play also a role of traditional healing as they have medicinal knowledge and treatments serving as folk biologists. However, there is an increasing dependence on the use of modern drugs and medical services.

2.3 Moiety and clan

The Hamar is supposed to have originated from two moieties called Binas and Gelabu. I do not claim to have mentioned all the clans belonging in either of the two origins. Some of the clans falling under the Binas moiety include Geta, Ba, Karla, Werla, Dedeso and Dila. The remaining like Misha, Adesa, Gulat, Bucha, Gasi, Duma, Rachi, and Lewen are part of the Gelabu moiety.

The clans belonging to Binas moiety are strictly exogamous and they have to arrange marriage with clans in the Gelabu moiety which allows marriage relationships with clans from within and outside of the moiety. Some individuals, these days, marry non-Hamer individuals. In protest to such a trend an elder quoted the following:

“During the Haile Selassie period we had a great respect. A child is obedient for his mother and father, and respects them. Now we are not respected, elders are insulted. They say they have right. In old times a

Hamer cannot marry Amhara. The norm is Hamer with Hamer. Today he marries someone from town ignoring the one proposed by his family. Girls do same. The government says it her right. This thing called right is destroying the culture. Unless we get rid-off it, it will remain a problem.”

2.4 Household organization

In a Hamer household, both nuclear and extended families live together in sparse settlements located away from riverbeds to prevent malaria, under the foot of mountains. Each homestead is surrounded by a fence where cattle, goat and sheep kraals are included along with separate houses for wives (Samuel, 2013: 122). They are polygamous, patriarchal, and patrilocal. A particular Hamer household unit consists of a male head of family (*donza*); his wife or wives; his mother; nuclear and extended family members; future wife of his son; cattle, goat, and sheep. Inside a fenced compound exist separate houses for each of his wives, his mother and kraal. According to my host mother (“BB”), the Hamer use the term *delen kelonti* to refer to the entire unit described above. *Dele* literally means “enclosure” and *kela* translates to “one,” giving the meaning, “all under one enclosure.”

2.5 Gender division of labor

Because men are the leaders and decision makers in pastoralist societies, it is sometimes mistakenly assumed that women play no significant socioeconomic roles. In fact, government agencies and development projects tended to neglect them; subsequently, many developmental interventions failed in pastoral areas (IIRR, 2004: 109). Culturally, girls and women are among the most vulnerable

groups within pastoral societies. According to the present observation, child labor was found to block children's participation in alternative basic education centers in a village called W in the year 2010. Girls of school age were absorbed with daily activities mainly in keeping birds away from farms, cooking meals in the farms and cultivating the farm. They also carried out other chores such as collecting firewood, fetching water, cleaning and taking care of siblings and small ruminants. Boys on the other hand were given assignments such as taking care of the cattle, goat and sheep herd around the village and in camp herds that are located away from the village. In the alternative basic education center that provides education service at three levels, school dropouts were common particularly among boys as they were often sent to herd camps very far from the village. Girls are more fortunate in attending classes even after getting married as long as the educational centers exist in the husbands' villages. Boys are less privileged in attending these classes. They have little chance of coming back to the village as their responsibilities of moving with the livestock in herd camps grow along with their social roles up on marriage.

Roles are assigned based on gender of family members (Table 2.1). Workload varies from season to season. During dry seasons and drought periods, men move with cattle in search of pasture and possibly enter into conflicts with other pastoralist groups. Women, apart from their daily household routines, participate actively in farming activities. Since mobility is an integral part of the Hamar livelihood, women assume the lion's share of activities associated with the production of sorghum and maize, as well as other crops. Recently, Hamar from the lowlands initiated agro-forestry activities around water points. The author observed

such activities near the Marley River in the Angude area in Turmi town. The practice of shifting cultivation is associated with farming mobility (Table 2.2). Festivities take place in the months following harvest, including honoring the dead, weddings, and cattle-leaping.

The information on seasons and their characteristics was developed on the basis of discussions with elders and knowledgeable informants. Months have 30 days each in the Hamar calendar. According to an elder the author met in Turmi town, the Hamar use the expression *edi kela kayisa tebi* to count days. The literal meaning is that all the fingers and toes of a person plus an extra ten (either toes or fingers). I compared the calendar I developed (Table 2.2) with those of two other individuals. One of them understood the Hamar year to encompass 12 months, while the other suggested 13 months. When the months in the Hamar calendar were compared to that of the standard calendar of the country, some discrepancies were revealed.¹² Even if further discussions need to be conducted to reach consensus, for now, the similarities outweigh the differences among the findings.

2.6 Income generation and economic activities

The survey of eight Hamar households regarding livelihood activities and sources (Table 2.3) in 2011 revealed that all except two households had enclosures for grazing and farming. Highland households such as BS and MK showed no activity for sales of local drinks, wood, or grass. Their activities focused more on farming, managing enclosures for grazing, beekeeping, and other forms of

¹² However, the Amharic and English names of the months corresponding to the Hamar names do not necessarily signify similarity.

engagement to earn money. The rest of the lowland households earned income from selling local drinks, wood, and grass. Among the highlands only one household raised poultry for selling eggs in the Turmi market.

It can be inferred from Table 2.3 that households in both the highlands and lowlands engaged primarily in herding and beekeeping, followed by farming and operating the wedge. Women are typically responsible for selling wood, grass, and local drinks, and assisting with the management of enclosures for grazing.

The arid nature of the Hamer plains and lack of sufficient rainfall to sustain agricultural activities present challenges with some opportunities for the people who focus on livestock husbandry and beekeeping. According to one elder from W village¹³ in the district, the Hamer people did not give much attention to farming when he was a child¹⁴. Women, however, were expert sorghum planters. He added that currently the average size of a farm field owned by one person is five times the size of one when he was a child. It can be presumed that the Hamer are becoming increasingly interested in farming, as shown by generous allocations of labor to farming activities, large farm plot sizes, and new techniques including use of oxen for farming. According to a district pastoral development officer, the Nyangatom people had not yet used oxen to till their land, but Hamer farmers transitioned from broadcast sowing (scattering seed over the soil surface) to tilling the land with oxen at the beginning of the Socialist rule (1974-1991). Admasu *et al.* (2010) reported

¹³ It is 3 kms away from Turmi town.

¹⁴ Roughly, his estimate of the size of the farm in his childhood is below a hectare. AA learned how to plow with oxen while in Benna with his herd (in search of pasture). He also transferred the skill to his brother (Ka).

that eight percent of the Hamar sampled in their research produced crops for commercial purposes beyond home consumption.

Farming is not an activity of the impoverished pastoralist drop-outs who have incurred asset shocks, such as loss of livestock to drought or disease. Rather, it has traditionally been women led activity that lasted for centuries as a survival strategy. For example, the Hamar women enjoy a special ritual associated with planting *delgo*, a sorghum variety. The importance of these rituals is reflected by participation from the *gudli* of the village.

2.7 Livelihood and highland-lowland dichotomy

With the exception of November 2006, the highest levels of precipitation occurred in April. According to data for January, February, March, and April (Figure 2.1)¹⁵, the maximum rainfall recorded during the past 15 years was below 250 mm. The irregular and unpredictable rainfall might have led to increased mobility and the use of grazing enclosures. Data for January, February, March, and April were selected for analysis due to their proximity to the onset of the farming and wet seasons, during which the amount of rainfall is crucial for determining the availability of pasture and the projected productivity of farming.

Those who fail to plant in January must do so during February to avoid the need to replant; February planters must therefore rely on the rains in March to ensure good growth. In general, the rainfall from 1993–2011 was not sufficient to

¹⁵ Figure 2.1 is constructed based on rainfall data for Turmi area that was obtained from the Ethiopian National Meteorological Agency (2011). Data for 1996, 1997, 1999, 2003, 2005, 2006, and 2007 was incomplete.

support agricultural production. During the summer of 2011, for example, the majority of the people in the lowlands moved their village herds to join their camp herds (i.e., livestock kept at distant camps near grazing areas), leaving few or no livestock at home. Although complete rainfall data were not available for 2010 and 2011, my informants reported that the lack of rain during these two years made it difficult for people to engage in rituals to remember the dead, and to organize cattle-leaping festivities.

In contrast, the Hamar living in the highlands benefit from enough rain to support their agricultural activities. According to the PDO (2005), most areas in the district (about 26 of 35 *kebeles*) do not have a definite farming season; hence, more than 23,000 people rely on the cash and food-for-work activities of a safety-net program that supports irrigation-based farming in Kara along the Omo River, as well as the development of grazing enclosures throughout the district.

The Hamar in the highlands are predominantly agro-pastoral. They receive better rain to cultivate crops and relatively move less frequently with their herd. As a result, they have large size farm plots, good farm inputs and enough labor to work in the farm. They cultivate pumpkin, green pepper, cabbage, sunflower, tobacco and maize. Fruit trees such as banana and mango were also grown in farms alongside River Keskia. Compared to the Hamar in the lowlands, the Hamar in the highlands are located relatively closer to their camp herds (livestock kept at distant camps near grazing areas). This enables them to easily mobilize labor during demanding farm seasons. Through mobility to agro-pastoral and farming neighbors and trade interaction, they adopted farming techniques earlier than the lowlanders.

Lowlanders, on the other hand, are predominantly pastoral and often depend on livestock and beekeeping.¹⁶

Case 2.1 MK's perspective on Hamer high- and lowlands

MK, a man in his mid-40s who is originally from the lowlands, described the Hamer highlands as a suitable environment for agricultural production. The place offers people such as himself, who both keep livestock and engage in farming, a chance to produce more than people in the lowlands do. For instance, MK cultivates pumpkins, green peppers, cabbages, tobacco, sorghum, and maize. He also grows bananas and mangos and keeps chicken, goats, cattle, and bees. “They have only two seeds, sorghum and maize,” he said, referring to the people in the lowlands, “but they own a large number of livestock.” He attributed the highlands’ superior productivity to rainfall.

Establishment and development of reciprocal and interdependent relations by pastoralists with neighboring sedentary communities benefit the pastoral production system (Nori *et al.*, 2008: 8). Such interdependence must have contributed to an increase in the exchange of goods, sharing of lifestyles, and integration of farm products into the pastoral system. Agro-ecologies link pastoral and agricultural systems; and considerable economic importance is attached to mobility beyond its implication on resource management strategy. Pastoral movement associated with the search for rangeland resources creates opportunities

¹⁶ Mobility to agro-pastoral areas and trade interactions led to growing interest in farming and adoption of the skills.

for constructing trade relationships and forming friendships and power relationships. Unfortunately, a reduced resource base and recurrent drought are just some of the factors that threaten the livestock base in the Hamer area. Drought has affected pastoral livelihoods, mobility patterns, and relationships with their neighbors. On the other hand, it induces various survival strategies to the Hamer livelihood system. As we see later in this paper, an example can be the introduction of plant varieties, particularly sorghum, from neighboring ethnic groups which further promotes domestication and adoption of sedentary life.

Recent trends in the district, however, showed a continuity trend in the adoption of farming and land enclosure practices while still relying on flood reliant cultivation of sorghum in farms (*hamy*) around homesteads in bushes often following dry river beds and retreat cultivation along the Omo River near their herd camps. The latter is a strategy of people in the lowland to benefit from the labor of herdsmen in the camps. Families may send young girls to assist herdsmen and plant sorghum. In some other cases, the whole family may temporarily relocate to establish a farm (Samuel, 2014: 106-107). Although the extent of their engagement in cultivation of crops varies due to climate and topographic factors, both people in the lowland and highland part of the district still depend on mobile form of pastoralism where livestock make up the bulk of their produce, support mechanisms and contribute much to their local economy and ritual functions.

Table 2.4 shows the number and type of livestock in Hamer district in 2004 and 2010 that is mainly composed of cattle and goats. Cattle and goat pastoralism is, therefore, the dominant herding system that also refers to a household's wealth

status. Better off households often owned more than two kraals of cattle and goats¹⁷ while the poor had less than half a kraal and usually with very few cattle. However, social restocking customs support poor families need for food (milk, blood and meat) through provisions made in the form of gifts and arrangements through cattle alliances. Strecker (1976) stressed such customs to be non-exploitive complex insurances against loss of cattle.

Livestock products, own produced crops, wild fruits, leaves and market purchases were sources of food in the district. The Hamar also collect honey from bee hives whose sale brings revenue for households and consumed for its food and medicinal value.

2.8 Cultivation of food crops

The Hamar mainly cultivate sorghum (Table 2.5 and Plate 2.1). Tilling land to plant sorghum, maize, and other crops has commonly been regarded as women's work, but men who live in the lowlands are beginning to become engaged in this activity. According to an old man in W village, one goat used to be exchanged for one *dore* (pile of maize or sorghum). Desta (1999: 11) likewise indicated that exchanging livestock and related products for grains and other goods and services has been a practice of lowland pastoral groups. Such an exchange of commodities also exists in many areas in the country.

¹⁷ One kraal of cattle roughly consisted of 80 to 90 cattle where as that of goats consisted 90-120 goats. Refer to Strecker's (1976) gate ways for comparison. I used the term kraal to refer to gate way used by Strecker for consistency. A gate way or kraal for livestock is a fenced space to keep livestock in.

Maize, varieties of sorghum originated from Hamer and elsewhere and other agricultural products are grown in the subsistence rain-fed farming system. The Hamer sorghum varieties exhibit resistance to drought and water stress. Common sources of food during dry seasons when milk is not readily available include locally grown seeds called *ged* and *zaqa*. According to BB, Hamer woman engaged in farming activities, preference is given to sorghum than maize because it resists drought and grows with little rain. They sow maize together with sorghum because maize that is sown alone will die out in a sunny and dry environment. Sorghum, however, is annual crop known for its long growing season (four months).

One can assume that mobility to herd camps for grazing are factors for the increase in farming activities. We can also argue that an increase in the number of people pursuing an agricultural livelihood is a source of conflict with neighboring pastoral communities; it may serve as the motivation for people to enclose their land. This trend might affect the use of commonly pooled resources, pastoral use rights, and land ownership in the region. Galaty (1994: 187-194) characterized livestock keepers in Africa's vast and dry lands as either animal husbandry specialists or herders engaged in rain-fed cultivation (Plate 2.2).

Case 2.2 Individual experiences in villages around Turmi

KA is the brother-in-law of BB; the two jointly manage KA's farm enclosure. It has been more than five years since they started cultivating crops. Part of the farm enclosure is used to grow grass, which is especially

abundant during the rainy season. KA and BB collect the grass and use it to cover the roof tops of their houses, often leaving some in the field for free grazing by milk cows, oxen, and small ruminants. The livestock composition in the farm enclosure varies with changes in the amount of grass cover. When the grass cover gets smaller, KA and BB restrict access to only oxen, and cows are taken to bushes away from the farm and village. KA learned farming skills, including how to plow with oxen, from his older brother (AA), a man in his 60s. AA had apparently acquired his skills from the Benna people. KA has been farming since the Socialist regime assumed power in Ethiopia in 1974. When grasses are plentiful, he fattens the oxen and exchanges them for cows or heifers. KA explained that his grandparents started enclosing their land to grow sorghum. Apart from fattening and securing feed for his herd, the farm enclosure has allowed KA to grow and sell grass. In addition, it is a source of shade and feed for weak and sick livestock, small goats, and sheep.

Case 2.3 Grazing space in farm enclosure near the Marley River, Turmi

This farm enclosure is managed by BB and KA. BB's share of land has two purposes. The area used for farming is 1.6 h large and 0.75 h of the land is for growing grass. KA manages approximately 1.12 h. The entire enclosure measures 3.47 hectare.¹⁸ According to my observation in August 2011, grass, including *aren* used for covering roofs, grew only on about

¹⁸ The numbers are the areal sizes of enclosures based on my measurements in 2011.

0.023% of the farmland. The majority of the farm enclosure was occupied by bushes and sparsely grown trees. Spiny shrubs fenced in a mango tree. The present author noticed leftover sorghum stalks from the previous farming season and six goats belonging to a woman from W village inside the enclosure. He also saw a beehive hanging from a tree that apparently belonged to someone else. The enclosure is close to two water wells constructed near the Marley river and is situated on the left side of the Dimeka-Turmi road, about 3.5 km from the village. It is adjacent to the old course of the river (about 15 m from the seven-year-old “new” course). The old course has been filled with sand and retains overflow water in case of major flooding, which last occurred in 2008. The proximity of the farm to the river allows BB and KA to take advantage of sediment remaining on the farm after flooding. Enclosures along the river are typical in Hamer. The present author learned that most of the farmers in the villages experienced a good harvest the year before the formation of the new course. Some other people in the village estimated that they collected 15 quintals of sorghum while BB and KA collected 9 quintals each.

BB and KA started their partnership a year after BB enclosed the land. The farm enclosure has one gate. Trees growing inside the farm are used as demarcations of their individual plots and are referred to as *maale*. There is a wooden shelter in the farm enclosure where BB and WK, who is KA’s wife, alternatively spend nights during pre-harvest seasons. Near the

shelter, different cooking and eating utensils are stored. Women prepare meals there during the farming seasons.

Agriculture is not the only option for supplementing the Hamer's pastoral system; subsistence and commercial alternatives also exist (e.g., beekeeping and use of forestry products). The beginning of the rainy season affects the timing of farming activities and the movement between farms and grazing areas. Agro-ecological variations create timing differences for engagement and harvesting in the lowland and highland areas. These changes also affect movement of livestock and social rituals.

2.9 Cooperation and rituals

In West Africa, among the Bisa and Fulube, social interdependence and mutual support mechanisms are expressed through exchange of agricultural and pastoral produce (Dafinger, and Pelican, 2006: 127-151). Farmer-herder relationships of this type are not necessarily conflict free. Hence, spatial proximity of pasture and cultivated land was associated to a number of incidents. Likewise, both conflicting and amicable relationships have existed between the Hamer and their neighbors for centuries. This is justified by the existence of economic exchanges that lead to cooperative forms of interaction.

In his analysis of cases from the Afar in Northeast Ethiopia, Hundie (2008) emphasized on the role of natural and social environments in fostering cooperative interaction between pastoral households. Pastoral people in Ethiopia have traditional support systems to cope with losses during epidemic, raids and drought.

The Somali people for example, through the *qaaraan* system, contribute livestock for the needy. In Afar, religious leaders impose livestock tax on rich households where livestock collected are distributed to disaster hit households. Like the Somali, the Afar have customary non-market form of cattle alliance to support destitute and poor households (IIRR, 2004: 25). Such kind of alliance is very common form of social support system among the Hamar as well. And it is referred to as *bekida* or *bel*.

The Borena people also have traditional restocking system called *busa gonofa* that operates at village level. Unlike the cattle alliance and support system in Hamar which is done at the discretion of the individuals involved at household level, in the Borena case the clan council assesses the appropriateness of a request for support. Upon thorough investigation of the cause for the loss of cattle, individuals who negligently lost their cattle are disqualified from receiving the support (IIRR, 2004: 26).

This explains how through tighter controls and check mechanisms the pastoral system operates ethical form of cooperation for genuine social support system to function appropriately. Among the Hamar, negotiation and exchange of gifts characterize the way the social support system works. The Hamar exchange harvest and labor through existing networks of bond friendships and cattle alliances when necessarily.

2.9.1 Sorghum cultivation in promoting cooperative interaction

The Hamar people have long history of cultivating sorghum although herding livestock is the major source of their livelihood. Even in the low rainfall receiving areas of the lowland Hamar, people used to practice slash and burn agriculture mainly growing sorghum. As mentioned earlier, sorghum cultivation is associated with rituals depending on the particular variety of sorghum involved (Samuel, 2013: 124).

The importance of agricultural crops in ritual activities is not peculiar to the Hamar alone. Gebre (1993) described the presence of rituals and ceremonies that involve the use of sorghum among the neighboring Ari people. However, compared to Ari, the Hamer particularly in the lowlands has less diversity of agricultural crops and oxen-plough farming is relatively new. Hence, there is a great dependence on sorghum whereas the Ari use ritually and economically important root crops like ensete (*Ensete ventricosum*).¹⁹ Table 2.2 described earlier the nature of months in Hamar and provided a clear picture of pre-harvest and post-harvest seasons and related farming and ritual activities.

During the month of *bere*, people tend to disagree due to the harsh nature of the season. They are less likely to engage in cooperative interactions. However, among the people who plant sorghum following the small rains in this month cooperation, between members of the same family, between in-laws who jointly manage farms, is an integral part of the farming activity to mobilize labor. In

¹⁹ A large, thick, single-stemmed banana plant that is considered as important root crop having subsistence and ritual functions. See Gebre, Y. (1993).

summary, agricultural activities associated mainly to the cultivation of sorghum starting from bush clearing and land preparation, sowing, construction of temporary shelters, stores and watch towers in the farm enclosure, chasing birds and monkeys and harvesting all promote cooperation in Hamar. Good sorghum harvest mark good social seasons characterized by ritual festivities and happiness.

2.9.2 Significance of social rituals for cooperative interaction

The Hamar has many ways to link up with internal and external networks in the system they operate. Such a networking can happen between hunting friends (*miso*), wives, age-mates (*anamo*), in-laws, *jalas* (friendship between Hamar and non-Hamar) and bond-friends.

The kind of friendship is often a reflection of the purpose of cooperation. It is therefore, important to understand the nature of some rituals, norms and traditional institutions of the Hamar to have a clear picture of the nature and level of cooperation that comes with it. Social rituals and cultural processes manifest continuity of the system and cooperation is an evidence of solidarity among members. Equivocally important in Hamar's tradition and life course are the livestock that play a central role in most of the rituals and sorghum cultivation that serve ritual and consumption functions.

In Hamar, cultural, political and economic activities are defined and reflected through a number of rituals (Strecker, 1976). Social rituals are strongly correlated to activities of the ordinary people (*zersi*) and traditional leaders of socio-political institutions. Depending on the particular ritual or social activity the

involvement of people and livestock varies and the ritual or social activities take place at different venues. These rituals or activities represent aspect of the typical day to day life of the Hamar and they demand cooperation between everyone involved. All of them are inter-related to each other bringing economic and work burdens when they occur at the same time. This induces cooperation to share the burdens and fulfill socially imposed mandates. Therefore, the utilization of existing social-rituals and livelihood activities (*osh*, *barjo ala*²⁰, *hatsa*, sorghum sowing); spaces (*boaka*, farm enclosures, riverbeds, and gully²¹) and resources (livestock, agricultural produce, labor, institutions) are vital aspect of networking for the promotion of cooperative interaction in such a pastoral context.

2.9.3 Cattle leaping

Livestock do not only serve the food, milk, traction power, clothing and income generation aspect of the Hamar culture and day to day life activities. They are also the basis for many of economic and political components of the Hamar socio-cultural organization. Involvement of livestock in social festivities and rituals can be in two forms. On one hand, they have symbolic representation in social events (Plate 2.3) and on the other hand, they are also slaughtered for their meat and blood.

Livestock related rituals interestingly are part of the mobility loop in Hamar. A notable example is the mobility of cattle on the eve of the leaping day from camp herds and village camps of the leaper boy's parents and very close relatives into the

²⁰ *Barjo ala* is public prayer.

²¹ The washing of cattle leaper (*equli*) takes place inside gullies. The leaper is washed by a fresh sand to cleanse him from his wrong doings.

village camp of his parents. One can make a big mistake counting cattle on the eve in the kraals as belongings to that particular family. These cattle move to the leaping space on the leaping day and will be back to their original destinations upon completion of the leaping ceremony where some are used to be leaped over and the rest remain on the spot to show off how wealthy the boy's family is.

Most of the rituals in Hamar can be regarded as costly from the point of view of consumption of agricultural harvest (mainly sorghum), number of animals slaughtered and also is the amount of honey used to organize the event. *Hatsa*, very famous festival of leaping over cattle that signifies the rite of transformation into adulthood can be a good example. It has gained the attention of visitors across the world making Hamar a tourist destination in South Omo Zone. The cattle leaping ritual is helping the mushrooming of local business opportunities for Hamar handicraft makers and other people in the villages.

Unlike the income this particular festival brings to the family of the boy who is leaping, the costs the family and relatives incur are far more expensive. There are pros and cons of such social cooperation between the host of the festival and close relatives. The good side of it can be attributed to the benefits of sharing economic burden (the cooperation aspect). However, such cooperation is not sustainably economical particularly when the event occurs frequently among closely related people as much of the sorghum in the store will be consumed and spent on festivities. It further exposes the family to food crisis at times of poor rains and poor harvest. I can provide a good example of costs related to *hatsa* festivity taking a family in my research village as an example.

Case 2.4 Economic cost of cooperation between close relatives

When I went to the village around mid-August in 2010, time for festivities in my area was almost over as the good season was going out bringing the dry period in. And cattle were moving to dry season grazing camps. I was in attendance under a shade²² constructed temporarily to serve families related to the mother side. It is a culture to serve the father side of the guests inside goat enclosures. Both sides were served with the same amount of food and local drinks. The food and drink was mainly made from sorghum, maize, milk and honey. Fried meat was also served. Treatment of guests regardless of sitting places was impartial but priority had been given for the elderly. There were more than 400 people at the event.

2.9.4 Cooperation during livestock mobility

Labor is the most important resource for people with large herds particularly when plans are made to move the herd in search for pasture and water.

Case 2.5 Cooperation at household level

AA is one of the pastoralists who live in W village near Turmi town. He lives with his two wives and fourteen children. He has lived all his life herding his livestock. AA has moved his cattle to Kizo, a place known for its lush pastures, and then to Mago National Park in 2010. There are still goats and sheep staying at Kizo²³. AA took his livestock to Kizo because it

²² I was invited as member of the family of my host mother and people related to the mother side sit under the shade.

²³ A lowland area that is found in between Genbela and Kocho localities, 28 kms, Northwest of

is the one place where there is better grazing land in the area. There are different spots where the cattle drink water from the riverbanks of Omo. The spot which AA uses to let his cattle drink water is known as Nemur. Nemur is the nearest to the settlement of Kara people in Korcho locality. Goats and sheep usually stay at Kizo rather than moving to Mago as Kizo is a large grazing plain with bushes and shrubbery suitable for goats and it is free from a flying insect known as *kutubo*. This insect bites goats and sheep on their eyes and reproductive organs, swell their body and then kills them. The insect lives in swampy areas which are common in Mago. Even though cattle are also attacked by the insect, they are not as vulnerable as the sheep and goats are. Mobility, therefore, is specific to herd type. According to AA, usually the mobility of goats and sheep is preceded by that of cattle. The cattle trample on the grass of the pastures with their big hooves. They don't dig and ruin the pastures as the sheep and goats do with their sharp hooves. Hence, grasses are able to regenerate back easily when there is enough rain and water. Livestock reproduce frequently and multiply themselves at Kizo since it is unfavorable for ticks to survive. Kizo's plain topography is suitable for cattle movement. Unlike herds in camp herds, those in the village camps are much exposed to tick bites because there are much more bushes growing near the villages that harbor the ticks. There is a labor division in herding the livestock. During such harsh times, cooperation is a must. Hence, his family divides, moves and settles with the herd.

Turmi town. It is the largest grazing plane in the district where the majority of herd camps are located. The weather is warm and sunny. It is not completely covered by shrubbery as most of the other places in Hamar.

In AA's case, the goats and sheep at Kizo are attended by AA's son, BA, who is the fourth child of AA's second wife (Figure 2.2). AA's brother, SA also accompanies BA. SA is a newlywed. He stays at Kizo with his wife, DQ, and their child. DQ helps in cultivation and preparing food for her husband, her son and BA. AA's older son, KA, who is the first child of AA from his first wife, stays with the cattle at Mago. AA is estimated to have over 400 heads of cattle at Mago that is about 5-8 kraals. The goats and sheep were driven out of the village camp in January 2011. The last round of the cattle left the village at the beginning of October 2010. Similarly, AA's daughter, Dq, who is the second child of his second wife, had an experience of preparing food for her brothers and father in Mago Park in 2009.

“No one can foretell when exactly the livestock will go back home. Maybe when it rains and adequate grass grows in our village, plow-oxen and milk cows will get back home along with the goats,” said AA.

Similarly the bulls and calves join the Kizo herd camp. The other time when the cattle moved from the camp herds in Kizo and Mago to the village is when there was cattle-leaping ceremony that marks young boys' transition from childhood to manhood. According to AA, livestock mobility to Kizo and Mago camp herds is done in groups. It is unsafe for a single herd boy to move cattle from place to place. Conflicts break out during cattle mobility. There are cattle raiders who attack the herdsmen. The other reason is that a member of the group who move the cattle may fall sick and need to be substituted. In case some of the livestock are sick or when the cattle are needed back home for cattle-leaping

ceremony or when plow-oxen are needed at farms, *hamy*, during the farming seasons, some of the group members are responsible for returning the cattle back. This is one of the reasons why AA mixes his cattle with his brother's and son's.

When Hamar men moved their cattle from their villages to camp herds in Kizo, milk and blood from the cattle and rarely meat was the only source of food in old days. But these days they have started flood retreat cultivation along River Omo that passes through Kara. When the river overflows during the rainy seasons, its water covers the land around. When the river gets back to its normal size and the water retreats, the land is suitable for farming. These herdsmen cultivate crops like sorghum on the land that enabled them to produce food crops when they stay at Kizo. This cultivation has brought one trend in the movement, i.e. the mobility of women, and the whole family. For example, SA brought his wife, DQ, to Kizo so that she sows sorghum on the land that he prepared earlier. When the sorghum is harvested and at home, DQ prepares meals and feeds her husband and the rest of the family. Like in the case of SA, other men have also brought their wives and children to Kizo to live with them. The women's role is not only restricted to preparing food, they also take care of the small herds in the camp. This family mobility of the Hamar because of the retreat cultivation may cause permanent settlement in the areas surrounding Kara.²⁴ The flood retreat cultivation has been conducted at a particular place known as *diba* close to Murle and Kara village

²⁴ See chapter 5 of this dissertation for recent villagization schemes near this area.

called Korcho. According to a local development agent, around 20 hectares of this land is under cultivation.

Chapter 3 Livestock mobility and management

3.1 Introduction

Changes in development paradigms and state policies have affected pastoralist livelihoods in southwestern Ethiopia. The ethnicization of geographic territories and the demarcation of boundaries threaten the pastoral lifestyle in this diverse and multiethnic region of the country. Additionally, the division of pastoral territories has had significant jurisdictional and political implications in terms of inter-state disputes and political manipulation (Nori *et al.*, 2008: 5). Such problems are equally relevant to the emerging situation in South Omo. Negotiations for rangeland resources have traditionally been integral to interactions among pastoralists, as well as between pastoralists and farmers.

However, as the state increasingly claims property rights to the land and establishes policies that promote settled agricultural practices, the norms that support a culture that encourages mutual interaction in the service of maintaining conflict-coexistence relationships are weakening. Fluid boundaries that support such mutual interaction are being replaced by new political boundaries that, combined with the physical infrastructure, restrict access to common grazing areas and simultaneously allow individuals to claim ownership of resources.

Hagmann, and Mulugeta (2008: 24–26) criticized state-led development programs for undermining communal land tenure traditions in Ethiopia, arguing

that ethnic federalism and other public policies have promoted sedentary lifestyles based on permanent and less-flexible territorial boundaries.

Desta (1999: 22) noted that development of the Ethiopian rangelands began relatively late, and was complicated by internal and external conflicts. He argued that the conventional top-down approach to development has not been effective in fostering the desired changes in pastoral livelihoods; instead, conflict has prevailed.

A particular example is the pattern of frequent disputes between the Hamer–Dassenetch (Sagawa, 2009). In contrast to its approach toward other farming and agro-pastoral neighbors (i.e., the Benna and Ari), Hamer society has historically engaged in conflict with the Dassenetch and other pastoral groups. This differential treatment of non-Hamer peoples may be due to competition for grazing resources and retaliatory acts for past disputes.

Similar to other pastoral groups inhabiting the Horn of Africa, the Hamer must develop effective strategies to deal with various challenges that threaten their livelihood. Towns have expanded with the establishment of roads, resulting in changes in land use and an influx of non-Hamer settlers.

Moreover, intensification of the existing farming system and establishment of enclosed grazing areas appear to be increasing. Recurrent droughts and lack of rainfall have forced the Hamer to move with their livestock to locations near camp herds that are far from their traditional territory. Coupled with arms proliferation, competition for pasturelands has affected intra- and inter-ethnic relationships.

3.2 Livestock mobility and seasons

Mobility between grazing areas within and beyond the Hamar territory during dry and rainy seasons is not necessarily driven by resource scarcity or conservation. A trend analysis revealed that the Hamar targeted better quality pasture, water access, and availability of minerals (i.e., salty pasture) to effectively utilize range resources and maximize livestock production.

However, conservation has become a growing concern among government agencies and environmental NGOs while at the same time the Hamar's increasing livestock holding and involvement in agricultural activities have led to increased demand for land inside Park systems. Apart from their economic benefits, livestock are a sign of prestige as well as source of food for pastoralists and agro-pastoralists. Seasons mark periods of festivity, conflict, sowing, harvest, reproduction, as well as livestock and human mobility.

Herd mobility in Hamar is, therefore, a function of seasonal rainfall patterns. Both dry- and wet-season mobility depend on rain due to its crucial role in crop production and grass growth.

The dry-season mobility pattern involves the movement of herds from village camps to herd camps. This occurs frequently in August when the dry season is at its peak, leaving trees, shrubs and grasses vulnerable to moisture stress.

Similarly, herds move before the first light rains in January, since the land is not wet enough to support crop growth at that time. People who decide to use the rains remain near the village while the rest move their herd. The weak members of

the herd also remain in the village,²⁵ while the rest move to grazing plains located near different herd camps within and outside Hamar territory. As droughts become increasingly severe in recent years, families move. Such dry season herd mobility destocks village herds through herd reductions through mobility. Other factors responsible for herd size reduction include *bekida*²⁶, disease, slaughter, gifting during social events (such as cattle leaping and memorials for the dead), market exchanges, and exchanges for weapons.

The wet-season mobility pattern occurs following the first light rain in January, and in the wet season (February, March, and April). During this time, the Hamar move half of the calving, milking, and pregnant cows to the village camps. After the rains in January (usually in February), the farming oxen are moved to villages to till the land in farm enclosures. This wet-season migration restocks the village camps with recently calved, pregnant, and milk cows and farming oxen, as well as cattle and goats supplied under the *bekida* arrangement.

The ecological system in Hamar can be best characterized as a non-equilibrated grazing system that often experiences climatic instability and erratic rainfall. Behnke (1999: 145) explored how grazing systems function in arid and semi-arid environments, arguing that African semi-arid grazing systems function

²⁵ Diseased, injured livestock and newly born physically unable to sustain the hardship of mobility for grass and water.

²⁶ Referred to as cattle alliance or bond-friendship. Also called *bel*.

on a continuum ranging from non-equilibrium to equilibrium, with most probably falling somewhere between the extremes.

The highlands, which receive relatively more (albeit seasonally fluctuating and unpredictable) rainfall, support the agro-pastoral livelihood better than do the lowlands. Indeed, rain ²⁷ remains one of the lowlands' limiting factors. Observations and discussions with herdsman indicated that most livestock mobility patterns depended on the rain, especially on the pastures and water that were available after the rain.

In the lowlands, people start moving back to the village with part of their herd to engage in subsistence sorghum farming following the rain in January; thus, crop production and grass availability are seasonal, rain-dependent phenomena. Through its effect on pasture quality, rain in turn affects the Hamar's livestock productivity. Therefore, the mobility types and patterns of the Hamar are a function of seasons and rainfall patterns. This supports Behnke's (1999) hypothesis that annual rainfall fluctuations may have a much stronger effect on the abundance of resources available for foraging than does the number of animals. This also explains why access to herd camps scattered within and beyond Hamar grazing territories shows spatial and temporal variation.

3.3 Herd types and mobility

Strecker (1976: 53–55) classified Hamar herds into domestic and camp types. He further referred to camp herds as storage or surplus herds that are kept

²⁷ Figure 2.1

apart from homesteads in areas with good pastureland, abundant water, and no tsetse flies.

In comparison, Almagor (1978: 87–107) described stock camps as herd camps that are cared for by young herders who maintain contact with the owner (who stays in a base camp). He noted that Dassenetch cattle and small-stock camps differ in their social composition, pasture needs, and mobility; the herders in these camps are primarily young men and boys, as well as a few women and young girls who assist them when agricultural work is limited. In this way, Dassenetch camps are similar, but not identical, to Hamar livestock camps.

As in most East African herding communities, the Hamar's major herd-management systems are rotational grazing and herd splitting. However, such movements do not usually involve abandoning a specific grazing area and shifting the whole herd to a new site. Rather, the Hamar often establish livestock camps in grazing areas that are spatially and temporally scattered across a wide range, with specific locations depending primarily on seasonal and social considerations.

The livestock in these distant livestock camps near grazing areas are referred to as “camp herds.” As defined above, the camp herd is not necessarily a stable inventory or concentration of livestock (primarily cattle), as the system entails a complex pattern of mobility in and out of the camps. These movements are affected by rituals, conflicts, raids, diseases, changes in ecology and climate, institutional policies, and market considerations.

Unlike the Dassenetch, who have no permanent base camps (Almagor, 1978: 94), Hamer livestock owners may move or stay with the rest of their herd in the village, depending on herd size and season. However, during harsh seasons when grass and water are scarce, the owners often assume primary responsibility for looking after camp herds instead of merely coordinating these activities from village camps. To assist with herding efforts, families who do not have able-bodied young male herders may send young girls, as well as boys from the neighborhood. At times, the whole family may move, with the women usually returning to the original settlements to start preparing the fields when the rains come.

The locations of camp herds have changed over the last century. As a result of changes in grazing areas, attributable primarily to climatic factors and human activities, the most distant camp herd is now located at Mago National Park (Figure 1.1). According to my communications with old and young livestock herders and both governmental and non-governmental development agents, camp herd sites have increased in number and moved farther from the largest grazing plain in Kizo during the past century, particularly after the advent of the socialist regime.

Table 3.1 shows changes in distance between the village herd and herd camps, and between herd camps, as well as movement frequency from one herd camp to another, from the camp herd to the village herd, and from the village to the camp herd. It also shows the encroachment on “others’ territory” during the imperial, socialist, and current regimes.

Table 3.1 was constructed based on data collected from young and old herdsmen, women and leaders of various traditional institutes both from the highlands and lowlands. Past and present district officers, zonal administrators and other knowledgeable key informants were involved during the process.

A household can establish herd camps at different sites depending on herd size, type, and composition. When moving a herd to camps, factors under consideration include accessibility to pasture, shrubs, and water, closeness to floodplains for retreat farming, and security.

During the imperial and socialist regimes, the distance between herd camps was very small in the highlands, but has slightly increased during the current regime. This change is attributed to small herd size and relatively good pasture condition in the grazing plains near the villages. However, in the lowlands, this distance has increased substantially: it now takes herders 2–5 days to move from one camp to the next.

Similarly, the distance from the village to the camp herds has consistently increased since the imperial regime, particularly in the lowlands; indeed, the most distant herd, which used to be reachable in a day or less, now takes 3–5 days to reach. During the imperial regime, the frequency of movement between herd camps was negligible or very low, but has since increased in both the highlands and the lowlands. Similarly, movement from herd camps to the village herd, which used to be very infrequent, has become more frequent in the highlands.

The very low mobility during the imperial regime was associated with the presence of sufficient quantities of good grazing grass, allowing cattle to stay longer at a single site. In rare cases, these cattle were moved to the village to supply milk and to have the opportunity to bond with the herd there. Movement frequency remains low in the current regime because of frequent drought; only a few cows are moved to villages to provide milk for children and the weak.

The frequency of movement from the village to the herd camps has increased in both the highlands and lowlands, from very infrequent or infrequent during the previous regimes, to very frequent in the current regime. The development of grazing enclosures in the highlands helped to contain plough oxen, milk cows, and small ruminants.

However, in the lowlands, only the enclosures for farming oxen and milk cows increased, ensuring that they would be available to till the land (in the event of rainfall) and to supply milk for children and elderly individuals in the village, respectively. Otherwise, whole families tend to join the camp herds to cultivate crops after the Omo flood retreats. This move, which involves extended stays, provides extra support for herding and feeding the herdsmen in the camps, resulting in the concentration of herd camps in conservation areas such as Mago National Park.

3.4 Mobility and herd size

Two sets of factors contribute to the sizes of village and camp herds: those that increase herd size or restock camps, and those that decrease herd size or

destock camps, either temporarily or permanently. Because both types of change affect village and camp herds, these factors can be classified as follows: VR-factors (factors that contribute to restocking village herds); VD-factors (factors that contribute to destocking village herds); HR-factors (factors that contribute to restocking camp herds); and HD-factors (factors that contribute to destocking camp herds).

VR-factors include *bekida* arrangements, livestock kept on behalf of others, gifts from families and friends (*shorka* cattle and dung goats),²⁸ restocking through NGOs and GOs, births, and cattle obtained from raids. VD-factors include special occasions that entail slaughters during public speeches by *ayo* and *duki* ²⁹, weddings, cattle-leaping events, welcoming/bidding farewell to guests, slaughters at peacemaking/dispute settlement meetings, livestock diseases, use of livestock to purchase weapons, *bekida* arrangements (note that *bekida* can be both a VR- and VD-factor), and provisioning lodges and hotels.

HR-factors include the dry-season movement of livestock from village camps and other herd camps, cattle rejoining herds after leaping ceremonies, *hatsa*, births, and cattle obtained through purchases and raids. HD-factors include cattle joining villages on the eve of *hatsa* (temporary destocking), the return of farming oxen to the village for farming at the beginning of the rainy season, the wet-season movement of milk cows and calves to villages, the return of pregnant herd members to the village, the loss of livestock under the *bekida* arrangement,

²⁸ Livestock collected by newlyweds from relatives as gifts to support a new life.

²⁹ Memorial to the dead.

slaughter during severe drought (rare), disease, loss to raids, provisioning hotels and tourist lodges, use as gifts, and loss to special-occasion slaughters during *osh*, *duki*, *hatsa*, weddings, ceremonies welcoming guests, and peacemaking/dispute settlement meetings.

In addition to the factors described above, village camps are temporarily destocked when livestock are moved, which usually involves travel from herd camps to the leaper's parents' house in the village on the eve of the leaping day. Livestock taken under *bekida* arrangements can also involve the destocking and restocking of herds in villages and herd camps.

Providing cattle to a non-Hamer in exchange for automatic weapons or any other product in the market may not restock herds in the long run, possibly resulting in adjusting the size of either of the two herds, as livestock may leave the local Hamer market economy permanently. However, cattle raiding may provide an opportunity for those cattle to rejoin the system.

The *mingi*³⁰ culture also affects herd size in both village and herd camps. For instance, if married women or engaged girls touch the nipples of sheep or cows or milk them, the animal will be removed from the herd for fear that it will bring bad fortune. This permanent destocking can in turn carry socioeconomic consequences.

Dry- and wet-season mobility is predominantly rain-dependent, significantly affecting herd size in both camps. With the exceptions of losses to

³⁰ It is often associated with but not limited to only eruption of milk teeth in the upper jaw before the lower jaw.

raiding, disease outbreak, and drought, most of the herd is maintained during movement between village and herd camps.

However, memorial rituals for the dead contribute to permanent loss of the portion of herd in village and herd camps. Cattle exchanged for weapons³¹ also result in temporary loss through VD and HD if the exchange occurs within the Hamar jurisdiction; however, transactions outside this jurisdiction may result in permanent loss. The presence of a social restocking custom such as *bekida* is therefore an insurance mechanism that reduces the impact of household herd loss; however, mobility is crucial for the system to operate properly.

3.5 Types of mobility and grazing enclosures

Figure 3.1, a schematic representation of livestock mobility, classifies movements into frequent dry season, regular, and emergency. The movement of livestock between village and camp herds is regarded as regular mobility in that it occurs in all seasons and is a common form of livestock mobility.

Livestock mobility from village to grazing enclosures is very frequent during the dry season due to the proximity of these two sites; it is also a recent phenomenon. The herd includes weak cows, milk cows, calves, and small ruminants.

The introduction of Individual (I), Joint (J), and Communal (C) grazing enclosures has led to very frequent dry-season movement, and provides grass for

³¹ In 2012, six cattle could be exchanged for an AK-47 and 10-20 bullets. Since 2013, the government has begun to make efforts to register arms, control movement and regulate possession.

herds in village camps. Individual enclosures (I) are grazing units predominantly set aside for grass production, whereas joint enclosures (J) are established and managed by two households/individuals, involving in-laws, bond friends, and wives. In contrast, ownership and management in communal enclosures (C) involve partnerships between a number of households living in one or another village. Production in (I) and (C) is restricted to grass, while food crops are rotationally grown alongside grass in (J).

Camp herds are moved to grazing enclosures in emergencies, which occur during severe dry seasons and when there are too few herdsmen to take care of the herd. Movement in the reverse direction is rare unless a severely dry season forces entire families to move to herd camps along with the entire herd, including weak cows, small ruminants, and milk cows. Movement to herd camps also occurs in order to locate salty pastures and better grass during severely dry seasons.

As shown in Figure 3.1, HR- and HD-factors are associated with regular mobility, which includes movement from village to camp herds and vice versa. On the other hand, VR- and VD-factors are associated with frequent dry-season mobility, which includes the movement of livestock from village to grazing enclosures and vice versa. This type of movement only temporarily restocks and destocks village herds.

Chapter 4 Land enclosures: Opportunities and socio-ecological challenges

4.1 Introduction

In the Horn and East Africa, land fragmentation is leaving pastoral systems at risk of collapse blocking access to communally held seasonal grazing and water resources (Flintan, 2011: 1-6). According to her, conversion of land to agriculture, ranching and tenure insecurity were the root causes of land fragmentation in Ethiopia, Kenya and Uganda. Invasion of alien plants, mineral extraction, protected areas, conflict and pastoralist enclosures attributed to the remaining causes of fragmentation.

Fragmentation of the land disrupts the interconnectedness between social and ecological systems which development and land use plans often failed to consider (Flintan, 2011). Internal and external factors can affect rangeland use.

Development plans neglect to safeguard the needs and interests of small or minor portion of socio-ecological and political groups and resource bases. Institutional and policy factors can, therefore, explain this situation from the view point of enclosures development at individual and community scales in rangelands.

In Ethiopia, national policy and development strategies have always pushed for sedentarization of pastoral and agro-pastoral communities disregarding the very nature of their livelihood, the multiple-complex networks of agency they sustain

and the patterns of utilizing resources on the land. Hence, modification of the existing traditional farming system with modern agricultural inputs, mechanization, rewarding ‘model farmers’ (tempted pastoralists to shift focus on crop cultivation) and designing river basin irrigation based settlement programs, leasing pastoral land for commercial food and non-food crop cultivation have become the state development agenda that internally motivated pastoralists’ engagement in land enclosure activities.

Traditional rangeland governance institutions whose customary codes of conduct saved the interest of multiple communal resources users for generations’ have weakened (Wassie, 2014) resulting in underutilization and loss of grazing land for invasive species such as *Prosopis juliflora*. Conflicts over resources and deteriorating co-existence relationships prevented negotiated access to resources in the commons thereby prompting tenure insecurity and increased competition (Flintan, 2011). In Somali region of Ethiopia (Sead, 2007: 35-36) land enclosures through land fragmentation restricted livestock movement, promoted sedentary settlement and made taking care of small livestock cumbersome to women. These can be community level set of factors that are induced, influenced and aggravated by policy driven internally operating factors contributing to failure in pastoral land use plan through their impact on sustaining interconnectedness of social and ecological systems.

Despite the legal recognition of pastoralists and their rights in the constitution (Morton, 2005: 13, Samuel, 2014: 100) and regional land administration proclamations (Abebe, and Solomon, 2013: 189), pastoralism as a

livelihood option has continued to receive less state attention. The overriding agrarian bias failed to genuinely recognize existing customary land use forms (Abbink *et al.*, 2014: 8) and regarded pastoral lands as inefficient and ‘unutilized empty spaces’ (Makki *et al.*, 2011: 3) open for huge capital investment. Such a discourse along with the influence of internal and external factors mentioned above has contributed to changes in land use in Ethiopia at different scales. The purpose of this paper, therefore, is to discuss the development of enclosures in terms of processes occurring at individual, dyadic and communal scales of engagement in Hamer district. It examines the opportunities, challenges, and short- and long-term consequences related to this endeavor from both popular and environmental perspectives. The discussion in this chapter treats pastoralist land enclosures at individual and communal scales.

4.2 Enclosure development in Hamer

Rainfall over the past decade was insufficient in amount and irregular in pattern to sustain livestock production, cultivate sorghum and support grass growth (Samuel, 2014: 102). But, some people (particularly in the highlands) continued their individual and joint efforts to enclose land and saved grass for their cattle while maintaining their tradition of sorghum cultivation. Although the Hamer are predominantly pastoralist, cultivating sorghum in enclosures has been an important aspect of their production system. It was mainly taken care of by women (Samuel, 2013: 123-124). In this regard, the role of land enclosures particularly in availing forage during the harsh, conflict prone dry seasons is unquestionable.

4.3 History and processes

In the 1990s the grazing areas experienced loss of useful grasses. This triggered frequent drought induced mobility to grazing plains, conservation parks and agro-pastoral areas within and outside of the district.

Case 4.1 Herdsmen remark on loss of important grasses from the range

Herdsmen SK (an old man in his late 70s from Turmi area), TA (a man in his mid-50s from Dembayite) and SG (late ex-herdsman in his early 20s from Genbela) remember the presence of grass for milk production, construction of beehive and thatching huts near village which are now difficult to easily get. According to them, livestock feeding on *fizet*, *segele* and *buska* grasses could give milk year around.

When they were young (SK, TA), the number of cattle the Hamar had was small and grasses plenty to feed that size. However, since the mid-1970s (SG), livestock population increased (Table 2.4) and so do number of herd camps. Then, Kizo was the farthest herd camp for grazing. But now, herdsmen in Hamar travel as far beyond Mago National Park looking for grass and water (Figure 1.1).

Farm enclosures in Ari and Benna agro-pastoral neighborhoods were full of grasses and provided feed for livestock staying in the village. This observation was noted with care. Such movements and the subsequent observations taught the Hamar farming related skills and techniques like oxen ploughing (Samuel, 2013: 122 & 126) and fattening in farm enclosures. The sorghum farms gradually started to accommodate grass production and focus on the use of enclosures attracted the

attention of many in the district. People gradually set aside space in their farms for grass production and let their livestock graze freely. They alternatively used the space in the farm by rotating crop and grass at least once in 3 to 4 years to get good harvest from the land. These lessons were gained through observation from their movements, experience sharing visits to Borena, along with governmental and NGO continued efforts on rehabilitation of degraded lands. Thus, enclosures development expanded to accommodate different types and purposes that were both often cooperative and at times conflicting.

NGO sponsored land enclosure projects in Hamar district started in Tsio *kebele* in 2000 with an aim to rehabilitate degraded land, motivate pastoralist and agro-pastoralist people to take over the initiative and scale it up on individual and communal basis. Such land enclosure projects, however, encountered public resistances during the introduction phase of the initiative. Possible explanation to this was slow recovery of grasses in enclosed lands and concerns from large stock owners who demanded their right to free access to open rangelands in the neighborhood. An example can be an NGO that in 2011 introduced an ‘ideal boundary system’ that aimed to rehabilitate land without fencing it. This demonstration failed to meet its purpose and so do the efforts to upscale it. The major causes attributed to it were unwillingness from some people to participate in the activity and others (non-beneficiaries) encroachment into the rehabilitated site to use the grasses. Although many people questioned the success of the rehabilitation activity, some people were convinced by the intervention at the planning phase. However, the prevailing fact then was that the project was

introduced, owned and run by the NGO who brought the initiative resulting in little commitment and less sense of ownership. Even the sympathizers and supporters of the project lacked the commitment to stop trace passers and defend their rights to use as participants and beneficiaries of the activity.

4.4 Productive Safety-Net Program (PSNP) and enclosures

The Productive Safety-Net Program, which is component of the National Food Security Program, was started in 2005 by the government and aims to provide households with enough food and income to fill their food gap. It addresses the root causes of food insecurity by both protecting and building community assets (Gilligan *et al.*, 2008; Gebre, 2012: 21). The program has public work which is unconditional for able bodied adults and direct support (conditional) components for chronically food insecure, physically weak and disabled households. Public work is communal with the exception of poor women households. This supports why a communally managed enclosure in Q village of the district³² succeeded with additional support from PSNP sponsored labor of people from nearby villages. Continuous dependence on relief is a proxy indicator for admission into the program.

The PSNP in Hamer district provided cash for public work on communal enclosures and grains for poor and weak households. Therefore, in the district enclosures movement had support from the pastoral affairs line offices. According to early warning rapid response and food security coordination officer in the district, there had been 21,581 safety-net program beneficiaries in 35 *kebeles* in 2011.

³² The village is located 4 kms away from Turmi town and close to Turmi police station.

Apart from encouraging pastoralists to develop business ideas to help them generate income, it also supported land enclosure projects by sponsoring soil and water conservation activities.

Slightly above 39% of the total population benefited from PSNP during the beginning phase of the program through payments offered in the form of cash and in kind for their involvement in enclosing and conservation activities on land covering 739.5 hectare. The data in Table 4.1 represents coverage of enclosed land in the district in 2010³³. Based on the figures in Table 4.1, it can be inferred that on average a person spent labor on the management of 0.1 hectare of land. I would expect the figures to grow since there had been a tremendous movement in enclosing land during the period starting from 2005 to 2014. This figure alone makes up approximately 0.1 % of the total land area of the district³⁴. Since then, people were taking up the initiatives to enclose lands without incentives from government and NGO. As pastoralist households graduate from the program, the need for private land will continue to grow to maintain access to income and produce food. Coupled with ongoing huge land intensive state and non-state investments, I anticipate an increased competition for more land in the near future.

4.5 Existing trends in land enclosure activities

Hamer district is characterized by recurrent droughts and shortage of rain (Figure 2.2). Coupled with shortage of enough grazing space, expansion of land use for agriculture, road and town infrastructures are competing pastoral spaces for

³³ In 2013, the number of *kebeles* in the district increased from 35 to 38.

³⁴ Total land size is 731,565 hectare (PDO, 2005) and 574,200 hectare (Terefe *et al.*, 2010)

grazing to sustain people's livelihoods along with pressure from migrant, own businesses and push for large commercial projects.

The motive behind enclosures development in Hamar district had never been to cut mobility for grazing. By creating spaces of socialization (particularly for women), enhancing local drought coping mechanisms, and financially provisioning households mainly through the sale of grasses enclosures supplemented the subsistence pastoral production system. Even following the expansion of oxen plough farming and subsequent increase in the coverage of land under crop cultivation, mobile pastoralism remains the dominant livelihood form in the district.

However, the expansion of enclosures increased the availability of milking cows, small and weak livestock during dry seasons near villages. It helped the weak and children to get milk and in few cases facilitated the retention of children of school age in alternative basic education (ABE) centers in villages (Case 4.2).

Case 4.2 Influence of enclosures in cutting drop outs from ABE centers

In W village of the district, an ABE center managed to convince parents of children who drop out to continue their classes. A parent-teacher committee facilitated the return of the children from herd camps to the village to resume their study. Although how attentively the kids will attend the classes remains unclear, presence of enclosures were one among the reasons for their return.

The coverage of enclosures increased over the years, so do the number of stakeholders intervening in the program. Apart from PSNP, such activities got due attention from the NGO sector that intervened through the provision of trainings and equipment for land rehabilitation. Since then different types of enclosures at individual, dyadic and communal scales have emerged out as drought coping, feed/food securing and income generation mechanisms in the district.

On the other hand, among the Beshada in the district, I was able to observe and document the story of a huge area of land protected by ‘word of mouth’³⁵. This was overseen by the *bita* in the Beshada whose strong supervision and customary codes of conduct helped the use of grasses, shrubs and trees in Hageya hills, and its surrounding tried to ensure a regulated access to the open rangeland in his jurisdiction. It regulated access and use to the resources in the grazing land among different pastoral groups particularly the Hamar. The current trends clearly show transformation of the pre-existing communal land use into a different property right regime. The practice operates under individual, joint and communal scales. The most transiting portion land is land around villages and riverbeds. Three types of enclosures have been found in the district. The characteristic features of the tree types of enclosure and their benefits to the owners are described accordingly.

4.5.1 Individual enclosures

Individual enclosures (Plate 4.1) were predominantly left for grass production. Compared to the remaining two types they were characterized by less

³⁵ Refers to the *bita*’s executive order to restrict access into the rangeland. Assigned people monitor for trace passer who will be fined and sanctioned publicly. There is no physical fence to demarcate the territory. It can be compared with the ‘ideal boundary system’.

degree of encroachment by any other people. Better management in the highlands was attributed by availability of labor, closeness of the location of herd camps and distance from the homestead. A household with large family size had an advantage of dividing the labor between enclosures near their settlements and herd camps without difficulty. Observations indicated that more people (agro-pastoralists) in highland part of the district acquired individual enclosures than households in the lowlands. Shortage of available labor, long distance between settlements and herd camps, and poor soil conditions were limiting factors in the dry lowlands. The holder of this enclosure, however, had an exclusive right to use and transfer it to someone else.

4.5.2 Joint enclosures

Establishment and management of such type of enclosures often involve two separate households or individuals related in different forms having shared common interests. Partnership may be arranged between in-laws, bond friends and among first, second and third wives. References known locally as *maale* demarcate separate holdings. A big tree or a stone serve this function. Land in joint enclosures is used rotationally for growing grasses and crops (Plate 4.2). The primary function of joint enclosures is the production of agricultural crops mainly sorghum. People rotate spaces for grass and crops every 2 to 3 years in lowlands for reasons of harvesting better yield. In the highlands, period of rotation may extend by a year or more mainly due to better soil and water conditions to support crop cultivation.

Hence, there is less human and livestock encroachment particularly in farming seasons that runs through *sor* to *halet*³⁶. Joint enclosures promote mixed management practices and social cooperation through creating ways for people to interact at cooking and drinking spaces inside. Therefore, joint does not only refer to the number of people involved but also the mixed management practice (crop cultivation and grass production). It was common to observe beehives hanging on trees inside joint enclosures which were owned by a third person.

In the highland areas of the district and few places in the lowlands people practiced controlled grazing inside joint enclosures following harvest while free grazing is dominant in the lowlands (Plate 4.3). Hence, joint enclosures can be regarded as best protected type of enclosures here as compared to individual and communal types regardless of location. This can be attributed to the cultivation of crops, mainly sorghum, which is a staple crop that also carried ritual functions in the local custom. Case 4.3 discusses such type of an enclosure in the district.

Case 4.3 Comparative advantage of working jointly in enclosures

BB is a woman pastoralist in her late 30s. She manages joint enclosure with KA, the younger brother of her late husband. Their enclosure is adjacent to a dry river course. During the rainy seasons, the river brings alluvial sand and floods their farm. Following the floods, BB and KA start tilling the land with plough oxen. While ploughing they share the labor and cooperate for their mutual benefit. But, they collect the

³⁶ In *sor* most people with farms begin to sow and in *halet*, harvest from the field is collected and threshed (Samuel, 2013: 132).

harvest and store separately. According to BB, riverside enclosures had multiple benefits apart from bringing fertile deposits. The locations are ideal to fetch water nearby and to cook food while at the same time watching the crops in the field. It also gives her an advantage to benefit from people's presence in the next farm who, while scaring birds, also protect her crops in her absence. According to her, the number of households enclosing land is growing up for such and related reasons.

The benefits of enclosures were different based on the purpose of establishment and their type. In the dry lowland kebeles of the district for example, people often established joint enclosures alongside rivers. Enclosing land near water points is to make use of the multiple advantages of the location. By doing so, such households benefit from the alluvial deposits the river flood carries in cultivation. Moisture stress intolerant crops like maize can be grown easily. Some people also fenced plots of land near water wells and diverted the flow to their farm enclosures through hand dug ditches and planted fruit trees like papaya, banana and also *haleko* tree³⁷.

4.5.3 Communal enclosures

Communal enclosures involved partnerships between households of one or a number of villages and thereby promoted social cooperation and interaction. In 2009 to 2010, a few of such enclosures used to be established at reasonably accessible location from involved villages. These days, communal enclosures can

³⁷ *Moringa stenopetala* whose leaves are eaten like cabbage and it provides shade to people and small ruminants in enclosures. Its root is used to purify turbid water.

be found in every village in the district. More communal enclosures existed in the lowland kebeles than in the highlands which is attributed to increased provision of support from the PSNP (government led) and high NGO activity in arid lowland kebeles and securing feed being a necessity for lowlanders who lack alternatives to dry season grazing around homesteads.

However, in the lowlands, communal enclosures were found to be encroached easily than other forms of enclosure in the highlands. Susceptibility to encroachment was also dependent on the origin of the initiative during establishment and its location. Therefore, a distinction can be made between communal enclosures whose establishment is motivated by a request from households in a certain village or that proposed and supported by development partners of government and non-government origin.

Case 4.4a An example of community managed successful enclosure

The communal enclosure in Q village was established in 2007 based on lessons learnt from a nearby village. The initiative, although supported by the PSNP later, was primarily taken by people in the village and had received no incentives to pursue their initiative. The enclosure covered an area of land which was approximately 6.5 hectares. They began their work by clearing bushes and fencing the cleared land that included gullies (Plate 4.4). Forty-one households (25 women³⁸ and 16 men headed) participated in the process and were able to see grasses covering their closed land soon.

³⁸ PSNP intended to provide benefits for fifteen widowed women by engaging them in enclosure activity. However, there were households who were not members but were direct beneficiaries of the communal enclosure in the village.

Motivated by this, they started constructing trenches, check dams; hay storage tower, small ponds and half-moons (Plates 4.5, 4.6, 4.7, 4.8, and 4.9) aided by local agriculture experts and utilized labor from people nearby through PSNP.

The enclosure had a management committee who enacts bylaws, scheduled activities, monitors and fines encroachers as well as reviews applications for use. The management committee is composed of three men and a woman who were elected by the participating households in the village. The old man is the chairperson and at the same time *ayo* of the village. Except one young man who was primary school student in Turmi elementary school, the rest had never been to school. The men serve as cashier, community mobilizers and bridges to communicate with people who do not speak Hamar language. The only woman in the committee mobilizes and encourages women in the village to actively take part in day to day activities. She also serves as a messenger and disseminates committee's message to the women. Such a composition helped this publicly elected committee to pass through difficult times with little problems.

It once faced complaint from people of a nearby village who blamed the enclosure for blocking part of their livestock path. Through negotiations this problem was solved and the contribution of the *ayo* was immense in the discussions.

In 2011 and 2013 altogether they got 8,815 Ethiopian Birr (ETB) from the sale of grass. They saved money and had lent ETB 2,500-3,000 for members during the dry season. The committee did not ask its members to pay interest for

the loan. Members did not only benefit from loan services, but also they had privileges to buy a backload of (almost dry) grass³⁹ (Plate 4.10 and 4.11) for ETB 10 while the market price for non-members is three-fold.

On rotation basis the committee lends money for selected households from the two homesteads in the village to help them buy consumables. The selected people use the money often to buy dried coffee sheath (locally known as *shoforo*), for example, and sale it to people in non-market days. Some people also borrow money to brew local beer (*persi*) and sale it in the village. This made people to cut unnecessary trips to Turmi and stay in the village socializing while it also generated money for the brewers (women and young girls). Out of the 41 households, only 2 had individual enclosures and all had farms. But, everyone relied on the communal enclosure for grass. Not only the enclosure management committee generated money to benefit members but also it raised party contributions for the village⁴⁰.

In a comparative perspective, Case 4.4b illustrates how NGO-sponsored communal enclosures failed despite relatively good environmental condition to bring success.

Case 4.4b. An example of unsuccessful community managed enclosure

The site was enclosed in 2011 in Q village and occupied 12 hectares of land. It was established at a close distance from Keskie River to make

³⁹ The weight of a backload of grass is estimated around 20 kg in Turmi market.

⁴⁰ All households in the village are entitled to raise money (membership fee) for the South People's Democratic Front. But in this case, the committee raises ETB 350 per year (about \$18) from its revenue.

use of the groundwater potential to easily rehabilitate the land and facilitate growth of natural grasses. Wells adjacent to this enclosed site provide water supply for Turmi town. The NGO that spearheaded the project mobilized people of G and Q villages to conduct various conservation activities that included bush clearing, soil and water conservation, over sowing (on six hectares), soil bund, thinning, fencing with live plants and half-moons. The site located halfway between the two villagers and kebele administrative officers are involved in the selection of direct beneficiaries of the closed site. The selection targeted households who were not PSNP beneficiaries and well-off. Complaints on payments for involvement during site clearing and closing, and dependency syndrome on aid were a few challenges identified by community mobilizers. An NGO paid around \$4 for labor spent on one hectare of land. All activities were done on cash for work basis and equipment were distributed for people. The site had seven enclosure management committee members (two women and five men) who developed a bylaw to regulate use and fine trespassers. Picking wood from the fence, unacknowledged use of grasses and putting livestock in were criminalized offenses. An individual was fined to pay two goats for letting his ox in the closed land for grazing.

Despite the amount of effort and investment made to rehabilitate this site, frequent encroachments and lack of ownership from the villagers of the two kebeles failed the site to payback in good returns. There existed gap in communication and exchange of experience although the sites were physically

adjacent to each other. In comparison, Case 4.4a in the same village but with poor site qualities and non-incentive motivations proved to be a successful intervention. The success can be attributed to frequent monitoring and consistent support from government development agents and motivation of the community to work in the enclosure.

4.6 Prospects and challenges in enclosure management

Table 4.2 summarizes the result of a survey conducted on all the households (thirty one) at BB's village in November 2014. The result of the survey matches BB's previous comments (Case 4.3) on an increase in the number of households' engagement in enclosures development. The case of the household who manages an enclosure in Kara shows that engagement in enclosure management is not only restricted to one's village. Hence, people enclose land for farming while they stay at herd camps. Communal enclosures accommodated widows and the weak that were not able to manage enclosures by themselves. Shortage of enough labor often due to small family size prevented households from participating in individual and joint enclosure activities. Incentives for involvement in enclosure activities such as clearing, fencing and soil and water activities attributed to the involvement of the five households (Table 4.2) in communal enclosures management only. All households in the village are involved in land enclosure activities with the exception of the household that had temporarily relocated to Kara.

Every household had stake at least in one of the three types of enclosures. Out of the thirty-one households in the village, seven households had only Individual enclosures (I), while six households had both Individual (I) and Jointly

managed enclosures (J2 and J3)⁴¹. Ten households were only involved in Joint (J2 and J3) enclosures activities and had no Individual (I) enclosures. Only one household was lacked Joint (J) and Individual (I) enclosure but was involved in the communal (C) enclosure along with all the households in the village (Figure 4.1).

Traditionally, it is common for Hamar to jointly work in the farm during farm seasons. This gave people advantage to enclose land individually for grazing purpose. While one works in the farm, the other can take care of livestock in (I) as burdens are shared by the joint management. Such a cooperative spirit was a motive behind households who refrained from enclosing land individually for shortage of labor to deploy.

Beyond their role to rehabilitate degraded rangeland ecosystem in the Hamer district, enclosures supported local livelihood through the provision of multiple benefits to people. These provisions could assume different forms such as house construction, social space provision, free and controlled grazing (grasses for livestock feed); grasses for construction of bee hives and thatching and most importantly gave space for crop production.

Different organizations had provided awareness raising trainings and distributed materials so that people in the district actively engage in land rehabilitation and soil and water conservation. Here I did not attempt to address to what extent such deliberations had impacted the people. But, environmental conservation was only the agenda of such groups but not the priority among the

⁴¹ J2 and J3 refer to Jointly managed enclosures that involve two and three households respectively.

people. The primary reason of engagement as have been discussed in this paper was ensuring access to dry season feed source for cattle. However, the contribution of the activities related to enclosing land and its management to the well-being of the ecosystem, such as to recover lost grasses from the seed bank, could not be underestimated.

Formation of alliance across households belonging to similar moieties was observed in the establishment of Joint enclosures (both in J2 and J3 types). But, joint partnership between households was strongly affected by the family size of the respective households for labor reasons. For example, among the seven J2 type Joint enclosures that involved fourteen households, three out of seven enclosures were established by partnerships of households of similar moiety⁴². Similarly, among the J3 type Joint enclosures that involved nine households, two out of the three enclosures were established by partnerships of households of similar moiety⁴³.

4.7 Community initiatives and environmental conditions for success

The management committee allowed regulated access to use grasses in severe dry seasons which also benefited non-members from neighboring villages (Case 4.5). Members generated income from the sale of grass to people in Turmi market and were able to buy grass at discounted price.

⁴² Eight households of Binas and six households of Gelabu moiety.

⁴³ Two households of Binas and seven households of Gelabu moiety.

Case 4.5 Enclosures promoting social cooperation by extending support to those in need

In January 2009, a non-member in-need was allowed to keep a cow and its calf for a month in three small fenced portion of land (plot) inside the communal enclosure spending ten days in each. The cow and its calf grazed rotationally starting from the first plot and moving to the second and third plots (Figure 4.2). A temporarily assigned herd boy was responsible to monitor their daily schedule. Every morning they entered to the plots at 7:00 am and left at 4:00 pm. In a day, they spent nine hours in for the duration of the month across the three plots. Therefore, they spend 270 hours in a month (9 hours*10 days*3 plots) in the enclosure in total. The non-member was allowed as the calf was a new born and unable to travel to the herd camp for grazing and the committee was convinced of the importance of keeping the cow and calf in the village as a source of milk for the old and children who had no other food source to rely on. This taught positive lessons on cooperation and the importance of communal enclosures in challenging season.

The example in Case 4.5 elaborates on how an emergent grazing land management institution tried to respond to local demands for grass while rehabilitating once degraded land. By cutting the frequent dry-season mobility of the cow and its calf for grass to herd camps, it saved people's labor, avoided challenging and risky trip for the cow and the calf and made milk available for children in the family and in the village. The same enclosure helped some other

non-members pay back their loans through the sale of oxen that were fattened inside the enclosure. It was done on basis of paid arrangement.

In the relatively fertile highlands in the district, communal enclosures were alternative feed reserves for all. Individual and joint enclosures were better managed as compared to communal types. Common to both the lowlands and the highlands was that joint enclosures were predominantly left for crop production. With this shared similarity in both, however, communal enclosures were not alternative feed reserves in the dry lowlands but the only dependable sources. Hence, they were better managed for their grasses. Generally, in comparison, joint and individual enclosures in the highlands and communal and joint enclosures in the lowlands of the district enjoyed better management.

4.8 Challenges from conflict

Despite the positive provisioning enclosures have to the local livelihood and their contributions in healing degraded rangelands, ongoing efforts to scale up the coverage would completely curtail sustenance of shifting cultivation and disrupt livestock mobility. It has become difficult to expand existing enclosures around homesteads. Possible causes of conflict may, therefore, come from scarcity of land to enclose. With livestock and human population growing a need for more land may threaten both existing open access and regulated communal enclosures. Given the present nature of uncoordinated activities between government offices and network of enlightened pastoral dropouts⁴⁴, it is much likely that land

⁴⁴ It refers to organized young men into tour guide associations and forums.

enclosures evolve out to be potential sources of conflict while withholding cooperative encounters between alliances sharing similar interests.

Over the years, people were able to resolve minor disputes that resulted from land enclosures blocking livestock walk ways through negotiations with people who raise such claims. But, this may be aggravated by a declining trend in the acceptance of community elders such as the *ayo* among the general public. Some scenarios indicated that the government efforts to resolve inter-district grazing disputes affected commending efforts of pastoralist households' involvement in rehabilitation projects that run under PSNP. However, very few cases indicate the making of land management institutions in the form of grazing land management committees. Case 4.6 illustrates how a communal enclosure was affected by Dassenetch and Hamar inter-ethnic conflict for grazing.

Following grazing based conflicts that broke out in 2012 and 2013, which subsequently left two Dassenetch men dead with one wounded, tensions escalated between the Hamar and Dassenetch necessitating elders in collaboration with security officers of both districts to enforce a draft security and compensation agreement⁴⁵. Although, officially undeclared, the agreement is being practically put in effect. In spite of its intended impact in cutting potential conflicts, the

⁴⁵ It was not officially finalized. But, district level security officers along with elders of both sides started enforcing the agreement in the hope of minimizing the number of conflicts between the warring parties. The agreement was approved in Naygaya kebele of Dassenetch district in 2010 in the presence of Hamar and Dassenetch elders, district administrators, district security officers, militia commanders and police from both sides. The objective was to prevent graze and any form of conflict between the two groups. According to the provisions of the agreement, an offender who kills compensates the victim side with 25 cattle. And an offender who wounds compensates the victim side with 20 cattle whereas offender who raids cattle pays back twice the size of what is raided.

implementation, however, has started to negatively affect some community based land management initiatives in Hamer district.

Case 4.6 Conflict and government intervention in communal initiatives

The initial cause of this conflict dates back to 2012/13 when the Dassenetch cattle encroached the grazing territory of the Hamer. In the subsequent conflict, Dassenetch lost two men with one left wounded. Hamer claimed to have lost a man. In more recent tensions the Hamer were blamed to have wounded two men from Dassenetch. Based on the agreement, the Hamer elders were given the assignment to coordinate the collection of compensation cattle to be paid for the victim family of the Dassenetch men who lost their lives and left wounded during the conflict. In late February 2013, elders of the Minogelti *kebele* in Hamer district collected thirteen cattle from the family and friends of the suspect inside a school in a village called Wasimo. However, an overwhelming number of armed young men of Hamer (estimated to be around 80)⁴⁶ raided the cattle. On the next day following the raid, a meeting was held involving the *bita* (no youth attended this meeting) and elders tried to bring back another round of cattle for compensation and transfer them to Turmi town police force.

⁴⁶ Personal communication (telephone) with an informant in November 2013 who witnessed the scene and involved in the peace deal. My communication with my informant and Hamer district security officer revealed that the youth from both sides did not attend any of the security modality meetings.

Turmi police did not have the place to feed and keep the thirty-nine cattle (37 oxen and two cows). It, therefore, proposed to the Q communal enclosure management committee to keep the cattle inside for a period of five days. The enclosure management committee referred the proposal to its members (villagers) who were not happy to host the cattle for a number of reasons of which saving the grass for their cattle during the upcoming dry season is a big one. They were worried that doing so will significantly reduce the amount of grass that will be used to feed weak cattle and small calves that will stay in the village providing milk to children and the elderly. Another reason was also the unwillingness to host cattle to be transferred to an enemy. The security officers had no option but to press and force the committee to accept a deal. Mentioning the contribution of the productive safety-net program to the villagers, they even told people that it is in their right to access to the resources in the enclosure as they needed. Thus, frustrated by the officers and the situations, the committee accepted \$80 offer to keep the cattle in for five days.

During those five days of contact period, the committee assigned a guard to herd the cattle and fenced part of the enclosure (Plots in Case 4.5) temporary to keep the cattle and controlled their grazing. The cattle, during the contract period, entered the enclosure at 7:00 am in the morning and left the enclosure at 4:00 pm in the afternoon. They spent night at cattle kraal owned by the chairperson of the enclosure management committee. But, according to the agreement the five day deadline passed and the committee

took the cattle out of the enclosure and returned them back to Turmi police. However, the officers forcefully returned the cattle back into the enclosure once again. This went with an order that requested the enclosure management committee to visit Turmi police station and report on who passed the decision that left the cattle out. No one was willing to go and report the matter with to police. While trying to enforce the order to return the cattle back inside the enclosure, the police and security officers broke the key to the gate of the enclosure without consulting the committee.

Since this day onwards, the matter went out of the control of the committee and villagers. Some villagers even threatened to set fire to the enclosures. The cattle, unlike the original plan of the five days, enjoyed grazing freely. People of *Mirsha kebele* who went to the Thursday market in Turmi town and receive productive safety-net payments noticed the cattle in the enclosure. One among them was a man from this village who originally was from Minogelti (where the youth raided the cattle). This man leaked the information to the youth who spend a night on Friday at neighboring Gurdo village and took the thirty-eight oxen (left the cow) early Friday before dawn. He confessed his guilt, paid a goat and was whipped ten times later.

Once again government security officials and Hamer elders managed to bring the raided cattle and other additional cattle back into the enclosure. This happened a week after the raid and the number of cattle in the enclosure grew to sixty-four. They stayed inside the enclosure for about twenty days and five of them died for disease and lack of enough feed. The

remaining fifty-nine cattle were transferred to Dassenetch police and security officers in a place called Nyarema. The compensation cattle destroyed soil and water conservation structures (Plate 4.5, 4.6, 4.7, 4.8 and 4.9), special grasses grown for bee hive making and this temporary killed people's motivation and hope.

Now the committee's spirit for continued work is gradually reviving. Its inquiry for justice lost proper follow up due to change of officers including the administrator serving the district during the problem. They reported their case to the new post holder and informed him to have not received the money they were promised during the agreement for the payment of the service. In his part, he answered that if the accused officers had taken out money and failed to make the payment for the enclosure committee as per the agreement, they will legally be ordered to make the payment. The administrator promised to further discuss the issue and follow up the case in due course of time. The committee stressed here that peaceful negotiations could have resolved problems and prevented such rough arguments between the officers and the people. He blamed the officers' use of force to defend their action to have aggravated the problem and escalated tensions in their encounters with the enclosure management committee and the people of the Q village.

Case 4.6 illustrates that even in the worst case scenario; pastoralists choose to go beyond frustrations and continue to manage their land in the presence of strong local land management institutes. In this case the committee played such a

role. It can be taken as evidence that land conflicts in the peripheries that are inter-ethnic in their nature are likely to fuel conflict between people and government bodies.

The later may use social and economic support interventions as an instrument to get things done on its part. Conflict of this nature may seem to be rare in occurrence but it is bound to happen unless well taken care of. As the number of people interested in enclosure increases and the coverage of enclosures in the district rises, conflicts between household and groups seems to be prevail in the future.

Chapter 5 Re-Settlement, villagization and ritual non-cognizance

5.1 History of re-settlement programs in Ethiopia

Re-settlement programs in Ethiopia over the past decades failed to meet their objectives and left resettles in misery. In the 1950s, the objective of the resettlement programs was to rationalize land use on government owned land, raise state revenue and provide additional resources for the hard pressed northern peasantry by relocating them to the southern regions. The programs in mid 1970s through early 1990s promoted economic development and improvement of living standards of the rural people in the country (Mengistu, 2005; Gebre, 2009; and Woldemeskel, 1989). The resettlement programs over the past decade and a half and at present have prioritized food security and agricultural development by large in order to address poverty and challenges thereof.

A number of policies, programs and strategies are put in place to respond to such agriculture and food security challenges and facilitate their implementation. Agricultural Development Led Industrialization (ADLI) strategy; the Plan for Accelerated and Sustained Development to End Poverty (PASDEP); the Sustainable Development and Poverty Reduction Program (SDPRP) and recently the Growth and Transformation Plan [GTP] (MoFED, 2010) are the major ones to mention.

Sedentarization of rural farming and pastoralist communities along major river basins has become a prominent intervention to boost agricultural productivity and thereby ensure poor households access to food. It is for this reason that the federal and regional governments in Ethiopia started the Integrated Basin Development program as a development approach by taking water as an entry point. Other donor funded and national programs such as the Regional Pastoral Livelihood Resilience Project (RPLRP), the Productive Safe-Net Program (PSNP) and the Sustainable Land Management Program (SLM) operate altogether to contribute towards the food security goal. Voluntary resettlement is an integral component of the National Food Security Program of Ethiopia and it was prepared in harmony with the principles and pillars of the National Re-settlement and Villagization Programs devised in 2003 (Guyu, 2012). Voluntarism, availability of underutilized land, consultation with the host communities and preparedness to provide basic infrastructure are the pillars the Ethiopian government set for its intra-regional resettlement programs (NCFSE, 2003) that continued to resettle people over the years.

Particularly, resettlement programs in drought prone pastoral and agro-pastoral areas of the country focused on reducing herd size, instituting market oriented livestock husbandry and mainly at increasing yield from agricultural crops. The later aims to address food security gaps through engaging people in irrigation based agriculture. Ethiopian government request to expand the Pastoralist Community Development Program (PCDP) coverage into its newly planned settlement schemes was not welcomed. However, Ethiopia received funds to carry

on the third phase of PCDP, which is likely to overlap with the Regional Pastoral Livelihood Resilience Program (RPLRP) and the Commune program⁴⁷ intervention areas in SNNPR.

Unlike the Commune program that aims to bring scattered rural populations closer to schools, health clinics, roads, and other public services, PCDP only extends support to areas once people have voluntarily settled and demanded such support through raising community fund to cover part of their proposed action plans.⁴⁸ Despite allegations of forced resettlement and misuse of fund to support the resettlement of pastoralists through the Commune program⁴⁹ (MoARD, 2014; Oakland Institute, 2013), the government has continued resettlement of pastoralists in South Omo Zone in collaboration with SNNPR of which the villagization projects in Hamer district are a part.

5.2 Types of settlement in Hamer district

Settlements are located in the highland and lowland areas in the district, often as clusters of closely related households (Plate 5.1) in villages (*gurda*) (Plate 5.2). Village settlements are often permanent and made up of usually people who are related closely. Such relationships can be manifested through belongingness to a particular clan and bond friendships. But people from different locality or clan are free to join the villages. The new comer requires blessing from the elder council of

⁴⁷ The Commune Center Development Plan and Livelihood Strategy Program is a program of the Ethiopian government whose implementation began with the launching of the Growth and Transformation Plan.

⁴⁸ It was not in the donors' interest to fund a project aiming to settle people along perennial rivers where there is no basic infrastructure for people to start a living (communication with a senior official (PCDP program office in 2012) .

⁴⁹ The Federal Affairs Ministry runs the program jointly with the Federal Special Support Board and it is led by the Ministry 's Ensuring Equitable Development Directorate.

the village. The elders decide on the allocation of a space in the village for the new comer to construct his house (*ono*). Once accepted to live, the individual becomes part of the village and receives the support to build the house. It is a tradition that people of the village participate in the construction of the house. The support is offered in the form of collecting the wood from the bushes, clearing and leveling the site where the house is erected and the actual construction of the house, thatching and making kraals and fences. The owner of the house pays back the participants who offered their time and labor with food and drinks.

In a typical Hamar house, the walls are constructed from wood and mud. The floor and the walls are smeared using dung. The roofs are covered with thatch. The entrance to the house is a very small window like opening. It is difficult to stand upright in the house because the ceiling is very low as they use the space above it as store (*shala*).

Constructing a house takes time and is regarded as social safety-net program where the poor are rewarded for their labor. Case 5.1 narrates the experience of a non-Hamar agricultural development worker and his interaction with people in W village.

Case 5.1 The cost of constructing a house

KK was a development agent of Ari origin who was assigned by the government to work in the district. During his arrival in Turmi, he met my host mother who was kind and very supportive to him and his family. In his effort to reward her support, he decided to help her build a new house in her

village. She collected all the woods and grasses while he mobilized hired labor from Turmi town and went to the village with a carpenter.

At 5:00 am in the morning, they dug holes to erect poles and managed to put on the structure of the house. BB was at the same time busy with cooking food for the laborers and preparing coffee. The elders in the village who were gathering for morning coffee in one of the houses nearby have followed what was being done.

Around 9:00 am, two groups of Hamar youth who hold whipping wands arrived. BB had already known what is going to happen and immediately told KK and the men to escape from the youth. According to KK, the youth already were so close that he could not run anywhere and he could not see any reason. For him, he did no wrong except constructing a house for someone who has been supportive. The youth knew that he is someone working for the government. Before whipping him, they angrily asked him to explain where he got the permission to erect the house in their village. KK explained that he is building the house for BB but not for him⁵⁰. The youth kept on asking from whom he got the permission to build a house for BB too. He replied that he promised to build a house for her to acknowledge her support and that is what he is doing. He mentioned that he is building the house on her own yard and that he has not taking any advantage. But, the youth insist that he answers their question. KK got

⁵⁰ Model houses used to be built for agricultural agents like KK to provide living and working facilities.

confused and BB is not allowed to speak a word. Then, one of the elders in the village, QA talked to him in irony. ‘Aren’t you one of those people who often talk about safety-net? ’

‘Yes, I was’, KK replied. QA continued his rhetoric, ‘Are you from Addis Ababa? Are you from Hawasa? You just came from Ari. From somewhere near. How don’t you know about our culture? Yet, you wanted to teach us about safety-net. The youth were asking you to tell them who allowed you to erect the house for BB.

According to the Hamar custom, when the roof of the house is constructed, those people in this village [after insulting him and referring to the people, KK used to gather, who were covered by the government Productive Safety-Net Program] eat and drink while working. This is their safety-net. Again, when the wall is erected, that is their safety-net too. But, today, you came in our village early in the morning and completed erecting both the wall and the roof. You are about to finish erecting the house with no one eating and drinking. You are sitting on the throats of these poor people. You snatched their food. You let them spend the day hungry and thirsty. Therefore, we will punish you in kind or otherwise you will be whipped.’’ Every one echoed QA’s opinion. He agreed to slaughter two goats and feed the people who were deprived by his action. As his goats were not nearby, he borrowed two goats from my name son’s biological father (KA) and slaughtered them at the spot, the women prepared food and coffee. Everyone enjoyed the feast while making fun of the way he fearfully

encountered the youth who went to whip him. And they finished the house altogether.

Case 5.1 illustrates that people can construct new houses in different locations in the village as far as they follow the appropriate customary procedures. There has always been a change in living space within the boundaries of their settlement. People move up and down within the village. I have come across with a family in my study village that relocated to a new place. The family moved because the head of the family, an old guy, according to the villagers, was unable to walk anymore. This was because of the evil charm people thrown on the house. By changing their house to a new place, the family runs away from being possessed with the evil spirits. Some people may also change the position of their house to acquire a better space and keep distance from people whom they are not in good terms with while others move to different villages in the district.

Settlements in Hamar can be of farm, herd camp and village type. With the exception of the village settlement (Plate 5.3), which is permanent, farm and herd camp settlements are temporary and exhibit various features. Among the Hamar establishing permanent settlements near herd camps are not characteristic features. This is explained by the fact that once they have settled in their present villages, the Hamar has not made permanent relocation further away from it.

Size of a house and livestock kraal in Hamar varies from one household to another household. It depends on the family size and the number of livestock one possesses. The house where I lived in, shelters a family of five including me. It was

built on a land area of 0.006 hectare. The area of the whole of the household enclosure containing both the shoat and cattle kraal was about 0.042 hectare. The goats and sheep kraal made up about 47.62% of the total livestock enclosure (Plate 5.4). In the newly constructed kraal, this size is expanded to 0.096 hectare of land that is 50 meters away from the current enclosure and a new house was constructed 10 meters from the new kraal and had similar size with the previous one.

People of the same *delen kelonti*, may temporarily construct a house in farm fields (*hami ono*) to protect possible damage of crops from birds and wild animals (Plate 5.5). This happens often in May (Table 2.2). Farm settlements are seasonal and depending on how far the farm is located from the village, people may stay long in the farm or make frequent trips to the village.

Unlike the farm-time and permanent village settlements, herd camp settlements used to be dominated by young unmarried boys and adult men who keep on moving and settling inside livestock enclosures. It was in rare cases that women stay in those camps. However, these days, unmarried and newlywed women accompany the herdsmen in the camps. A woman related to my host family had been staying with her husband and her daughter at Kizo herd camp. In the old days, herdsmen in herd camps fed on cattle blood, milk and meat. There was no other food to eat. But, recently, people started seriously farming on the river Omo delta cultivating crops after the flood retreats. The Hamar women accompanying herdsmen establish farms to cultivate maize and sorghum at *diba*, near where most of the Hamar herd camps are located.

5.3 Settlement strategies

Establishing farmland near water points provides one with the advantage of utilizing the water and the sediment carried by the flood. Likewise the choice of a specific area to establish settlements has its own explanations. Proximity of the villages to grazing, water points, market places and its vulnerability to enemy attack can form part of such explanations.

*Case 5.2 The Kuluma village settlement*⁵¹

Kuluma village is 1-2 hours walk away along the south west direction from Turmi town. It shares border with Dassenetch district. Due to its closeness to the border, it is vulnerable to potential attack by the Dassenetch. Hence, the houses in this village are surrounded by a big enclosure. The livestock have one gate to enter and leave the village. Having passed the main gate, they will move in to their own kraals. According to WA, there are about eight watching holes dug in to the ground serving as fortresses for enemy surveillance. Two young men are assigned in each spot. While one takes rest the remaining one watches carefully.

WA thinks that settlements influence people's attitude, behavior and reaction to development projects. As evidence he mentioned of a failed government effort to dig water wells close to the village. The people in this village were not happy about the offer although access to water is a problem. They preferred to use water from the dry sand river bed to provide water to

⁵¹ Meeting with WA on 19 August 2011 in Turmi town at Buska lodge.

their livestock. As a result, the water project was taken to a place called Dunka, which is 30 kilometers from Kuluma. It takes them to travel twelve hours to reach here.

The reason that they did not want to have the well near their village was to avoid possibility of people coming to compete for the grasses in their vicinity. Previously since the era of the socialist regime, there used to be a tradition of watering cattle by digging deep water wells. Inside the wells, they built stairs called *gana* where four men pass on the water to the surface and let the livestock drink. These wells are told to have been cursed as people were injured in the process. But people have dug new wells disregarding the curse. The wells were also filled with sand carried by the river. Usually people in Kuluma utilize water and pasture resources in Dunka. Because of their strategic intervention on water project the Hamer in Kuluma village avoided risk of conflict with the Dassenetch and risk of others' migration in to their surrounding for pasture. WA for example had moved his goats, about 50, to Kuluma village at the beginning of June 2011. The main reason of this mobility was the availability of grasses, leaves and closeness of the village to his village in Turmi town. According to him, competition for grazing in Kuluma is less as many people had fears that the village is prone to conflict and raid by the Dassenetch. He felt secured about his goats as they are under his elder brother supervision. But, he sent his cattle herd of 40 to Kizo three months ago for better pasture and access to water.

Through the action of herd-splitting, WA and other pastoralists in Hamer could avoid further risk of losing their herd. The division of labor in turn illustrates how settlement patterns shape pastoralists decision behavior. Such decisions have always been manifested in planning for rangeland utilization within and outside of their territorial jurisdiction.

5.4 Past and current villagization schemes

Settlement in Hamer has a long history. In 1983 a Norwegian NGO called Redd Barna dug water wells to help people get access to potable water and settle in a place called Bulkai, near Quma. The idea came from the Hamer people mainly because unlike the Kara, Nyangatom and Dassenetch, the Hamer lack access to water in the district and had to depend on their neighbors.

5.4.1 Quma villagization program

Quma is a place located 64 kms away from Turmi town in Hamer district. The government villagization program has laid out the foundation for the establishment of two villages (Quma 1 and Quma 2). The design work was done by South Omo Zone Design and Construction Supervision work process. Each village covers an area of one square kilometer. The two villages are separated by a distance of half a kilometer. Individuals are planned to be allotted 50-meters-by-100-meters plot of land. This space includes the land for house and kraal construction. The two villages are planned to provide formal education school of grades first to four, health post, vet post, grind mills, police station and grain store. The people in the two villages will have access to water from three storage tankers through pipe lines which bring water from River Omo.

5.4.2 Targets of the villagization program

The first round settlers are voluntary selected from twelve villages from Angude and five villages from Kolakejia, five villages from Zeleketa and Mirsha Shefela and Degakejia kebeles in the district. These kebeles are given priority due to their vulnerability to drought and lack of enough rain to support rain-fed farming activities. Non-Hamer communities in the district are not targeted in the program. The registration of volunteers was conducted first in 2010. In 2011, awareness raising program was organized over security concerns while at the same time allocating land for one thousand settler households (320 female headed and 680 male headed) who volunteered to re-settle.

The area is popular place for Hamer and Nyangatom conflict. Particularly, the land allocated for farming is away from the villages and vulnerable to possible attacks from hostile neighbors. One potential concern raised alongside cattle raiding was theft of harvest.

5.4.3 Reasons for settlement

The villagization program to voluntarily settle the Hamer inhabiting the very dry lowlands of the district has long history dating back to the imperial regime. Since then, the Hamer attempted to establish settlements and cultivate land in the fertile alluvial plains near the Omo River. But, intermittent conflict with Dassenetch and Nyangatom and malaria infestation were the major threats that prevented people from settling closer to their herd in the herd camps. Similar reasons still explain why after a century this is not happening. My respondents who lived in the lowland part of the district and whose kebeles are chosen by the

government to benefit from the settlement program do not consider the government plan a strategy to evict them from their present site. Their concerns are security, malaria and down played cultural factors such as the rite of transition into adulthood (*hatsa*⁵²).

5.4.4 Prospects and challenges

Quma is huge plain conducive for irrigation based farming, which is located outside the Park system. It is a grazing land for the Hamar livestock. There is no herd camp to be moved because of the settlement program that commenced with the establishment of two villages. In the area reserved for farming, there have not been cattle camps due to the risks mentioned above. According to my informants, the location of the villages makes it vulnerable to attacks from hostile neighbors but it can be solved by establishing security checks, common socio-economic infrastructures (such as market place) and assigning enough police to maintain peace. Similarly, the issue of malaria can also be encountered with the establishment of health posts and provision of awareness raising training to prevent mosquito bites.

There is a shift in priority of concerns since 1984 when the first attempt to settle was made by the Hamar. However, with recent disarming campaigns that started in 2012, they refrained to cooperate to disarm their guns and yet they have not moved to the villages in Quma, which is easily accessible by the Dassenetch. Now with increased tensions over the decades security remained a top concern

⁵² This ritual is performed within specific territorial markers. The settlement in Quma is located farther that it discourages the Hamar to travel such a long distance to observe this and also to other ritual practices.

while access to improved health services down-scaled the level of high risk involved with malaria.

Case 5.3 Prioritizing challenges

For OQ, who is a goat herder in his 40s, security is the most important concern over malaria for the Hamar particularly with Dassenetch and to some extent with Nyangatom. The Hamar believe in the power of their gun and say: ‘our gun is our security keeper’.

But, the big challenge (under played by government officers) was the location of the site being far away from customarily regarded “Own territory”. Important rituals are performed inside “Own territory” including cattle leaping. It will be impossible to travel from the new settlement to ritual sites to perform the leaping that symbolizes the rite of transition from childhood into adulthood. According to some informants who have been active in the planning and implementation phase of this land use program from the government side, prior to starting the project, such issues were not well discussed and believe that elders could have indicated solutions.

Some (not all) believe that it is still possible to consult the *bita* (the rule maker) to allow people cross Kizo river to perform leaping rituals. This will cut the long distance trip to cross Keskie River that discouraged people from settling in the villages in Quma although it at the same time may harm relationships with neighboring tribes who can translate the blessing into an act of expanding and occupying territories. Otherwise, people are willing to settle and get access to direct

use right to the water from Omo River and benefit from farming on the fertile flood plains. Not only elders in Hamar but also the Murle, who are entitled to customary ownership of the land, were not also consulted about the project that plans to settle the Hamar on their land.

The Hamar, however, downplay statements concerning possible incoming claims from Murle (if any) as they have already taken over a deserted space⁵³. According to them, the Kara are small in number and have never gone down there. Their action seems to have received official recognition by the government through the villagization scheme which has planned to allocate agricultural land ranging from 0.5 hectares to 1.5 hectares based on the family size particularly as per the number of wives in a household. For example, a household head (*donza*) with one wife will get the smallest size which is 0.5 hectares while household heads with two and three wives receive 1.0 and 1.5 hectares respectively. According to the Southern Nations, Nationalities and People's Regional State (SNNPR) Rural Land Administration and Utilization Proclamation No. 110/2007, the smallest plot size for rain fed agriculture is set to have not been less than 0.5 hectares.

If the program manages to successfully relocate the pastoral households to the new villages and convince such settlers to plough the land, the allocation of land based on number of wives will favor households with two or more wives. However, the hypothesis that the allocation of land based on the number of wives will directly trigger people to have more wives to increase their holding size may

⁵³ The deputy head for Pastoral Areas (South Omo Zone) in 2013 informed me that the Murle had no such claims.

not work as a number of social, cultural and economic factors make it a bit harder to have more wives easily. At present, farming is not yet fully taken as the predominant source of livelihood by many in the district and issues surrounding the realization of the villagization program still remain unaddressed for reasons of security, health and ritual causes.

An important perspective that overshadows the program is the fact that it does not plan to issue land holding certificates to the pastoral households who are willing to settle⁵⁴. However, if successful, settlers will benefit from cultivating along the banks of Omo River in Quma. The place, which is rich in various types of trees and shrubs, offers pastoralist for grazing and browsing their cattle, sheep and goat while supplementing their livelihood from farming. Places adjacent to Quma like Goga⁵⁵, Dele-melka⁵⁶ are very famous watering sites in the Omo Valley making it easier for herders to water their livestock and reap the benefits of living nearby their family.

The Hamar have also taken advantage of their traditional elders' wisdom and friendship with foreign scholars to secure their continued access to water bodies. According to my informant, after the failed water based settlement attempt initiated by the Hamar with support from Redd Barna in the early 1980s, the Hamar were able to succeed in diverting Woyito River. In an intervention where the

⁵⁴ The SNNPR Rural Land Administration and Utilization Proclamation No. 110/2007 grants the right to hold titles to land and allows joint certification between husband and wife (Holden *et al*, 2008).

⁵⁵ It is a Hamar term to refer to dried wood as a result of aging. My respondent symbolized the color of old buildings in Addis to the dry fallen trees because of long age.

⁵⁶ The Nyangatom water their herd there and my respondent brought his cattle there in 1990.

government body was unaware of, the contribution of a European anthropologist⁵⁷ and AB, a respected Hamer elder from Dembayite village, was immense. Case 5.4 elaborates the action of AB and the European researcher in diverting the flow of Woyito River in favor of the Hamer.

Case 5.4 Water scarcity and successful interventions

These two men mobilized the Hamer labor to divert the river before it joins Chew Bahir. What they did was, open an old natural canal where the river spills when it overflows. The Hamer blamed the Erbore for blocking the canal by planting Cordia trees and long salt resistant grasses to prevent the seasonal flow of the Woyito river water into the Hamer territory. The Hamer were happy with this plan that the Erbore won't brag any more. AB remembered as a wise diplomat, convinced SU, a famous Erbore elder and his friend, and the Erbore elders to stop planting Cordia and blocking the water. After some time, the newly opened waterway formed a big gorge that made it difficult for the Erbore to cut the water. The water coming through the water way provided grass and salt for livestock in Hamer. According to the Hamer, the Erbore had intentions to even plant Ficus trees to further strengthen the blockage.⁵⁸

⁵⁷ He brought equipment to dig and clear the blocked canal.

⁵⁸ When both elders meet and the Erbore elders raise their claim that the Hamer changed the course of the river, the Hamer elders joke on them saying "you could have resisted it long time ago. Now it is too late".

5.5 Moving into the new villages

The settlement scheme is beneficial to Hamer from the point of view of some access rights related to water and grazing. According to the response of households communicated in the district, the plan of action for the settlement entitles the Hamer with un-negotiated right to access the water in the River Omo. Case 5.5 is a summary of a discussion held in 2012 between a Hamer woman (GK), her husband (OM) and me. Later we were joined by a young herdsman called AF.

Case 5.5 Thoughts on moving into the villages

Both (GK and OM) are registered to move into the new villages in Quma. GK is in favor of the villagization program but OM is against it. Although she supports the program, to my and OM's surprise she did not want to go and live there. GK's explanation was simple. According to her, the villages are going to be established in an area that is not part of their ancestral land and the people who have the right to land are not consulted.⁵⁹ So she does not want to live in someone else's land without her being informed of their consent. According to GK, most of the households registered to move to the new villages are the rich; those who have many cattle and that she has less of wealth to take the risk of moving there with her herd. OM started his talk:

‘Let Kizo be a Hamer country. But still Kizo is a grazing place for cattle. We cannot make rules there. All the Hamer rituals have to be done

⁵⁹Her thought can be referred to the pillars of re-settlement as set in the re-settlement program (NCFSE, 2003).

here. The government says that it builds water facility and does development. But, you cannot do leaping there. You have seen that right? [Looking at me and with a long gentle pause]. How can we avoid that and live there?’

GK continued from where she stopped and explained to us that the idea of the government, according to her, is to bring a solution to reduce conflict between Nyangatom, Dassenetch and Hamar. By constructing schools and development facilities the government will promote unity and encourage friendship and marriage. OM did not take her opinion telling her that a Hamar who does not leap over the cattle is useless and cannot marry. He stressed on the conservativeness of Hamar’s culture and that he believes the government is trying to promote cultural cohesion through school establishment and intermarriage between conflicting groups. The villagization in Quma, for him, is moving into cattle’s cosmos, creating more tension between already hostile groups and losing one’s identity.

According to them, people considered the program a joke as there were many issues left untouched. But, many said “let the government build the infrastructures”. They will go there and do the farming and build cattle camps. They said, ‘Let them built school and whoever wants can join.’

OM turned to me and asked: ‘But, who is going to go to school leaving the cattle alone?’ and he himself replied to his question, ‘It is just a joke’. The young herdsmen who are registered to relocate to the villages

often spent most of their time there with their herds. The registration makes them title holders and creates opportunities to cultivate the land with family members. The old people will continue to live in their present villages. With the exception of the young herders, the adults chose to remain in their current villages to facilitate leaping and all-important rituals in Hamer. After listening our discussions, AF (who is already registered to move to Quma), voiced his concern supporting OM's stance. 'Look', he said, 'Even people in Genbela village cross Keskie for leaping. Can you imagine then how far it is going to be for people living in Quma?' He continued, 'If the government forces people to live there, it is suppression of the peoples' cultural right. You cannot ridicule leaping as some say [he thinks individuals (Hamer) who convert to Muslim and Christianity ridicules it]. You can have a degree but you have to leap. It is culture.'

GK firmly believes in the importance of leaping and thinks that the government idea is to keep the pastoral people settled and educated but not to interfere with such cultural issue. She asked OM and AF, if they can genuinely relocate to Quma, if government provides a transport system so that the people settling there can come to leap by crossing Keskie.⁶⁰

"Listen! Let schools be opened. Let the oil come. Let development prevail. Ethiopia sought aid from foreign countries. This is my opinion. If we learn we do not look for aid. We will change. Things change and you can pay for

⁶⁰ On our way to Turmi, I have asked this question to see what she replies and as usual she laughed loud and told me that she will raise this to OM. She did that to provoke him in this discussion.

transport. If you work hard tomorrow you will change. You can buy food from here and take it to the settlement.” She thinks it is possible and inevitable with education and development in the future.

But, OM was angry and did not agree to her idea and nodding his head in objection, he yelled ‘Go Away! This is totally unacceptable....By then we are all dead. It may happen in generations from now. It is very far. Where you go to school is very far, right Samuel? It is far like that.’ And it was time to sleep.

The discussion between the individuals in Case 5.5 is evidence that depicts the extent of the prevailing perception on the planned villagization scheme in the district. People of different age groups, gender and background view the scheme differently and have their own perspectives. Both OM and GK are individuals who have experienced working with development agents in the district and outside. OM had little education (informal) while GK had none. Such kind of discussions has surfaced among many in the district informally, and of course has reached the ears of the implementing officials. But, they did not capture their interest or they simply were left unaddressed.

Chapter 6 Summary and Conclusion

Irregular, insufficient, and unequally distributed rainfall during the past several decades has resulted in crop failures in Hamer territory, particularly in the lowlands. This, in turn, has pushed many of the herd camps farther away from settlements. In response to these changes, the distance from the village to camp herds has increased, and the frequency with which livestock are moved to village camps has decreased.

As rainfall and grazing land have declined over the past decade, the development of livestock enclosures has gradually gained momentum. Enclosures play an important role by intercepting mobility and providing weak, small, and lactating animals with grass, particularly during dry periods, which save time and labor for poor families with small herds and specifically reduces the need for emergency movement. This also gives farming households more time to till their land, tend their crops, and supply milk to small children and the elderly.

However, the increased use of enclosures may promote violent confrontations triggered by multiple claims of resource rights. Enclosures in the Hamer district can exist independently from grazing areas or as part of farms. Farm enclosures, which are found primarily in the highlands, provide space to cultivate crops, grow grass, and keep livestock.

Ultimately, cultural norms, rituals, and market conditions were all found to affect mobility, and diseases were found to affect herd size in livestock camps. A

recent but equally important additional factor is variations in grass availability and production due to the expansion of grazing enclosures. Moreover, mobility type was influenced primarily by season and distance between camps and grazing enclosures. Investments in social facilities may result in continued changes in the Hamar district in the future.

Farm enclosures provide space for cultivation of crops, growing grasses, production of honey, and retention of livestock. The Hamar in the highlands showed greater diversification of crop production and more options for income generation than the lowlanders. Due to lack of rains between 2010 and 2011, the Hamar people relied primarily on food aid through the safety net program. Moreover, lack of rain hindered them from ceremonially remembering the dead and organizing cattle-leaping festivities.

Because rainfall has generally decreased over the past decade, group and private farm enclosures have become more common. The Hamar are adopting better farming techniques to increase production. Even in the lowlands, many have started to plow using oxen. Galvin (2009: 193) states, “As pastoralists become sedentary, cultivate, and diversify their livelihoods, the move to increasing control over land becomes understandable.” It can be said that the Hamar are experiencing an agricultural transition. The traditional shifting cultivation practiced for centuries with simple broadcasting of seeds of sorghum and maize is now supported by oxen-plowed agriculture. When the rains are plentiful, the harvests are abundant and trade is profitable. Subsequently, the Hamar strengthen their economic alliances through the formation of friendly partnerships with neighbors. Hamar

women initiate farming activities and acquire knowledge about each of the varieties in their seed banks. They further characterize varieties according to their function, use, symbolism in ritual services, labor requirements, and taste.

Land enclosures brought changes to once degraded and mostly bushy and shrubby landscape. Despite arguments that treat enclosure as a practice that undermines richness of shrubby species (Oba, 2011: 7) and promotes species diversity (Haile, 2012: 15), the contribution of enclosures particularly in reserving feed during prolonged dry periods in mobile livelihood system is immense. Conducive environmental conditions such as the distance of enclosures from water points, good soil and moisture conditions; and origin of the initiative to establish an enclosure were key points for successful intervention. The origin of initiative to engage in enclosure development may come from agitations by environmental NGOs, government bodies through development (extension) agents, traditional institutional leaders or by members of the community of certain villages. Often, when such an initiative bases its origin on the community's will and an investment in the ownership of the idea, mobilization of labor and time, ensures active participation in the process. This promotes executions of continuous conservation activities that are timely checked and monitored to halt human interference and livestock encroachment in the enclosed land.

Community based enclosure initiatives benefited from high level of sense of ownership than those planned by governmental and non-governmental organizations as community based initiatives were solely motivated by own shared problems and demands. However, incentives in the form of cash, food and kind

encouraged people to involve in land management activities but did not prove to implant a sense of ownership to sustain management.

In Hamer district, moreover, enclosures provided space for mutual support and cooperation. Particularly where the local custom condemns women to sit in *boaka* (communal space customarily reserved for men in the village) and freely hold discussions, farm enclosures gave such an opportunity. In Hamer households in particular, women had no access to money. The income from the sale of grass helped emerging grazing land (enclosure) management institutions make money and avail it to members on rotation basis.

This opportunity in turn supported individual households economically. Some of them used the money to pay for health related costs and some others used it to start small business in the village like sale of local alcoholic drinks. Some community based enclosure projects in Hamer district proved to be dependable dry season sources of feed to the weak, milking and small livestock staying at home. However, enclosures are not always welcomed by pastoralists in Ethiopia. For a community with huge herd size, the grass from enclosures is still insignificant to feed the herd. In addition, the enclosures around villages are often away from water sources and saltlicks. Hence, the demands of herdsman remain unfulfilled as grasses are not the only reasons for mobility. In Somali region, for example, people associated enclosures with land fragmentation and sedentarization. Women found it cumbersome to herd small livestock and blamed the practice to have restricted their movement (Sead, 2007: 35-36).

Existing social support networks are adapting to and co-evolving with newly introduced schemes of communal resource use. Resource use interest groups are utilizing potential socio-cultural assets like traditional institutions to access resources and curb disputes on the rangeland. Hence, advisory, supervision and coordination roles of elders played an important role in maintaining controlled and regulated access to and utilization of resources.

Enclosures movement in the district is, therefore, making use of such already existing socio-political structures/offices to maintain order and assert acknowledgment in the face of challenges and opportunities ahead.

People were responsive to the orders and demands of the customary leaders than those coming out from governmental and non-governmental organizations regardless of awareness raising trainings and incentives.

The challenge in the current trend of enclosures expansion, however, seems to affect sustenance of shifting cultivation. With a growing human and livestock population, urbanization and policy pressure to settle the Hamar, land fragmentation, loss of biodiversity and land conflicts are bound to happen. A need for land to grow grass and food crops may fuel conflicts and tempt people to demand their fair share of the communal land already enclosed for use by some. It is not also clear how PSNP is to free households from their dependence on aid and address post-graduation issues consequently.

According to Flintan (2011), land fragmentation reduced the ability of pastoralists to cope with drought and retain sufficient herd size and exposed poor

households to protracted drought. She explained how the introduction of protected kraals in 2006 in Uganda posed restrictions on access to pasture and water following a government attempt to maintain security. Insecurity and conflict (Schlee, 2010: 2-13) may result in both over- and under-utilization of rangeland resources bringing changes to the landscape. Any effort that aims to maintain the *status quo* and well-being of the land and people shall, therefore, embrace to a strategy to deal with such challenges.

For now, it is early to judge enclosures to have caused land fragmentation and destroyed the interconnectedness of socio-ecological systems in the district. Ongoing development trends in tourism and infrastructure sector seem to supplement and diversify people's livelihood options that enlightened the spirit of cooperation and constructive consultation than unhealthy competition. The difficulty remains on the weakness to involve youth in security, peace and conflict dialogues as active participants in the creation and management of socio-cultural, economic and political discourses of a transforming landscape. Strong local land use and management institutions are needed to plan, monitor and implement land use activities and resolve land disputes. Currently emerging land enclosure management committees can serve this role with genuine and consistent harmonization with own and neighboring district relevant stakeholders.

Recognition of the importance and influence of rituals, addressing insecurities related to possible reduction of water for irrigation due to damming of Omo and Kuraz sugarcane plantations (Avery, 2012; Ethiopian Sugar Corporation, 2013; Girke, 2013) remain the challenges of the on-going villagization program in

Hamer district. The growing interest to engage in farming activities, I could say, is not properly taken by the local government that is pushing for irrigation based farming agenda. In such a dry ecosystem, water has always been the drive for establishment of settlements although the programs fail for various reasons. The provision of basic facilities and integration of non-Hamer communities, who are running business constitute the few of the concerns. While planning settlement programs, therefore, place-based identity, health and security deserve integration into the planned land use equation along with fulfilling basic needs of the targeted people. Cultural rituals are not of second thought but stand in the same lane as food, shelter and water if not a bit ahead.

References

- Abbinik, J., Askew, K., Dereje F., Fratkin, E., Gabbert, C., Galaty, J., LaTosky, S., Lydall, J., Mahmoud, Hussein, Markakis, J., Schlee, G., Strecker, I., and Turton, D. (2014). *Lands of the Future: Transforming Pastoral Lands and Livelihoods in Eastern Africa*. Working Paper No. 154. Max Plank Institute for Social Anthropology, Halle/Saale.
- Abebe, M., and Solomon, B. (2013). The need to strengthen land laws in Ethiopia to protect pastoral rights. In: Andy Catley, Jeremy Lind and Ian Scoones (eds.). *Pastoralism and Development in Africa: Dynamic Change at the Margins*. Abingdon and New York: Routledge, pp 186-194.
- Abza, T. G. (2011). *Experience and Future Direction in Ethiopian Rural Land Administration*. Paper Presented at the Annual World Bank Conference on Land and Poverty, Washington D.C.
- Admasu, T., Abule, E., and Tessema, Z. (2010). Livestock-Rangeland Management Practices and Community Perceptions Towards Rangeland Degradation in South Omo Zone of Southern Ethiopia. *Livestock Research for Rural Development*. Volume 22, Article #5. <http://www.lrrd.org/lrrd22/1/tere22005.htm> (Accessed on February 14, 2012).
- Almagor, U. (1978). *Pastoral Patterns: Affinity and Bond Partnership among the Dassenetch of South-West Ethiopia*, Manchester University Press. Manchester, UK.
- ARD. (2004). *Ethiopia Land Policy and Administration Assessment Final Report: Broadening Access and Strengthening Input Market Systems (BASIS)*, USA.

Avery, S. (2012). *Lake Turkana & the Lower Omo: Hydrological Impacts of Gibe III & Lower Omo Irrigation Development. Vol.I-report*, African Studies Centre, Oxford University.

Behnke, R. H. (1999). *Equilibrium and Non-Equilibrium Models of Livestock Population Dynamics in Pastoral Africa: Their Relevance to Arctic Grazing Systems*. The Tenth Arctic Ungulate Conference, 9–13 August 1999. Tromso, Norway.

Beyene, S. and Gudina, D. (2009). Reviving a traditional pasture management system in Fentale, East Central Ethiopia. *Journal of Ecological Anthropology*, Vol.13, No.1: 57-72.

Dafinger, A., and Pelican, M. (2006). Sharing or Dividing the Land? Land Rights and Herder-Farmer Relations in a Comparative Perspective. *Canadian Journal of African Studies*, 40(1): 127-151.

Desta, S. (1999). *Diversification of Livestock Assets for Risk Management in the Borana Pastoral System of Southern Ethiopia*. PhD dissertation, Utah State University, Logan, Utah.

Ethiopian Mapping Agency. (2006). Map of Ethiopia. The Ethiopian Mapping Agency. November 2006. Addis Ababa, Ethiopia.

Ethiopian National Meteorological Agency. (2011). Data Management and Dissemination Department (Unpublished), Addis Ababa, Ethiopia.

Ethiopian Population Census Commission. (2008). *Summary and Statistical Report of the 2007 Population and Housing Census. Population Size by Age and Sex*, Addis Ababa, Ethiopia.

Ethiopian Sugar Corporation. (2013). Kuraz Sugar Development Project. <http://www.etsugar.gov.et/en/projects/kuraz-sugar-development-project.html> and slideshare <http://www.slideshare.net/meresaf/the-omokuraz-sugar-development-project> (Accessed on November 12, 2014).

Fikremarkos, D. (1995). *Dingil Wubet* [Amharic fiction]. Addis Ababa Educational Equipment Manufacturing and Distribution Agency, Addis Ababa, Ethiopia.

Flintan, F. (2011). "Broken lands: Broken lives?" The causes, processes and impacts of land fragmentation in the rangelands of Ethiopia, Kenya and Uganda. <http://www.disasterriskreduction.net/east-central-africa/library/?querystring=reglap> (Accessed on August 7, 2014).

Galaty, J. G. (1994). Rangeland tenure and pastoralism in Africa. In E. Fratkin, K. A. Galvin and E. A. Roth, (eds). *African Pastoralist Systems. An Integrated Approach*, Chapter 10, pp. 185-204. Boulder, Colorado, USA and London, Lynne Rienner Publishers.

Galvin, K. A. (2009). Transitions: Pastoralists living with change. *Annual Review of Anthropology*, pp. 187-194.

Gebre, Y. (2012). *Environmental Change, Food Crises and Violence in Dassenetch, Southern Ethiopia*. Research report Peace and Conflict Studies No.1. Freie Universitat Berlin, Research Unit Peace and Conflict Studies, Berlin.

Gebre, Y. (2009). *Why Did Resettlement Fail? Lesson from Metekel*. In Alula Pankhurst and Francois Pigeut (eds.). *Moving People in Ethiopia, Development Displacement and the State*. Eastern Africa Series, Addis Ababa.

Gebre, Y. (1993). *An Exploratory Study of Production Practices among the Ari, South Western Ethiopia*. MA Thesis, Addis Ababa University, Ethiopia.

Getachew, K. (2001). *Among the Pastoral Afar in Ethiopia: Tradition, Continuity and Socio-Economic Change*. International Books, Netherlands.

Gilligan, D., Hoddinott, J., and Taffesse, A. (2008). The Impact of Ethiopia's Productive Safety Net Program and its Linkages. International Food Policy Research Institute, IFPRI discussion paper 00839: pp.1-19, Routledge.

Girke, F. (2013). *Homeland, Boundary, Resource: The Collision of Place-Making Projects on the Lower Omo River, Ethiopia*. Max Planck Institute for Social Anthropology, Working Paper No. 148, Halle/Saale.

Guyu, F. (2012). Voluntary Villagization Scheme (VVS) for Transforming Semi-Pastoral Communities in Benishangul-Gumuz Region, Northwestern Ethiopia: Challenges and Local Development Indicators. *Journal of Sustainable Development in Africa*, Vol. 14, No.8, Pennsylvania.

Hagmann, T., and Mulugeta, A. (2008). Pastoral conflicts and state-building in the Ethiopian lowlands. *Afrika Spectrum* 43(2008) 1: 24–26, GIGA Institute of African Affairs, Hamburg, Germany.

Haile, G. (2012). *Effects of Exclosure on Environment and its Socio- economic Contributions to Local People: In the case of Halla exclosure, Tigray, Ethiopia*. Masters thesis, Norwegian University of Life Science, Ås, Norway.

“Hamer (woreda).” *Wikipedia: The Free Encyclopedia*. Wikimedia Foundation, Inc., 29 January 2014. Web. 10 March 2015. <[http://en.wikipedia.org/wiki/Hamer \(woreda\)](http://en.wikipedia.org/wiki/Hamer_(woreda))>

Helland, J. (1977). Social organizations and water control among the Borana of southern Ethiopia. In *East African Pastoralism: Anthropological Perspectives and Development Needs*. International Livestock Center for Africa. Paper presented at the Conference, Nairobi, Kenya. 22–26 August 1977.

Holden, S., and Tefera, T. (2008). “*From Being Property of Men to Becoming Equal Owners? Early Impact of Land Registration and Certification on Women in Southern Ethiopia.*” Nairobi: UN HABITAT.

Homewood, K. (2005). *Rural Resources and Local Livelihoods in Africa*. New York, Pelgrave Macmillan.

Humanitarian Policy Group. (2009). *Synthesis Paper. Pastoralism, Policies and Practices in the Horn and East Africa. A review of Current Trends*. Overseas Development Institute, UK.

Hundie, B. (2008). Pastoralism, Institutions and Social Interaction: Explaining the Coexistence of Conflict and Cooperation in Pastoral Afar, Ethiopia. *Institutional Change in Agriculture and Natural Resources, Vol.34*. Berlin, Germany.

IIRR. (2004). *Food Security in Pastoral Areas of Ethiopia*. International Institute of Rural Reconstruction. Africa Regional Center, Nairobi, Kenya.

Ibro, A., Gebru, A., and Alemayehu, N. (2004). *Rangeland Condition Assessment in and around Awash National Park*. A Final Report to CARE Ethiopia.

Makki, F., and Geisler, C. (2011). *Development by Disposition: Land Grabbing as New Enclosures in Contemporary Ethiopia*. Paper presented at the International Conference on Global Land Grabbing: Organized by the Land Deals Politics Initiative (LDPI) in collaboration with the Journal of peasant studies and hosted by the Future Agricultures Consortium at the Institute of Development Studies, the University of Sussex.

Mengistu, W. (2005). *Effects of Resettlement Schemes on the Biophysical and Human Environments: The Case of the Gambela Region in Ethiopia*. Universal Publishers, Florida, U.S.A.

MoARD. (n.d.). *The Best Investment Opportunity in SNNP, South Omo*.

<http://assets.survivalinternational.org/documents/194/SouthOmoAgrInvestmentAreas.pdf> (Accessed on February 25, 2012).

MoARD. (2014). Pastoral Drought Resilience and Sustainable Livelihoods Program. Social Assessment report for RPLRP in Four regions of Ethiopia: SNNPR, Afar, Somali and Oromia Regions, Addis Ababa, Ethiopia.

MoFED. (2010). Growth and Transformation Plan 2010/11-2014/15 (draft). Addis Ababa, Ethiopia.

Morton, J. (2005). *Legislators and Livestock: A Comparative Analysis of Pastoralist Parliamentary Groups in Ethiopia, Kenya and Uganda*. Final report of the NRI/PENHA research project on pastoralist parliamentary groups, pp. 1-26, Natural resource Institute, University of Greenwich.

NCFSE. (2003). Voluntary Resettlement Programme (Access to improved land), *New Coalition for Food Security in Ethiopia*, Vol., I, Addis Ababa.

Nori, M., Taylor, M. and Sensi, A. (2008). *Browsing on Fences. Pastoral Land Rights, Livelihoods and Adaptation to Climate Change. International land Coalition*. Issue paper no. 148. Russell Press, Nottingham, UK.

Oakland Institute. (2013). Understanding Land Investment Deals in Africa: Ignoring Abuse in Ethiopia, DFID and USAID in the Lower Omo Valley. Oakland

Institute,USA.

http://www.oaklandinstitute.org/sites/oaklandinstitute.org/files/OI_Brief_Ignoring_Abuse_Ethiopia_0.pdf (Accessed on November 12, 2014).

Oba, G. (2011). *Mobility and the Sustainability of the Pastoral Production System in Africa: Perspectives of Contrasting Paradigms*. Paper presented at the International Conference on the Future of Pastoralism; Organized by the Future Agricultures Consortium at the Institute of Development Studies, University of Sussex and Feinstein International Center of Tufts University. 21-23 March 2011, pp1-21. Addis Ababa, Ethiopia.

PDO. (2010). *Hamer District Pastoral Development Office. Report Paper*. Dimeka Town, South Omo Zone, SNNPR, Ethiopia.

PDO. (2005). *Hamer District Pastoral Development Office Report Paper*. Dimeka Town, South Omo Zone, SNNPR, Ethiopia.

Sagawa, T. (2009). *Why do People “Renounce war”? The War Experiences of the Dassenetch in the Conflict-ridden Area of Northeast Africa*. African Centre for peace and development, working paper series No.2 (7), Ryukoku University, Japan.

Samuel, T., and Flintan, F. (2007). Dynamics of rangeland and water management in Afar. In *Rangeland & Resource Management in Ethiopia. Gender & Pastoralism*. Vol.I, 2007, pp. 45-58, SOS Sahel Ethiopia, Addis Ababa, Ethiopia.

Samuel, T. (2014). Changes in livestock mobility and grazing pattern among the Hamar in southwestern Ethiopia. In (M. Shigeta, Mamo Hebo & M. Nishi, eds): *Livelihood, Development and Local Knowledge on the Move. African Study Monographs Supplementary Issue*, No. 48: 99-112.

Samuel, T. (2013). From cattle herding to Sedentary Agriculture: The role of Hamer women in the transition. In (M. Kaneko & M. Shigeta, eds) *African Study Monographs Supplementary Issue*, No.46:121-133.

Schlee, G. (2010). *Territorialising Ethnicity. The Political Ecology of Pastoralism in Northern Kenya and Southern Ethiopia*. Max Planck Institute for Social Anthropology Working Papers No. 121.

Sead, O. (2007). *The 'Privatization' of Somali Region's Rangelands*. In Rangeland & Resource Management in Ethiopia. Gender & Pastoralism. Vol.I, 2007, pp. 45-58, SOS Sahel Ethiopia, Addis Ababa, Ethiopia.

SNNPR. (2007). *Southern Nations, Nationalities and Peoples Regional State Rural Land Administration and Utilization Proclamation No. 110/2007*. Debub Negarit Gazette, 13rd year, Issue No.10, 19th Feb., 2007, Awassa, Ethiopia.

Strecker, I. (1976). *Traditional Life and Prospects for Socio-Economic Development in the Hamer Administrative District of Southern Gamu Gofa*. A Report to the Relief and Rehabilitation Commission of the Provisional Military Government of Ethiopia, Addis Ababa, Ethiopia.

Terefe A., Ebro A., and Zewedu T. (2010). Rangeland dynamics in South Omo Zone of Southern Ethiopia: Assessment of rangeland condition in relation to altitude and Grazing types. *Livestock Research for Rural Development*. Volume 22, Article#187. <http://www.lrrd.org/lrrd22/10/tref22187.htm>. (Accessed on august 7, 2014).

UNOCHA. (2007). *The Future of Pastoralism in Ethiopia*. The UN OCHA Pastoralist Communication Initiative 2007. Addis Ababa, Ethiopia.

Wassie, Y. (2014). Impacts of changes in customary rangeland governance institutions on pastoral livelihoods of the Borana plateau, Southern Ethiopia. *Feed the Future Innovation lab for Collaborative research on Adapting Livestock Systems to Climate Change*. Colorado State University, Fort Collins.

Westphal, E. (1975). *Agricultural Systems in Ethiopia*. Center for Agricultural Publication and Documentation, Wageningen.

Woldemeskel, G. (1989). The Consequences of Resettlement in Ethiopia. In *African Affairs*: Vol. 88, No.352: 359-374, Oxford: Oxford University Press, UK.

“Wonyarki Lika Village.” 4° 59’ 18.54” N and 36° 28’ 16.69” E. **Google Earth**. March 3, 2004. March 11, 2015.

Tables

Table 2.1 Activity profile of gender-based labor divisions

Gender roles	Women and girls	Men and boys
Productive	Constructing houses Fetching water, collecting firewood, Cooking food for the family, Planting sorghum, maize Making wares from goat hides Cleaning livestock enclosures	Constructing livestock kraal Taking cattle to village camps Preparing beehives and harvesting honey, Assisting with birthing of cattle and goats Milking livestock ⁶¹
Reproductive	Giving birth and taking care of children and the elderly	
Community	Working as a group on social events Participating in events like peace meetings (rarely)	Attending social and political affairs Protecting the Hamar people

⁶¹ Milking cows and sheep is a taboo for married women and girls who are arranged to marry.

Table 2.2 Seasonal and farm calendar in Hamer district

Names of months and characteristics
Hamer name (English and Amharic names)
<i>Bere</i> (January, <i>Tir</i>)
Most of the Hamer, especially those in the lowlands, do not engage in farming during <i>Bere</i> . Instead they wait for next month's rains. Disputes are likely to occur over lack of water, crops, and milk; hence, mixing herds becomes difficult. This is a dry month, with less moisture to support growth. People who use rainfall for their livelihoods may move to temporary shelters on their farms.
<i>Sor</i> (February, <i>Yekatit</i>)
Almost all people having farm plots begin sowing sorghum, maize, and seeds of other crops when the rain starts at the beginning of the month. <i>Sor</i> is a rainy month conducive for farming activities and regrowth of grasses.
<i>Duka</i> (March, <i>Megabit</i>)
People farming near the river may suffer damages from sediment covering their fields from flooding. If possible, they will remove sediment or mud so that crops can continue to grow, or they will sow again. Like <i>Sor</i> , <i>Duka</i> is a rainy month.
<i>Futa</i> (April, <i>Miyaziya</i>)
<i>Futa</i> refers to the flowering of agricultural crops; it is also a time for ripening. Rainfall during this month supports fruition.
<i>Zako</i> (May, <i>Ginbot</i>)
During this month, crops ripen and people start to construct watchtowers (<i>Tule</i>) and shelters where they will temporarily reside to protect crops from birds and monkeys. Intense cold characterizes the month.
<i>Hagai</i> (June, <i>Sene</i>)
This month marks the end of social festivals in the Hamer-Koke lowland areas and the beginning of festivities in the Lala and Gemer highland areas. According to the elders, variations in the timing of festivities that have similar processions and meanings to both highland and lowland Hamar groups emanate from variations in harvesting seasons due to agro-ecological differences.
<i>Halet</i> (July, <i>Hamle</i>)
Harvest from farm fields is collected and stored. A threshing spot (<i>Koyidi</i>) is designated in a field to separate seeds from the husks. Threshed seed is mixed with ash to prevent insect damage. Crops are placed in piles (<i>dore</i>) outside the villages near bushes. During <i>Halet</i> , shedding of leaves is characteristic of certain crops and trees, such as <i>Gumez</i> and <i>Nojo</i> .
<i>Shulal</i> (August, <i>Nehase</i>)
Piles of crops continue to be placed outside villages and near bushes. Rain is scarce, and trees, shrubs, and grasses start to suffer from moisture deficiency and stress.
<i>Tajo</i> (September, <i>Meskerem</i>)
According to elders, rain may fall in <i>Tajo</i> if it is God's will. Otherwise, it is a month marking the advent of drought.
<i>Tajo mingi</i> (October, <i>Tikimt</i>)
This month provokes superstitions. No one plans to hunt, wage war, or raid enemies. Many associate the term <i>mingi</i> with the Hamer's practice of abandoning children with unusual growths of milk teeth that are culturally regarded as bad omens for the respective families. However, the term has a wide range of meanings to include

touching/milking cows or sheep (by married women and girls for whom marriages have already been arranged). Such activity may lead to removal of all generations of the particular cow or the sheep from the herd to prevent evil and destruction from coming upon the family and the community.

Dalba (November, *Hidar*)

Rainfall creates an environment conducive for clearing land and preparing fields for farming. Pools of water often accumulate in the goat/sheep and cattle kraals, indicating that livestock will not suffer from thirst as they can drink before they leave the villages for grazing and when they return at dusk to shelters.

Kilkila (December, *Tahsas*)

Known as the driest month of the year, it is characterized by intense heat and lack of feed for the herds. People take advantage of the heat to burn the cleared, piled, and dried bush from the previous month's activities. Women will return from temporary locations to prepare the land for cultivation. During this month, able-bodied children remaining in villages will care for livestock in camp herds. Otherwise, camp herds become everyone's responsibility.

Table 2.3 Engagement of eight households for subsistence and income

House hold head	Source of subsistence and income							
	Subsistence activities			Both and subsistence income activities		Income activities		
	Livestock production	Grass production	Farming	Bee keeping	Poultry	Wood and grass	Local drinks	Wage labor
BS	+	+	+	+	+	-	-	+
MK	+	+	+	+	-	-	-	+
GB	+	-	-	+	-	-	+	-
WA	+	-	-	+	-	+	-	+
OK	+	+	+	+	-	+	-	+
Ka	+	+	+	+	-	-	+	-
AA	+	+	+	+	+	+	+	+
SK	+	+	+	+	+	+	-	+

Note that household heads BS and MK are from the highland part of the district while the remaining (GB, WA, OK, Ka, AA and SK) are from the lowland.

Key: (+) indicates that the corresponding household is engaged in the specified activity

(-) indicates that the corresponding household is not engaged in the specified activity

Table 2.4 Livestock population size in Hamer (based on PDO, 2005 & 2010)

Year	Livestock type			
	Cattle	Goats	Sheep	Equines
2004	51,418	82,480	38,845	4,290
2010	110,696	167,670	84,186	12,126

Table 2.5 Sorghum varieties in Hamar

Vernacular name	Charactersistics	Remark
<i>Delgo</i>	Drought resistant sustains strong sunlight and has sour seed before maturity. It is important food source during dry seasons particularly for kids. Small amount of <i>Fosessie</i> (food) made from <i>Delgo</i> powder can stay long in the stomach unless served with milk.	Has social functions (its seeds are mixed with butter, coffee beans and Bereza branches with their leaves) a ritual done before a new season of plough and sown with blessings to get a good harvest.
<i>Male</i>	It has a color of wheat, resists drought and easy to digest (eat). Young seeds can be fried and eaten.	There is no ritual function involved during sowing like <i>Delgo</i> .
<i>Mursu</i>	Light black color (<i>Shemeji</i>), provides large amount of powder when grinded, drought and strong sunlight resistant, consumed much for purpose of brewing local alcohol (<i>Ferso</i>) during social events like cattle leaping.	
<i>Ekumba</i>	White in color, strong seeds, and difficult to grind. It is good source of food during drought seasons as it can stay long in the stomach (easily not digestible).	Women do not like it as it demands much energy and time to grind.
<i>Simbele gabo</i>	White with black spots, drought resistant and used for brewing local alcohol (<i>Ferso</i>)	
<i>Ar</i>	White colored, brought from Dassenetch. It is not drought resistant. It is good food source.	Imported sorghum variety.
<i>Batada</i>	White colored, brought from Kara. It is not drought resistant but good food source.	Imported sorghum variety.

Table 3.1 Herd mobility in three regimes

Factors affecting mobility	Type of mobility	Environment	Regime		
			Imperial (1930-1974)	Socialist (1974-1991)	Current (1991-2014)
Distance	Camp to camp herd	Highland	++	++	++++
		Lowland	+	++	++++ (2-5 days)
Frequency	Village to camp herd	Highland	+	++	++
		Lowland	++ (0.5-1 day)	+++ (1-2 days)	++++ (3-7 days)
	Camp to camp herd	Highland	+	++	+++
		Lowland	++	+++	++++
	Camp to village herd	Highland	+	++	++++
		Lowland	+	++	+(reproduction) (drought)
Encroachment	Into other's territory	Highland	+	+	+++
		Lowland	+	++	++++ (enclosures) (relocation of households)

Key: (+) refers to the magnitude of the distance and the intensity of the frequency of mobility. The more the (+) sign, the more the intensity and the frequency.

Table 4.1 Enclosed land coverage with support from PSNP in Hamer district (Based on PDO, 2005)

Agro-ecology	Name of kebele	Population size	PSNP beneficiaries	Proportion of people under PSNP (%)	Size of enclosed area in hectare
Highland	Beshada	2,733	1,291	47.2	35
	Dembayite	1,001	580	57.9	34
	Dimeka	1,465	898	61.3	120
	Eryia Embule	1,895	248	13.1	8.5
	Eryia Qaisa	1,220	322	26.4	40
	Simbele	1,364	636	46.6	82
	Total	9,678	3,975	41.1	319.5
Lowland	Qola Qeja	2,111	970	45.9	30
	Angude	5,031	1,780	35.4	390
	Total	7,142	2,750	38.5	420
Grand total		16,820	6,725	40.0	739.5

Table 4.2 Household's involvement in enclosure activity at BB's village

Type of enclosure	Number of households involved	Remark
(I) +(C)	7	13 I (7+6) and
(I)+(J)+(C)	6	10 J (7 J2 + 3 J3) enclosures existed
(J)+(C)	10	5 were widowed
Only (C)	7	1 was not active 1 is farming in Kara & involved in (C)
Total	30	

Key: (I) - Individual enclosure; (J) - Joint enclosure, (C) - Communal enclosure

Figures

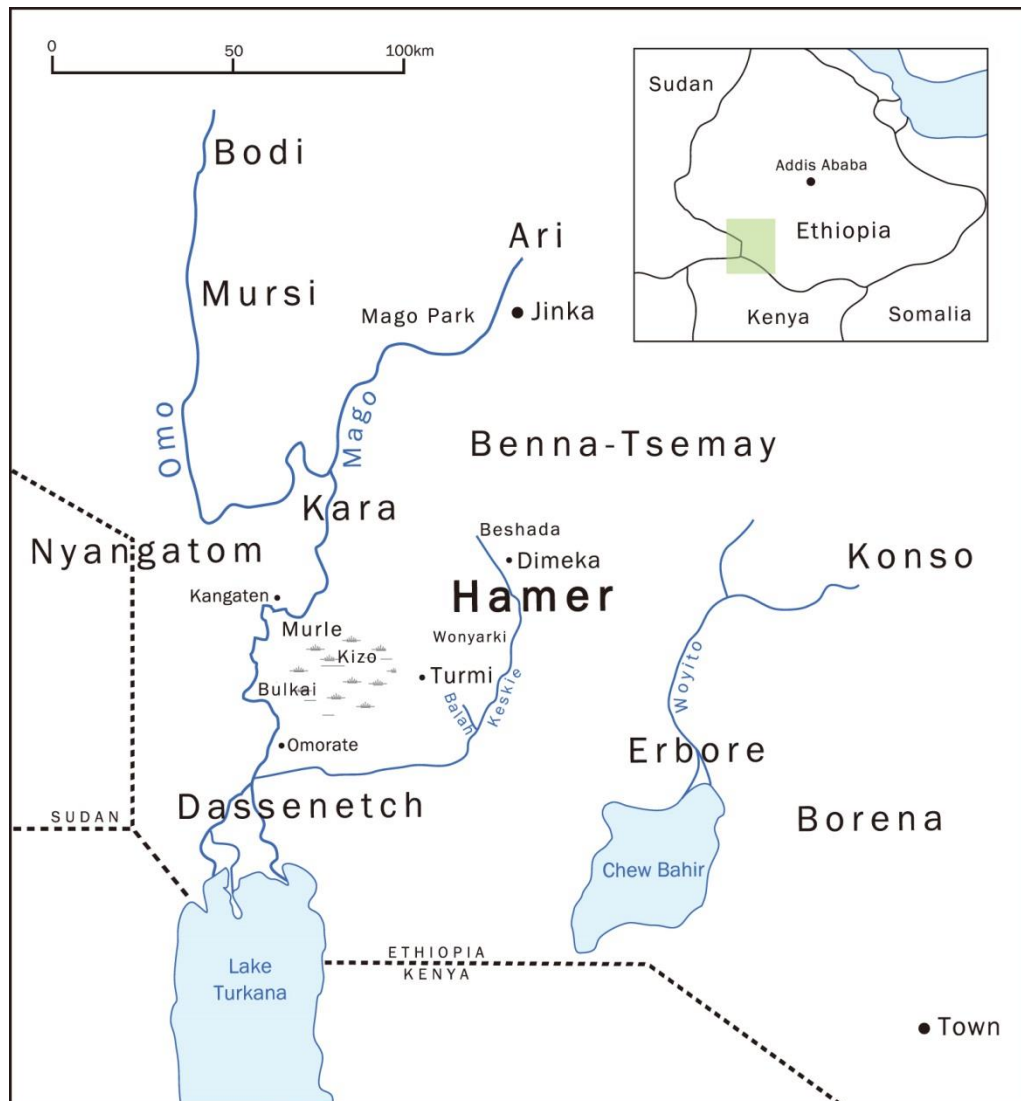


Figure 1.1 Ethnic and place map of the research area in South Omo Zone, SNNPR [Based on Sagawa (2009)].

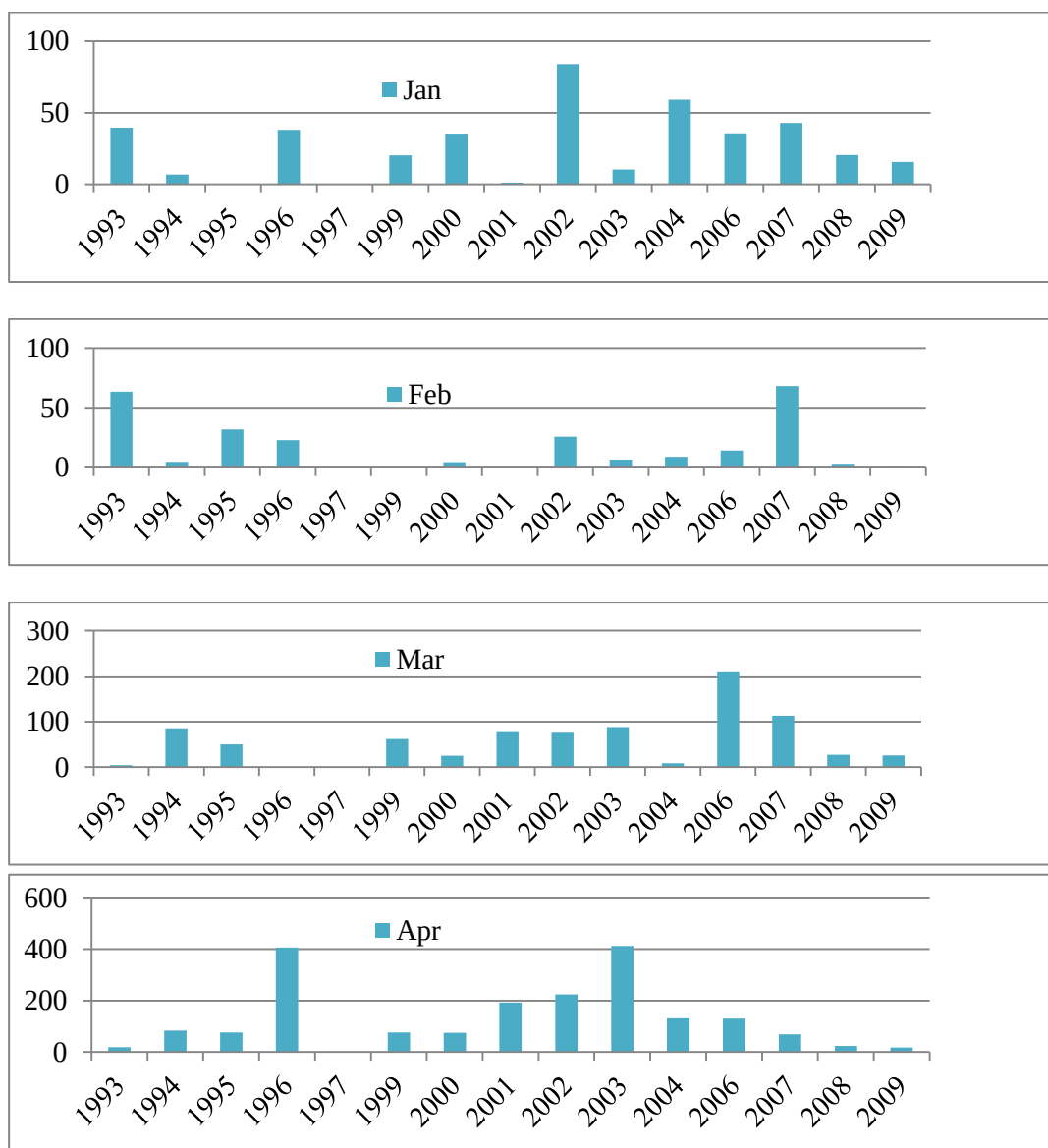


Figure 2.1 Rainfall during the farming season in Turmi: Based on rain fall data for Turmi area (Ethiopian National Meteorological Agency, 2011).

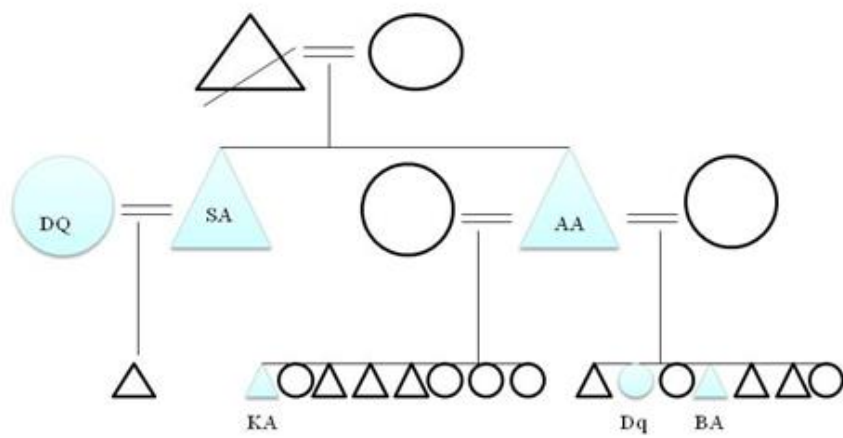


Figure 2.2 Kinship diagram of AA

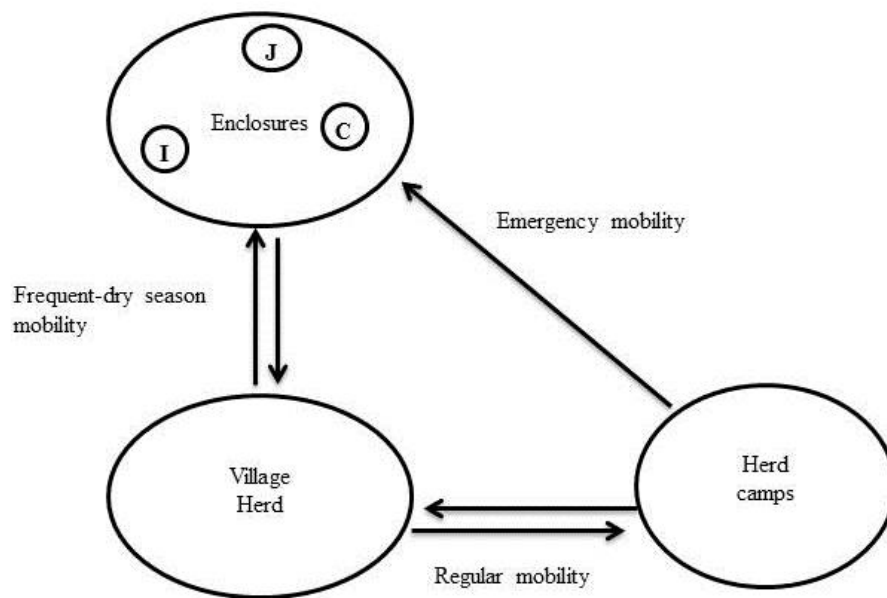


Figure 3.1 Schematic representation of livestock movement

Key: (I) - Individual enclosure; (J) - Joint enclosure, (C) - Communal enclosure

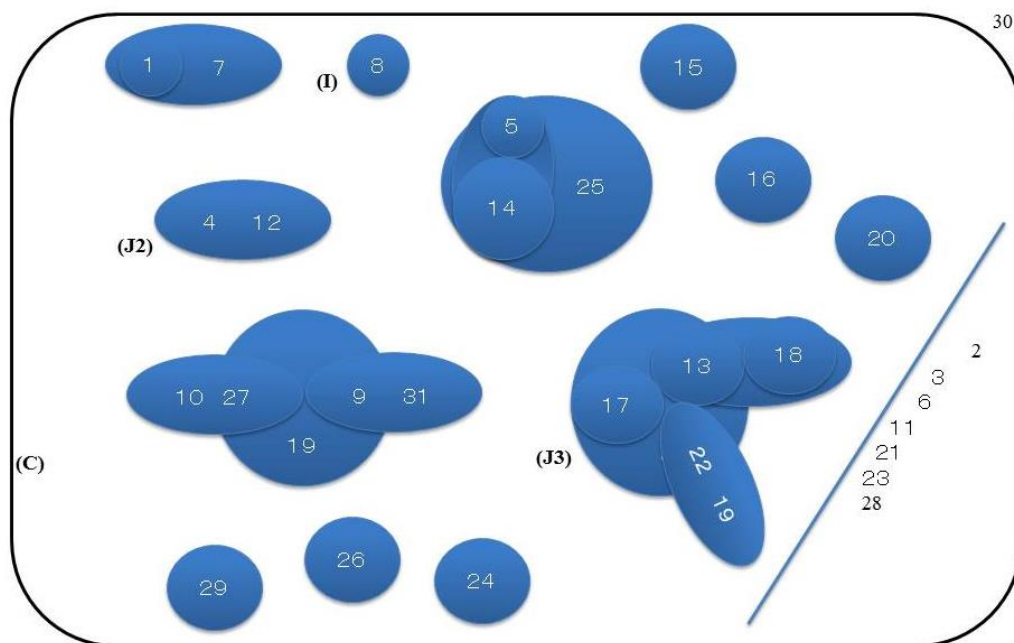


Figure 4.1 Schematic representation of I, J2 & J3 type enclosures with member households
Key: (I) - Individual enclosure; (J2) - Joint enclosure managed by two households, (J3) - Joint enclosure managed by three households, (C) - Communal enclosure

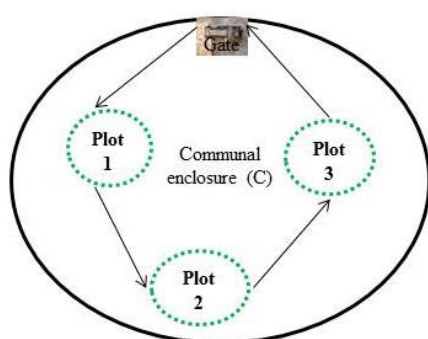


Figure 4.2 Controlled grazing movement of a cow and its calf inside Q communal enclosure

Plates



Plate 2.1 MK's farm near Dimeka town



Plate 2.2 A Hamar man tilling land using oxen (Dimeka, August 2011)



Plate 2.3 A Hamar boy performing the rite of transition near River Keskie (Turmi)



Plate 4.1 Individual enclosure near Turmi town



Plate 4.2 Sorghum crop and space for grass in W village



Plate 4.3 Small goats under tree shade in W village



Plate 4.4 Gulley adjacent to the enclosure in Q village



Plate 4.5 Aloe species next to trenches in Q village



Plate 4.6 Grasses near a trench in Q village



Plate 4.7 Tower to store hay in Q village



Plate 4.8 Dry pond in Q village



Plate 4.9 Half-moon micro catchments in Q village



Plate 4.10 Women selling grass in Turmi market



Plate 4.11 A back load of grass for sale in Turmi market



Plate 5.1 Rainbow over a Hamer household in W village



Plate 5.2 A Hamer village



Plate 5.3 Aerial view of W settlement near Turmi town (Source: Google Earth, 2015)



Plate 5.4 Goat kraal in front of a public meeting space in W village



Plate 5.5 Temporary farming season house inside a farm field near Turmi town

Appendix

Annex 1. Rainfall data of Turmi from 1993-2009

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
1993	39.6	63.6	4.2	19.2	85.3	23	0	0	16	9.7	17	15
1994	7	4.8	85.3	83.2	107.1	4	2	35	11	28.4	92.5	0
1995	0	31.9	50.5	76.5	95.6	20	37.4	11	15	27	23	26
1996	38.2	23	0	406.7	39.6	113.9	25.6	76.8	40.5	30.2	82.3	n.a
1997	0	0	n.a	0	100.7	0	0	0	9	45.8	283.1	271.1
1998	20.3	0	61.9	76.7	28.6	0	60.4	40.2	6.5	36.4	0	23.4
1999	35.5	4.5	24.9	75.3	54.3	0	0	34.6	15	155.7	104.3	n.a
2000	1.1	0	79.1	192.8	0	11.9	28	6.8	65.2	121	31.3	0
2001	84.1	25.8	78.1	224	366.1	0	0	0	2.6	76.4	116.4	284.3
2002	10.5	6.6	88.5	412.1	310.5	0	0	92.8	4	18.8	30.3	160
2003	59.3	8.9	8.6	130.7	34.7	n.a	n.a	n.a	n.a	n.a	n.a	n.a
2004	35.6	14.2	211	130.1	95.9	0	0	58.2	0	90.4	496.7	74.5
2005	42.9	68.2	113.4	69.4	43.2	n.a	n.a	n.a	n.a	n.a	n.a	n.a
2006	20.5	3.2	27	23.5	10.5	8.2	11.2	n.a	n.a	n.a	n.a	n.a
2007	15.7	0.3	26.1	18	21.3	n.a	n.a	n.a	n.a	n.a	n.a	n.a
2008	39.6	63.6	4.2	19.2	85.3	23	0	0	16	9.7	17	15
2009	7	4.8	85.3	83.2	107.1	4	2	35	11	28.4	92.5	0