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RISK MANAGEMENT THROUGH SOCIAL NETWORKS AMONG MALE AND  
FEMALE PASTORALISTS IN KARAMOJA, UGANDA

By

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Written under the direction of

LEE CRONK

And approved by

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## **ABSTRACT OF THE DISSERTATION**

### **RISK MANAGEMENT THROUGH SOCIAL NETWORKS AMONG MALE AND FEMALE PASTORALISTS IN KARAMOJA, UGANDA**

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**K. PADMINI IYER**

Dissertation Director: Lee Cronk

Environmental volatility, resource-related risks, and the overall uncertainty about the future fundamentally shape behavioral strategies and are critical to understanding the evolution of human social behavior. One of the central ways in which humans in subsistence economies manage risk and uncertainty is through pooling or sharing risk with other individuals, such as central place food sharing among forager populations. Among pastoralists in East Africa, risk pooling takes the form of ‘stock friendships’: an informal insurance system in which male herders form mutually beneficial partnerships through livestock transfers. Networks of stock friends are critical to recouping short term losses such as food shortage, as well as to ensuring long-term sustainability through the rebuilding of herds. This dissertation investigates risk pooling friendships and other risk management strategies of pastoralists in Karamoja, Uganda.

Risk management is a central concern for pastoralists in Karamoja because of the unreliable climate, recent volatile history, and lack of institutional support. Consequently, social networks of livestock and food exchange, such as stock friendships, play a significant role in minimizing the adverse effects of disasters. During fourteen months of fieldwork, I collected qualitative and quantitative data on men’s stock friendship

networks, women's close friendship networks, and individuals' exchange networks during a prolonged drought. I use these data to present the following: 1) an ethnographic investigation of friendship contracts among men and women; 2) an examination of the characteristics of friendship networks, including size, composition, geographical spread, and relational content; 3) a study of how individual level and external factors influence friendship networks; and 4) an analysis of which social exchange networks are activated during drought induced stress. Based on data on norms and transfers within friendship networks, I argue that risk pooling friendships in Karamoja are characterized by need-based transfers and 'demand sharing' rather than account-keeping reciprocity. Further, I show that during periods of extreme stress, need-based transfers of food, livestock, and money are acquired not only from kin and friendship networks ('strong ties'), but also from 'weak tie' friends within the neighborhood. I, thus, contend that engaging in risk pooling relationships and need based transfers are a necessity in an environment characterized by unpredictability. Lastly, I present results from an experimental economic game that explores participants' risk attitudes and time preference—variables critical to understanding decision-making under conditions of chronic risk and uncertainty.

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## Table of Contents

<b>Abstract</b>		ii – iii
<b>Acknowledgements</b>		iv – viii
<b>List of Figures</b>		x
<b>List of Tables</b>		xi
<b>Chapter 1</b>	Introduction	1
<b>Chapter 2</b>	Historical Background	18
<b>Chapter 3</b>	Literature Review	55
<b>Chapter 4</b>	Research Setting	97
<b>Chapter 5</b>	Methodology	122
<b>Chapter 6</b>	Stock Friendships and Men’s Networks	141
<b>Chapter 7</b>	Women’s Livelihoods and Social Networks	199
<b>Chapter 8</b>	Coping Strategies and Post Drought Transfers	231
<b>Chapter 9</b>	Risk and Time Preferences	266
<b>Chapter 10</b>	Conclusion	285
<b>Appendix A</b>	Questionnaires	299
<b>Appendix B</b>	Game Protocols	313
<b>Bibliography</b>		316

## List of Figures

<b>Figure 1.1</b>	Map of Karamoja's districts. Source	9
<b>Figure 1.2</b>	Nilo Saharan Language Tree	11
<b>Figure 4.1</b>	Karamoja calendar of seasons and agricultural activity	97
<b>Figure 4.2</b>	Map of Karamoja Livelihood Zones	99
<b>Figure 4.3</b>	Map of field sites within Moroto District	101
<b>Figure 6.1</b>	Men's stock friends related by kinship in Rupa	174
<b>Figure 6.2</b>	Men's stock friends related by kinship in Tapac	174
<b>Figure 6.3</b>	Frequencies of social support networks of men	182
<b>Figure 7.1</b>	Women's livelihoods	205
<b>Figure 7.2</b>	Women's friendship network sizes	220
<b>Figure 7.3</b>	Gifts exchanged by women and their friends	223
<b>Figure 7.4</b>	Women's social support networks	225
<b>Figure 7.5</b>	Items received by women since the last harvest	226
<b>Figure 7.6</b>	Avenues of animal acquisition for women	227
<b>Figure 8.1</b>	Alternative livelihoods at baseline	240
<b>Figure 8.2</b>	Livelihood intensified in the previous 3 months	241
<b>Figure 8.3</b>	New livelihood initiated in the previous 3 months	241
<b>Figure 8.4</b>	All exchanges in 2015 in both field sites	252
<b>Figure 9.1</b>	'Vicious circles of poverty'	268
<b>Figure 9.2</b>	Sigmoid utility curve	271

## List of Tables

Table 4.1	Livestock estimates in Moroto District	120
Table 6.1	Sample characteristics of male participants	167
Table 6.2	Characteristics of men’s stock friend networks	171
Table 6.3	Animals exchanged between stock friends	183
Table 7.1	Women’s friendship networks	219
Table 8.1	Frequencies of exchange during drought	250
Table 9.1	Time preferences by gender and field site	277
Table 9.2	Gamble choices – adapted from Attanasio et al., 2012	278
Table 9.3	Gamble choice by gender and field site	279

## Chapter 1

### Introduction

#### *Risk and uncertainty*

In Karamoja, Uganda, home to a diverse range of communities who speak mutually intelligible languages, pastoralism is the dominant way of life. Despite the myriad changes to the social and economic structure brought about by volatile events in recent history, the people of Karamoja strive to increase and safeguard their livestock assets by any means possible. In so doing, they confront some of the toughest environmental conditions on earth in the form of high temperatures, erratic rainfall, and recurrent drought. These and other threats to the wellbeing of people and animals, such as unchecked livestock diseases, intercommunity cattle raiding, and generally unproductive agricultural conditions are the dominant preoccupation for the inhabitants of Karamoja and, more generally, of the African arid lands. Risk management, or the combination of strategies through which the effects of disasters can be moderated, is inherent in the pursuit of pastoralism for without it, people and livestock would perish.

Risk management is a concern across the animal kingdom and has a profound influence on behavior in stochastic environments. The risk of predation, for example, that afflicts virtually every animal on earth has not only selected for morphological adaptations (e.g. armors and camouflage), but also guides decision-making in such critical activities as feeding and reproductive behavior (see Lima & Dill, 1990 for a review). Similarly, the avoidance of resource shortfall is a continuous concern for all animal species and is achieved through diverse strategies including resource pooling, group foraging, and storage (for a summary of risk sensitive studies of non-human

animals, see Winterhalder, Lu, & Tucker, 1999, pp. 318 – 322). Over the past several decades, scholarly work from a variety of disciplines, namely behavioral ecology, psychology, economics and anthropology, has continued to theoretically and empirically enhance our understanding of how risk perception and avoidance shapes human and non-human behavior.

The study of risk management in the pastoral drylands must decidedly begin with a definition of key concepts. *Risk* is understood as “the unpredictable variation in environmental and economic conditions” or “the probability of loss or hazard” (Cashdan 1990, pp. 2 – 3; Wiessner, 1977). *Uncertainty* is defined as “an individual’s lack of knowledge about the state of the world” (Cashdan, 1990, p. 2). Although *risk* and *uncertainty* are related concepts a distinction must be made between them in order to understand their influence in decision-making. The term risk is used in a situation where the outcome can be assigned probabilities without any predictability of a specific outcome (Winterhalder et al., 1999). The critical point here is the stochasticity of the environment that precludes anticipation of a particular outcome. In contrast, a situation in which an individual is unable to assign odds to the outcome is termed *uncertain* (Cashdan, 1990; Winterhalder et al., 1999). Uncertainty is an issue of information or lack thereof, and unlike risk, uncertainty can be controlled by gathering information (Winterhalder, 2007; Winterhalder et al., 1999). Winterhalder (2007, p. 433) provides the following pithy explanation: “I can alleviate uncertainty about the day’s weather forecast by reading the meteorology section of the newspaper, but there is no escaping the unpredictability implied in the statement that there is a 40% chance of rain. The outcome – precipitation – can be assigned odds, but otherwise is not known in advance”.

### *Pastoralist risk management*

Although pastoralism is known to be well-suited for the drylands and confers several advantages to herders in comparison to dryland agriculturists (Chang & Koster, 1994; Fratkin, 1997; Fratkin, Galvin, & Roth, 1994), risk management remains of vital importance when the constraints or risks of pastoralism are taken into account. Some of these constraints include the fixed biological cycles and limited fertility rates of livestock, a long recuperation phase in the event of loss of livestock from epidemic or drought, the intensive labor needs in a pastoralist household, and the general remoteness of the arid lands that keeps them marginalized from development and government initiatives (Bollig & Gobel, 1997; Catley, Lind, & Scoones, 2013; Dahl & Hjort, 1976). In order to persist in the face of these constraints, pastoralists use a few key strategies that are best viewed as *buffering* mechanisms: “practices designed to lessen the impact of variability by dampening its effects” (Halstead & O’Shea, 1989, pp. 3 – 4).

The primary mechanisms of pastoralist risk management are mobility, storage, transfer of information, diversification (of herds and of livelihood strategies), social exchange<sup>1</sup>, conversion of surplus food into valuables, and self insurance (Colson, 1979; Halstead & O’Shea, 1989; Wiessner, 1977). Strategies of risk management and coping can also be chronologically categorized (Shipton, 1990). *Precautionary* strategies include diversification of crops, accumulating herds, cultivating social relationships, storing debts and obligations, and establishing sharing contracts. *Earliest or most reversible measures* consist of intensifying production, substituting foods, herd diversification, and migrating

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<sup>1</sup> The terms ‘exchange’ and ‘sharing’ and what they encompass are topics of contention within the social sciences (e.g. Hunt, 2002; Woodburn, 1998). Since addressing the theoretical debates is beyond the scope of the dissertation, I use the terms interchangeably, along with ‘transfers’--all of which fall under the concept of ‘allocation’ in economic anthropology.

to urban centers. *Intermediate or semi-reversible responses* comprise borrowing, raiding, selling, and slaughtering. *Last or least reversible strategies* are the more drastic measures individuals are forced to adopt, which include abandoning elders and infants, consuming fallback foods, and suicide. Finally, *recovery strategies* in the aftermath of a disaster comprise borrowing, intensifying labor, resettling, and herd reaggregation<sup>2</sup>.

Another useful classification categorizes risk management by its context-specific strategy, namely *retention, mitigation, elimination, and transfer*<sup>3</sup> (Dorfman, 2007). Risk retention refers to accepting the risk and any losses; risk mitigation involves lessening the effects of a risky event; risk elimination is an effort to reduce dependence on high variability outcomes or not taking part in an activity that might carry risk; and risk transfer is to exchange risk with another party, whether an individual or a group. Under this framework, pastoralist risk management strategies can be understood as follows (Aktipis, Cronk, & de Aguiar, 2011): risk retention is the accumulation of larger herds to avoid drastic losses; risk avoidance is the expansion of livelihood options beyond herding (Little, Smith, Cellarius, Coppock, & Barrett, 2001); risk reduction is the spreading of livestock in different areas to reduce losses from localized ecological disturbance (Bollig & Gobel, 1997); and risk transfer is accomplished through informal networks of mutual insurance as reported for pastoralists and other subsistence societies (Dercon, 2002; McPeak, 2006). Analyzed within this rubric, individuals in the pastoralist enterprise employ a combination of strategies to maximize and/or optimize herd production. This is

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<sup>2</sup> Shipton also adds a sixth category of '*strategies often used throughout*' that includes sacrifice, prayer, other witchcraft, and labor and migration.

<sup>3</sup> This dissertation deals mainly with 'risk transfer'. The terms 'risk pooling', 'risk sharing', and 'risk transfer' are used interchangeably. These and other terms such as 'risk minimization' and 'risk buffering' are all encompassed within 'risk management'.



done to effectively avoid future risk of falling below a threshold (minimal herd unit), to prevent food insecurity, and ultimately to avoid long-term poverty.

*Stock relationships and risk management*

In pastoralist communities of East Africa, a dominant way of transferring risk to another party was through ‘stock friendships’ – an informal insurance system in which men established mutually beneficial partnerships with unrelated or related individuals through livestock transfers in the form of gifts or loans (Bollig, 2006; P.H. Gulliver, 1970). Once established, stock friends accepted the obligation to assist each other during need, ranging from the time of marriage that required bridewealth accumulation to times of distress following acute food shortage or herd loss. These relationships could be binding, breakable, and transferrable over generations. Reciprocity is said to be a defining feature of stock friendships and the absence of reciprocal flow of help may lead to the dissolution the relationship (N. Dyson-Hudson, 1966).

It has recently been contended that livestock transfer relationships do not provide an adequate safety net in the aftermath of a disaster and are not sufficient to overcome losses from a shock, particularly for poorer pastoralists (Moritz, 2013). Economic studies of inter-household livestock transfers corroborate these observations (Huysentruyt, Barrett, & McPeak, 2009). Studies that challenge the effectiveness of livestock transfers emphasize their impact on herd growth and viability rather than on other aspects of survival such as food security. Moreover, the mechanism through which exchange relationships function highlight the role of reciprocity, and, consequently, raise valid questions about the usefulness of engaging in transfer relationships with those in lower wealth categories.

Indeed, a myopic focus on the influence of livestock transfers in pastoralist households' resilience risks overlooking the intangibles of social relationships, other currencies of help beyond livestock, and women's economic contribution in risk management. In addition, an emphasis on livestock's primacy and on reciprocal obligation in the relationship as ideals for buffering future risk can prove futile in the vastly changed pastoralist setting. As pastoralists become further enmeshed in market activities and as livestock's power to ensure food security declines, it remains to be seen how stock relationships function, what role they play in risk management, and the factors that influence exchange relationships in the event of a disaster.

#### *Statement of problem*

Research on livestock transfers has amassed interest from a variety of disciplines, with scholars debating the centrality and effectiveness of these transfers in risk mitigation (Aktipis et al., 2011; Bollig, 2006; McPeak, 2006; Moritz, 2013; Santos & Barrett, 2005). The importance of livestock transfers in serving a redistributive function and actually preventing total asset loss has come into question, particularly for those households that are poor at the outset (McPeak, 2006; Moritz, 2013; see also Fratkin & Roth, 1990; van Dijk, 1994). In contrast, de Vries and colleagues (2006) contend that rather than only as a coping strategy post calamity, regular livestock transfers between individuals were critical in herd building. Their quantitative findings support ethnographic descriptions of stock friendships as also playing an *ex ante* role in risk management (Almagor, 1978; Bollig, 2006; P.H. Gulliver, 1970; Spencer, 1973).

Building on these studies, this dissertation's overarching goal is to investigate how pastoralists in Karamoja use their social networks, including stock friendships, to

mitigate risks in their environment. The institution of stock friendship among Karimojong has previously been described briefly by Dyson-Hudson (1966) and Quam (1976). At the time of these studies, Karamoja remained relatively isolated from the Ugandan State, and pastoralism was the preeminent livelihood of the population. In the past two decades, however, armed cattle raiding, subsequent State control, and progressive market integration have led to significant social and economic upheavals in the lives of resident pastoralists. Many herders lost large numbers of their livestock and now engage in alternative livelihoods such as casual labor and natural resource extraction. The proliferation of development aid and famine relief has equally influenced individuals' food security alternatives.

Against this backdrop, my dissertation project combines an ethnographic inquiry of friendship and mutual aid, alongside quantitative data on loans and transfers among male and female herders in two field sites within a primarily pastoral economic zone of Karamoja. The two field sites where I conducted this research differ mainly in their conduciveness to agriculture, degree of market integration, and presence of development agencies, factors that have profound influence on people's livelihoods and therefore their ability to stave off destitution. Furthermore, since previous research has explored risk management mainly through livestock transfers and/or from the perspective of the household, I attempt to broaden the scope of inquiry by investigating women's economic strategies, social networks, and their distinctive role in a household's risk management. The primary aims of the study, thus, are the following:

- 1) To provide an ethnography of stock friendships and norms of specific transfers among men, and close friendships among women

- 2) To explore the personal networks of individual herders (male and female) including such variables as size, composition, geographical spread, and relational content
- 3) To investigate how economic diversification, wealth, level of market integration, and other individual-level differences influence social support networks
- 4) To examine which networks are activated during stress (prolonged drought)

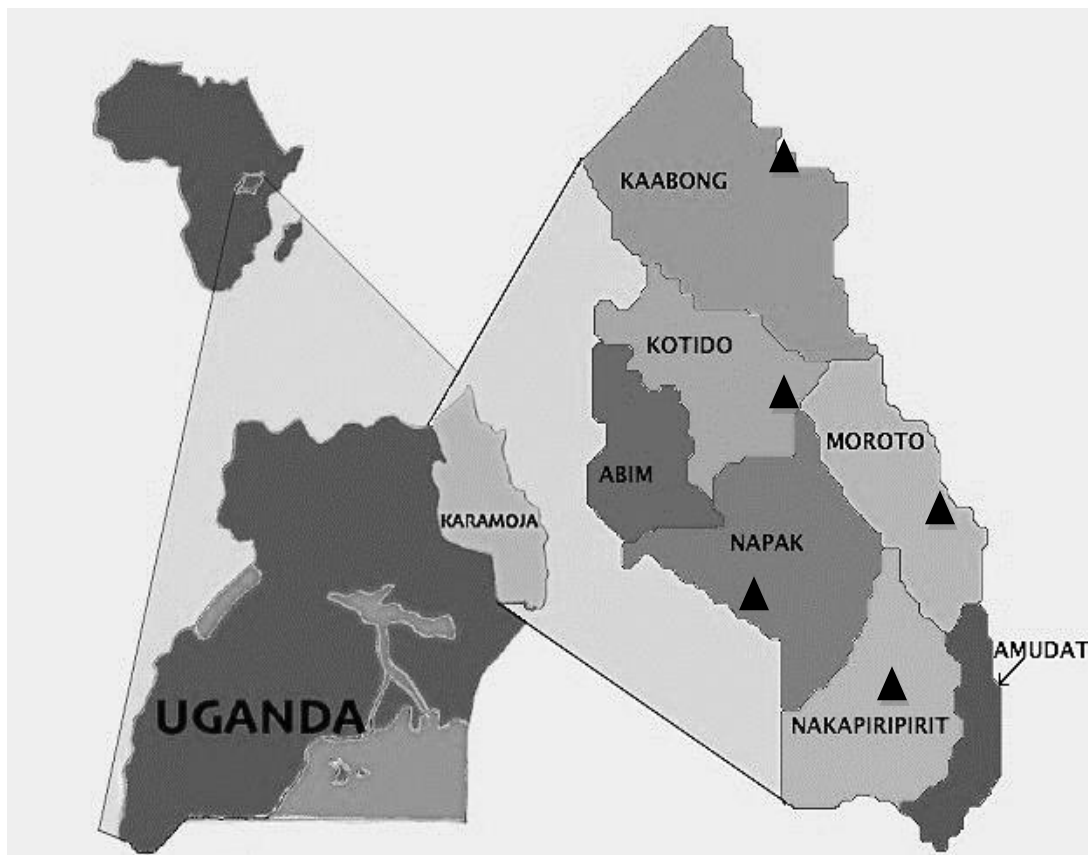
In addition to these aims, the study also reports on risk attitudes and time preferences of the participants via two economic games. Both risk sensitivity and time preference have a critical impact on decision-making in a context of chronic uncertainties such as food supply and vagaries of weather. There is considerable debate in the literature on the impact of certain factors such as wealth, group membership (ethnicity), and household size on an individual's risk and time preferences (B. Tucker, 2012). They are, nonetheless, important variables to examine how individuals make future investment and consumption decisions. In the case of pastoralists who live in an environment of anticipated unpredictability, knowledge about their attitudes toward risk and patience/impatience with gratification would be important to contextualize their choices of particular risk management strategies.

#### *Introduction to the research area*

The Karamoja Region lies in the northeast of Uganda, bordering Kenya to the east and South Sudan to the north (See Figure 1.1). Spread over 27,200 square kilometers, Karamoja comprises seven districts with a total population of approximately 1 million people, or 3.4% of the national population (UBOS 2014). The figure represents a 1.4 times increase since the year 2002 when the population stood at around 700,000. The

area, about 11% of the total surface of Uganda, is generally flat with an average altitude of 1,000 meters above sea level in the west and 1,400 meters in the east (Cisternino, 1979). Piercing out of the flat landscape are several inselbergs and mountain ranges that surround Karamoja on all sides. The main mountains are: Mount Morungole and Toror hills in the north, Mount Moroto in the east, Mount Napak to the west, and Mount Kadam to the south.

**Figure 1.1:** - Map of Karamoja's districts. Source: Kotido Peace Initiative



Triangle shapes within districts denote the approximate locations of the main mountains

All the people living in the region are generally grouped under the umbrella term “Karamojong” or “Karimojong”, and are variably classified as Ateker peoples or the Karamoja Cluster (P. H. Gulliver, 1952). In the regional language *Ngakarimojong*, the

word “Karimojong” denotes the place where the people live<sup>4</sup>, and different sub-sections of people are referred to by their ethnic affiliation. The following groups reside within Karamoja<sup>5</sup>: Matheniko<sup>6</sup> Karimojong and Tepeth<sup>7</sup> (Moroto District), Bokora Karimojong (Napak District), Pian (Nakapiripirit District), Jie (Kotido District), Dodoth (Kaabong District), Labwor (Abim District), and Pokot (Amudat District). In the dissertation that follows, I use “Karimojong” to refer to the group composed of the three territorial sections Bokora, Matheniko, and Pian. I use the word “Karamojong” to refer to all groups residing in Karamoja region.

All the constituent communities engage in semi-transhumant pastoralism in which animals are moved periodically or seasonally between the homestead to the rangelands. Households maintain a permanent homestead<sup>8</sup> (*ekal*) in the village, and mobile livestock corrals on the dry season grazing areas. Homesteads are established by the paterfamilias (*ekasikout*), and is a complex organization of households. Each homestead is divided into sections among the wives of the patriarch, who maintain a “sub-economy” within the household economy (Quam, 1976, p. 91). Male descendants, upon marriage, set up households within the central homestead for their wives and children. The composition of the greater homestead and the related livestock kraals are continuously changing according to the needs of the family. During food insecurity, for example, small children may be sent to live in the kraals for reliable access to milk. The family herds, both the

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<sup>4</sup> When speaking of the entire group, the word *Ngikarimojong* is used. *Ng* is the prefix for a group of people (e.g. *Ngijie* to describe Jie people, *Ngiturkan* for Turkana etc).

<sup>5</sup> District names in parentheses reflects the dominance of the particular ethnic group/groups in the district.

<sup>6</sup> Also spelled Maseniko.

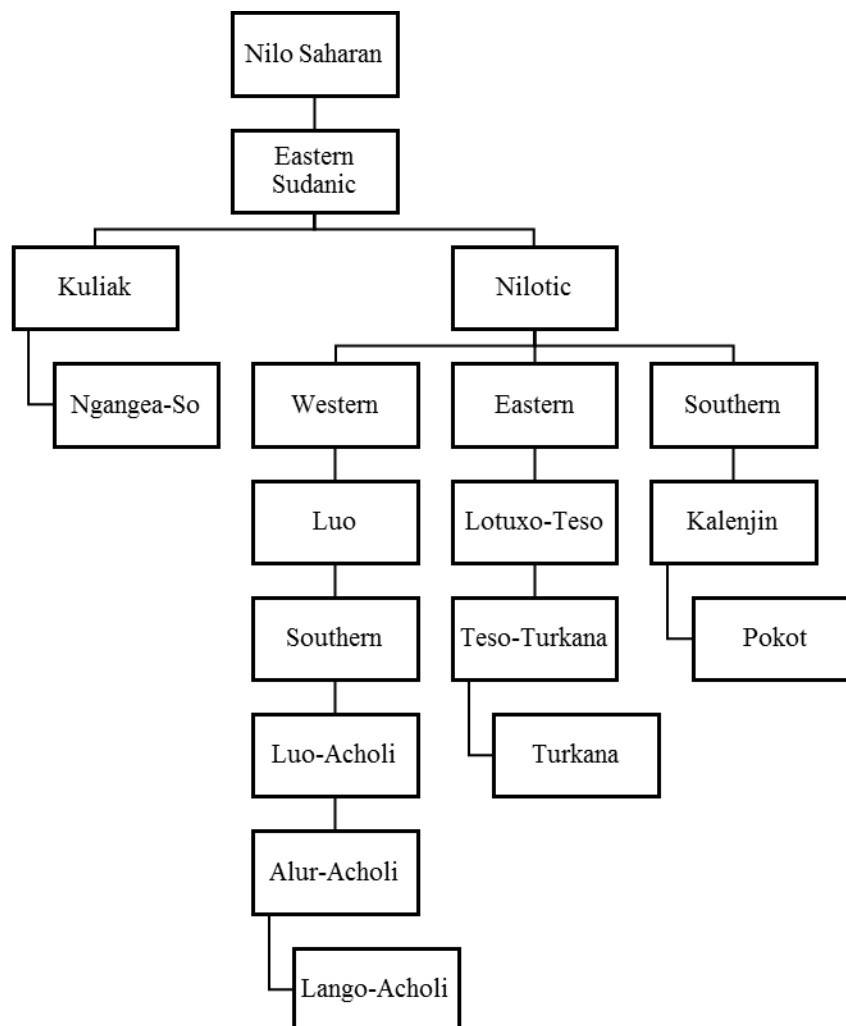
<sup>7</sup> Also spelled Tepes.

<sup>8</sup> The word *manyatta* is commonly used by NGOs and in reports – however, this word is never used by rural Karimojong person.

central herd and the animals allotted to wives for milking, however, are controlled to a great extent by the patriarch.

The vast majority of communities in Karamoja belong to the Nilo-Saharan language family's Teso-Turkana subdivision (see Figure 1.2). The region is also home to three mountain-dwelling groups, Tepeth, Ik (or Teuso) and Nyangea, who belong to the Kuliak language family. The term "Kuliak" in the Karimojong language signifies 'poor people' (sing. *Ekuliakit*, plu. *Ngikuliak*), which was possibly used due to the erstwhile lack of livestock among these groups (Quam, 1976).

**Figure 1.2:** - Language Tree: Created from [www.ethnologue.com](http://www.ethnologue.com)



Tepeth live in Mount Moroto, Napak and Kadam, while the Ik reside in Mount Morungole to the north in Kaabong District, and Nyangea in Mount Labwor in the western Abim District. Tepeth were formerly known as So [singular: Sorat], but the name Tepeth, of Kalenjin origin, was adopted at the end of the eighteenth century by the neighboring Karimojong groups (Weatherby, 2012). Tepeth is said to be a derivative of the Sebei word Tabasiat, meaning ‘wide’ or ‘broad,’ which is the Sebei name for Mount Kadam, the ancestral home for the entire dispersed Tepeth community (Weatherby, 2012). The main Tepeth language used to be So, which belongs to the So Cluster of Kuliak languages (see classification in Figure 1.2). Tepeth people borrowed the language, among other social and cultural aspects, from the dominant Karimojong neighbors, mainly Matheniko Karimojong, at the turn of the twentieth century (Laughlin & Laughlin, 1974). Today, only a handful of people speak the original So language and all of them are exclusively elders. Although Mount Moroto, Napak, and Kadam are historically associated with the Tepeth community, the population on Mount Napak and Kadam is significantly smaller than on Mount Moroto, which remains the last stronghold of Tepeth (see Figure 1.1).

### *Research design*

To answer my research questions, I conducted fourteen months of field work (October 2013 – October 2014; July – August 2015) in a Matheniko Karimojong community (Rupa) and a Tepeth community (Tapac) in Moroto District, Karamoja’s headquarters. The two field sites, one for each community, are separated by 45 kilometers on a dirt road. The field sites differ from each other in their ecology, environment, residence patterns, proximity to town, market integration, and people’s subsistence



profiles. I hypothesized that these differences would influence the system of mutual aid exchange relationships and other social risk management strategies.

During my pilot field trip to Karamoja to assess research conditions, I studied the language intensively under the instruction of Catholic priest-teachers. At the time of my dissertation research, I was able to have quotidian conversations with participants. I nevertheless employed two research assistants (RA), one from each community, to assist in data collection, translation, and transcription because Karimojong is a notoriously difficult language to master. The RAs also accompanied me for periodic stays in livestock kraals on the rangelands and on the mountains. Participating to some extent in pastoral and agro-pastoral life helped me contextualize my data and observations.

In the first phase of the research, I conducted focus group discussions with male participants to understand the norms of livestock transfers and the dynamics of stock friendships. In addition, I held focus groups with women to gain a preliminary understanding of their role in the household economy, particularly in the aftermath of the insecurity and disarmament. I spent a considerable amount of time in the first three months learning about pastoralism in general, making connections with individuals, and building a level of trust. In phase two, I collected data on sociodemographic characteristics and (stock) friendships from 24 men and 15 women in Rupa, and 21 men and 15 women in Tapac. In phase three, I conducted follow-up interviews with men on household coping strategies. Finally, in phase four, I investigated risk and time preferences of men and women via experimental economic games. To examine actual networks of social support during stress, I returned in 2015 to the two field sites, both of which were experiencing an extended drought.

*Structure of the dissertation*

The dissertation proceeds as follows: in chapter 2, I elaborate on Karamoja's history from pre-colonial times to the present in order to provide a framework within which to situate the noteworthy changes in the socioeconomic lives of communities. Chapter 3 provides the key theoretical arguments surrounding risk management in subsistence economies, drawn from a variety of disciplines. I consult the anthropological literature for studies of social exchange among foragers, ethnographic studies of pastoralist stock relationships, and economic studies of informal insurance in villages.

In Chapter 4, I outline the dynamics of the research setting, including climatic and livestock conditions during the research period, and in Chapter 5, I elaborate my methodology. Chapter 6 presents a detailed ethnographic description of stock friendships among male pastoralists in the two field sites. I explore the norms of livestock transfers, the structure of friendship networks, and the dynamics of dyadic exchange between stock friends. In analyzing these, I consider the role of wealth, homophily (or the tendency to choose friends similar to us), community based, and ecological differences in friendship network formation. In Chapter 7, I examine women's close friendships and their related norms. As well, I look at women's changing livelihoods, risk management strategies, and their increasing economic role within the new pastoralist society.

Further, in Chapter 8, I present data on drought induced stress networks. These data were collected at a time when a majority of the households in my field site were facing a food security crisis. I examine the direction of the flow of transfers, the composition and geographical spread of exchange networks, and how transfer networks are influenced by such variables as ecology, wealth, and livelihoods. I combine these data

to make observations about the role of *ex ante* risk management strategies, such as stock relationships and other friendships, in *ex post* coping mechanisms, as well as to provide an evolutionary game theoretic model to support my interpretations. Finally, in Chapter 9, I explore risk and time preferences of male and female herders.

*Contribution to scholarship and Broader scope*

This dissertation contributes to the large body of literature examining the theories and dynamics of human cooperation (Cronk & Leech, 2013). The study attempts to understand the environmental as well as social dynamics of cooperation by investigating how ecological risks, fluctuating resources, and general environmental volatility influence individual strategies and human cooperative behavior. In investigating such factors as reciprocity, contingency, and sharing through pastoralist friendship institutions, the dissertation contributes to the anthropological literature on sharing among (primarily) subsistence communities, as well as to economic studies of informal mutual insurance systems in villages.

To the best of my knowledge, this study is the first ethnographic examination of Karimojong and Tepeth institutions of exchange and mutual aid. Ethnographic knowledge on Tepeth especially is limited to a few scholars, namely Weatherby (2012; original study in 1974) and Laughlin et al. (1979). Moreover, academic interest in Karamoja in the recent years has focused on issues of violence (mainly cattle raiding), and its correlates (Gray, 2010; Gray et al., 2003; Mkutu, 2010; Stites & Akabwai, 2010). Another concurrent topic in recent scholarship is the question of livelihoods in the wake of political and social destabilization (Gelsdorf, Maxwell, & Mazurana, 2012; Stites & Akabwai, 2012). While these studies are extremely important for shedding light on

people's coping strategies, the question of how traditional institutions function, particularly in the area of risk mitigation, has remained largely overlooked (however, see Carlson, Proctor, Stites, & Akabwai, 2012 for a discussion on transformation of customary authority in Karamoja).

Lastly, the dissertation contributes to the broader study of present-day pastoralism, which is marked by unprecedented market integration and extensive loss of rangelands. Prolonged drought, on the heels of decades of social and economic turmoil, has resulted in record livelihood diversification in Karamoja. Evidence of the decline of social support networks and traditional institutions alongside rising poverty and economic stratification has been noted for other pastoralist groups in Africa (Ensminger, 1992; White, 1997). By examining the effects of such variables as personal wealth, proximity to towns, and livelihood profiles on institutions of mutual aid, the study will reflect on the state of contemporary risk management strategies among Karimojong and Tepeth pastoralists (Little et al., 2001). The study, therefore, enhances the anthropological understanding of customary institutions of risk management among subsistence economies.

Pastoralists throughout Africa and particularly in the Greater Horn<sup>9</sup> have dealt innovatively with their harsh environment, noted for its “too many people, too few livestock,” and a severely declining resource base (Catley et al., 2013; Hogg, 1986; Sandford, 2006). The role of conventional risk management strategies in herders' resilience is a critical topic of inquiry not merely from the anthropological standpoint, but even more so from the development perspective. Information gleaned from this study can

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<sup>9</sup> Includes- Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan, and Uganda

inform development policy researchers on the kinds of support networks Karimojong or Tepeth pastoralists may activate in specific situations, and how these networks might be more effectively used in community based risk management solutions.

## Chapter 2

### Historical Background

#### *Introduction*

To understand the risks that pastoralists in Karamoja face, it is essential to consider not only ecological unpredictability but also historical and political volatility. Karamoja's historical trajectory over the last hundred and more years has been marked by regular and often violent upheavals. The political and economic stances of the colonial and subsequent Ugandan governments only exacerbated extant problems, and have proven negative for intercommunity relations, customary social and political institutions, livestock-based livelihoods, and, in general, Karamoja's standing within the Ugandan state. Recent historical events of intercommunity armed raiding and state sponsored disarmament merit an even closer examination for the indelible mark they have left on Karamojong life.

In this chapter I present the major events in the history of Karamoja's communities. I trace the origin, dispersal, and migration history of the communities in Karamoja, focusing on Tepeth and Karimojong. Further, I explain how foreign intervention in the form of ivory hunters, traders, and finally the colonial government affected the social, political, and economic conditions. I also consider how the gradual penetration of the post-independence Ugandan state into Karamoja, the rise of modern weaponry, and the ensuing period of cattle raiding shaped intercommunity relations. Finally, I reflect on the effects of the forced disarmament program and the relationship between the central government and Karamoja. In so doing, I provide a historical background against which to analyze people's behaviors and strategies that I describe

later in the dissertation. For historical information on Karimjong communities, I rely heavily on the works of Lamphear, Barber, Gulliver, and Dyson-Hudson, and for Tepeth history, I draw significantly from Weatherby and Laughlin & Laughlin.

### *Tepeth origins*

Although modern-day Karamoja region derives its name from the collective name of resident communities (“Karamojong”), the first traceable inhabitants of the area were Kuliak (*Ngikuliak*) peoples who are related to current-day Tepeth, Nyangea, and Ik/Teuso<sup>10</sup> peoples. These groups belong to the Kuliak language family, variously classified as a) Fringe Cushitic; b) a distinct branch of Eastern Sudanic in the Nilo-Saharan family; and c) a non-aligned language family (Eithne, 1993; Heine, 1976; Lamphear, 1976; A. N. Tucker, 1967). Kuliak peoples appear to have inhabited the entire length of Karamoja from Mount Kadam in the south to Mount Morungole in the extreme north. Oral traditions among all Nilotic groups in Karamoja suggest that different Kuliak groups were already living in the area at the time of their arrival (e.g. Lamphear, 1976).

Originally a hunting-gathering group, *Ngikuliak* claim their origins on Mount Maru in present-day Kotido district of Karamoja, now home to the Jie community of the Ateker Cluster (Lamphear, 1976). Archaeological evidence such as deep-grooved pottery and rock paintings at Mount Maru and surrounding areas confirm the early presence of *Ngikuliak* in the area. John Wilson, a former agriculture officer and veteran ethnographic and linguistic researcher in Karamoja has previously asserted that a “Bushmanoid, Late Stone Age” people known as Oropom could have also been Karamoja’s early inhabitants

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<sup>10</sup> There is some debate in the literature on the derogatory term for this group: Weatherby (2012) claims that the term Ik, which implies poverty, is not preferred by the community who prefer to be known as Teuso. This is contrary to Turnbull’s (1967) claim.

(J. G. Wilson, 1970). According to Wilson, Oropom, an extinct linguistic group, occupied vast tracts of land that now falls under the Ateker Cluster's geographical location.

Whereas Wilson's research produced valuable insights on the peopling of Karamoja, the Oropom presence is not supported by other scholars, who maintain that *Ngikuliak* were the first known residents of the region (Lamphear, 1976; Souag, 2004; Weatherby, 2012).

It is not clear how the *Ngikuliak* arrived in the area, for there is no oral account of Tepeth immigration into their current territories of Mounts Kadam, Napak and Moroto (Weatherby, 2012). Tepeth of Mount Moroto claim the mountain as their only home with no reference to a previous homeland even to this day. Early ethnographic research also confirms the two most common versions of their origin story: they claim to either have been placed here by their god Belgen, or that they have 'always been there' (Laughlin et al., 1979; Weatherby, 2012). Some individuals, however, recount a migration story that happened "long before the Europeans came" and "in a place beyond (Mount) Kadam" (Laughlin et al., 1979, p. 23).

The most likely explanation is that Tepeth originated in some place in the south (of Karamoja), and their last migration occurred before the general Nilotic<sup>11</sup> migration from the north (Laughlin et al., 1979). Tepeth were not part of the Nilotic northern migration because Nyangea, a "brother group" of the Tepeth, are thought to have descended when a splinter Moroto Tepeth group migrated north following an epidemic. The theory of a southern origin and eventual northward migration of Tepeth is also supported by the fact that Mount Kadam is the center of religious life in Tepeth culture.

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<sup>11</sup> Lamphear uses the term 'Paranilotes' to signify the linguistic differences in Western versus Eastern and Southern Sudanic, where the latter two used to be clubbed under 'Nilo Hamitic'. As these classifications and their reiterations were based on extraneous rather than linguistic characteristics, I use the term Nilotic throughout (Bender, 2000)



Individuals interviewed for the dissertation also recounted past instances of foot travel by Tepeth elders from Mount Moroto to Mount Kadam for communal ceremonies. This practice had come to halt when armed cattle raiding was at its peak.

Tepeth origins have also been reconstructed through an analysis of Tepeth linguistic affiliation. Historical linguists Tucker (1967) and Ehret (1971) have attempted to classify the old Tepeth language, So, into one of the known language groupings. Tucker suggested a close similarity between Ik, So, and ancient Egyptian, and he grouped the So language along with Southern Cushitic, Omotic, and Hadza as Fringe Cushitic based on their Afroasiatic traits. However, Tucker did not connect his linguistic classification to the geographical placement of the groups. Similarly, Ehret (1971) classified So as Cushitic, and went on to claim that Tepeth people dominated the area north of Mount Elgon all the way to Sudan.

Using these studies along with lexical data from So and other East African languages, Laughlin et al. (1979) attempted to establish descent patterns among the languages in order to examine probable origins of Tepeth. In examining the affinities between So and neighboring, regional, and other East African languages, the authors find that So is, in fact, unrelated to any known Nilo-Saharan grouping. Although all three languages in the Kuliak Cluster show apparent similarities, So and Ik are indeed historically and ethnically closely linked (Turnbull, 1967). There was also a high degree of relatedness between So and Nyangea. Nevertheless, the authors were unable to show any relationship of this Cluster with any of the other subgroupings, such as Cushitic, Khoisan, Southern Sudanic or even Nilotic.

Tepeth or So linguistic classification continues to irk ethnolinguists for its peculiarity and non-conformity. Laughlin and colleagues attribute the hitherto incomplete knowledge of So linguistic affiliation to the imperfect lexicostatistical methodology used by previous researchers. At any rate, the mystery of So classification is unlikely to be resolved in the near future due to the lack of active researchers of the language. Further compounding the issue is the fact that there are very few So speakers left in Karamoja. Until the 1970s and 80s, it appears from ethnographic studies that several Tepeth elders continued to speak the So language as a matter of routine (Laughlin et al., 1979; Weatherby, 2012). During the period of my research (2012-2014), I was hard pressed to come across a young person who spoke So. While there are elders who speak and remember So very well, they are few and far between, and today they have almost entirely abandoned the language in favor of the Karimojong language *Ngakarimojong*.

Tepeth linguistic, economic, and customary repertoires were greatly, and in some cases irreversibly, altered by their neighboring groups. Tepeth living on Mount Kadam had frequent and close contact with Proto-Kalenjin speaking peoples on the plains. The people speaking this language, termed Kenya – Kadam (Ehret, 1971), had a vast geographical distribution such that loanwords can be found in languages as far away as Mukogodo (Yaaku) in Kenya. An investigation of So language reveals that nearly seven percent of the vocabulary consists of loanwords from the same Proto-Kalenjin language (Ehret, 1971; Weatherby, 2012).

The Kalenjin influence on Tepeth is not restricted to the language, and is visible in the practice of female circumcision, which is followed to this day. Female circumcision is not found among any of the Ateker groups. Along with oral history of

*Ngikuliak* circumcision, Lamphear (1976) notes a *Ngikuliak* song that referred to them as “the circumcised ones” (p. 73). It appears that by the time the proto-Jie group arrived in their land, *Ngikuliak* living there had already been influenced by Kalenjin groups from the same or surrounding areas<sup>12</sup>. According to Weatherby (2012), circumcision was never part of Tepeth or Ik tradition, and it was possible that it was acquired through contact with later Kalenjin peoples after 1400 AD. Although no longer carried out near trading centers for fear of arrest, circumcision and related ceremonies such as the communal consumption of honey beer (*epurot*) at the end of the three-month circumcision period do occur in remoter Tepeth villages.

The strong relationship between Tepeth and Kalenjin groups has carried over to present day and the two groups that live in contiguous areas over the Kenya-Uganda border continue to enjoy a close affinity in matters of friendship and trade. Tepeth and Pokot frequently migrate to each other’s areas to graze and water animals, and cultivate gardens. A large number of Tepeth are fluent in the Pokot language and often intermarry with Pokot. This is also because a number of Tepeth children complete their primary and secondary education in Amakuriat parish, located in the West Pokot county of Kenya (38 kilometers from Tapac trading center).

Apart from the Kalenjin influence, the other monumental impact on Tepeth life came from the Karimojong plains and occurred sometime around the turn of the twentieth century (Laughlin & Laughlin, 1972). The transition of Tepeth economic and traditional systems to that of Karimojong began somewhere in the mid-eighteenth century when Tepeth started to accumulate cattle (Weatherby, 2012). The ancestral *Ngikuliak* were

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<sup>12</sup> Kalenjin influence is also apparent in the names of villages and locations in Karamoja.

non-cattle keeping people, as evidenced by the name assigned to them: *ngikuliak* means ‘the poor ones’ in the Karimojong language. Their linguistic cousins, Ik, were also named in a way that implied lack of cattle wealth: their alternative name ‘Teuso’ comes from the Dodoth word *teu*, meaning ‘to refuse’, and *sior*, the Ik word for cattle (Weatherby, 2012).

Tepeth gradually amassed livestock through intermarriage with Pokot and Karimojong, as well as through the exchange of ivory for livestock with Swahili and Somali traders (Laughlin & Laughlin, 1972). Early European contact in the form of ivory trade is said to have brought the somewhat isolated Tepeth groups in greater contact with Karimojong of the plains. At an exchange rate of one tusk to twenty heads of cattle, Tepeth were able to greatly fortify their livestock holdings. Additionally, ‘exchanging’ women with Karimojong in marriage, besides adding to their stock wealth through bridewealth payments, also led to the formation of kinship networks. Interactions with Karimojong was to have a profound impact on Tepeth life such that “by the time the Karamojong (sic) language came to predominate in intra-tribal communication, the So were in large measure perceiving and referring to the surface structure of their political organization and attendant interaction in Karamojong terms” (Laughlin & Laughlin, 1972, p. 266).

#### *Karimojong: Origins and Dispersal*

Matheniko Karimojong, unlike Tepeth, are immigrants who arrived in the area in the early eighteenth century. Matheniko Karimojong belong to the group interchangeably referred to in the literature as Central Paraniotes, Kote-Magos group (Lamphear, 1976), or Nilo Hamites (P. Gulliver & Gulliver, 1968). Today, this group is also known as Ateker (meaning: clan) or Karamoja Cluster, and the offshoot communities are

distributed around the adjoining borders of Kenya, Uganda, South Sudan, and Ethiopia. The Cluster includes Karimojong, Jie, and Dodoth in Uganda, Turkana in Kenya, Nyangatom in Ethiopia, and Jiye and Toposa in South Sudan (Gray et al., 2003; P. H. Gulliver, 1952). All communities speak mutually intelligible languages and share similarities in social and political organization.

A critical problem in reconstructing the past from oral history among Ateker peoples is their ability to recall events within an accurate time frame. Most people simply refer to any point in the past as ‘long ago’. According to Dyson-Hudson (1966) “as far as indirect knowledge [of the past] is concerned the Karimojong themselves are of little explicit help, since they either encapsulate the past into present relationships or release their hold on it altogether” (p. 258)<sup>13</sup>. This phenomenon is also reflected in the shallow genealogies of Karimojong, where most individuals can only recall their paternal lineage back to their grandfather (N. Dyson-Hudson, 1966). Further complicating the scenario are the diverse versions of the origin and dispersal story told by the different ethnic groups, and thus variably reconstructed by historians (Lamphear, 1976; cf. Gulliver, 1952; Nagashima, 1968; Crazzolara, 1960). Here I present a summary of the most thorough oral history project among the Ateker peoples conducted by John Lamphear (1976), while simultaneously drawing from related important works.

The Ateker Cluster is said to have originated in the southeastern corner of present-day South Sudan from where they migrated to the Koton Magos hills, located above the escarpment between Kenya and Uganda. It is at Koton Magos hills that the group’s eventual fragmentation started (Lamphear, 1976). Before arriving at Koton

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<sup>13</sup> Many participants in my study only said ‘long ago’ when describing an historic event unless the event was clearly marked (such as *ekaru ka Amin* – the year that Amin seized power (1971)).

Magos, members of the greater group relied mainly on hunting and gathering; livestock herding and agriculture played a less important role. Over time, livestock herding assumed prominence as an economic and social activity such that by the time the group split into the different factions at Koten Magos, they were decidedly pastoralists.

From the various versions of the dispersal story, Lamphear (1976) has identified two major splits in the group: the southern part of the group occupying the area between the Magos Hills and Apule river eventually ‘became’ Karimojong, Dodoth, and some Toposa; the northern part of the group at Koten and Morulim Hills fissured into Jie, Turkana, Nyangatom, Jiye, and Toposa. In the Karimojong version of the dispersal story, Jie are said to have separated from their Karimojong ‘fathers’ by seizing cattle and refusing to return with them. Due to their belligerence, the group that broke off came to be known as *Ngijie* or ‘the fighting people’ (from *ejie*: to fight) (Marshall Thomas, 1965; P. H. Gulliver, 1952). Jie, on the other hand, claim that “the people who lived (in Koten-Magos) began to separate because of jealousy. The place became crowded and each group wanted to find enough land to live in. The Jie and their brothers the Turkana, Toposa, and Tobur lived together at Koten. The Karimojong and their brothers the Dodos were down at the Magos” (Lamphear, 1976, p. 108).

It is now widely accepted that the Ateker Cluster splintered not because of a single, dramatic event, but due to continuous ecological pressures that caused intergroup conflict. Lamphear (1976) provides an approximate period for the separation of the constituent groups based on the nomenclature of the generation sets. It appears that after the inauguration of the *Ngipalajam* generation-set, the Cluster branched into different groups. *Ngipalajam* is a generation set name shared by Jie, Turkana, Karimojong, and

Dodoth and there are no overlapping generation sets following it. Based on this evidence, the fragmentation of the Cluster is said to have occurred in the early 1700s (cf. P. Gulliver & Gulliver, 1968).

After separating from Karimojong [meaning ‘people dying of old age’; from *akikar* – to die, and *amojong* – old (N. Dyson-Hudson, 1966)], Jie continued to live near the Koton hill until they again split into two groups again, although this time on amicable terms (P. H. Gulliver, 1952). One group (Jie) remained in the area, and the other went down the Rift Valley escarpment into modern-day Turkana in Kenya. The Turkana origin myth tells of eight young men who went east down the escarpment from Jie country in search of a lost bull (Lamphear, 1988). Upon reaching the Tarach River, they discovered the bull living with an old woman named Nayece who welcomed the men and showed them the area. Impressed with the untouched grazing lands, the young men returned to Jie country to collect other men and girls and made their way back to the Tarach. The group then came to be known as Turkana or ‘people of the caves’, either because some people lived in the caves in the new area or because their cattle hid from the rain in the caves (Lamphear, 1988; McCabe, 2004; Mirzeler, 2014). Turkana continued to expand eastward in Kenya, while Jie moved up to present-day Kotido district in Uganda, where they further split to form the groups Toposa and Nyangatom (P.H. Gulliver, 1970; Tornay, 1979). The Nyangatom migrated northeastwards into Ethiopia due to pressure from Turkana, although it’s unclear whether this movement resulted from warfare or ecological pressures (Mburu, 2001).

The numerous versions of the dispersal story converge on the same point: a group splits away and the rest stay behind. These historical ruptures and their accompanying

legends have, to an extent, shaped enmities and friendships within the Cluster. Jie are said to have maintained amicable relations with the Turkana, Toposa, and Nyangatom. They eventually lost contact with the last two by virtue of geographical distance. The Turkana regarded both the Toposa and Nyangatom as enemies. In Gulliver's (1952) estimation, friendships within the Cluster occurred consistently between the Jie and Turkana, Karimojong and Dodoth, and Toposa and Nyangatom. While this may have been true in pre-colonial times, the continual changes to the social, political, and economic structure of the communities that occurred during the colonial period as well as during postcolonial governments had a great influence on inter-community relations. Gulliver's tidy matrix of alliances and enmities ceased having relevance particularly after the introduction of modern weaponry, when groups constantly restructured coalitions as the balance of power shifted. Previously hostile enemies became friends, and erstwhile allies raided each other brutally.

*Karimojong territorial sections*

Each group comprising the Ateker Cluster is further divided into sections or territorial units. Of ten such territorial units among Karimojong (N. Dyson-Hudson, 1966), three are dominant and live the districts of south Karamoja: Matheniko (*Ngimatheniko*) who live in Moroto District, Bokora (*Ngibokora*) in Napak District, and Pian (*Ngipian*) in Nakapiripirit District. Until recently (date unknown), the districts were named after the corresponding territorial section, suggesting that the land occupied by the section is eponymous of the section and not vice versa. Were the section to move permanently to a new land, the newly occupied area will be renamed. This phenomenon



of the land being named after the people is also evident in the name for Karamoja Region in the local language: “Karimojong”.

A section is a ‘permanent social group’ into which individuals are born, and it takes precedence over the larger community. According to Dyson-Hudson (1966), “...if one asks ‘what is he’ of any Karimojong, the first description is always a reference to section membership” (p. 127). Each section takes its name from an animal or spirit; Matheniko are ‘the bull people,’ Bokora ‘the partridge people,’ and Pian ‘the spirit people.’ However, these are not totemic in that there is no prohibition against killing or consuming the animal that lends its name to the group. Sections had the right to govern themselves ritually and politically in the past before the State assumed office in the region. Any decision affecting Matheniko was discussed among the group, and presided over by the section elders. In matters that brought several sections together, some sections had greater influence than others because of politically and socially influential individuals within these sections. In general, elders were the most important members of the section, without whose consultation important decisions were not taken.

Today, the administrative structure of Uganda has been integrated into Karamoja’s political organization. From the village to the district level, the region is administered by Local Councilors with ascending power. Local councilors are elected, and those at the county and district levels have financial, legal and administrative powers (Human Rights Watch, 2014). This system is entirely alien to the administration of a territorial unit in the past, at the helm of which were elders not due to an electoral process but rather from the common understanding that with age comes wisdom. Whereas the sections still come together at present for important rituals (such as initiation or transition

of power ceremonies), political action is the realm of elected government officials. Influential elders from each section, however, play an important role in resolving intergroup conflicts, and, in theory, are consulted on governance and development projects that affect the communities. Whether their say on externally imposed consequential decisions is taken into account remains doubtful.

*Outsiders: Ivory hunters, traders, and the Protectorate in Karamoja*

For most of their history, the peoples of Karamoja remained cut off from many of the communities that were to constitute the rest of Uganda. This situation changed with the arrival and eventual expansion of the East African Protectorate. The Ugandan Protectorate was born in 1894 as a result of British interest in controlling the Nile, and thus Egyptian land, and Britain's attempt at stopping rival nations from doing the same (Barber, 1968). Another important motivation behind seizing this region was the obvious expansion of British economic interests; Uganda, along with other parts of East Africa, was to provide the British Empire with "a basis of commercial expansion and of industrial enterprise in a fertile country with excellent climate" (Lugard, 1893 as cited in Cisternino, 1979).

Towards the end of the nineteenth century, the British Protectorate included the Kingdoms of Buganda, Bunyoro, Toro, and Ankole in southern Uganda, as well as modern Kenya and parts of Ethiopia and Sudan. To the south, the Protectorate extended to the northern border of present-day Tanzania. The northern boundary of the Protectorate, however, remained vague and undefined. Disagreements involving Germany, Italy, Abyssinia, Egypt, and, most important, France, would have a direct impact on the lives of the peoples of Karamoja: The British would foray into northern

Uganda in an attempt to seize the rights to the Nile, and thus enter the Karimojong and Turkana territory for the first time.

The first Europeans to pass through Karamoja were Lt. Hanbury-Tracy of the Royal Horse Guards in 1897, and Lt. Col. J.R.L. Macdonald, both sent expressly to ensure that British interests in the area were safeguarded from the French (Barber, 1968; N. Dyson-Hudson, 1962). Whereas other Europeans had only explored the fringes of greater Karamoja, Macdonald's expedition aimed to define British claim to the land north of Mount Elgon. Macdonald brought two treaties that outlined the terms of agreement between the British and the Karimojong. The treaties stated that "there would be peace between the tribe and the British, that British subjects had free access, with trading and building rights, to all parts of the tribe's territory... The tribal leaders also agreed not to cede any territory to, or enter any agreement with, a foreign power without British consent" (Barber, 1968, p. 11).

At the time of 'first contact' with Europeans, the people of Karamoja had been recuperating from severe shocks to their lives and livelihoods. C. A. Turpin (1948, as cited in Barber, 1968), a British commanding officer, has documented various disasters that afflicted Karamoja in the late 1800s. Karimojong cattle wealth were severely depleted due to the rinderpest and contagious bovine pleuropneumonia epidemics of the 1890s (Turpin, 1948). Locust invasions in the same time period led to a substantial destruction of crops. These events inevitably led to a famine that was further exacerbated by failed rains and sarcoptic mange disease among small stock (Barber, 1968). If these were not disastrous enough, the late nineteenth century was also the time of Turkana expansion, which affected the surrounding communities of Pokot, Samburu, Dongiro,

Toposa, and Karimojong (P. H. Gulliver, 1951; Lamphear, 1988). Thanks to the lack of rinderpest in their area, Turkana expansionist forces created resource pressure and led to the further loss of Karimojong stock such that by 1894, Karimojong are said to have lost 90 percent of their remaining cattle (Turpin, 1948, as cited in Quam 1976). As a result of these events, Karimojong dispersed to other areas and survived mainly by hunting and gathering.

Around the same time (1880-1910), the first outsiders to Karamoja arrived in the form of traders of such diverse ethnicities as Swahili, European, American, Greek, Ethiopian, Indian, and other Africans (Barber, 1968; N. Dyson-Hudson, 1962). Traders brought with them small goods, beads, and, critically, firearms, which they traded with the people for ivory. Famous ivory hunters such as W. D. M. 'Karamojo' Bell and other Swahili and Arab traders also arrived in the elephant rich territory. Trading centers such as Mumias in Kenya and Mbale in Uganda grew exponentially as a result of the ivory boom (Barber, 1968; Quam, 1976). Karimojong were thus able to recover from their devastating losses by trading ivory for cattle in large numbers (Quam, 1976). Due to the lack of regulations in the 'wild' north, traders and hunters worked together unencumbered for their own benefits: amounts of ivory for the outsiders, and animals and guns for Karimojong (Barber, 1968).

Meanwhile, the colonial government grew concerned over reports from the north of massive depletion of ivory and the appearance of a substantial number of firearms. Not only was this financially unwelcome, the situation was also becoming hostile because of inter-group fighting over acquisition of ivory. In the end, while appearing economically profitable, the ivory trade was to result in drastic and irreversible changes to Karimojong

life in two major ways: the physical entry of the colonial government to establish order in the region, and the beginning of the use of firearms, which was to create havoc in the future (Barber, 1962, 1968).

In 1898, Macdonald's was one of several columns sent to the Nile area of former Sudan to secure British interests particularly from the French and Ethiopians. Although Macdonald did not have much to do with the 'Fashoda incident', which gave Britain rights over the Nile, his was the first garrison to have encountered the peoples of the north (Barber, 1968). Relations between Macdonald's party and inhabitants of Karamoja were uneventful, in general, and Macdonald even admired 'the Karamojong' (sic) for their fighting skills (Barber, 1968). This tranquility was disrupted by the murder of the British Captain Kirkpatrick and other members of a smaller expedition at the hands of Nyakwai people in Western Karamoja; they were murdered either for flirting with Nyakwai women, or as a result of intermixing with soldiers of the Sudanese rebellion. Regardless of the cause, the incident led to British reprisal in the form of burnt crops and settlements.

Macdonald, upon realizing the dynamics of the ongoing ivory trade, alerted the Government and also made recommendations on the possible expansion of the Protectorate to the north (Barber, 1968). His reports did not materialize into any action on the part of the central command: the Protectorate was facing multiple problems with Buganda and Bunyoro kingdoms in the south, and fixing these problems was financially costly. Since the goal of securing the Nile Valley had been accomplished, and setting up military units to deal with new tribes would be expensive, British interest in the area waned (Barber, 1968). After signing Macdonald's treaties, the peoples of Karamoja were

left alone for the next twenty years. In time, the government realized the gravity of the situation. Earlier plans of exploitation and development were replaced by a plan for control – “The north-east was to be controlled, not because it afforded a source of revenue or offered prospects of development, but because tribal fighting had to stopped, lawless traders had to be driven out and the Ethiopian threat had to be countered. Controlling the north-east was accepted as a burden” (Barber, 1968, p. 118).

*Karamoja under military and civil administration*

What was to be done with the pastoral tribesmen and their difficult country?  
Barber, 1968, p.201

The Protectorate government thus re-entered Karamoja in 1910 with the primary objective of controlling the unruly north. Given the manifold issues in the region, Karamoja was declared a ‘closed territory’ where ‘no visitors may enter without an outlying district’s permit’ (Cisternino, 1979). This time, the government had to commit to administering Karamoja because of reports of a possible Ethiopian encroachment of the area (Barber, 1968). Karamoja would come under military rule in 1911, patrolled initially by the Kings African Rifles and later by the police.

With its second foray into Karamoja, the Protectorate government swiftly set to work on driving away ivory poachers, disarming people, quelling inter-tribal fighting, and, critically, securing the border from Ethiopian and Turkana raids (Barber, 1968). While early forms of external administration were limited to police posts, a military garrison accompanied by soldiers from the King’s African Rifles returned to Karamoja after the end of the First World War. Besides working on their greater goals, British officers also dealt with the more routine tasks such as setting up posts, building stations, clearing roads, and transporting food and other supplies in an area with no established

trading centers (Barber, 1968). Administratively, the main step taken by Captain Tufnell, the military administrator, was the appointment of ‘chiefs’ for the various territorial sections. The number of chiefs increased from eleven to fifty-eight under Turpin, Tufnell’s successor (Dyson-Hudson, 1966). This administrative system of chiefs was directly borrowed from the south of Uganda and enforced on the north:

These chiefs were hierarchically arranged, on the model of southern Uganda. There were seven major chiefs, with ‘prime ministers’ as assistants for six of them (the Luganda-derived term *katikiroit* was used); and under them thirty-one minor chiefs, fourteen of whom also had assistants. Each major chief was the head of a unit termed (erroneously) a clan, the clan divided into a variable number of locations, and the number of office-holders attached to a location was calculated at one for every ten permanent settlements. (Dyson-Hudson, 1966, p. 8)

The newly appointed chiefs were tasked with collecting firearms from the people, supplying food and labor to the British, and maintaining peace and order in their areas (Barber, 1968). Unsurprisingly, this system was not effective: appointed chiefs, often younger men with none of the wisdom of the elders, quickly became the object of the community’s scorn. The Protectorate government decided to appoint agents from outside Karamoja in the region to assist in the administration.

Economically, the main source of income was labor and poll tax collected from adult males at the rate of five shillings per male (Barber, 1968). Although the large livestock herds in Karamoja at the time presented a lucrative opportunity for economic expansion, the potential for cattle trade was actively stymied for fear of transmission of endemic livestock diseases to other parts of the Protectorate (Barber, 1968). Considering the financial strain of veterinary services, quarantine facilities, and vaccination drives, the administration decided to not pursue animal trade. Moreover, outside traders were not allowed to conduct business in the district in order to prevent them from transporting

diseased cattle out of the district. Up until the early 1920s, only a few small-scale traders were allowed to work within the district. Clampdown on potentially lucrative economic activities further solidified the Protectorate's 'closed territory' policy in Karamoja.

With the takeover of the civil administration in 1921, the Protectorate's approach toward Karamoja began to alter in ways that would leave a significant mark on the region. The policies imposed at this time would continue and be exacerbated by post-independence Ugandan leaders. These policies included the push towards agriculture, forcible acquisition of land, storage of grains for lean times, and the restriction of herd movements (Barber, 1968). Even though prominent personnel of the preceding military administration had highlighted the potential benefits of a livestock trade, their advice went unheeded. Expansion of ranching activities was restricted in lieu of increased crop production in order "to wean (the locals) away from what was thought an over-dangerous dependence on stock" (Dyson-Hudson, 1972, p. 781). So high was the premium placed on replacing pastoralism with agriculture that the district received a permanent agriculture specialist before a veterinary officer (Dyson-Hudson, 1972).

Civil control of Karamoja also meant a significant change in the duties of Protectorate-appointed chiefs: they were tasked with such unpopular activities as collecting taxes, making arrests, mitigating disputes, prohibiting movement of livestock, and increasing grain reserves for famine (Barber, 1968). The rules of the civil administration increased the economic and sociopolitical burden on the locals. For instance, breaking the law against movement of cattle led to fines and arrests even of elders. Not only did this system decrease the asset wealth of individuals, it also contradicted the conventional political process where elders had the greatest decisive



power. The younger, inexperienced chiefs, and ultimately the government, became an object of resentment for the people. This resentment and opposition to the foisted system of governance would lead to the murder of Chief Achia who, in accordance with the civil administration's laws, vehemently restricted the customary dry season movement of herders in South Karamoja (Barber, 1968; Dyson-Hudson, 1972). The suspects speared him repeatedly "and for several hours, amid general rejoicing, women beat his corpse in an expression of contempt before the whole group moved out to the grazing (lands) that had been denied them" (Dyson-Hudson, 1972, p. 782). They would eventually be hanged in public. Finally, and after much deliberation, the government decided to pull back on the 'advancement' of the district, and reverse its decision of restraining livestock development (Barber, 1968).

Among the detrimental policies of this period, large-scale acquisition of land was to have the gravest repercussions for the pastoralists. First, a huge part of land approximated at 2,000 square miles was apportioned to Kenya (Mamdani, 1982). Subsequently, the border of Teso district was enlarged, and Pokot herders from Kenya were allowed to use and claim land within Karamoja (Mamdani, 1982; N. Dyson-Hudson, 1966). National parks such as Kidepo Valley and other newly-carved out game reserves would vastly decrease the amount of land available for humans and livestock. The predictable result of this gradual land loss was the increased concentration of humans and livestock, which in turn gave rise to overgrazing. Restriction on herd movement and the loss of land, thus, began a cycle of desertification and environmental degradation that was blamed on the pastoralists (Cisternino, 1979; Mahmood Mamdani, 1982). Following

these events, a destocking program, repressive in nature and unpopular in reputation, was effectuated to deal with the aforementioned problems.

A fledgling marketing scheme was initiated in the 1920s and revived during World War II to encourage the export of meat from Karamoja to the south of Uganda, and to the military. Only after the war did cattle marketing become a permanent fixture of the economy in Karamoja (Quam, 1976). Finally, in 1948, nearly three decades into the civil administration, Karamoja got its first Veterinary Officer, along with the Karamoja Cattle Scheme – a program aimed at destocking and marketing of cattle (Quam, 1976). The Veterinary Officer’s main duty was to oversee disease control among livestock destined for the market. The Scheme would contribute greatly to the colonialists’ coffers, which had otherwise been severely constrained in Karamoja (Barber, 1968; Mamdani, 1982). Continuing the tradition of favoring the south over the north, the Karamoja Cattle Scheme while proving beneficial to the meat industry in major Ugandan cities was ultimately disadvantageous to the pastoralists. Although this Scheme was ostensibly a step toward integrating Karamoja’s economy into the rest of Uganda, it ultimately failed due to low prices and lack of investment (Quam, 1976).

*Karamoja at independence and under Ugandan rule*

If Karamoja is to cease to be the problem that it is now, the pace of development must be forced and forced hard, and if this is to be done, it should be NOW or NEVER!

Bataringaya 1961, p. 15

At the threshold of independence, not much had changed for Karamoja as compared to the rest of the Protectorate. It remained a closed territory with a fragile administrative structure, a resentful populace, and the least ‘developed’. In a last-ditch effort, the British government initiated the Karamoja Development Scheme, aimed as “an

all-out campaign to check and reverse the degeneration of grazing by enclosure, destocking and other means, to expand water supplies and communications, and to assist in the economic development of the district” (Barber, 1968, p. 215). The development scheme sought to expand education, cattle marketing, and improve infrastructure in the form of roads and dams. In short, the scheme tried to bridge the developmental gap between Karamoja and other parts of the Protectorate. While Karamoja’s locals benefitted from the scheme insofar as health, water, and marketing facilities were concerned, they did not participate actively in its formulation or implementation. The pastoralists remained ‘receiving agents’, and “the development therefore grew up outside the life of the pastoral tribesmen” (Barber, 1968, p. 216). The tendency to keep pastoralists as inactive participants in projects aimed at their betterment would be replicated in the future by the government and the development community.

Upon independence, Ugandan governments continued the legacy of the Protectorate in a few main ways: restricting migration, forcing agriculture, imposing an administrative structure, increasing militarization of the region, and treating pastoralists as ‘unschooled’, ‘unclothed’, ‘indolent’ ‘natives’ (Bataringaya, 1961; Cisternino, 1979; Mirzeler & Young, 2000; Quam, 1976). No succeeding government has tried to understand the dynamics of pastoralism, and how the livelihood shapes the lives of the resident population. Each Ugandan president has viewed Karamoja as ‘a problem’; the ‘Karamoja Problem’ was one of the ten points in the manifesto of the National Resistance Movement (NRM) of current President Yoweri Museveni (1986 – present) (Mkutu, 2008). Moreover, the people of Karamoja have had little concrete interaction any of the governments, particularly of Obote and Amin (Mirzeler & Young, 2000). Their

participation in the political process over the years has been negligible. Currently, Karamojong representation to the national parliament lags behind other regions and even the district level posts are often assigned to non-Karamojong.

Decentralization under the NRM government has meant that the Karamoja administrative structure continues to follow in the footsteps of the Protectorate: the election of the younger Karimojong elite to district level posts in blatant disregard of elders. Janet Museveni, the first lady, holds the special appointment of ‘Minister for Karamoja Affairs’: a post under the Office of the Prime Minister that pays lip service to the agenda of developing the region. Land grabbing has continued unabated in the rush for minerals in the region, often aided by the government and its contracts with mining companies (Human Rights Watch, 2014).

*A note on relations of Protectorate government with Tepeth*

European ‘first contact’ with Tepeth occurred in 1902 on Mount Kadam and Moroto when Major P.H.G Powell-Cotton surveyed the area (Laughlin & Laughlin, 1972; Weatherby, 1988). During the period of massive ivory poaching and trading, many traders also dealt with Tepeth. But the most important aspect of Tepeth and outsiders’ relationship was through the Protectorate Government’s Forestry Department, which had jurisdiction over the three mountains – traditional homelands of the people (Laughlin et al., 1979). In the 1930s the mountains were declared ‘crown forest reserves’; inhabitants were stripped of their rights within the reserve, but granted ‘privileges’ contingent on the discretion of the government. Additionally, since 1933, various attempts have been made to remove Tepeth from their mountain home. While the colonial government was to some extent effective in achieving this on Mount Kadam, they were only partially successful on

Mounts Moroto and Napak (Laughlin, et al., 1979). Over time, and in many iterations, Tepeth would be moved from the higher slopes of the mountains to the valley floor and to the plains.

Both the policies of designating special status to the mountains and the removal of the people have carried into the post-independence period. In 2015, the mountains are still under the jurisdiction of the government as a ‘gazetted area’ overseen by the District and the National Forestry Authority<sup>14</sup>. The gradual removal of Tepeth from the mountains to the plains exacerbated Tepeth – Karimojong relations, primarily as a result of resource competition. What started as a conflict over limited resources would turn into severe animosity between the two groups such that the area between Moroto town and Tapac Valley, and those lying at the foot of Mount Moroto would turn into small-scale battlegrounds in the years of armed cattle raiding.

#### *Armed cattle raiding*

The darkest chapter, perhaps, in Karamoja’s history was the period of armed cattle raiding in the last quarter of the twentieth century. Cattle raiding, a time-honored practice, is an adaptive strategy of East African pastoralists to the unpredictable environment in which they live (Fukui & Turton, 1979; Gray, 2009; McCabe, 2004). Raiding provided a means to redistribute herds, and recuperate from drastic herd losses resulting from periodic droughts and livestock diseases. Continual cycles of drought and disease that characterize nonequilibrium systems such as that of East African pastoralists necessitated a parallel system of convalescence in the form of raiding not simply for biological survival, but also for larger political and cultural endurance (Gray, 2009;

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<sup>14</sup> Interview with District Environmental Office, September 2014

McCabe, 2004). Hence, the arrival of the colonialists, slave raiders, and ivory-hunters in pastoralist East Africa disorganized this adaptive practice by restricting movement, enforcing new boundaries, cordoning off game reserves, and introducing vast amounts of weaponry.

An investigation into the scale of cattle raiding in Karamoja cannot be divorced from a parallel exploration of the history of weaponry in the region. Whereas in the past cattle raids were executed mostly with spears, the gradual influx of automatic firearms drastically altered the course. Around the turn of the twentieth century, when Karamoja was an active market for ivory, it attracted traders from various places, some of whom brought guns for their efficiency in hunting elephants (Barber, 1968). This was the first influx of modern firearms in Karamoja, and the beginning of armed raiding albeit with low efficiency muzzle loaders (Mirzeler & Young, 2000). Alarmed by reports of gunrunning and illegal game hunting, the Protectorate government made it its mission to disarm and control raiding among groups. The success rate of the military administration's disarmament exercise was high enough that by the time Karamoja was under civil administration, only a handful of appointed chiefs had guns in the region (Quam, 1997). Similar disarming exercises had been carried out in Turkana in Kenya (Mburu, 2001).

It was during the Second World War that firearms re-entered the scene when the British recruited Karimjong, Turkana and other Ateker pastoralists to join the army (Mburu, 2001). The Turkana were able to re-arm themselves more swiftly thanks to their active participation in Britain's war with Italy over erstwhile Abyssinia. At this point, few weapons were in Karamojong hands. Meanwhile, Turkana, Pokot, and Toposa,

armed with high-powered rifles, began to mount raids against Karimojong in the 1960s and 70s resulting in a huge loss of livestock (Cisternino, 1979; Gray, 2009; Ocan, 1994). With no weapons and minimal and ineffective state help, Karamojong frustration with the state only grew further (Quam, 1997). Idi Amin's military coup in 1971 resulted in the establishment of army presence in the area, who succeeded in driving the raiders away. However, the army, instead of returning the stolen livestock back to people, confiscated and sold them to cattle traders, thus making a profit for themselves. Faced with a duplicitous army and armed raiders, many pastoralists turned to fashioning hand-made guns out of metal. They also began attacking isolated police posts to steal arms. Finally, with a few arms at their disposal, some men mounted an attack on a police headquarters in Southern Karamoja acquiring many more guns and thus better arming themselves (Quam, 1997).

The real windfall in arms came in 1979 at the ouster of Idi Amin, who had installed a well-stocked armory for his battalions in Moroto and Kotido (Mirzeler & Young, 2000). With the fall of Amin, the armory was left unmanned as his troops deserted the area quickly. Karimojong (and Jie) herders quickly and easily armed themselves with the bounty of automatic weapons left at their disposal (Gray et al., 2003; Mirzeler & Young, 2000). Other means of acquiring weapons during this time was from government forces that had been sent to disarm Karimojong and mitigate the turbulent situation. Thus began the period of intensive armed raiding in Karamoja that would alter the social, economic, and political landscape of the region indefinitely.

Shortly after acquiring the stockpile of weapons, the great famine (*Akoro*) afflicted Karimojong. In order to recuperate lost cattle, Karimojong herders mercilessly

raided the bordering Teso agropastoralists (Gray et al., 2003; Mirzeler & Young, 2000). In retaliation, Teso expelled Karimojong settled in their area. They also detained several thousand Karimojong without food and shelter in Soroti, and impeded the delivery of relief food shipments to Karamoja (Okudi, 1992). In 1982, during a peace meeting between Teso and Karimojong, Apaloris, an extremely influential Matheniko elder was murdered, setting off a chain of brutal raids between the two groups.

Accompanying the fall of Amin was also a geographical shift of power balance: the new president Milton Obote, an Acholi (northern Uganda), was more interested in safeguarding the interests of Acholi, Teso and Lango peoples from the mutinous Karamojong. Although he sent his troops to quell the uprising, the army suffered at the hands of Karimojong who not only defeated them but also managed to acquire more weapons. With the fall of Obote in 1985 and the ensuing failure of the Okello regime, Acholiland became an easy target for roving Karamojong (Mirzeler & Young, 2000). So brutal were the Karamojong raids against Acholi that cattle numbers dwindled from 300,000 in 1985 to a meager 3,000 in 1997 (Gersony, 1997).

The situation was further aggravated by the militarization of the entire region from Sudan to Somalia. Events in the 1980s and 90s, such as the armed revolt in southern Sudan, the formation of the Lord's Resistance Army (LRA) in northern Uganda, the collapse of the Ethiopian and Somali regimes, and numerous other civil wars in the Horn of Africa and the Great Lakes region contributed to a bustling and unencumbered arms trade (Mburu, 2001; Mirzeler & Young, 2000). Even though the government of Yoweri Museveni upon gaining victory in 1986 tried to disarm people and bring stability to Uganda, the ruthless methods employed only served to increase the animosity pastoralists



felt towards the government based in the south (Gray et al., 2003; Quam, 1997). In time, the attention shifted to the ruthless LRA situation fomenting in Northern Uganda, and Karamoja was once again left to its devices.

To deal with the growing problem of Karamojong raids on neighboring regions, a few potential solutions were presented. First, in 1992, a group of ‘vigilantes’ were recruited from among the raiders, whose task was to track raided livestock and work on securing the roads (Mkutu, 2007; Quam, 1997). The armed vigilante force worked impressively, and was supported by the Church, NGOs, and the government for their success in accomplishing tasks at which the Ugandan army (UPDF: Uganda Peoples Defence Forces) had failed. Following its success, the vigilante force was expanded from ten per parish to 1,000; this was achieved by offering each person who registered their weapon and became a vigilante a 10,000-Uganda Shilling payment each month (Gray, 2009; Mkutu, 2007). The vigilantes were given military training and uniform, and eventually brought under the auspices of the UPDF. Women were also recruited to provide intelligence (Quam, 1997). Unlike UPDF personnel who forcefully confiscated guns and livestock for their own benefit, vigilantes steered away from corruption and ultimately brought a significant change to the chronic insecurity of the preceding years (Mkutu, 2007; Quam, 1997).

Despite this initial success, peace broke down again in 1996 right before the elections (Gray, 2009). Several subsequent attempts were made to pacify the region: Local Defense Units (LDU) and Anti Stock Theft Units (ASTU) were created and consisted of members of vigilante groups and raiders<sup>15</sup>. A major reason for the failure of

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<sup>15</sup> The terms ‘warrior’ or ‘*karacuna*’ are frequently used by English-speaking Ugandans (including educated Karimojong), development workers, missionaries, and others. ‘Warrior’

vigilante groups and LDUs was the confusion over which governmental body had jurisdiction over them. Additionally, the program suffered from the routine corruption problems of Ugandan government structures; LDUs weren't paid on time while being used as a reserve force in the Army for other wars (Mkutu, 2007, 2008).

### *Karimojong split*

Meanwhile, a significant change was underway in Karimojong internal political organization starting in the 1970s when the alliance of the Karimojong territorial sections, Bokora, Pian, and Matheniko, began to fragment (Gray, 2000). Matheniko were the first to raid the other territorial sections; in this, they were greatly helped by two elements: AK-47 guns and the neighboring Turkana (Gray, 2009). As early as 1972, Matheniko are said to have entered into an alliance with Turkana herders (Gray, 2009). This event was significant because not only had the Matheniko allied with their erstwhile enemy, but they did so to mount raids on their own ethnolinguistic group (Stites, Akabwai, Mazurana, & Ateyo, 2007).

Matheniko ability to achieve dominance over Bokora and Pian sections was also in large part due to the location of Amin's abandoned armory. Upon Amin's fall, Matheniko were the first and largest group to acquire AK-47s. Thanks to their weapons and alliance with Turkana, Matheniko were able to amass large herds in the succeeding years (Gray, 2000). In turn, many Bokora and Pian were pushed out of pastoralism and forced to migrate to urban centers outside Karamoja and/or rely on food aid (Stites,

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refers to those individuals who were active raiders during the time of insecurity. In local parlance, 'warrior' is also used to signify those Karimojong who are not educated in Catholic schools or who have recent herding backgrounds and strong village ties. Although *Ngikaracuna* has been used in the literature to refer to these individuals, during my interviews about raiding, this word was never used by participants. Moreover, *Ngikaracuna* refers to uninitiated young men – 'those of the apron', and has no 'warrior' connotation in the Karimojong language (Knighton, 2005).

Mazurana, & Akabwai, 2007). Consequently, more Bokora and Pian individuals, than Matheniko, were educated and found their way into government positions in Karamoja.

These differences in trajectories stemming from intragroup conflict are visible even today: where Bokora and Pian individuals regularly engage in market activities and governmental jobs, Matheniko have continued to hold on to their pastoralist lifestyle with great conviction. Although they appear to have large numbers of livestock, Rupa, a primarily Matheniko sub-county, lags severely behind in access to education, health and other basic facilities. Matheniko are frequently referred to as ‘stubborn’ by development workers and government officials alike because of a perceived reluctance to capitulate to radical sociopolitical changes. Gray (2009) argues that it is the very ascendance of Bokora and Pian individuals to governance posts that strengthened Matheniko resistance to government policies of disarmament, conflict resolution, and ‘development’.

#### *Disarmament and its aftermath*

In the late 1990s, pressure was mounting on the NRM government from neighboring districts that were regularly raided by Karamojong. Besides deploying helicopter gunships to disperse raiders, the UPDF also armed militia groups, as they had during Obote’s reign, in districts such as Soroti and Kitgum so that they may defend themselves (Gray, 2000; Mkutu, 2008). The poorly supervised arming of militia groups resulted in more illicit weapons flowing into Karamojong hands. Finally, in 1999, in the wake of escalated conflicts with Teso and Acholi, the government decided to launch a voluntary disarmament program, which eventually turned forceful (Bevan, 2008; Mkutu, 2008). When the exhortation and voluntary disarmament campaign did not yield the number of expected weapons, in 2002, the army started using such tactics as shooting on

sight anyone with a gun, cordoning and searching villages, and arresting and grossly mistreating individuals (Human Rights Watch, 2007). The 2001-2002 disarmament also led to hostilities between the army and Karamojong, with several killed on both sides. Karamojong men were banned from wearing their blanket (*asuka*) in public for fear that they might be hiding a gun (Mkutu, 2008).

Ultimately, the 2001 campaign failed because UPDF soldiers were redirected to Northern Uganda to ward off fresh LRA threats, thus leaving Karamoja in a state of utter turmoil (Bevan, 2008; Human Rights Watch, 2007; Mkutu, 2008). Geographically disparate disarmament meant some groups were left with more weapons than others, thus shifting the balance of power in their favor. Paradoxically, this disarmament campaign led to an increase in weapons in the area when the groups with fewer weapons rearmed themselves from across the border (Human Rights Watch, 2007; Office of the Prime Minister, 2007).

After the failed exercise, several groups came together to conceive the Karamoja Integrated Disarmament Development Programme (KIDDP), a program that consolidates components from conflict resolution to providing alternative livelihoods in order to provide attractive incentives for disarming (Office of the Prime Minister, 2007). While ambitious in its aims, the Programme was hardly given a chance to launch when a new disarmament campaign began in 2006, once again with voluntary disarmament as the first strategy (Human Rights Watch, 2007). With only a handful of guns surrendered, the UPDF turned again to forceful methods using tanks and gunships. During this campaign, gross injustices namely beatings, torture, rapes, destruction of property, burning of homes, killing of animals, and the extra-judicial murder of civilians were reported

(Human Rights Watch, 2007; Stites, Akabwai, et al., 2007). Many pastoralists were left without homes or livestock, and were forced to flee 'into the bush'. Although Museveni's disarmament campaign was by no means the first (Obote and Amin had done the same), it was unprecedented in its scale of destruction and human rights abuses (Bevan, 2008; Human Rights Watch, 2007; Stites, Akabwai, et al., 2007).

In the aftermath of the second disarmament campaign, although road ambushes and raiding decreased, several other long-term problems appeared. UPDF set up the system of 'protected kraal' where animals of a particular area would be kept 'safe' from raids (Onyango, 2010; Stites & Akabwai, 2010; Stites, Akabwai, et al., 2007). Study participants mention that they were forced to keep their animals in the kraals under strict supervision and often in the vicinity of UPDF barracks. Herders were allowed to take their animals out to graze (usually after army personnel had checked the number of animals against a roster), but the management and mobility of animals was dictated by UPDF. Herders were only allowed to graze their animals for a short time and in locations determined by the army, apparently due to fear of raids from neighboring groups.

The way the protected kraals were maintained went against sensible, time-tested livestock management. Due to restrictions in mobility, a large number of animals were grazing in the same locations, which lead to overgrazing and associated environmental damage (Stites, Akabwai, et al., 2007). Each kraal also housed a high concentration of animals, making the spread of livestock diseases easy and devastating. Ironically, several participants claim to have lost more animals in the apparent 'care' of the UPDF than from intergroup raiding. Participants also lament the mysterious disappearance of their animals from these kraals, and openly blame the army for it.

The protected kraal system, besides decreasing the number of animals in the region, also upset animal management practices and livelihood roles. Women, who played a significant role in animal care, were not allowed into the protected kraals and were thus unable to water them and to collect milk for the household (Stites & Akabwai, 2010). Critically, whereas some members of a family would conventionally split their time between the homestead and the kraal – particularly young children, pregnant women, and elders who needed greater access to animal protein – this arrangement was no longer possible at the protected kraals where most people were not allowed to stay overnight.

Finally, the protected kraals further destabilized community dynamics in several key ways. Customarily, it was the elders of a kraal who decided when and where the animals should move. Men were traditionally tasked with taking care of animals and protecting their families. Young male shepherds bore the main responsibility of herding animals, and consulted their fathers, brothers, uncles and other older males on related issues. With the introduction of an army-directed kraal system, the elders lost their authority, young men could no longer consult relatives, and men experienced a drastic loss of control over their livestock. Coupled with the shift in household responsibility to women, the inability to make critical decisions has left several men feeling ‘reduced to women’ (Stites & Akabwai, 2010). Moreover, social exchange of animals for loans, gifts, or bridewealth contribution, central to pastoralist life, was severely constrained due to the amount of paperwork required to take an animal out of the kraals.

Protected kraals were allegedly disbanded in various phases, the last one occurring in 2012. Herders in most locations are once again free to move with their

animals to scattered water sources. Many households have also reverted to the homestead-kraal dual residence system, and women have resumed their part in animal care. However, several kraals in the Moroto area are still under army supervision. One participant who is a kraal ‘manager’ (not ‘leader’ in the traditional sense) still has to maintain a log of animals and their owners. Each addition or withdrawal from the herd is noted and the logs are periodically reviewed by the UPDF.

*Reputation problem*

Whereas the period of intense cattle raiding has definitely subsided, it has unfortunately not resulted in a major change of reputation for the Karimojong as a group. The prolonged raiding and insecurity gave rise to a common perception, still active in Uganda, of the ‘cowboy’ Karamojong (Gray, 2009). Up until recently, with the worst period between 1983 and 1990 (Quam, 1997), Karamojong raiders mounted brutal raids along the borders of the region, thus targeting other ethnic groups such as Sebei, Teso, Bugisu, Lango, and Acholi (Stites, Akabwai, et al., 2007). These groups had been disarmed in the late 1980s. Raiding on outside groups meant lesser intra-ethnic conflict among Karimojong groups, and only when cattle from the adjoining areas had been exhausted would intraethnic clashes intensify. Nonetheless, so brutal were the Karamojong skirmishes on neighboring groups that even today, the common refrain among Teso people (frequently quoted as being the worst hit of neighboring groups) living in Karamoja is that they were driven from their own pastoralist livelihoods into an entirely agricultural lifestyle because of the Karimojong<sup>16</sup>. Programs such as Teso-

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<sup>16</sup> Interview with Teso participants, long-term inhabitants of Moroto

Karamoja Peaceful Co-Existence Initiatives Programme are still trying to mend the deep wounds of yesteryears (Ziviler Friedensdienst, 2014).

*Karamoja and the Ugandan State*

We shall not wait for Karamoja to develop. – Milton Obote, 1963

From the very beginning, the relationship between the northern pastoralists and the Ugandan state has been repressive, punitive, and devastating for Karamojong, but beneficial to the state. The colonialists' governance policies were diametrically opposed to the central tenets and requirements of subsistence pastoralism (Gray, 2009). The inability and disinterest of the British to fully comprehend pastoralist behavior in relation to the vagaries of environment led to the formulation of such destructive policies as agricultural expansion, forceful cessation of intergroup raiding, and sedentarization (Barber, 1968). Besides impinging on conventional practices of livestock management, these policies would germinate and aggravate intergroup tensions between territorial sections and communities. The fluid pastoralist identity, inclusive by nature and able to subsume various ethnicities, would become physically tethered to an area as determined by the colonialist tribal map (Gray, 2009).

While the British maintained presence in the region for their own imperialist agenda, the successive, post-independence governments kept a safe distance from Karamoja insofar as their own political and economic agenda was accomplished. In fact, the role of Karamoja in the Ugandan political stage is marginal: the region had no role in the politics that ultimately led to independence in 1962, and played a forgettable part in the first general elections of 1959 (Mirzeler & Young, 2000). At the time of independence, many Karamojong allegedly told the Munster Commission, which was



appointed to propose constitutional arrangements, that “the district should remain under British administration ‘because Karamoja was judged not yet ready for Uhuru (independence)’” (Wozei, 1977, p. 218, as cited in Mirzeler & Young, 2000, p. 414). Even in the 1980s, Karamoja continued to play an insignificant role in Uganda. As pointed out by Gray (2009), “it is a telling commentary on [its] growing cultural, political, and territorial isolation that although the civil war in Uganda was in effect a north-south context, the Karimojong never were integrated into either side of the conflict” (p. 409).

The isolation of Karamojong has continued from their ‘first contact’ with the British rulers to the present-day NRM government. The Protectorate government created a ‘closed territory’ by restricting movement of people and livestock into and out of the district (Cisternino, 1979). Successive governments of Obote and Amin continued maintaining Karamoja as a separate entity from the rest of the country. They concerned themselves mainly with quelling ongoing tensions, disarming the people, and implementing disenfranchising policies. Amin went so far as to foist a borrowed moral code on the region by making it mandatory for Karamojong to appear clothed in public (Mirzeler & Young, 2000). The disdain for pastoralist ‘backwardness’ was further demonstrated when Amin physically crushed the traditional beads worn by women. Moral superiority reached its crescendo when scores of pastoralists were gunned down by Amin’s soldiers at Nawaikorot (in Bokora county) for refusing to wear clothes.

Cultural and moral superiority aside, Ugandan leaders’ interest in Karamoja is limited to control and economic exploitation. For instance, while Obote’s regime was quick to crush any potential Karamojong revolt, it was oblivious of the 1980 famine until

it was well under way (Alnwick, 1985). Yoweri Museveni's government, while leading a merciless disarmament campaign, provided few alternatives for pastoralists insofar as their security and basic needs were concerned. As recently as February 2015, the President announced the integration of Karamoja into Uganda's economy thanks to its mineral exports. Despite the booming mineral trade and its economic promise, the large tract of land to the northeast continues to be the proverbial thorn in the side of the Ugandan regime.

The memories of political instability remain fresh in people's minds. The cessation of political hostility has allowed individuals to resume transhumance, livestock to multiply, and unhindered movement of people. These positive changes are overshadowed by the economic precariousness with which herd owners are now left – plummeting livestock asset wealth in the aftermath of armed warfare jeopardized the basic livelihood in the region. It may be said that while the period of intergroup raiding proved devastating for lives and livelihoods, the ensuing period of peace brings with it new, seemingly unsurmountable challenges. Threats to human and livestock mortality come not from raids, modern weaponry or geographical isolation, but from climate change, fluctuating and unstructured markets, uncontrolled livestock disease, and lack of institutional support. How pastoralists deal with old risks in their new environment remains to be seen.

## Chapter 3

### Literature Review

#### *Introduction*

Among anthropologists studying small-scale societies, the study of risk involves observable variation in resources or other ecological or economic variables (Bollig, 2006; Cashdan, 1990; Halstead & O'Shea, 1989; Wiessner, 1977). These variables include amount of rainfall, market prices, and returns from hunting or harvest. Variability can be further conceptualized as actual variation in the availability of a particular material, such as food supply, or variation in the factors that determine or influence resources, such as the climate, microorganisms (e.g. rinderpest) or human decision-making. Anthropologists studying risk management have focused on such diverse subsistence populations as foragers, horticulturalists, and pastoralists (for review see Winterhalder, et al., 1999, pp. 326 – 331), and their focus in these studies has been on the description of people's behaviors in risky and uncertain situations.

Bollig (2006) classifies earlier anthropological studies under three approaches: formalistic, ethnographic, and interpretive. In the formalistic or actor-oriented approach, studies tend to take a 'rational actor' perspective, which does not devote adequate attention to either the historical context or the multitude of factors influencing behavior. The study of food sharing among foragers to understand cooperation, reciprocity, and reproductive success fall within this approach (Bahuchet, 1990; Cashdan, 1985; Gurven, 2004a; Gurven, Allen-Arave, Hill, & Hurtado, 2000; Hawkes, 1991; Hill, 2002). While these studies produced significant insight on forager economies, their theoretical contributions were generally not cross-culturally applicable (Baksh & Johnson, 1990). In

the ethnographic approach, which includes influential studies on pastoralist societies (such as the South Turkana Ecosystem Project), great attention was paid to descriptions of risk management while overlooking perceptions of risk and the use of ritual as a way of coping (Bollig, 2006, p. 5; see also Shipton, 1990). Finally, the interpretive approach refers primarily to Mary Douglas' studies that incorporated the perception of risk as a significant topic of discussion (Douglas, 1994). Bollig's (2006) own comparative study on Himba and Pokot is one attempt to address shortfalls in the anthropological study of risk management.

In this chapter, I present the major anthropological theories of risk management developed from the study of subsistence populations around the world. In section I, I begin by discussing the role of herd maximization in risk management among pastoralists; in so doing I address the common misperceptions in previous studies of pastoralism. Subsequently, I discuss studies of food sharing and gift exchange among foragers to highlight major theories including reciprocity and demand sharing. Finally, I discuss the centrality of the concept of need in exchange as a way to introduce the theory of need-based transfers.

In section II, I provide a review of the literature on social risk management strategies of African pastoralists. I focus on the extensive exchange networks that have historically allowed herders to manage risk, and the factors that influence them. I examine a few systems in detail such as stock friendships among Pokot, *lopae* relations among Turkana, *osotua* among Maasai, and *lil-metch* bonds among Dassanech. In so doing, I consider such factors as wealth, long-term versus short-term strategies, and social capital. I also reflect on the implications of the systems of risk management on

property rights, debts, and reciprocity. Finally, I briefly discuss theories from economic studies of risk management before outlining my research directions.

**Section I:** *Herd maximization as a risk buffering strategy*

There has been considerable debate in the literature over the relative impact of different risk management strategies employed by pastoralists. Herd maximization is one such strategy through which pastoralists self-insure (or *risk retention* à la Dorfman, 2007) – in having large herds, shocks to the asset base can be absorbed by the individual suffering the shock without involvement of other parties. Some of the pressures to maintain large herds include the supply of milk for both young animals and humans, and ensuring persistence of the pastoralist livelihood in the face of livestock-decimating droughts (Coughenour et al., 1985). Overstocking or storage on the hoof (Clutton-Brock, 2014) is a critical strategy that allows those with larger herds to reconstitute their herds and recover faster from a drought, in comparison to those with smaller herds that may be decimated (Browman, 1987; Hjort, 1981).

Herd accumulation has been a contentious subject for several decades from the development and anthropological perspective: pastoral nomadism is said to be trapped in a ruinous cycle of overstocking that results in overexploitation of available pasture, soil erosion, desertification, and, ultimately, famine (Brown, 1971; Doran, Low, & Kemp, 1979; Lamprey, 1983). Furthermore, theoretical studies also suggest that one household's livestock accumulation may have a negative impact on the productivity of animals of other households who use the common rangeland (McCarthy, 1999). One source of the 'irrationality' charge brought repeatedly against pastoralism is the idea of the "Tragedy of the Commons" (Hardin, 1968).

According to Hardin, the common property that pastoralists share, such as grazing land, would inevitably be overused because each individual would try to maximize his/her own benefits without regard for others. Mismanagement of common property was seen as the main reason behind the desertification and degradation of pastoral lands. Hardin's momentous paper came at a critical time: the beginning of the Great Sahelian Drought in which a 100,000 people and a third of a livestock are said to have perished (IRIN, 2010; McCabe, 1990b). Although it is now accepted that the recurring Sahelian droughts are best explained by changes in atmospheric circulation driven by the warming of southern hemisphere oceans (Brooks, 2004), the more popular scapegoat was the overgrazing of productive rangelands and the general ecological destructiveness of pastoralism, and Hardin's thesis offered an opportune explanation. In the wake of the ensuing food crisis, several environmental and development projects were launched, which aimed to encourage herders to sell their animals in order to reduce grazing pressure. In addition, Western models of land privatization and commercial livestock ranches were imposed in a bid to increase livestock productivity, and to thus find solutions to Africa's food crises (Fratkin, 1997; Fratkin & Mearns, 2003).

The point of contention for some of Hardin's critics is the difference between "common property" and "open access" with regard to pastoral rangelands. The "tragedy" is actually that of open access: overexploitation is the result of an *absence* of effectively enforced rules for the management of common property, not of the presence of such systems (Fratkin and Mearns 2003, p. 114). In the words of Peter (1987, p. 178), "It is an error to suppose that an individual calculus can explain the commons system – rather, one has to understand the socially and politically embedded commons to explain the

individual calculus". Customary or communal tenure systems in the African drylands have rules and restrictions of use, such as sanctions for abusers and other mechanisms to prevent mismanagement, that are more effective than private ownership (Behnke & Scoones, 1992; Fratkin, 1997). Far from being uniform, pastoralist communities have different land use patterns, from owning pastures to regulated movements based on cohabiting agriculturists, and free access systems (McCabe, 1990b). In fact, the actual land degradation that does occur is due to the uneven population distribution in pastoralist lands, which is further exacerbated by population concentration around town centers and bore holes (Little, 1994).

Finally, several studies have shown that the disequilibrium environment of pastoralism characterized by raiding, disease, and drought, in fact, prevents the excessive accumulation of herds to the point at which they might have a negative effect on the land (Ellis & Swift, 1988; Hellden, 1991; Homewood & Rogers, 1987; McCabe & Ellis, 1987; Sandford, 1983). This view is based on a paradigm shift in range management with the advent of the "nonequilibrium ecological theory" (Ellis & Swift, 1988; Westoby, Walker, & Noy-Meir, 1989), which states that the aridity, variability, unpredictability, and resilience of African drylands necessitates a communally-held system (Niamir-Fuller, 1996). According to Behnke (1992, p. 910), pastoralist tenure systems

Can be envisaged as a matrix in which rights to different resource categories are partitioned within a hierarchy of different ownership groups ranging from the individual producer up to the largest tribal groups are not territorially distinct but possess overlapping and potentially conflicting rights to different categories of resources in one area.

Nevertheless, the question of herd accumulation as risk management strategy remains. It has been argued that scholars in this area tend to conflate 'strategy' with 'goals,' and that herd accumulation is one of the several possible strategies through which

pastoralists aim to reduce or avert risk (Næss & Bårdsen, 2010). In their analysis of livestock loss after the 1984 drought among Ariaal pastoralists, Fratkin and Roth (1990) show that while poor pastoralists doubled in number, many wealthy herders remained wealthy post-drought. Considering both absolute and categorical (by species) losses, their results show that maximization is an efficient strategy, particularly in conditions of ecological stress. Similar results for the neighboring Rendille have been reported, with wealthier households losing more absolute number of animals but proportionally the same as midrange (termed: sufficient) and poor households (Roth, 1996). These and other studies show that herd maximization is a viable strategy when taking into account the positive correlation between pre and post drought herd sizes (Gebru & McPeak, 2004; Herren, 1991; McPeak & Little, 2005; Næss & Bårdsen, 2013).

*Exchange as risk management*

Whereas some scholars have focused on maximization or optimization (Borgerhoff Mulder & Sellen, 1994; Mace & Houston, 1989), others argue that the fundamental pastoral strategy is that of risk aversion, geared mainly towards ensuring a steady food supply rather than increase in sheer number of animals (McCabe, 1997; White, 1997). In the words of Galaty and Johnson (1980, pp. 20-21):

The essential pastoral strategy is probably neither maximization nor optimization but risk aversion, an attempt to decrease uncertainty by anticipation. Domestic security is increased through creating alliances across ecological zones, distributing livestock among friends, securing rights in dry season pastures, increasing herds in anticipation of future losses. Short-term tactics include punctuated movements to take advantage of new grass, depriving humans of milk to feed calves, or keeping animals within the home to increase security.

Rather than removing risks, pastoralists aim “to absorb risk through adaptive management” (White, 1997, p. 90). Consequently, pastoralist risk management strategies



have also been termed ‘risk minimization’ or ‘risk buffering’, since their goal is to minimize the impact of a future risk of disaster (Bollig, 2006; Bollig & Gobel, 1997).

Social exchange is one such risk buffering strategy that involves multiple individuals, and “functions in a fashion similar to storage, in that present abundance is converted, this time via social transactions, into future obligations in time of need” (Halstead & O’Shea, 1989, p. 4). This can be classified as *risk transfer*, or where risk is pooled among various parties with an understanding that “in times of hardship, a person’s losses can be absorbed by others in the population, if risk is well distributed” (Wiessner, 1982, p. 65; see also Aktipis, Cronk & de Aguiar, 2011; Cashdan, 1985; Dorfman, 2007; Bollig & Gobel, 1997).

The literature on social exchange as a risk pooling strategy is rich in ethnographic examples of such systems among hunting-gathering peoples. Studies carried out among the Khoisan-speakers, Hiwi, Ache, Aka, and Hadza, among others, indicate the critical role food sharing may play in mitigating future risk (Bahuchet, 1990; Cashdan, 1985; Gurven, Allen-Arave, et al., 2000; Gurven, Hill, & Jakugi, 2004; Kaplan & Hill, 1985; Marlowe, 2004; Wiessner, 1982; Woodburn, 1998). Exchanging surplus food today with the expectation of receiving food in the future, or “storing meat in the bellies of neighbors” (Hawkes, O’Connell, & Blurton Jones, 2001, p. 132), is said to be a motivation behind the extensive sharing witnessed among forager populations. The most commonly shared food item is big game, characterized by high acquisition variance, and gathered foods that come in small packages, such as honey or fruits, are typically less widely shared (Gurven, Allen-Arave, et al., 2000; Hames, 1990; Kaplan & Gurven, 2005).

Food sharing is an extremely well-studied topic and many theories have been used to explain its regular occurrence outside the family, i.e. with non-related individuals. These theories include mutualism, nepotism, costly signaling, tolerated scrounging, group selection, cooperative acquisition, and reciprocity (Alvard, 2001; Blurton Jones, 1987; Gurven, 2004b; Hawkes, 1991; Kaplan & Gurven, 2005; E. A. Smith, Bird, & Bird, 2003; Winterhalder, 1986). Reciprocity, in particular, has featured prominently not only in explaining food sharing, but also in the broader study of the evolution of human cooperation (Cronk & Leech, 2013). The study of reciprocity, “one of the human rocks on which societies are built” (Mauss, 1924), and social exchange have been a major preoccupation in the social sciences since the early 1900s (e.g. Emerson, 1976; Levi-Strauss, 1969; Malinowski, 1922 etc.). The basic premise of reciprocity in food sharing or other types of exchange is that the help given from one party to another today will be reciprocated sometime in the future. This is also known as a tit-for-tat strategy (Axelrod, 1984) and is contingent on repeated interactions between the two parties. Implicit in the tit-for-tat strategy is the notion of ‘account keeping’ whereby the receiving party is held to an obligation to reciprocate sometime in the future, often in equal terms (Silk, 2003). Reciprocity also includes ‘not-in-kind’ exchange or trade where one commodity is exchanged for another, and ‘in kind’ or delayed reciprocity where the same item is returned in the future (Kaplan & Hill, 1985).

*Reciprocal altruism*, the term for reciprocity in the behavioral ecology literature, is commonly invoked to explain central place food sharing among foragers, and, in general, the evolution of cooperation between non-kin (e.g. Jaeggi & Gurven, 2013). Briefly, reciprocal altruism is the act of bearing a cost by one individual to benefit

another individual, in the hope of the favour being returned in the future (Trivers, 1971). The primary presuppositions of reciprocal altruism are that the act is costly to the donor while beneficial to the recipient, donor and recipient reverse roles over time through sustained iterated interactions, the benefit to the recipient is more than the cost to the donor, and, except for the initial act, donation is contingent on receipt.

By definition, altruism is not supposed to be reciprocal and the term ‘reciprocal altruism’ is an oxymoron: “If an altruistic act is reciprocated, then it is not actually altruistic because the actor receives direct fitness benefits. If it remains altruistic because it is never reciprocated, then it is not reciprocal, and selection would act against it” (Cronk & Leech, 2013, p.77). Although there is some evidence of reciprocity among foragers where particular transfers such as meat and fish were guided by past instances of transfer (Gurven, Hill, Kaplan, Hurtado, & Lyles, 2000), the overall support for reciprocal altruism in hunter-gatherer food sharing is generally weak (Hawkes, O’Connell, & Blurton Jones, 2001).

Anthropologist Marshall Sahlins has also identified three types of reciprocity (Sahlins, 1965). *Generalized reciprocity* refers to “transactions that are putatively altruistic” and includes gifts, sharing, hospitality and generosity. Cronk and Leech (2013) contend that by its very definition, generalized reciprocity is not reciprocity at all and is better viewed as sharing or altruism. *Negative reciprocity* is the “attempt to get something for nothing with impunity”, and includes theft, gambling and barter. Similar to generalized reciprocity, negative reciprocity has little or nothing to do with reciprocity. Finally, *balanced reciprocity* comes closest to the popular understanding of reciprocity as back-and-forth transfers in social interactions. Critical in this classification is that the

reciprocal transfer should occur in a short time frame, and items should be of roughly equal valuation.

Several mechanisms of non-human primate reciprocity also exist in the literature, namely calculated reciprocity, attitudinal reciprocity, and symmetry-based reciprocity (Brosnan & de Waal, 2002; de Waal, 2000; de Waal & Luttrell, 1988). Calculated reciprocity, the most cognitively demanding of them, involves intentional exchange between parties, and requires mental scorekeeping of favors received and returned (Amici, Aureli, Mundry, Amaro, Barroso, Ferretti, & Call, 2014). Calculated reciprocity is, thus, related to account-keeping tit for tat reciprocity. In contrast, attitudinal reciprocity (or emotionally based reciprocity) is the mechanism where an individual's behavior mirrors the partner's attitude such that if the giver acts positively toward the receiver, the receiver would be likely to do the same. According to Brosnan and de Waal (2002), attitudinal reciprocity generally applies to short term interactions (although see Schino & Aureli, 2009). The least cognitively demanding and most likely mechanism of reciprocity in many non-human animals, symmetry-based reciprocity relates to the preferential association between individuals based on symmetrical aspects of relationships, such as kinship, rank distance, age, and mutual association. These symmetries make both parties in the reciprocity dyad act similarly toward each other (de Waal & Luttrell, 1988).

A related explanation for food sharing is the 'risk reduction reciprocity' (RRR) hypothesis, a misnomer since the theory is concerned with redistribution more than reciprocity (Bliege Bird & Bird, 1997; Bliege Bird, Bird, Smith, & Kushnick, 2002). According to RRR, individual foragers pool resources, particularly those with high

variance, and ‘draw from a common pot’ in a manner akin to insurance premiums where, in return for contributions, individuals are entitled to a portion of the food during illness or harvest failure. The greatest advantage to an individual participating in an RRR system is that by contributing or sharing their resources to the common pool during periods of plenty, they are guaranteed to benefit during a time of shortfall. The model, however, requires controls to exclude free riders who only take from the common pot and do not contribute. Bliege Bird and colleagues find RRR to have weak explanatory power in their study of food sharing among Meriam forager-horticulturalists. Specifically, their data show no discrimination against free riders, thus refuting the fundamental predictions of the reciprocity paradigm.

Food sharing appears instead to follow a risk pooling logic because unlike reciprocity, where the relationship mirrors a scenario of debt (I give you today, therefore you must give me sometime in the future), risk pooling is based on forming partnerships in which the donor recognizes the unpredictability of the food resource or the environment. Describing a risk reducing network characterized by generalized reciprocity, Cashdan (1985, p. 456) writes:

The simplest form of reciprocity is a norm of sharing and gifting, and it acts like insurance in the way that it reduces variance in income. Because the risk is shared among a number of individuals, each is protected from the possibility of a catastrophic loss. The ‘payment’ for this protection is the obligation to help when someone else is in need. [...] for generalized reciprocity to act as a form of risk reduction, the risk facing the different individuals must be independent. Besides the food ‘common pool’ which involves the collective contribution of the community (or a part of it) and is generally limited in geographical area, Khoisan-speaking hunter-gatherers distribute risk over a large area and with many independent units (Wiessner, 1982). The *hxaro* gift giving system in which non-food items such as

beads, arrows, blankets and other gifts are given to partners with the intention of using the item or property to initiate and perpetuate the relationship (Woodburn, 1998). Unlike food sharing arrangements whose membership and durations may vary, *hxaro* gift exchange creates binding ties between persons who are mostly kin, and never affinal relations albeit with a few exceptions. *Hxaro* partners are chosen, foremost, for their personal attributes over other considerations (although location is a necessary concern because partners can provide residence in a time of ecological shock). Once bonded, *hxaro* partners are said to be responsible for each other and can approach one another in a time of need. *Hxaro* also does not follow the reciprocity paradigm in that a gift is not immediately returned and does not have to be equal in quantity; “the aim is to store the debt until the situation of have and have not is reversed” (Wiessner, 1982, p. 67). During a calamity, every family would have a widespread network of *hxaro* partners upon whom they can call for help.

#### *The concept of need*

The point to note from the preceding discussion is that a *hxaro* relationship is predicated on the concept of *need*. The decision to gift (i.e. transfer) or not depends largely on the ability of the giver to give while considering the need of the recipient. Whereas regular gifts might be given to strengthen the relationship, the recipient’s need is the pivot on which the exchange system persists. Hao and colleagues (2015) have coined the term *need-based transfers* (hereafter: NBT) to refer to these exchanges (see also Aktipis, et al., 2011). The theory of NBT shares similarities with theories of *tolerated theft* (Blurton Jones, 1987) and *demand sharing* (Peterson, 1993) that have been used to explain forager food exchange. The similarity in the three theories is the existence of a

resource-rich giver and needy receiver. Tolerated theft or scrounging describes a situation in which certain resources (such as large game meat) are shared by the ‘haves’ with the ‘have nots’ in order to avoid conflict. By virtue of having little or none, the scroungers are more willing to make risky choices such as fighting. Since the resource has diminishing value, it is in the interest of the possessor to share with the scrounger.

On the other hand, ‘demand sharing’ entails (as the term implies) the transfer of goods on the demand of the receiver (Peterson, 1993). Central to demand sharing are the concepts of ‘donor obligation’ and ‘recipient entitlement’ (Woodburn, 1998, p. 49); goods are shared not out of generosity (as understood by ‘Westerners’) on the part of the giver but rather on the recipient’s request. In taking the muddy topics of ‘true altruism’ and unsolicited giving out of the picture, demand sharing is a powerful theory in explaining non-kin exchange. Peterson (1993) elaborates on the theory with the following scenario: in a small, kin-based community, an individual will have had interactions with nearly every member and accumulated some form of social debt. Instead of tallying and ranking whom he/she owes the biggest or the oldest debt during surplus, the distribution of goods follows a demand sharing logic – simply to give those who demand, bearing in the demander’s relative need, the individual’s holding, and the probability of obtaining food in the future (Ziker, 2007).

Demand sharing and NBT share a closer relationship in their theoretical bent than tolerated theft. Whereas tolerated theft says little to nothing about the motivation of the giver, NBT and demand sharing stress the role of the need and the giver’s ability and willingness to meet the requester’s need. Whether or not this can be described as generosity is a matter of further philosophical discussion and as such is not in focus of

this dissertation. Demand sharing and tolerated theft have mainly been used in the context of food sharing among foragers. NBT, which draws its insight from pastoralist exchange systems, expands the scope of studying transfers by including a risk component.

Individuals transfer goods whether on demand or as gifts in order to create, maintain, and strengthen relationships, which in turn provide the givers with future avenues of help (Hao, Armbruster, Cronk, & Aktipis, 2015).

The motivation for engaging in a system of NBT is the general understanding among individuals living in stochastic environments that ill luck may befall anyone at any time. There is, naturally, a tinge of self-preservation built into it: I give you so that you are obligated to give me in the future. Similar to demand sharing NBT also has, at first glance, an element of negativity wherein the act of giving is not ‘altruistic’ and is guided by the logic of risk reduction. Peterson (1993, p. 870) argues that “if moral obligation and commitment to others is construed not in terms of giving freely, but in terms of responding positively to their demands, the morality of demand sharing is as positive as that of generosity”. Likewise, rather than being myopically selfish in their function, NBT are also motivated by feelings of love and respect that the parties to the exchange have for one another. NBT, therefore, provides a well-suited lens through which to understand transfers as a way of pooling risk with other individuals.

### *Summary*

Risk is a pervasive feature of life for all organisms on earth. Humans have devised several innovative ways to deal with such risks as climatic shocks, political instability, and idiosyncratic events such as illness and fires. Humans engaged in pastoral systems, considered the epitome of risk management, use mobility, herd multiplication,



diversification (of herds and livelihoods), storage, and exchange relations among other strategies to reduce the risk of destitution. Several theories have been proposed to explain the formation of exchange relationships among unrelated humans living in subsistence societies. Among these, the overlapping theories of demand sharing and need based transfers appear to offer a suitable means to understand risk mitigating exchange. When a person is in need, he/she may approach any of the individuals with whom he/she has a prior relationship, and the fulfillment of the need would be contingent on the giver's circumstance.

## Section II: *Stock associations*

The pastoral animal is a vehicle in a dual sense: not only does it transport its owner's effects, it carries around his social relations as well. – Ingold, 1986, p.168

One of the ways in which East African pastoralists use social exchange as a risk pooling strategy is through the formation of 'stock associations' or 'bond friendships'<sup>17</sup> (P.H. Gulliver, 1970; Sobania, 1991). The most frequently studied and materially crucial item of exchange is livestock; indeed, it is how the term "stock associate" derives its essence. It is critical to note, however, that food sharing and other immaterial aspects of stock associations are equally important in maintaining these relationships. A great deal of information on stock associations among African pastoralists comes from classic ethnographies as well as recent studies. Scholars have comprehensively examined such relations as *lopae* among Turkana, Jie and Karimojong (also called *ekone* or 'friend' relations) (N. Dyson-Hudson, 1966; P.H. Gulliver, 1970; B. R. Johnson, 1998; Renfrew, 1990; Wienpahl, 1984), stock friendships among Pokot (*tilyai*) (Bollig, 1998, 2006; Schneider, 1953), *engelata* and *osotua* among Maasai and Samburu (Cronk, 2007; Potkanski, 1999; Spencer, 1973), and *lil-metch* bonds among Dassanech (Almagor, 1978). Descriptions of livestock exchange systems also exist for Gabra (Torry, 1973), Barabig (Lane, 1996), and West African Fulbe herders (Moritz, 2013; van Dijk, 1994; White, 1990).

Among East African pastoralist communities, the term 'stock associates' refers to the persons who typically share livestock with each other. They comprise a special network of persons connected to an individual herder through kinship, marriage, or

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<sup>17</sup> The terms "stock association", "stock friendship", and "bond friendship" are used interchangeably. Where relevant, the vernacular for these terms is written in italics.

friendship. In describing the institution among Jie and Turkana herders, Gulliver (1970, p. 202) writes the following:

A man's stock-associates are specific to him alone; they are a category of people related in certain ways to him, and in no manner do they form a corporate group. By the inclusion of affines and bond-friends, not even full-brothers have the same actual category of stock associates; or, to be more precise, their categories differ in quality.

In general, stock associations were initiated with individuals based on a combination of their economic, social or personal qualities. These individuals were either related to the herder through varying degrees of kinship, marriage, or were entirely unrelated. Between unrelated persons or those linked by marriage, the relationship was usually established with gifts of livestock. For instance, speaking of Pokot stock friendships, Schneider (1953, p. 255, cited in Bollig, 2006) writes: “a true best-friend relationship is apparently not sealed unless one presents an ox or cow to the other without immediate repayment. This indicates a trust in the other which he reciprocates when the need arises...”.

Similarly, describing such friendships among peoples of the Eastern Lake Turkana (e.g. Boran, Dassanetch), Sobania (1991, p. 130) emphasizes that upon reaching the agreement to be friends, the person who is visiting the other “will not go back empty-handed from (the latter’s) settlement”. Spencer (2004) provides similar evidence for Samburu, but notes that the first gift is normally requested. Thus, in certain communities a material gift was imperative to formally seal the friendship between two individuals. In contrast, among Gogo agropastoralists, friendship contracts were established in the presence of witnesses, who were also required for the termination process of the friendship (Ribgy, 1962, cited in Schlee, 2012). It is important to bear in mind is that although an animal or

other item was customarily used to found this relationship, it was not imperative that there be a dyadic exchange at the moment of friendship formation.

Stock friends provided regular support to each other in matters ranging from information exchange to counseling, but their material contributions were felt most acutely during times when significant numbers of livestock were needed. The accumulation of bridewealth at the time of marriage, payment for compensation following a dispute, and ceremonial slaughters were events that necessitated the support of stock friends because an individual will probably not have the requisite number of animals. Moreover, an individual's stock friends had their own personal network of friends and this transitivity, particularly for 'strong ties'<sup>18</sup> (Granovetter, 1973), allowed the individual to call on a wider network for help. Lastly, by virtue of having stock relationships, an individual enjoyed the privilege to approach any of the associates for an animal that he desired for any purpose, unless ritual commands the request only be made to specific family members.

While bearing some similarities, stock friendship institutions differ in their content and rules among different pastoralist communities. First, although the individuals with whom stock relationships were established possessed certain personal qualities that made them attractive, economic standing or material wealth was also important. According to Gulliver (1970), when questioned about the importance of stock associates, Jie and Turkana herders readily admitted that "they (stock associates) are the people who help [me] and give [me] cattle at certain times" (p. 199). Further, Gulliver's participants claim "a man does not wish to ally himself to someone considerably poorer than he is,

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<sup>18</sup> Strong and weak ties are labeled according to the strength of the relationship, where 'strong ties' refers to the link between friends, and 'weak ties' to link between acquaintances.

and from whom, therefore, he may find difficulty obtaining his due return and a fruitful relationship in general. A wealthy man never finds it difficult to make new bond-friends, but a poor man is usually acceptable only to similarly poor men" (p. 210).

By contrast, stock friendships among the Dassanech of Southwestern Ethiopia were forged at various stages of life besides adulthood, such as in childhood or teenage when wealth is not a critical consideration. These bonds known as *lil-metch* (meaning: relations) were formed at particular times in a man's life, and the degree of social and economic support varied accordingly (Almagor 1978). Almagor describes *lil-metch* bonds in an ascending order of importance, each formed with great care and with simpler gift exchanges in boyhood to more ceremonial exchanges in adult relationships. The "bond of lips" (*lil-metch afo*) formed between teenage boys entailed few obligations towards partners. The "bond of holding" (*lil-metch kerno*) and the "bond of name-giving" (*lil-metch meto*) by contrast had more comprehensive requirements for social and economic duties, with the latter bond mirroring obligations of kinship. Although the emotional component of these bonds might appear similar, *lil-metch* were institutionalized partnerships that were sometimes ceremonially sealed, different from *bele*, the general term for friendships and partnerships. In addition, *lil-metch* bonds required constant reinforcement of ties, could be carried over generations, and had critical impact on a Dassanech herder's success by allowing him "social credit" (Almagor 1978, p. 131), which could be manipulated for personal economic and social interest.

Like *lil-metch* bonds, *lopae* relations of Turkana and Jie carried great emotional and moral responsibilities toward exchange partners. Gulliver distinguishes two classes

of stock associates: 1) those with whom the relationship is long, can be passed on to descendants, and involves cattle (and other big stock such as camel); and 2) those with whom the relationship is less serious and involves small stock. According to Gulliver, stock friendships were in essence property relationships that included stipulations vis-à-vis reciprocity of gifts, obligation to help during the time of need, and the right to seek stock from bond friends. Moreover, Gulliver (1970, p. 18) states that among both Jie and Turkana:

[...] this is a critical index of social relations, for in his stock a man not only finds that material content of life but also the supreme means whereby to express and maintain his social interests and development. [...] In native conceptions, a man who is closely related is ipso facto one who gives and is given animals; and this shows not only mutual affection and confidence but also it makes for genuine co-operation in each other's life.

Gulliver's study sets up a noteworthy comparison between two communities that were historically and culturally related (Lamphear, 1976), but differed in their norms of exchange. For instance, whereas in Jie stock friendships cooperation was a more regular affair, with frequent contact between stock friends, it was not the case among Turkana. These differences might stem from ecological conditions: the semi-permanent or temporary settlement pattern of the Turkana (at the time of Gulliver's study) may have precluded stock friends from exchanging gifts regularly. Stock relation once formed might later become dormant without losing its value; it could be successfully rekindled during a time of need.

A system of risk pooling that differs from Turkana *lopae* and Karimojong *ekone* is the *osotua* (“umbilical cord”) of Maasai and Samburu<sup>19</sup>. Rather than active gifting of livestock to establish a relationship, *osotua* relationships begin with a request for a gift or favor when the requester is actually in need (Cronk, 2007; Hao, et al., 2015). *Osotua* partners are neither obliged to return favors or reciprocate equally nor are they held in debt by the gift giver. Not only are partners not required to repeatedly reinforce their ties, but they are also free from maintaining perfect reciprocity in goods exchanged. In other words, the flow of goods might be unidirectional for the most part.

Unlike *osotua* that was free of debt tracking, Pokot stock friendships involved meticulous account keeping vis-à-vis how much stock was given and received (Schneider 1953, as cited in Bollig 2006)<sup>20</sup>. Stock friends were carefully selected during celebrations and rituals based on social and economic interests, and friendships were considered truly sealed only when the gift of an ox or cow to an individual is not immediately reciprocated. This indicated the trustworthiness of the recipient - that he will reciprocate during a dire time. These relationships were also strategic in that they were formed with individuals who lived in other communities so as to spread one’s network geographically (Bollig 2006). This strategy was vital for recouping losses from idiosyncratic shocks such as fire or raiding (Lybbert, Barrett, Desta, & Coppock, 2000).

Besides having economic and social importance, stock friendships were imbued with emotional content. Stock association was a form of fictive kinship where a herder’s

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<sup>19</sup> Besides *osotua*, the other system of mutual assistance among the Maasai is termed *engelata*, a clan based system which also includes one to one transfer (Potkanski, 1999).

<sup>20</sup> Turkana also remember who gave what to whom, despite not keeping equal accounts (de Vries et al., 2006)

stock friends become a reliable source of “affection, sympathy, assistance and confidence” (Gulliver, 1970, p. 196). Maasai participants stated that using the verb “to pay” (*alak*) was unbecoming when speaking of *osotua* gifts because of the respect and responsibility these relationships entail (Cronk 2007). Relationships were said to be *keiroshi* or “heavy”, thus illustrating the discord between debt and *osotua*. Even though *osotua* partners were under some obligation to help, they are not “in debt” in the sense of owing someone. Among Fulbe pastoralists, love (*enDam*), trust (*amaana*), and affection were essential for the formation of support networks, so much so that herders did not engage in transfers with those that they did not love or trust (Moritz 2013). Being disliked had a negative impact on the likelihood of receiving livestock. Pokot stock friendships were likewise structured by complex concepts such as *tilyontön* (a derivative of *tilyai* – the circle of relatives and friends that an individual has exchange relations with), which conveyed the strong affection, solidarity, and emotion that a herder feels towards his exchange partners (Bollig 2006). Herders who did not have exchange partners experienced *choykonot* or loneliness, a widely feared phenomenon. Further, sickness among men was said to result from the bad will (*ghoityo*) and envy (*ngatkong*) of those to whom they had refused livestock gifts.

Not all livestock transactions carried the same emotional burden. Among Turkana, two distinct types of transactions - *akilokony* and *akilip* – can be distinguished based on the mutual bond between the individuals who conduct them (Broch-Due, 1999; de Vries et al., 2006; B. R. Johnson, 1990). *Akilokony* (barter), which is done between strangers, is a type of trade through which different species of livestock can be exchanged for herd diversification. *Akilip* (“to pray” and “to beg”) is another form of acquisition in



which animals are requested or begged from other individuals. Herders have the right to beg for animals from their stock associates (Gulliver 1970), as begging is culturally acceptable and reciprocal (Johnson 1998). The important difference between these two forms of livestock acquisition is the presence of a strong bond in *akilip* transactions, and the absence of one in *akilokony*.

Finally, a common thread uniting the different kinds of stock friendship is the feeling of mutual indebtedness or obligation. This is particularly true of friends who are not agnatic kin and thus may not have overlapping property rights on the family herd. For instance, *akilip* transactions among Turkana and Karimojong herders create indebtedness between the giver and receiver, and ensures the probability of future exchanges (Kaplan & Hill, 1985). Here, indebtedness does not imply that stock friends have a relationship of debtor-creditor. Debts are, instead, a critical means to sustain the relationship and by not ‘repaying’ a debt, stock friends assure the perpetuity of their bond, which may pass on their offspring and the debt might travel several generations before it is resolved<sup>21</sup>. Debts between stock friends are, thus, a symbol of their trust in one another (Bollig, 1998).

Viewed differently, a stock friendship provided one way for a herder to have a network of individuals unique to him and on whom, on the basis of their ongoing relationship, he could depend. In disequilibrium environments characterized by climatic fluctuations, this was a necessity during times of distress and of scarcity. In continuously giving and receiving animals from a range of stock associates (friends, full brothers, half-brothers, affinal relatives and so on), a herder not only gradually assembled his herd (de Vries et al., 2006) but also built his social capital, which in turn would help reconstitute

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<sup>21</sup> They may also, however, break after a certain time because the generation that passed the friendship on died a long time ago (Almagor, 1978: 125).

herd after a drastic loss (Little, McPeak, Barrett, & Kristjanson, 2008). Stock friendships were, therefore, a “social method of pooling risk through storage of obligations” (Wiessner, 1982, p. 65). Stock friends were entitled to call on one another for help, whether or not the request would necessarily be met. The fulfillment of a request was dependent on the ability of the giver. Quantitative reciprocity between stock friends is rarely, if ever, met; “but in the attitudes expressed and the general feeling of friendliness and co-operation the notion of true reciprocity remained” (Gulliver, 1970, p. 221).

Thus, the fulcrum of these relationships is the concept of ‘need’: when one is in need, he approaches his stock friends who may or may not be able to help depending on their economic condition at the time of request. In the event of an idiosyncratic shock, local friends with the necessary means might be able to help. Friends living farther away are approached during a covariate shock. In Bollig’s study (2006, p. 287), Pokot herders claimed to have friends scattered in ‘6 to 10’ places, and only rarely did stock friends come from the same area. Turkana, Jie and Karimojong herders not only regularly keep animals in their stock associates’ kraals in order minimize the risk of loss due to disease or raids (Gulliver, 1970; own data), they also maintain friendships in far-flung places.

Inability to help is not the reason behind the dissolution of the friendship. For instance, Spencer (2004) notes that the relationship with a stock friend deteriorated because he was being ‘mean’ (or, not generous). *Osotua* relationships could, theoretically, come to an end because of a lie told either by the requester to get an animal or a lie by the person responding to a request (Cronk, 2007). Friendships also fractured as a result of other, non-emotional factors. The breakability of Dassanech bonds, for instance, was conditional on the stage of life in which the bond was made. Bonds

between age-equals between the 12 and 40 years (e.g. bond of gift *lil-metch shisho*) were more likely to break because of the norms associated with these bonds, as well as the changing ecological and residential patterns characteristic of this age group. In contrast, despite having vast geographical movements, the majority of Turkana interviewed by Renfrew (1990) tended to not lose other *lopae*. Finally, friendships may also ‘atrophy’ over time or be broken off by either party (Gulliver, 1970).

#### *Other avenues of exchange*

Besides stock associations, bridewealth accumulation and distribution were other major mechanisms for building herds<sup>22</sup>. While bridewealth payments vary greatly among East African pastoralists (Schlee, 2012), it is perhaps the most important way to acquire large numbers of livestock in a single instance. Literally “stock of marriage” (de Vries, et al., 2006), bridewealth payments have acute significance for parental rights: among Karimojong for example, unless livestock is transferred to the bride’s father, the wife and her children continue to belong to her paternal clan, and not to the clan of their biological father (Novelli, 1999; see also Broch-Due 1999 for Turkana). Besides inherited livestock, stock friends are major sources for gathering bridewealth payments among several pastoral communities. However, this is not universally true: for example, among Turkana, bridewealth for the first marriage is acquired as inheritance after the death of the groom’s father. It is for later marriages that stock friends are approached (Gulliver 1970). Meanwhile, Pokot bridewealth payments come from a single household and outside contributions were rare (Bollig 2006). Similarly, incoming bridewealth payments were distributed among both stock friends and kin in Turkana, Jie and Karimojong

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<sup>22</sup> Other major institutions of livestock exchange include inheritance transfers, allotment of livestock camps, livestock loans and gifts (Bollig 2006)

communities, whereas among Pokot, bridewealth exchange and distribution are used to create and strengthen mainly kinship ties.

Finally, patron-client relationships and non-institutional systems are other types of social risk management strategies, which do not have clearly defined rules and are limited to residential groups, and, thus, are not seen as cultural concepts (Moritz et al., 2011). Unlike patron-client and exchange relationships that may allow destitute pastoralists to rebuild herds and persist (at least temporarily) in the pastoralist economy, non-institutional systems do not afford such support. While patron-client relationships are characteristic of Near Eastern pastoralists and exchange networks of East African groups (reviewed in Moritz, et al. 2011), there is tremendous variation within these geographic categories. For example, patron-client relationships have been documented for Orma (Ensminger, 1992) and Maasai (Hodgson, 1999a), and exchange networks for Near Eastern pastoralists such as Basseri and Yoruk (Bates & Lees, 1977). Even among ‘characteristically’ patron-client (or with herding contracts) Near Eastern groups, subgroups emerge based on level of diversification and political autonomy. This great variation in social strategies of risk minimization can be potentially explained as a result of variance in five factors: risk exposure, livelihood diversification, economic differentiation, market integration, and political autonomy. With data from several pastoralist groups from around the world, Moritz and colleagues used qualitative comparative analysis to show that the system of risk management that emerges (e.g. more heavy reliance on egalitarian exchange vs. a hierarchical patron-client setup) could be classified according to particular cultural-ecological areas – or, the shared environmental and historical trends that give rise to peculiar risk management arrangements.

*Overstating the role of livestock transfers*

The proposition that the transfer of livestock between individuals (or households) has a palpable effect on mitigating future risk has come under speculation recently. One of the main arguments put forth by Moritz (2013) against the repeated reliance on livestock transfers as a social support mechanism is that the measurement of transfers is convenient rather than representative. Indeed, food transfer occurs more frequently among herders (Johnson, 1990), in addition to the other “intangibles of friendship” (Moritz, 2013, p. 207), which are non-materialistic commodities involved in exchange systems, such as trust, affection, and social visits that strengthen friendships. However, livestock transfers are a handy, indeed countable, means to ascertain gift giving and exchange behavior, and it is claimed that their importance in risk reduction has been exaggerated. While not entirely dismissing the effectiveness of livestock transfers in averting future risk, Moritz maintains that although transfers reify social relationships, they are not sufficient on their own in establishing networks of support.

In his comparative study of livestock transfers among FulBe communities, Moritz (2013) found that livestock transfers, even herding contracts that give usufruct rights, were useful only in the short-term and did not have much effect on herd viability in the long term. This finding echoed those from an agent-base modeling study based on the Maasai *osotua* exchange rules, where it was shown that the median herd duration is 18 years (Aktipis et al., 2011). Moritz contends that these results demonstrate the insufficiency of livestock transfers in risk management, that transfers are not adequate enough to overcome losses, and that while wealthier pastoralists help the poor, they are also concerned with their own herd production.

Inter-household livestock transfer data from econometric studies appear to both support and contradict these claims. Using longitudinal data from herders in Northern Kenya, McPeak (2006) shows that whereas the rationale behind livestock transfers is indeed “precautionary savings” or *ex ante*, the actual transfers do not play a significant role immediately after a shock, and may instead play a role in long-term herd building (the opposite of Moritz’s interpretation). Transfers generally take a long time to materialize and hence may not provide a safety blanket against asset losses in the short term. Furthermore, although actual transfers are conditioned on an ongoing previous relationship, they are quantitatively small and are, thus, not an *ex post* coping mechanism (see also Lybbert, Barrett, Desta, & Layne Coppock, 2004).

Studies have also shown that livestock transfers between households tend to exclude the poorest households. Research among Borana pastoralists of Ethiopia showed that households falling in the center of the wealth distribution were much more likely to receive livestock gifts and loans as those in the richest and poorest quartiles (Desta, 1999 as cited in Huysentruyt, et al., 2009). A different set of data from Borana show that when households reach levels of ‘destitution’ (as opposed to ‘regular poverty’), they tend to be excluded from networks of transfers, which makes their recovery extremely difficult if not impossible (Santos & Barrett, 2007). ‘Social invisibility’ is a crucial factor in having access to insurance networks, according to these authors (see also Lybbert, et al., 2004; ethnographic evidence on poverty and moral economy discussed in the Conclusion). Based on these findings, the authors suggest that rather than calling inter-household livestock transfers a type of informal mutual insurance, they are better viewed as safety nets that prevent households from falling below the critical asset threshold.

Taken together, these studies caution against overemphasizing the role of livestock transfers in risk mitigation in pastoralist communities. While they may serve an ex ante role by giving herders the opportunity to call on certain individuals based on their kin relationship or friendship contract, livestock transfers do not seem to conform to expectations of providing insurance. On the contrary, de Vries and colleagues (2006) contend that in order to fully understand the role of social networks, one needs to account for the timing of shocks, the characteristics of livestock species, and the individual acquisition portfolios of herders vis-à-vis their wealth status. Their study shows, among other things, how different droughts influenced the choice of species acquired (e.g. in the 1979-81 drought, cattle and small stock were preferred, whereas camels were favored post the 1979-81 drought and during the 1984 drought), as well as the strategic decisions individuals made for rebuilding their herd. Therefore, a holistic study of livestock transfers would take into account factors highlighted by de Vries et al. (2006) alongside the sentimental and emotional values of transfers that make individuals trust and support each other (Moritz, 2013).

#### *Wealth and symbolic capital*

Although gifting or giving livestock might appear to be a faulty strategy in the short-term, livestock transfers are thought to be an efficient strategy in the long-term since the successful management of herds also requires 'relational wealth' (Borgerhoff Mulder et al., 2010). Forgoing immediate consumption by gifting stock was a way to build new relationships, solidify existing ones, and gain reputation and allies for the future. For example, during communal feasts, richer households in Pokot provided meat for poorer households even though they were not repaid immediately (Bollig 2006). Even

though they could ensure household food security through the sale of small stock, the gesture of providing for poorer households helped in building “symbolic capital” (p. 186; see also Bourdieu, 1986).

Actual asset wealth, on the other hand, also plays a significant role in accessing and activating networks of mutual aid. First and foremost, one’s own asset threshold is a significant mediator in decisions concerning the use of livestock as a way to establish networks of mutual insurance. For rich households, associating oneself in transfer relationships with poorer households stood in sharp contrast to their own goal of increasing herds (Moritz, 2013). On the other hand, the poorest households are unable to engage meaningfully in transfer relationships after a devastating shock despite the fact that they often smooth consumption over assets because of the latter’s investment potential (Hoddinott, 2006; Zimmerman & Carter, 2003). In addition, those with smaller herd sizes are unable to migrate and are therefore forced to stay around the base camp where the eventual degradation of pasture leads to the worsening of livestock asset (Lybbert et al., 2004). Moreover, their inability to reciprocate in the future makes the poorest households less desirable, particularly to wealthier households, as exchange partners (Santos & Barrett, 2007). This has serious implications for pastoralists as they risk being sloughed off the pastoralist system (Anderson & Broch-Due, 1999; Barth, 1961; D. H. Johnson & Anderson, 1988).

Ahead of real shocks and loss in assets, wealth profile is a crucial consideration even while establishing stock relationships since associating oneself with someone who is not at least of equal wealth status or richer has little benefit due to the potential inability of the partner to reciprocate in the future (Dyson-Hudson, 1966; Gulliver, 1970). For



instance, Fulbe herders preferred to exchange with the wealthy because poor herders had a reputation of not caring adequately for the animal (e.g. by not leaving enough milk for calves). Moreover, not only was there a lower chance of reciprocation, it was also considered ‘shameful’ to take animals back from the poor who needed them more (Moritz, 2013). Wealthy herders were also had a distinct advantage in livestock transfer networks because having access to livestock wealth also had a positive impact on access to other critical resources such as water and grazing land (Burke, 1990). Thanks to their relatively excess stock and good connections, wealthier herders had better access to employment, farming, trade, and the ability to accumulate more stock. In contrast, poor herders are pushed further into poverty with little hope of ever fully recuperating after every shock to their asset base (Hogg, 1986).

The impact of wealth differences in social networks has also been explored through agent-based models. Implementing the osotua rules on a network to examine which network features promote herd viability, a study found that a larger network increased viability of herds only when individuals selectively asked their wealthiest partner instead of asking indiscriminately (Hao et al., 2014). In addition, network heterogeneity and herd survival are positively correlated only when the wealthy partners are selectively asked. Thus, in general, the model showed that wealthy partners had a positive influence on the survival of an individual’s herd. The authors of the study also add that since assets among pastoralists is generally ‘public knowledge’ (excluding animals kept in others’ herds and vice versa), identifying and asking wealthy partners would not be as difficult as among those communities where wealth can be concealed.

### *Property rights*

Livestock transfers have implications for property rights in animals, and often, multiple people have rights in varying degrees over the same animal. When an animal is transferred from one individual to another, its ownership could be shared between the two parties, transferred entirely to receiver, retained by giver, or usufruct (e.g. over milk or offspring of an animal) depending on the circumstance in which the exchange was made (Khazanov & Schlee, 2012). In addition, not only individuals but also families, households and lineages can all have varying, combinatory, and overlapping property rights over animals (Moritz, 2012). Property rights in livestock are perhaps best captured by the Rendille saying “livestock is like the shade in the morning and shade in the evening” (Schlee & Sahado, 2002, p. 82). Much like the shade that rises and falls and benefits different people at different times, livestock and other forms of wealth in relation to property rights do the same.

The literature on property rights over animals, however, is relatively scarce compared to the related literature on land tenure rights (e.g. Shipton and Goheen 1992). In large part, the literature has emphasized the general precepts of property rights without providing descriptive details (Baxter & Hogg, 1990; Oboler, 1996). This is perhaps due to the inextricable link between livestock ownership and personal status, which makes it a sensitive topic for pastoralists, and therefore becomes a challenge for reliable data collection (Moritz 2013). Recently, Schlee (2012) has reviewed the various property rights in animals among East African pastoralists from ethnographies prior to the 1970s. Schlee uses such examples as Pokot, Kipsigis, Rendille, Barabaig and Turkana (among others) to show how the acquisition, inheritance and allocation of livestock, bridewealth

payment and redistribution, and stock friendships result in a mosaic of rights in animals. For example, among the Rendille and Gabra, at least four people may claim ownership over a camel just at the household level: the head of the household that milks the camel, the person who holds the animal as full loan, the person who has a claim in the animal as creditor of the loan, and the original owner of the camel. Besides these individuals, several others may claim ownership over the camel based on allotment and inheritance.

Similarly, Moritz (2012, p. 194) demonstrates the myriad claims to the same animal among the FulBe of the Far North of Cameroon:

The household head with a cow of [a particular] kind in his family herd cannot simply take the animal to market and sell it; other lineage members have the right to buy it first. The wife of the household head has use rights over the milk from this cow (*Biriteenge*), which was assigned to her by her husband's father at the birth of her first child. Her son was given ownership rights over the same animal when his father assigned it to him as *sukkilaaye* (gift of a heifer from parent to child). However, the son's ownership rights only become effective on the death of the father, who up until such time has the right of disposal over the animal. Finally, a number of animals in the herd may have been loaned or entrusted by outsiders and/ or non-resident kin (*nanngaaji, goofalji, kalfiiji*), so that the household has usufruct rights over these animals but not the right of disposal.

As with the Rendille proverb, Fulbe sayings underscore these overlapping rights: A Pullo's (singular for Fulbe) corral is like a cow's third stomach (which has numerous folds). The proverb reflects the fact that a single person does not have absolute ownership over the family herds; many other individuals are involved as in the folds of the stomach (Moritz, 2012: 201). The study of Fulbe property right shows that absolute rights over animals are largely absent, even though these rights orient people's conduct towards each other within the household in relation to use of the animal.

Additionally, a herder might ostensibly appear wealthy by virtue of having a large herd, but could in reality be poor because he does not "own" all the animals in his herd.

Even those animals that hold great ritual significance might not entirely belong to an individual. For example, every male herder in Turkana and other communities of the Ateker Cluster took on a special ox that became his “dance ox” or “name ox” (Dyson-Hudson 1966; Gulliver 1970). The herder changed his own name based on this ox, which he idealized, sang, praised, and whose name he invoked while going on a raid. In one sense, this is the one animal in a herd that truly belongs to an individual, the “most individual piece of property” (Gulliver 1970, p. 91). As restrictive as the rights to this animal might seem, even here there is no absolute ownership. The head of his family has rights over a herder’s dance-ox in such matters as herding, grazing and the animal’s movement. In addition, age-set members may request the slaughter of a dance-ox for feasts and the herder would be required to oblige. In short, rights are shared in even the most personalized animal of the herd.

More broadly, tenets of property rights in animals are also related to the general ethos and norms of exchange. For example, among Pokot, when herder A transfers livestock to herder B, the property rights are entirely transferred to herder B (Bollig 2006). Young men and poor herders can thus enjoy livestock ownership thanks to their network of relatives and stock associates. Contrary to this, among Himba, ownership is rarely transferred entirely, with the giver retaining rights and receiver only enjoying rights over the produce of borrowed animals. In addition, inheritance rules among Himba, which go from brother to brother, mean that individuals gain property rights in animals only at later stages in life. Specifically, the redistributive nature of capital and the general egalitarian ethos of livestock ownership among Pokot precludes the concentrated accumulation of property by a few individuals as is the case with Himba. Moreover, the

Himba ethos of concentration of wealth within confined kin groups means that a number of young herders have to rely on livestock loans (Bollig 2006).

*Summary*

Livestock transfers occupy a central position in the economic and social life of African herders. Institutionalized forms of livestock exchange allowed an individual herder to possess a network of friends unique to him, who could be summoned during times of stock need such as during marriage, disputes, and distress to one's asset base from idiosyncratic shocks. Stock relationships had critical implications on property rights over animals and building and diversifying herds throughout an individual's life. Far from merely functioning as a system of informal insurance, stock relationships with non-kin and kin were characterized by profound emotional qualities of love, trust, and mutual indebtedness. Although the norms underlying these exchange institutions vary among the different pastoralist communities, what unites them is the ethos of helping during a time of need.

The idea that stock friendships operate as a risk buffering strategy has been challenged on the grounds that, empirically, these networks fail to provide actual help to the affected individual in the aftermath of a calamity. Moreover, poorer households are strategically excluded from networks of informal insurance, thus refuting the idea these systems allow individuals or households to avoid chronic poverty. On the other hand, it has also been argued that rather than providing absolute risk management, stock relationships allowed an individual to build and diversify his animal wealth throughout his career as a herdsman.

From a theoretical perspective, stock relationships appear to fall under two sub-categories of *risk management*, namely *risk reduction* and *risk transfer* (Dorfman, 2007): spreading one's livestock in the herds of various stock associates as a way to *reduce* risk, and gifting or *transferring* livestock to associates to maintain bonds of friendship that would allow access to help in the future. Further, ethnographic evidence suggests that the recipient's need for livestock is often a critical variable in the decision to transfer animals, particularly in times of stress. Forging relationships throughout life opens up the possibility of requesting several people for the required animal, and, if circumstances allow, a transfer would be made. Therefore, stock exchange relationships among herders appear to follow a demand-sharing/need based transfer logic (Hao, et al., 2015; Peterson, 1993; see also Gurven, 2004).

#### *Informal insurance networks in village economies*

The study of stock relationships and other livestock transfer practices falls under the wider study of informal insurance among agrarian and other small-scale village economies. In the absence of formal risk management institutions, individuals and households enter into informal arrangements of gifts, loans and transfers that help smooth consumption in the face of volatile income streams (Attanasio, Barr, Cardenas, Genicot, & Meghir, 2012; Townsend, 1994). Risk-sharing in village economies as described by economists occur in groups of households as well as in overlapping interpersonal networks. Group and network risk sharing occur in small group sizes, are correlated with the risk preferences of group members, are contingent on pre-existing networks, and materialize according to the function of the group (reviewed in Attanasio et al., 2012).

Studies also find evidence of strong kinship and spatial effects in the formation of these networks (Fafchamps, 2010; Fafchamps & Gubert, 2007).

The driving force behind the formation of these networks is the expectation of future help during the time of need, or a *quid pro quo* logic (Platteau, 1997; Posner, 1980). Similarly, *balanced reciprocity* is also a popular contender among motives behind risk-sharing groups, with the important caveat that the uncertainty of future reciprocity (conditional reciprocity) is unacceptable and that the favor given will categorically be balanced over time. That said, as Platteau (1997) explains further, the types of risk-sharing arrangements observed in ‘traditional’ societies work around the strict assumptions of balanced reciprocity. For instance, members of a funeral society would have few reasons to defect since death is a surety for everyone and every member would eventually be compensated for his/her participation (i.e. their contribution will eventually be *balanced*).

Altruism has also been put forth as an explanation for risk sharing, but the evidence for it is generally weak. Senegalese small-scale fisherman form informal groups to search and rescue members who may be lost at sea (Dock, Marot, & Platteau, 1993). Altruism appears more at play, according to Platteau (1997, p. 789) in this case: “we never heard a fisherman complaining about his disproportionate contribution to helping rescue a fellow fisherman in trouble at sea. Solidarity prevails and all sorts of calculation are dropped at those moments of crisis when the life of some group member is in danger”. Altruistic life rescue notwithstanding, these groups suffered from disgruntled and defecting members because of the imbalance in monetary contributions for fuel for the rescue boat, and helping a victim rebuild damaged equipment.

Mutual assistance between close relatives is better explained by Hamilton's kin selection theory (Cox & Fafchamps, 2007) and evidence of the critical role of kinship network abounds in the economic literature (for e.g. Krishnan & Sciubba, 2004; Townsend, 1994). On the other hand, to explain risk-sharing contracts among non-related individuals, a 'self-enforcing mutual insurance model among self-interested agents' has been proposed (Fafchamps, 2010). An *ex ante* strategy of risk management, the exchange relationships follow the 'quasi credit' logic wherein the receiver is expected to repay the amount or item borrowed but no interest is charged and no time frame is set for the repayment (Fafchamps & Lund, 2003; Platteau & Abraham, 1987).

It is now known that risk-sharing networks do not occur at the community or village level due to the difficulty of monitoring a large number of members; instead, risk-sharing groups are localized networks of relatives and friends (Fafchamps & Lund, 2003; Murgai, Winters, Sadoulet, & Janvry, 2002; Rosenzweig & Stark, 1989; Udry, 1995). Within these networks, fairness, trust, and commitment are important considerations and free-riders are sanctioned upon breach of contract (Platteau, 1991). Not all shocks, however, are insured equally: in Fafchamps and Lund's (2003) study of Filipino villages, funeral expenses and loss of earnings from unemployment of household head or spouse were covered by gifts and loans, whereas expenses related to sickness weren't. Similarly, not all networks cover the same losses: data from Thai households show that while consumption smoothing is achieved through access to financial institutions, kinship networks are more useful for larger financial investments (Kinnan & Townsend, 2012).

With exceptions (e.g. Dercon & Krishnan, 2001), the vast majority of economic studies on risk sharing in village economies consider the household as the unit of risk



sharing (experimental studies, however, study individual behavior in risk group formations; e.g. Barr & Genicot, 2008). Economic theory has also been used to study inter-household livestock transfer among pastoralist communities (Huysentruyt et al., 2009; Santos & Barrett, 2005). While these studies make great contributions in explaining mechanisms of livestock sharing and the persistence of poverty traps, the reliance on the household as a unit overlooks intra-household livelihood dynamics. Although livestock wealth is the mainstay of a pastoralist household, in an era of rapid urbanization coupled with ongoing, large-scale sedentarization, the role of women's economic contribution to the household in the form of casual labor or small-scale trading is a critical piece of the household strategy (Fratkin & Smith, 2005). Cash income may not be adequate to cover large shocks to the asset base, but it is indispensable for temporary food security.

Moreover, with the decline of 'pure pastoralism' or a noticeable decline in livestock holdings, and the rapid dominance of the market in pastoralist areas, it becomes increasingly important to consider livelihood diversification of male herders whose engagement with the non-pastoralist economy is on an unabated incline (Little et al., 2001). Livelihood diversification does not necessarily imply an adequate buffer from shocks: in fact, according to Little and colleagues (2001), low-income non-pastoral jobs increase the risks during periods of stress especially for the poorest of households. Herders who diversify are unable to adequately fulfill pastoral labor needs of the household as well as unable to exploit mobility as a risk management strategy.

*Research directions*

The lives of East African pastoralists have undergone several changes in the recent decades, including, but not limited to, national incorporation, rising insecurity, loss of power, income diversification, market dependence, and wealth differentiation. While the population in the African drylands has increased, so has livestock numbers as a result of improved animal health care; however, the combination of these has led to increasing pressure on a diminishing resource base. In addition, development interventions in the region, from colonial times to the present, have had tremendous impact on such aspects as livelihoods, security, identities, and self-perceptions (Hodgson, 2004; Homewood, Kristjanson, & Trench, 2009). How these changes influence informal risk management institutions, i.e. their norms and values, is a relatively underexplored area.

The rapid increase in agricultural activities and increased sedentarization of pastoralists, besides being the result of key historical events, are also related to issues of risk management. The principal factors that appear to threaten customary systems of risk management, in the case of the Ngorongoro Maasai as an example, are the increasing population of migrating wildebeest; restriction of fire use to stave off ticks; the unequal growth patterns of humans and their livestock; and restriction on livestock management resulting from conservation policies (McCabe, 1997). McCabe believes that shifts in land-use practice arise from the failure of traditional risk reducing strategies, which result from increasing human population and stable or decreasing livestock population. These changes have also effectuated a shift in management strategy from long-term survival to short-term profit as Ngorongoro Maasai can no longer rely on livestock for subsistence.

As another example, the increasing and sometimes total sedentarization in

Karamoja going back to the early 1900s has also been blamed for ecological crises, which then paved the way for pastoralists' loss of power over communally held resources (Mamdani, Kasoma, & Katende, 1992). Consequently, the community structure began to fade, leading to a more individualistic survival strategy as evidenced by the history of cattle raiding in the region, which became increasingly individualized and highly commercial (Eaton, 2010; Ocan, 1994). Here too, a noticeable shift from community-based to individually profitable strategies can be observed (Carlson et al., 2012).

How do individualization, sedentarization, reliance on donated food aid, proximity to town, and diversification affect social risk management? In a comparative study of two groups of Turkana herders, McCabe (1990a) found that the group that had no access to outside aid was able to survive crises such as drought, while the other group, which had access to famine relief, experienced a breakdown of institutions and strategies that have customarily allowed herders to recover. Moreover, requesting and begging of livestock and food are respectable behaviors in Turkana that allow people to be part of the social fabric. Once Turkana become dependent on famine relief, it is difficult to re-enter the social fold for long-term survival in the pastoralist economy.

My research in Karamoja follows in the tradition of studies exploring risk management in the pastoralist economy, while accounting for the radical changes to lives and livelihoods in the region. I investigate stock relationships among men and exchange relationships among women to arrive at a more holistic view of household risk management. I also look at the types and range of social networks that individuals have, in which particular contexts these networks are used, and how economic and ecological differences influence these relationships. In analyzing these relationships, I attempt to not

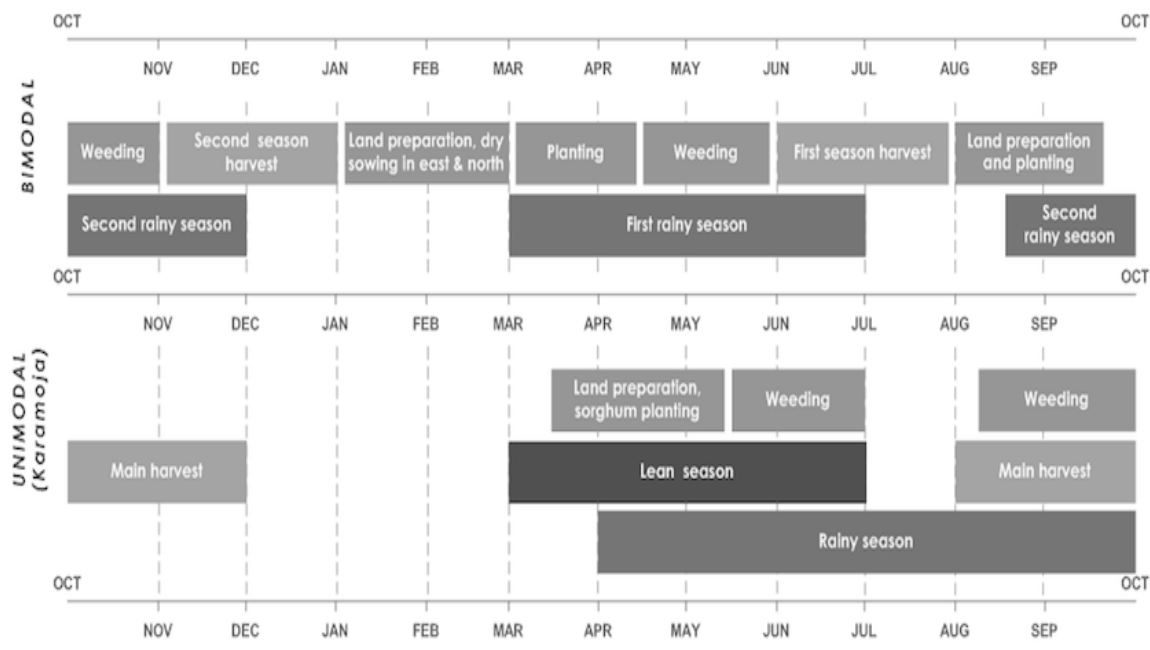
only address how risk pooling influences cooperative behavior between I attempt to contribute to the theoretical body of risk mitigating exchange institutions, in addition to updating the literature on pastoralism in Africa.

## Chapter 4

### Research Setting

The main source of risk in Karamoja today is the climate, which varies greatly from the west to east and is a critical factor in influencing basic livelihoods – pastoralism and opportunistic agriculture. The overall rainfall pattern in the region is unimodal in comparison to the rest of Uganda where rainfall is bimodal (Figure 4.1). A six-month rainy season (April – October) is followed by a six-month dry season; consequently, there is only one harvest period which usually occurs around October (World Food Programme, 2013). In the vernacular, communities recognize two seasons annually: *kiporo*, the rainy season, and *akamu*, the dry season. In addition, brief periods just before the rainy and the dry season, *atepunet* and *ayet* respectively, are also mentioned in the annual weather cycle (Quam, 1976).

**Figure 4.1:** Karamoja calendar of seasons and agricultural activity. Source: Famine Early Warning Systems Network <http://www.fews.net/east-africa/uganda>

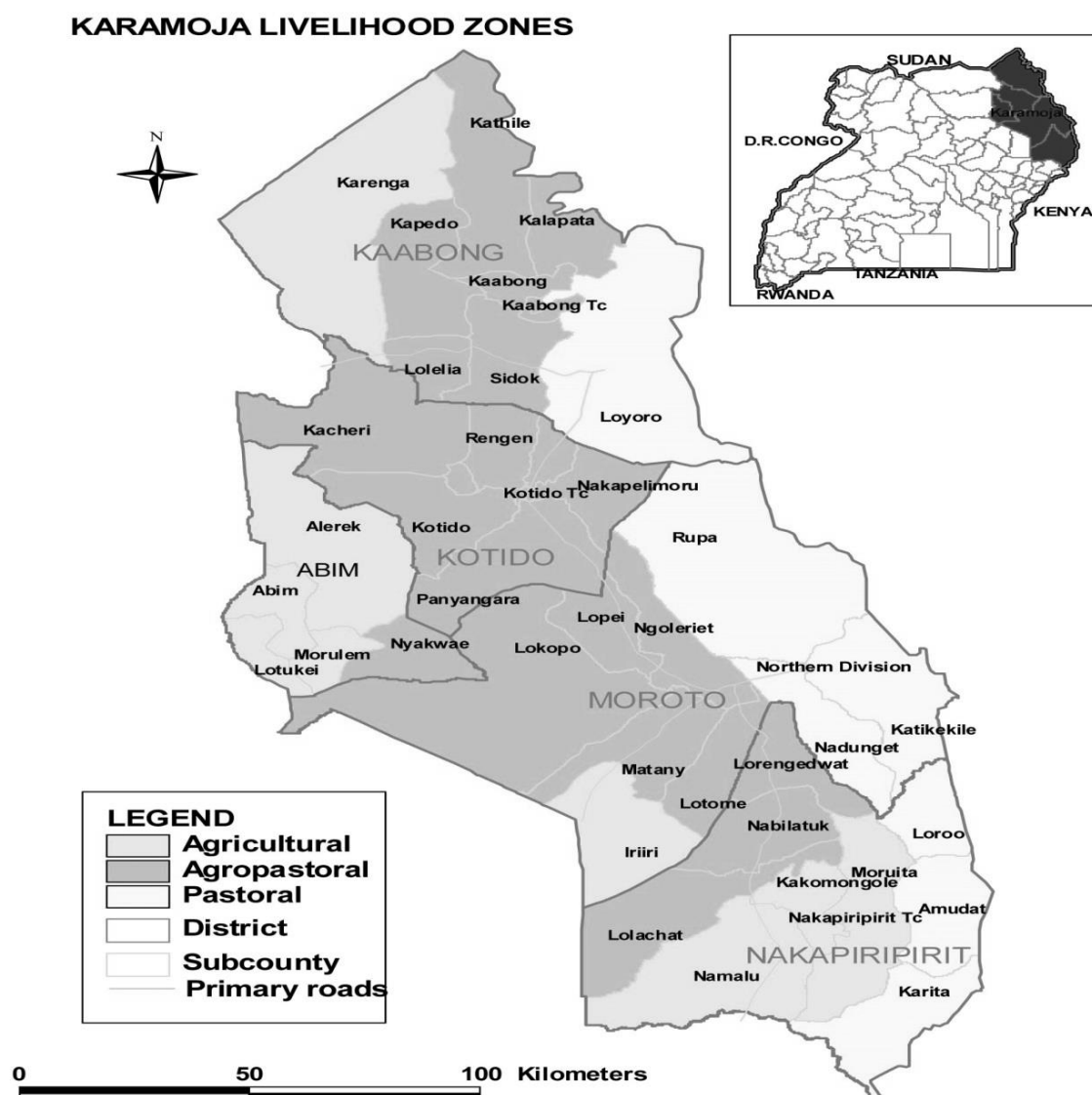


Given the variability in climate from one area to the next within Karamoja, the region is divided into three main agricultural zones (Figure 4.2).

1. The westernmost part of Karamoja, known as the *agro-ecological or agricultural livelihood zone*, enjoys 800 – 1125 mm of rainfall per year, the highest in the region. The soil is able to support a variety of crops in addition to the staples, maize and sorghum. It is the only zone in Karamoja that allows for second and third plantings of crops. Due to a high incidence in the zone's northern region of tsetse flies that cause the wasting disease trypanosomiasis among livestock, this zone also records lower numbers of livestock than the others (Robinson & Zappacosta, 2014).
2. The adjacent zone to the east is the *agro-pastoral or livestock-sorghum zone*, which stretches through central Karamoja and has the highest population of people (Levine, 2010). Although the annual rainfall is 500 – 800 mm, rains have erratic distribution. Coupled with high temperatures, this rainfall pattern is unfavorable for agriculture, and the zone generally has lower crop performance than its western neighbor (Robinson & Zappacosta, 2014). Consequently, people expend greater effort in livestock rearing than agriculture such that the zone recorded the highest numbers of small stock in previous years (Levine, 2010). Additionally, this is a food deficit zone where the majority of households depend on food purchases from local markets.
3. Finally, to the easternmost end and on the border with Kenya is the *pastoral livelihood zone*, a semi-arid zone marked by dry spells, high temperatures, and low and poorly distributed rainfall (300 – 500 mm per annum) (Levine, 2010; Robinson & Zappacosta, 2014). The soil is permeable and of low fertility, and is thus unable to sustain any other crops besides sorghum and bulrush millet (Robinson & Zappacosta,

2014). Although maize is cultivated, the success rate of the crop is generally lower than that of sorghum (also during the research period). Not surprisingly, livestock rearing takes great precedence over crop agriculture. In addition, herders are much more mobile than in the other zones due to the scanty distribution of watering points for animals.

**Figure 4.2:** Map of Karamoja Livelihood Zones (World Food Programme, 2008)



### *Moroto district*

I conducted this project at two sites within Moroto, Karamoja's fast-growing central district (Pop. 104,539; Male: 50,756, Female: 53,983 (UBOS, 2014); altitude: 1,356 – 1,524 meters above sea level (UNDP, 2014)). Moroto is divided into four sub-counties, all located in the *pastoral livelihood zone*: Rupa, Nadunget, Katikekile, and Tapac (Figure 4.3). While the former two are dominated by the Matheniko section of Karimojong, the latter are inhabited mainly by Tepeth. The town of Moroto (Pop. 14,818; Male: 7,551, Female: 7,267 (UBOS, 2014)) lies in the center of these sub-counties. Besides being the district headquarters, Moroto is home to the field offices of several NGOs and other international and national organizations.

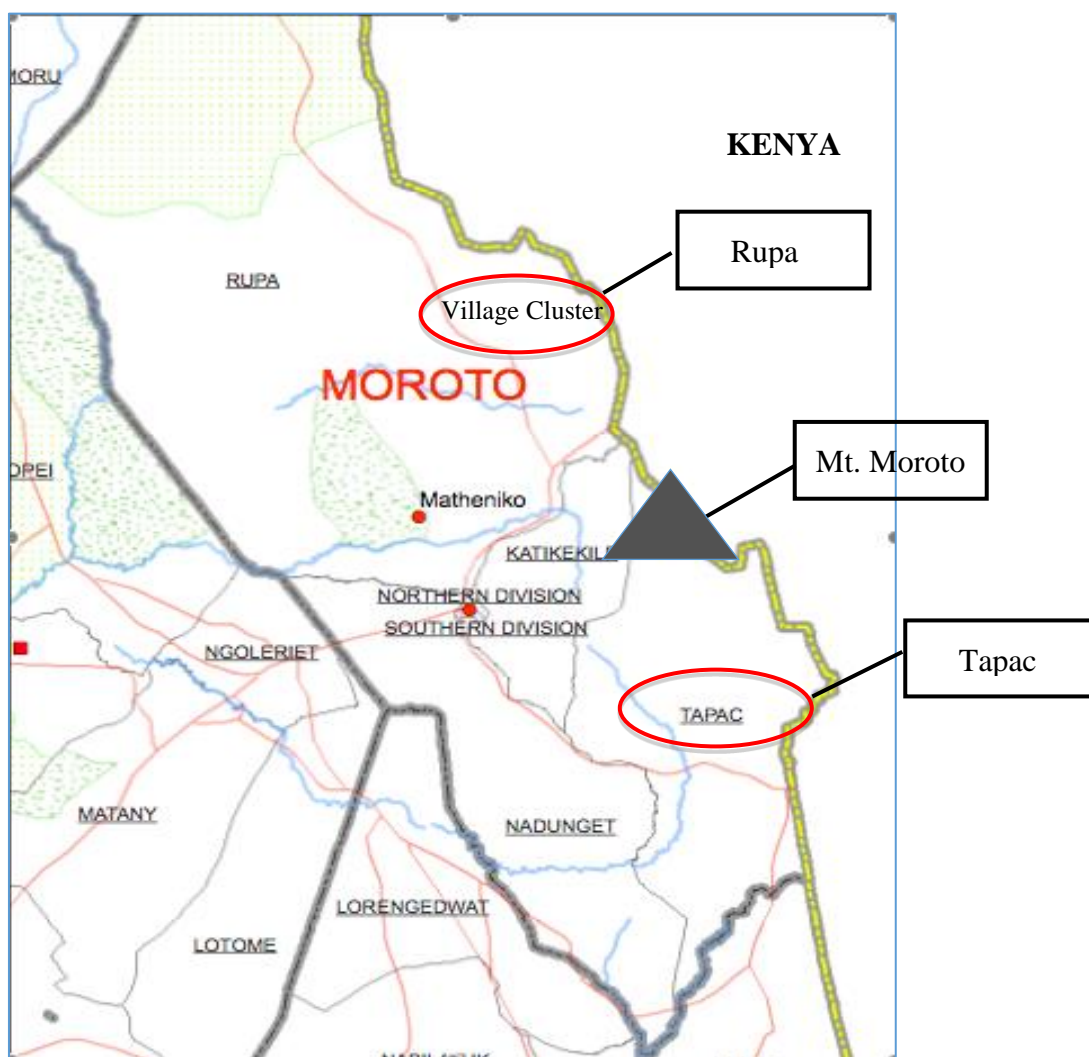
After years of insecurity, curfews, and travel warnings, Moroto town now enjoys steadily increasing commercial activities, private clinics, a decently equipped regional hospital, and sprawling hotels catering to wealthy Ugandan visitors and expatriates who are either tourists or NGO workers. Conditions in Moroto town during the research period stood in sharp contrast to my experience during my first field visit in 2012. At the time, Moroto was a relatively quiet town, unconnected to Uganda's power grid, and still considerably detached, socially and economically, from the rest of the country. Due to the heavy rains that year, most of the produce coming from Mbale city (Distance: 272 Km) was stalled on the destroyed dirt roads, resulting in food shortage and wastage. Most important, the non-Karimojong population in town was significantly lower than the present (no exact estimate available).

Today, Moroto finds itself in the midst of a booming mineral trade, with gold and marble extraction at their peak. Trucks carrying marble and limestone ply the route



between Moroto and the urban centers of Soroti (Distance: 171 Km) and Kapchorwa (Distance: 153 Km). The town no longer subsists on five hours of generator-powered electricity, having joined the Uganda power grid in 2013. The population of non-Karimojong businessmen and traders has also visibly risen, and so has the arrival of the occasional travelers making their way overland to Kidepo National Park on the border of Uganda and South Sudan.

**Figure 4.3:** Map of field sites within Moroto District – Adapted from UNOCHA & FAO District Planning Maps



**Field Site 1: Rupa Sub-County, Moroto District** (“Rupa” from here on)

My first field site is in Rupa sub-county (Pop. 25,785; Male: 12,392, Female: 13,393; Total no. of households: 5,018 (UBOS, 2014)), which begins on the eastern edge of Moroto town and extends to Kenya’s Turkana West County. To the north, the sub-county borders Kotido District, home of the Jie community. The majority of the people living in Rupa are Matheniko Karimojong (the sub-county was previously known as *Matheniko*). Rupa sub-county is located in the pastoral livelihood zone; agricultural activities are, therefore, generally opportunistic given the vagaries of weather, and most people continue to rely heavily on their livestock. I conducted the study in a village cluster – two contiguous villages linked to each other in a complex web of kinship and friendship – which lies to the easternmost end of the sub-county. There are no villages beyond this cluster.

Individuals in the village cluster practice transhumant pastoralism and continue to follow the traditional dual settlement pattern to this day (N. Dyson-Hudson, 1963). Permanent and fortified homesteads comprise the village and are found typically near cultivable land, whereas temporary livestock kraals move periodically in search of water and pasture across the great expanse of the grazing land. Certain members of the family move to and from the livestock kraals, while others live mainly in the homesteads or in the kraals. For example, during the period of food scarcity, children or lactating women may reside at the kraal to take advantage of milch cattle that had to be moved to farther, more productive grazing areas. At any given time, thus, the population of the homestead and the kraal are variable.

The composition of livestock kraals varies greatly across individuals and families. Herds of relatives, friends, and even distant relatives can be herded together depending on the number and types of livestock, the availability of pasture, water and labor, the particular needs of the families, and the individual strategies of the herders (N. Dyson-Hudson, 1963). For much of the year, livestock are kept in temporary kraals far from the homestead, while some milch cattle and small stock are retained at home for milk.

A large number of herds from the sampled village cluster are kept in semi-permanent kraals near Kobebe dam in Moroto District [Distance: ~ 40 Km from the cluster]. Even before the construction of the dam, this particular area near the Apule and Nangolapolon Rivers was the traditional dry season grazing grounds for Matheniko Karimojong, as well as neighboring communities. Presently, Kobebe is an area of high stocking density given its location at the border of Matheniko, Turkana and Jie lands. The area is administered by the Uganda Wildlife Authority because the dam is located within the Matheniko Game Reserve.

The area extending from the village cluster to Kobebe dam is the area of least residual grass availability in Karamoja (Robinson & Zappacosta, 2014). Consequently, most families move their livestock to the dam from October to May. However, due to the prolonged dry season that led to the gradual drying up of the Kobebe dam during the research period, many families moved their herds back to areas closer to the village during March to take advantage of the adjoining rivers of Moroto and Nakiloro. Though the movement to the Kobebe dam area during the dry season months is a typical pattern, it should be noted that many of the families in the village cluster have split their herds

among several different kraals located in various places, depending on the availability of pasture and watering sources.

Rupa sub-county is connected to Kenya's Turkana West County via the Nakiloro trading post. The porous and unmarked border allows for frequent movements between Matheniko and Turkana, for trade, friendly visits, for animal exchange, and other kinds of social support. The erstwhile staunch enmity between the Turkana and Matheniko came to a quasi-permanent end in 1973 when the Lokiriana Peace Accord was initiated. Tepeth, Matheniko, and Turkana elders and community members sealed the accord in 1978 by literally burying their weapons and therefore, symbolically burying their enmity, along with honey, milk, and traditional beer at a site in Lokiriana, Kenya (~ 50 kilometers from the Ugandan border) (Akabwai & Ateyo, 2007; International Organization for Migration, 2013).

Whereas Turkana and Matheniko have continued to enjoy peace, even a strong alliance in raiding other neighboring groups (Gray, 2009), their relationships with the Tepeth have since deteriorated. Tepeth from Kakingol (one of the valleys of Mount Moroto close to Nakiloro and Rupa) continue to carry out raids to this day on Matheniko in Rupa. It is alleged that Tepeth communities living in the Kakingol have not been entirely disarmed, and thus are able to use their weapons during theft and banditry. Similar allegations are made about Matheniko; Tepeth participants claim that Matheniko continue to possess guns, which they hide in the kraals of their Turkana allies. During the research period, I recorded five small-scale raids, sometimes leading to casualties, by Tepeth on Matheniko villages. One raid from Rupa to the Tepeth area near Moroto town, which forced the army to intervene, was reported by a participant. In addition, I also

documented periodic raids by the Turkana on Tepeth communities in Tapac (second field site; see below), which led to the demise of one study participant. Official reports suggest that weapons continue to exist in Karamoja, and the Ugandan army was still carrying out disarmament exercises in 2013 (Vision Reporter, 2013). Nevertheless, the incidences of gun-related deaths have subsided tremendously when compared to the past. Peace-building initiatives, where elders from the various ethnic groups are engaged in dialogue, are a popular method among government and NGO programs to bury the hatchet.

### *Geography*

Rupa sub-county is completely flat and is bordered by Mount Moroto to the south, Toror Hills to the northwest and smaller mountain ranges to the east. The main water source near the study village-cluster is the Moroto River. Other water supply sources in the sub-county include boreholes, valley tanks, rainwater tanks, and dams. Out of the ten dams that exist in Rupa (Mugerwa, Stephen, & Egeru, 2014), Kobebe was the most popular choice among study participants partly because the others had run dry during the research<sup>23</sup>. While it is forbidden to construct permanent homesteads, hunt game, and to cultivate in the Kobebe dam area, a rule that is often violently imposed by the authorities, herders have their dry season kraals near the dam.

### *Economy*

The primary livelihood in the sub-county is livestock rearing, and is supplemented by a host of alternative income-generating strategies. In terms of livestock, trading at local markets is a popular occupation, particularly every Monday when the main market in the district congregates. Naitakwae market on the outskirts of Moroto

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<sup>23</sup> Kobebe dam also dried up towards the last part of the research period.

town is a lucrative place to buy, sell, and trade animals because it attracts traders from other sub-counties, districts, other parts of Uganda, and even from Kenya and South Sudan. Some individuals are more involved in animal trading than others, such that they derive the bulk of their income from selling animals at a profit.

Alternative livelihood strategies are an important source of cash for a large percentage of the population of the sub-county. For men, these strategies include gold mining, casual labor, cash-for-work or food-for-work programs, and petty trade such as selling vegetables bought in town. In addition, marble extraction has become a major livelihood strategy for men over the past two years, particularly in the event of idiosyncratic shocks to herds or during a crisis that requires cash (e.g. hospitalization of children).

Women, on the other hand, engage heavily in such alternative livelihoods as selling firewood and charcoal, local brew (*ngagwe*), and produce and food products from town. Women also do extensive gold mining at the Nakabat mines located near the Nakiloro trading post on the border with Kenya. Income from gold mining is extremely erratic, and often shared among women who work in small groups. Women are also primarily responsible for much of the agricultural work for the household, such as digging, planting, and harvesting.

Women also participate, when possible, in livestock rearing at the kraals. Their main responsibilities include watering animals, milking, and fencing the kraals. In several households, some women stay in kraals periodically while others stay in the homestead; they switch places and migrate back and forth from the kraals as need be. Finally, a small proportion of women engage in animal trade, mainly with small stock; more frequently,

men trade in animals on behalf of women. According to the elders of the community, all cash income, whether earned by men or women, is ultimately destined for conversion to livestock. Besides feeding the household members and buying important items such as medicine, everyone aims to invest in livestock assets because “with animals, there is continuity (in the Karimojong tradition)” [*ani igyeluni iyong ebarasit ewuri robo toropa ibore ngini elothi ngaren*].

**Field Site 2:** *Tapac Sub-County, Moroto District* (“Tapac” from here on)

The second field site is located in Tapac sub-county (Pop. 15,431; Male: 7,336, Female: 8,095; Total no. of households: 3,492 (UBOS, 2014)) which is located 45 kilometers away from Moroto town. Tapac trading center, where I conducted fieldwork, is one of the six valleys within the Mount Moroto range. All valleys are inhabited by Tepeth communities. Due to the main road’s extremely poor condition, which is exacerbated further in the rainy season, traffic between Moroto town and Tapac is infrequent and only undertaken by brave motorcyclists and sturdy NGO cars. Occasionally, limestone-carrying trucks travel this route to transport goods out of Karamoja. There is no mode of public transportation; however, people travel on foot through the mountains (an arduous journey that can take seasoned climbers approximately 7 hours) to trade animals or to visit relatives living in Katikekile sub-county, a largely Tepeth area flanking Moroto town to the east.

Tapac is a small trading center surrounded by villages that rely on it for their basic shopping needs (such as oil, salt, alcohol etc.), and for governmental and NGO assistance. The sub-county offices lie a few kilometers east of the center. There also exists a Catholic Mission run by the Missionaries of Africa, which, together with Moroto

District, administers an efficient health unit and a primary school. Several NGOs have projects in Tapac, but most personnel travel on a daily basis to administer services, while maintaining their offices in Moroto town. Tapac is not yet connected to Uganda's electricity grid; the health unit and Catholic Mission rely on solar power.

In the past two years, a second bustling trading center has grown at Kosiroi, 12 km from Tapac, due to the extensive limestone mining in the area by Tororo Cement Limited. Since limestone trucks ply the route between Kosiroi and Tororo in southeastern Uganda where cement is processed, these trucks are also able to carry food and other consumables to Kosiroi. Tepeth agropastoralists make supplemental income by excavating, breaking, and loading limestone for the mining company. As this backbreaking work can take several days, many people set up temporary camp in and around Kosiroi, giving traders a reason to invest in small businesses.

While the majority of the population is Tepeth, Pokot pastoralists also live temporarily in the area. By virtue of their proximity to Kenya and West Pokot County, Tapac residents frequently speak Karimojong, Pokot and Swahili. Moreover, a large proportion of youth continue their secondary and high school education in West Pokot (Amakuriat town) for lack of such facilities in Tapac. There is also a high incidence of trade, friendship, and intermarriage between the two communities.

The mountains have 'always' been home to Tepeth communities, with some villages located deep inside the valleys, unconnected by roads. During the decades of armed raiding, Tepeth of Tapac Valley and Matheniko of surrounding areas were in such constant conflict that the road leading to Moroto was a no-go zone. Several Tepeth who used to reside closer to the base of the mountain receded into the inner areas in an attempt



to flee the armed conflict. With the decline of banditry and conflict, in large part due to the forceful disarmament program, Tepeth communities, allegedly, expressed a desire to relocate to the plains, a move supported by the government for its purported benefits to the communities' agricultural production and hence food security. NGOs involved in this 'voluntary resettlement' program facilitate inter-community peace talks, provide agricultural expertise and equipment, dig boreholes, and undertake other initiatives to assist people in producing food. Many people have thus come down from the mountains and set up temporary or permanent homesteads in a large settlement called Kolparok, six kilometers from Tapac trading center. Some participants expressed that the intention when moving down to the plains was to harvest a large number of crops and subsequently return to their previous mountain homesteads for the rest of the year.

Even though the initiative to move to the plains to cultivate has been strongly encouraged by NGOs and the government, the harvest in the research period completely failed in Kolparok. As a result, participants from this area have resorted to mining or other cash-for-work programs to earn income. In contrast, Tepeth participants living higher up in the mountains had decent harvests of greens, tomatoes and beans ready in June, thanks to the constant precipitation in the higher altitudes. Individuals from inside the valley on higher altitudes are frequently seen selling their produce in the trading center. Having said that, gardening on higher altitudes is not completely secure due to the high concentration of baboons that frequently destroy crops on the mountain slopes.

### Geography

Tapac sub-county is located in a valley and is enclosed by the Mount Moroto range on both sides. The plains lying adjacent to the valley lead to the North Pokot region

Kenya's West Pokot County. The main water source in the area is Tapac River, which originates in Mount Moroto. During the heavy rains, the river can flood over, causing Tapac to be cut off from the major roads. The other main river in the area is the Omaniman River near which the Nakonyen grazing area and kraals are located. During the years of insecurity, many communities had been forced to desert their kraals in Nakonyen. Matheniko Karimojong, for example, lost access to Nakonyen because they had been disarmed, and due to no such disarmament by the Kenya government, armed Pokot raided them continuously and heavily (Stites & Akabwai, 2009). With the installation of army barracks, relative peace has since returned to the area, and herds of Tepeth, Pokot, and Pian and Matheniko Karimojong remain here all year long.

#### *Economy*

The main livelihood strategies in the sub-county are livestock rearing and agriculture. The Tepeth consider themselves more "knowledgeable" about cultivation (Weatherby, 2012) partly because of the favorable soil quality in the mountains. Harvests have conventionally been better in the mountains compared to other sub-counties in the area, and individuals have successfully grown sorghum, maize, beans, and greens among other produce. Food purchases only begin very late in the lean season.

Between March and May each year, Tepeth communities also harvest flying termites (*ngikong*). The day after the first rain, the termite mounds are prepared for harvesting. Holes are made in the mound and lined with leaves. A particular plant, known locally as *ekurao*, is placed in the holes to attract the termites. Once harvested, the termites are dried and roasted, and can be preserved for a long time. Although termite mounds are owned by women, many members of the family, men and children included,

join the harvest. Winged termites provide adequate quantities of protein, zinc, carbohydrates, and n-3 fatty acids (Kinyuru et al., 2013), which make them an excellent source of food.

In contrast to Rupa sub-county, the number of alternative livelihoods available to people in Tapac is far fewer. This is primarily because of the lack of a large urban center (such as Moroto municipality) in the vicinity, which decreases the demand for such items as firewood and charcoal. The most frequent alternative livelihoods for people include limestone mining, brewing, casual labor, and cash and food-for-work programs. Among men, limestone mining has taken precedence in the last year (2014) due to the failed harvest. In addition, men living closer to the forest reserves on the higher slopes of the mountain extract timber for sale in the trading center. The returns from timber sales are quite miniscule considering the physical labor required (UGX 3000 or \$1 for each processed log).

Given the relatively greater importance of agriculture in Tapac, both women and men participate in agricultural activities. Women, in particular, tend to their gardens during a large part of the year. Alternative livelihoods among women are thus less frequent. Even so, with the expansion of the Kosiroi trading center and the failed harvest, women are gradually becoming increasingly involved in other livelihoods such as limestone extraction, and brewing and selling alcohol.

#### *Differences in field sites*

Although both field sites are in the same pastoral livelihood zone, a few clear differences appear upon closer examination. The greatest difference, perhaps, is the climate and its subsequent effect on food production: while the plains of Rupa are lush

only a few months of the year (if the rains haven't failed), Mount Moroto has more or less permanent streams and springs at higher altitudes. It must be noted that among the mountains Moroto, Napak, and Kadam, historical homes of Tepeth, Mount Moroto is the driest with the least mature soil (Weatherby, 2012). Despite its relative soil quality, Mount Moroto is able to sustain enough precipitation at higher altitudes to allow certain vegetables to grow. Although the harvest in 2014 failed on the plains near Tapac, gardens closer to the rivers and in the vicinity of the foothills fared better, and were ready for harvest in August.

Second, the harvest from 2013 lasted longer in Tapac than in Rupa. In Rupa, food purchase began in December, not too long after the main harvesting season in August, which indicates the low quantity of harvested crop. In contrast, people in Tapac were still consuming food from the August/September 2013 harvest in June 2014. This has a significant impact on livelihood strategies since household members have to resort to alternative livelihoods and coping strategies sooner than desirable.

Third, the presence or absence of a large urban center appears to have a noticeable effect on the scale of engagement in alternative livelihoods, both for men and women. Whereas in Tapac, women and men are involved in agriculture in the wet season and resort to alternative livelihoods mainly in the dry season, income-generating activities outside of livestock rearing are a primary preoccupation of individuals in Rupa. Besides being influenced largely by the climate, this trend is also greatly determined by the presence of a burgeoning town near Rupa, where the demand for such items as firewood and charcoal exceeds that of Tapac.

*Climate trend during research period*

At the beginning of the research period (Sep – Oct 2013), harvest was ongoing in both field sites. The output was reported to be below average, and while there was some food production in most parts, it was declared insufficient to last through the ensuing dry season (FEWS NET, 2013). As predicted, the ‘lean season’, or the period of food scarcity when communities sometimes turn to food aid, began a month early in January 2014. According to the Integrated Food Security Phase Classification scale (IPC), as a consequence of the previous year’s (2013) extended lean season, Karamoja was *Stressed*: For at least 1 in 5 households, food consumption is reduced but minimally adequate without having to engage in unsustainable coping strategies. However, these households are unable to afford some essential non-food expenditures (FEWS NET, n.d.).

In Central Karamoja<sup>24</sup>, where the two field sites are located, rains arrived later than expected. Although some parts received the first rains between mid-March and April 2014, other areas did not receive any rain at all. Gardens were, nevertheless, prepared for cultivation. The long, dry spell till June and July (temperatures soared to 44 degrees Celsius some days), coupled with sudden, large quantities of rain in August and September, meant that crops planted earlier in the year dried, and those that survived fell prey to subsequent waterlogging (Welt Hunger Hilfe, 2015). Depending on the availability of seeds, some people were able to re-cultivate and replant, but harvest would be delayed until November, rather than August.

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<sup>24</sup> According to Welt Hunger Hilfe, Tapac and Rupa sub-counties are located in Central Karamoja. Other maps consider this area as Eastern Karamoja. There remains some ambivalence in the various classifications of the regions, particularly with regard to livelihoods.

As of October 2014, many parts of eastern Karamoja were declared IPC Phase 3 or *Crisis*: At least 1 in 5 households face significant food consumption gaps with high or above usual acute malnutrition, or is marginally able to meet minimum food needs only with unsustainable coping strategies such as liquidating livelihood assets (FEWS NET, 2014b, n.d.). The two field sites (all of Rupa and most parts of Tapac) were among those areas declared to be “the most acutely food insecure and have crops in the worst condition, with some areas having no viable crops left in the field” (FEWS NET, 2014a). A January 2015 update revealed that only 20 to 30 percent of normal harvests were reported for the region. An assessment of block farms in Tapac sub-county declared “total or almost complete harvest failure” (Welt Hunger Hilfe, 2015). Participants from both field sites reported harvesting immature crops, a ‘distress’ coping strategy for households, which also includes consuming seed stocks and drastically rationing food in the household (FAO, 2012).

#### *Livestock conditions during research period*

The delayed rains in 2013 and 2014, however, had no significant adverse effect on livestock conditions. Pastoral conditions were more favorable in Karamoja than in other parts of Uganda in 2013, and in 2014, the few instances of good rainfall meant that animals had pasture and water, and were therefore in generally good condition (FEWS NET, 2014b; Welt Hunger Hilfe, 2015). Nonetheless, an outbreak of foot-and-mouth disease that started in May 2014 compounded the third consecutive bad harvest year in northern and eastern Karamoja.

Foot and mouth disease (FMD), a highly contagious viral disease among livestock, is has no treatment yet; animals are left to either recover on their own or are

slaughtered to prevent spread of the disease (The Cattle Site, 2000-14). Vaccination programs may be carried out to reduce transmission or to protect specific animals.

However, vaccines need to match the serotype of the outbreak and since no universal vaccine exists, this can delay the control of rapidly spreading FMD (The Cattle Site, 2000-14). During the outbreak in Uganda in 2014, multiple serotypes of FMD were known to be circulating, with 28 outbreaks in northern and northeastern Uganda (FAO, 2014).

As a consequence, several restrictions on the sale and movement of livestock were imposed throughout the country. Although most livestock markets were closed, key participants from Rupa sub-county (Rupa), particularly the animal traders, mentioned the continual selling of animals in the market despite the ban. All livestock slaughter for consumption in Moroto town was banned, thereby leading to a steady increase in the price of poultry. Animal traders from Tapac started selling animals in the North Pokot District of Kenya due to restrictions on selling within Karamoja and eastern Uganda in general. Key participants from Rupa who did not have a similar opportunity for cross-border trade were reaching desperation by July 2014, and revealed their desire to go back to raiding were the quarantine to continue. As of December, 3,000 heads of cattle are said to have died due to the disease (Wanyama, 2014). Dead animals became a fallback food for people in Rupa during a time of insufficient harvest and falling income from lack of animal sales.

The first phase of vaccination in Karamoja was carried out in areas bordering Nakapiripirit District (See Figure 4.3), one of the epicenters of the outbreak, only in early August – three months after the outbreak was declared. Vaccines sponsored by an international NGO were transported from the city of Entebbe, nearly 500 kilometers

away. Vaccines were also provided to Moroto District by Kenya's Turkana County government. Delays in vaccine delivery due to road conditions, bureaucracy, and logistical issues further exacerbated the Ugandan government's response to the FMD outbreak in 2014. Consequently, the quarantine and ban on livestock slaughter had grave repercussions on household income and coping strategies. Nevertheless, households that depend primarily on livestock fared better than those that expended more energy on agricultural production; the delayed and erratic rains resulted in good pasture such that, despite the quarantine, households with livestock are said to have bounced back in January 2015 when the quarantine was lifted, and livestock sales have since resumed (Welt Hunger Hilfe, 2015).

#### *Government support to pastoralism*

The history of government intervention in pastoral activities in Karamoja can be simplified under two rubrics: marketing and eradication of diseases. The establishment of the first District Veterinary Officer in 1948 coincided closely with the erstwhile government's desire to boost the cattle trade -in a scheme known as Karamoja Cattle Scheme, for reasons of destocking, development, and provisioning beef to other parts of Uganda (as well as WWII soldiers) (Quam, 1976). For the success of this Scheme, it was essential to eradicate commonly occurring diseases such as rinderpest, which devastated Karamojong herds many times in the late 1800s and early 1900s. Rinderpest was finally eradicated from the district after Independence in 1962 (Quam, 1976); other diseases, however, continue to persist and to have a disastrous effect on the livestock economy.



According to the current Deputy District Veterinary Officer (DVO)<sup>25</sup>, the main diseases afflicting herds in Moroto District are anaplasmosis (*lopid*) and Contagious Bovine Pleuropneumonia (CBPP – *loukoi*). Whereas CBPP can be prevented with vaccination, anaplasmosis, a tick-borne disease, is harder to control. Regular dipping and spraying of animals in cattle dips can help eliminate ticks and control the spread of the disease. However, cattle dips, where they exist, are infrequently used. In Moroto, there are no cattle dips at all<sup>26</sup>. It is alleged that communities do not make use of available cattle dips, and instead expect free delivery of drugs and sprays (FAO, 2009). Additionally, even though the government is chiefly responsible for annual vaccination programs against CBPP, the last such program in Karamoja was conducted in 2008<sup>2</sup>. Due to the prolonged lapse in vaccination programs, livestock diseases have become rife in the region. A new tick-borne disease is said to be making its way south from Kotido District in May 2015<sup>27</sup>.

Moreover, whereas in the past vaccines were provided for free by the government, the new ‘liberalization’ and cost-sharing policies demand that herders pay 300 UGX for vaccinating each animal. Though this is a small amount (10 cents), there has been resistance against this policy, possibly due to a combination of less cash flow among certain households, as well as the culture of free handouts that is prevalent in Karamoja.

Currently, veterinary services in the area function according to an agreement between Moroto District, the Food and Agriculture Organization (FAO) of the United Nations, and partner NGOs such as Veterinaires Sans Frontieres (VSF) Belgium,

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<sup>25</sup> Interview: May 27, 2014, Moroto District Veterinary Office

<sup>26</sup> Interview: August 14, 2014 NAADS advisory services provider & Cooperazione e Sviluppo Veterinarian

<sup>27</sup> Karamoja Development Forum – Facebook Public Group

Matheniko Development Forum (MADEFO), and Welt Hunger Hilfe (WHH). FAO, for instance, provides tick-killing drugs to spray in the villages, and partner NGOs provide trained Community Animal Health Workers (CAHW) to oversee general animal statistics and health.

Due to the transhumant nature of livestock rearing that is still prevalent in the district, the delivery of health services, for both animals and humans, is a flailing project. Exacerbating the problem of delivery is the weak drug regulation. In the past, the District used to be the custodian of drugs, which were stored at the district headquarters and distributed to the herders by government workers. In the late 1990s, the government allowed the infiltration of the private sector into the animal health business, thereby making it possible to buy drugs from alternative sources. Not only did this mean greater cost of certain drugs, but it also gave rise to faulty outreach mechanisms. For instance, since it is the responsibility of the herders to administer drugs, many of whom are pre-literate and thus unable to read instructions for proper use, preventive measures for contagious and lethal livestock diseases are not adequately managed.

As for large-scale livestock marketing, Karamoja's potential as a beef-exporting region to urban centers in Uganda, and eventually to international markets, led to the development of a few different schemes since World War II. During colonial rule, the Karamoja Cattle Scheme (KCS) was launched, and in its early years, the district witnessed the sale of large numbers of cattle, contradicting the claim of the "conservative cattle obsessed" herders (Quam, 1976, p. 121). Eventually phased out after Uganda's independence due, among other things, to extreme price fluctuations as a result of recurring livestock diseases, the Scheme gave way to a free trade auction system. Despite

initially showing good results, the new scheme under a parastatal body known as Uganda Meat Packers (UMP), eventually failed as well (for a detailed discussion of KCS and UMP see Quam, 1976).

Quam (1976) points out that the ‘fundamental flaw’ in these cattle marketing schemes is the difference between the goals of the producer (herders) and those of modern market systems. To take one example, UMP lacked enough working capital shortly after its inauguration. This meant frequent price fluctuations, low prices for livestock, and towards the end, no profit for the herders. The situation was worsened by a drought that forced herders to deplete their household assets (livestock) for low prices in order to have income for food purchases. The reluctance of herders to engage in such large-scale cattle marketing schemes can then be understood by the following:

Looked at from the local Karimojong producer's point of view, this erratic fluctuation in demand does little to encourage the sale of stock, which the producer is reluctant to part with in any case. Bringing cattle to market entails opportunity costs for the producer in terms of labor, loss of grazing and general loss of condition in his stock, and loss of time for other extra-pastoral activities. Unless the producer can be sure that he has a better than 50% chance that the "surplus" stock he is offering will be purchased, he is likely to forego the cash economy and utilize his “surplus” for gain within the indigenous modes of investment and exchange. The persistent complaint by development and/or government officials that the “conservative” Karimojong refuse to participate in the market system has a hollow ring when examined within the rationale of the native producer (pp. 132-33).

Today, livestock markets continue functioning in the region albeit without such parastatal schemes. Insofar as the District’s involvement in the markets is concerned, its main responsibilities are disease surveillance at markets, and collecting revenue from traders transporting animals across the border to nearby districts (e.g. Soroti, Kotido) or to other countries (e.g. South Sudan). Animal sellers do not pay any taxes to the government, except when transporting a purchased animal across districts. Despite government

intervention during times of crisis such as the FMD outbreak of 2014, state and NGO interest in pastoralism can be best described as secondary. The last livestock census was carried out in 2008, and plans are underway to conduct another census ‘soon’.

Rough estimates by DVOs in each district show a steep decline in animal numbers across the board, from approximately 6 million heads of all livestock in 2008 to 1.8 million heads in 2014 (see Table 4.1) (Robinson & Zappacosta, 2014). Disaggregated by species, cattle numbers have dropped by 75 percent, goats by 68 percent, and sheep by 65 percent. Interviews and focus group discussions with participants reveal large-scale livestock loss due to the protected kraal system and therefore validate these quantitative findings. These data, however, reflect a more probable stocking rate (0.5 Tropical Livestock Unit or TLU per hectare) when compared to other East African countries. This rate is also more likely than the 2008 livestock census data that shows a stocking rate of 1.92 TLU per hectare (Robinson & Zappacosta, 2014).

**Table 4.1:** Livestock estimates in Moroto District

Species	2008 census*	2014 A	2014 B
Cattle	352,867	165,000	75,000
Goats	380,172	180,000	200,000
Sheep	307,028	200,000	180,000
Camels	N/A	N/A	3,000

\*Moroto and Napak were the same district in 2008 – hence the higher numbers

2014 A – Robinson & Zappacosta, 2014

2014 B – Interview with Deputy DVO, Moroto District

Nonetheless, the 2014 numbers are merely estimates and a systematic livestock census is yet to be carried out. More important, according to Robinson and Zappacosta (2014, p. 17):

...there is a complete lack of recorded knowledge of basic livestock production parameters that could help placing the importance of livestock diseases into context. Data for birth rates, neo-natal mortality rates, post-weaning survival percentages, returns to service, and calving intervals have, apparently, never been collected. Changes in body condition through the seasons, that can indicate undernourishment, parasitic burdens at an early stage, metabolic disorders or simply poor livestock management, go unnoticed and unrecorded. Improvements in herd and flock management have, hitherto, been ignored, in favour of vaccinations or anti-biotic treatments that may not now be the appropriate solution to low levels of production. By the same token, exotic breeds are being introduced in some agro-pastoralist field schools via projects, without a preliminary good understanding of the performance levels of existing indigenous breeds and what they could achieve under improved management practices.

Most government and NGO projects continue to favor agriculture-based interventions, paying only minimal attention to the livestock livelihood system. Despite consistent failures in developing large-scale agricultural projects that sustain households through the frequently extended lean seasons, adequate attention to developing a sustainable pastoralist economy appears nowhere in the state's immediate plans for the region.

## Chapter 5

### Methodology

#### *Pilot fieldwork*

I first travelled to Karamoja in the summer of 2012 to explore its feasibility as a field site. Initially, I was interested in the role of coalitional psychology in small-scale warfare. To explore this question, I decided to visit Karamoja to get a better understanding of the recent history of intercommunity warfare, where different Karamojong communities had been caught up in an unending cycle of raids and counter-raids between mutually hostile sections of a previously unified group. Prior to leaving New York, I spoke to a few other researchers in the United States about their ongoing studies in the region, as well as current conditions in Karamoja. Although academic and humanitarian research continued to focus on the question of guns and intergroup violence, the reality on the ground was drastically different. Upon reaching Moroto in May 2012, the scale and speed of change became immediately clear. As is wont of graduate studies, my preliminary research interest was steered in another direction during my pilot visit.

Once held hostage by daily curfews and crossfires, Moroto town and its environs now enjoyed total peace, and a fast-growing, vibrant market. Villages in Moroto district as well as in neighboring Napak district reported only infrequent and small-scale violence in the form of livestock theft. On account of the latest round of state sponsored disarmament, only a few weapons were said to remain in the region. Whereas travelling on open roads at any time of the day was once considered extremely risky, all major

highways and roads connecting urban centers and districts were declared safe because of cessation of armed banditry.

However, there was a conspicuous side effect to this relative peace. A major component of the disarmament program was the establishment of protected kraals overseen by the Ugandan Army. The idea was to round up the animals of a particular area and keep them close to the army barracks where they would be safer from raiders than at kraals set up by the herd owner in the bush – where, although there would be pasture for the animals, they would be more susceptible to attacks. The UPDF-guarded kraals, in contrast to their objective, ended up causing severe disruptions to the livestock management system by restricting the owner's access to his animals and their products, causing rapid spread of animal disease, and, in general, resulting in great livestock losses.

During my first visit to Moroto District, a few of these protected kraals were still in operation. Although I never visited them in 2012 due to restrictions and inaccessibility from when Karamoja had its last heavy rains, I learnt about the current situation of people's rapidly plummeting livestock holdings through informal conversations in livestock markets and villages. While most of the livestock loss occurred either during the period of insecurity or when the animals were forcefully kept in protected kraals, individuals continued to lose animals as a result of unmonitored livestock diseases and the general lack of attention to pastoralism by the government and aid organizations. It became rapidly clear to me that although the research in academically inclined circles centered on questions of cattle raiding, and while programs designed by NGOs focused on avenues for peace building, households in Karamoja were facing more severe livelihood problems vis-à-vis their declining animal wealth. In view of these observations

as well as informal interviews conducted during the pilot fieldwork, I shifted my focus from exploring the role of coalitional psychology in raiding to investigating how herders use animal exchange as a risk mitigating strategy in their precarious environment.

### *Challenges*

Before describing my field methods, I believe it's important to discuss some of the challenges of conducting research in Moroto in order to contextualize the methodology and sampling of participants. Transportation is the single biggest challenge in Karamoja where not having a car (a 4 Wheel Drive in particular) can mean precarious, and sometimes dangerous, motorcycle rides over inhospitable terrain. The rainy season, however infrequent, makes motorcycle travel even trickier because of the sandy and loamy soil found on dirt roads. The only other practical alternative for moving around is walking.

I chose to walk to villages and market in the first few months of research not only due to my inability to afford a vehicle, but also because walking would distinguish me from the numerous NGO workers who periodically visit villages to conduct surveys. Although walking to the villages meant loss of time and lack of high subject recruitment, it had other advantages. In the words of Melanie Renfrew Patton (1991), walking to settlements "released me from the image of wealth and power that a vehicle can bring, and the added begging for rides and favors" (Pg. 34)<sup>28</sup>. After the first few months of walking to the village cluster, my research assistant (RA), Lopeyok John Singletary, managed to acquire a rough terrain motorcycle, which helped us save time without jeopardizing our image in the community. In Tapac (Tapac), this conundrum didn't

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<sup>28</sup> I used a car for a few days in the latter half of the research period mainly because of my research assistant's inability to walk long distances following a motorcycle accident.



present itself as walking is the only way to reach homesteads and kraals in the mountains. Further, there are no motorbikes for hire (called *boda boda* in Uganda), and the only cars in the entire valley are the sub-county ambulance and those belonging to the priests of Missionaries of Africa.

The second major challenge in carrying out research among the Ateker peoples is learning the language well enough to be able to conduct interviews. During my pilot visit in the summer of 2012, I spent a considerable amount of time in language training in Moroto town. In the absence of structured classes, I took the help of new local friends, the few publications on grammar, and, crucially, of Father Germano Serra, a Portuguese missionary and lexicographer of the Karimojong language who helped me grasp the foundations. Karimojong is a notoriously difficult language and even people who have resided in Karamoja for decades, such as Father Germano, admit freely to their lack of total fluency. In my own case, I have been able to achieve a level of basic proficiency, particularly when it comes to understanding spoken Karimojong. Most important for this project, my listening comprehension is good enough to allow me to catch mistakes or mistranslations made by my research assistants.

Given the complexities of the language, it was necessary to hire translators or research assistants for the timely execution of the project. In addition, since a large part of my participant pool is men, having male research assistants was crucial to quicken my entry into the male-dominated community, as well as to facilitate the task of getting good information from herders. Importantly, research assistants were vital because of certain facets of the fieldwork such as spending nights in kraals that were out on the rangelands. The potential threat was not so much from the resident communities but rather from

stationed military personnel who were infamous for their excessive consumption of alcohol and sexual assault of women. For these reasons, I hired one research assistant in each field site who belonged to the respective community (Matheniko in Rupa and Tepeth in Tapac).

Finally, many of the educated youth in Moroto, or potential translators, are in high demand for NGO jobs that pay exponentially more than the salary I was able to offer. Complicating matters further is the cost of living in Karamoja, particularly Tapac, with its inaccessibility and the fact that most food needs to be transported from outside the area. Thus, even the research assistants I hired, who had the rare combination of skills of congeniality, excellent command of English and Karimojong, and an intimate knowledge of the area and people, ended up having other jobs that impeded their full attention to my research. Moreover, due to their work obligations, family responsibilities, and their penchant for town life, I was able to convince them to accompany me to remoter areas for only a few days at a time. I, nonetheless, decided to hire them over others because I regarded accurate and in-depth knowledge, even in short bouts, as more valuable than extended data collection of inferior quality. Furthermore, both young men were well received by their respective communities, and were extremely adept at obtaining information, which in turn helped me get acquainted with people faster, learn more in a short time, and ultimately enhanced the quality of my research. Most crucially, I trusted both research assistants implicitly, no matter how far away from town we were and whether the phone networks to call for help were available.

*Field methods*

The main methods used for this study are participant observation, focus group discussions, and interviews. In the early stages of the research period, I visited livestock kraals and markets around Moroto town. The rationale for not beginning the project by first choosing a village in Rupa was to avoid any confusion about me being an aid worker, who usually get village lists from the District or Sub-county offices and choose target villages based on certain characteristics. Instead, I aimed at making acquaintances with people at markets, exploring my opportunities of research, and then arriving at a decision about my sample. Moreover, since Rupa Sub-county (where Rupa is located), which I had previously decided to make one of my field sites, extends over a considerably large area, and I did not want to choose a village or area simply out of convenience.

In Moroto, I began by visiting Naitakwae livestock market, held every Monday morning on the outskirts of town (see Figure 4.3 on Page 101). Naitakwae is frequented mainly by herders from Rupa and Nadunget Sub Counties of Moroto District, as well as some herders from the eastern end of Napak District. Herders also come to buy and sell animals from areas as far as Tapac Sub-county (45 Km), and Turkana and West Pokot Counties of Kenya (from 25 – 50 Km). Large-scale buyers at Naitakwae tend to be from the adjacent Soroti District, who transport animals for consumption or resale out of Karamoja. Before the latest incidence of civil war in South Sudan in 2014, it was not uncommon to find a number of South Sudanese buyers at the market.

To explore livestock markets in a Tepeth area I visited Musas market, held every Friday on the road from Moroto Town to Tapac Sub-county (Distance: 38 km from

Moroto). Most buyers and sellers in Musas are from the surrounding Loputuk Parish (a Matheniko dominated area), as well as Tepeth herders from the valleys of Mount Moroto. Since the mountainous terrain takes long to traverse on foot, particularly with animals, the market only picks up speed around eleven in the morning, thus giving adequate travel time to herders living deep in the valleys.

At both livestock markets, I observed all aspects of trade such as rates for different animals, price fluctuations from one week to another, trading groups and their characteristics, and the most popular choice of animal among buyers. It was at Naitakwae Market that I met the first set of participants from Rupa sub-county. They were one of the most popular trading groups on that particular day, and were being pursued by many buyers. Members of the trading group were an affable group of men from a village cluster, who bought and sold animals together and had been doing so for a number of years. Shortly after we had introduced ourselves and revealed the purpose of my visit to the market, the RA and I were invited to visit them at home in order to get to know them better. They thus became the first participants of the study, and they led me to other participants who were recruited through snowball sampling in Rupa.

Members of the trading group, who also became key informants for the site, also led me to participate in life in the kraals located near Kobebe Dam, approximately 40 kilometers from the village cluster. These participants, who were the most active livestock traders in the sample, usually went to the kraals on Thursdays and returned to the village on Sundays in preparation for market day on Monday. Early on in the research period, my RA and I accompanied the group to the kraal on one of their weekly trips, which turned out to be a grueling 8-hour walk, at the peak of the dry season with

temperatures soaring over 40 degrees Celsius. The stay at the kraal allowed me to make several observations about livestock management, management of the trade herd (that usually belongs to several people), division of labor in kraal activities, dietary habits, and food sharing. The stay also shattered an often-repeated prejudice against the Karimojong/Turkana about their lack of hospitality. Finally, the fact that I walked with them to the kraal, rather than driving there, demonstrated to people my genuine desire to learn about their way of life. We also heard participants announcing the fact that I successfully underwent the arduous journey to their neighbors, families and friends, many of whom were sufficiently impressed by the RA and my perseverance. We were welcomed in the villages with greater enthusiasm after this trip.

In the first four months of fieldwork (October 2013 – February 2014), I was based in Moroto Town while making regular trips to livestock markets, and, eventually, daily trips to the village cluster (Rupa). The choice to stay in town and make daily trips to the village was prompted by several key factors. First, at the time of commencement, the weeding season was coming to an end. The harvest was not as bountiful as people had hoped for, but the RA and I were, nonetheless, offered food in some of the homesteads (a practice that stopped entirely in January 2014). Since the meager crops had already been harvested and not much agricultural work remained, there was little for most people to do in the village itself. Early morning observations in the first two weeks pointed to the departure of many people from the villages around 9 AM, women to the gold mines or to chop firewood, men to either look at their animals or to their other livelihoods. The village remained mostly empty most of the day, mostly populated by the elderly, the children, and women selling local brew (*ngagwe*) for consumption. Individuals began

returning between 2 - 3 PM, when everyone would gather under trees and share the local brew and other alcohol.

A second reason to not set up base in the village was the common issue of requests, familiar to other researchers, visitors, and workers in these parts. Since asking for help from those perceived as more wealthy is not culturally unacceptable, researchers are typically approached for all manners of help. In order to not be exasperated by requests from people at the very beginning of my fieldwork, I thought it wise to live in town and make daily visits to the village in order to better acquaint myself with people, make my intentions known to them, gain some trust, and, importantly, to maintain my own mental wellbeing. True to my predictions, when the RA and I set up camp in the third phase of the project in the village, only a few people came to us for help, and only in the direst of circumstances. Compared to Rupa, only rarely was I approached for help in Tapac.

In March 2014, fieldwork was suspended momentarily due to the Rupa RA's accident in which he broke his foot and was bedridden for several weeks. We had, however, just concluded the first phase of the project in Rupa and were preparing to move to Tapac. Through a friend-contact in an Italian NGO that had projects in Tapac valley, I came to know of Apule Peter Loyonae, who I trained to become my RA in Tapac. In retrospect, it was a sound decision to select someone from the Tepeth community residing in Tapac because it helped me tremendously with all aspects of the

fieldwork such as learning about the area, knowing the people, and acquiring information<sup>29</sup>.

In Tapac (Tapac), I stayed in a house on the missionaries of Africa compound, down the mountain from the Mission residence. The house was located on the way to the Tapac trading center, where people gathered every evening to socialize and share information. Because of the drastic changes in settlement patterns in Tapac brought on by government and NGO efforts, many villages on the ridges along the valley lie abandoned. I therefore chose to begin research in the kraals along the foothills. Although there are still villages in Tapac valley, several comprising only one or two families, many villages have joined together to form the trading center known as Kolparok.

The situation in Tapac in late 2013 was drastically different from when I had first visited the valley during my pilot fieldwork. In 2012, people were still living permanently up in the mountains, coming down to the trading center to sell produce from their gardens, to buy household essentials (e.g. salt and oil), and to congregate with family and friends. Gardens were located around the villages on the mountain ridges, and fewer individuals engaged in any alternative livelihoods. With the descent from the mountains at the government's behest, opening of the Kosiroi mines, and consecutive years of poor rainfall, Kolparok has come to resemble a densely packed trading center rather than a 'typical' Tepeth village. Therefore, in order to get a more varied sample into the study rather than individuals only from a large-scale trading center, participants were selected

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<sup>29</sup> RA 1 was also very familiar with and known to the Tepeth because he lives among them in a Tepeth trading center at the base of the mountain within Moroto Town. Additionally, RA 1 had also worked extensively in Tepeth areas over the past decade.

through purposive snowball sampling to include village dwellers, trading center dwellers, kraal dwellers, and people living deep in the mountains.

### *Focus Group Discussions*

In the first phase of research at each field site, besides conducting observation in markets, kraals, and villages, I organized several focus group discussions (FGD) with key participants and their friends. The main aim of these initial FGDs was to understand the basic characteristics of stock friendships, and ascertain the kind of detailed data that I might be able to collect. Additionally, I also asked questions on the kinds of changes vis-à-vis livestock management and livelihoods that have occurred in Karamoja since the disappearance of guns, the decline in raiding, the disbandment of protected kraals, and the increase in livelihood diversification. Finally, I generated discussions on general risk management practices in terms of livestock, agriculture, and cash income.

An ancillary reason for not diving into structured interviews by having informal conversations and FGDs in the first three months was to allow people to learn more about me and to build a sense of camaraderie. By the time I began systematic data collection, subjects had either met or learnt of me through their networks and greeted me as someone they knew even at our first meeting. While I do not claim complete trust between the participants and me, I do feel confident that participants were quite open to share information about livestock transfers and herd demographics.

### *Interviews*

After acquiring a preliminary understanding of norms of friendships and other risk management strategies from the numerous FGDs, I finalized my interview schedules under the remote supervision of my adviser. Prior to each interview, an oral consent was



read out to participants and the RA and I always ensured that they had adequately understood their rights. Interviews were conducted in two parts so as to avoid respondent fatigue, as well as to allow participants to engage in their daily income generating activities. Recorded interviews and FGDs were transcribed by the RA and me and later crosschecked and corrected by trusted and knowledgeable sources.

The first part of the interview consisted of a demographic and economic survey, livelihood strategies, and a social support questionnaire (see Appendix I). The second part of the interview examined details of stock friendships including attributes of friends such as names, locations, kinship, and items given to and received from them. Finally, a list of recent transfers ‘since the last harvest’ (August-September) in the form of loans, gifts, and other help received was noted for all participants. The main aim of the list was to understand how goods and services circulate within the community.

A total of 24 men and 15 women from Rupa, and 21 men and 15 women from Tapac were recruited to the project. Due to the constant movement of people from Moroto to Turkana (in Rupa) and from Tapac to the Kenyan Border (in Tapac) in search for water and pasture, for trade and social visits, subject recruitment and retention required considerable time and energy. This was particularly true for men who tend to be more mobile than women. Therefore, despite my initial goal of 25 men from each site, I ended up dropping some participants due to the inability to reconnect with them after our initial visit and thus to get complete data. All participants from Rupa are Matheniko Karimojong, except one male who is a Tepeth man and divides his time between a kraal and a trading center both neighboring Moroto Town. Since the study investigates the influence of locational and individual-level influences over larger ‘cultural’ or ethnic

factors, he was considered in Rupa for analytical purposes. His stock friends and support networks, however, mainly consist of other Tepeth individuals.

As far as possible, interviews were conducted away from the general population with the purpose of maintaining privacy. I should note that the concept of privacy was not nearly as critical for the participants themselves as it was for me. For example, on a particular day when I was just visiting the village and not conducting interviews, two participants freely and loudly discussed, while in the vicinity of others, about the animals that they had acquired through armed raiding and which currently comprised their livestock wealth. Nevertheless, I tried my best to ensure that participants felt comfortable answering questions and discussing delicate matters. Only in one instance did a participant get emotionally distraught over answering questions about the inheritance received from his father. Recognizing his difficulty in speaking about it, I decided to end the interview that day and made an appointment with him for later.

It has been repeatedly discussed in the literature that acquiring herd data from pastoralists is a futile endeavor because of the secrecy surrounding it. Karimojong are also known to not count cattle but rather ‘cataloguing’ them according to distinguishing features (Dyson-Hudson, 1966, p. 98). It is claimed that one requires to spend a considerable amount of time with the community to build enough trust in order to know herd counts. In the case of Karamoja, the State-monitored animal management system required each herd owner to count and report number of animals ‘belonging to him’ – a complicated task given the multiple and overlapping rights in animals. Ever since the protected kraal system was introduced, herders admit to actively counting animals, and this is true even today for members of those kraals that are closely monitored by the

Ugandan Army. In view of these events, asking about numbers of animals posed less of a dilemma than in the past.

Participants were compensated Uganda Shillings (UGX) 12,500 (\$ 5<sup>30</sup>) for their time, and were paid in two installments. In paying subjects for interviews, I broke stride with some other researchers in Karamoja, both academic and development/humanitarian, who are known to compensate participants in food items (oil, sugar etc.) or sodas, or who give nothing at all. The main reason proffered by academics for not compensating research subjects is that it monetizes the relationship, which in turn jeopardizes the type of information the researcher gets. Another reason often given by researchers in Karamoja for the reluctance to compensate in cash is the propensity of people to spend their money on alcohol (both local brew and hard liquor). Despite knowing these facts, I chose to compensate in cash because I wanted to help participants with small needs for the hours they took out of their time for my project. As previously mentioned, almost all participants engage in alternative livelihoods, and given the competition and lack of opportunity in the area, losing a few hours in the morning could mean not having anything to bring home for their children. Moreover, I wanted participants to have the freedom to choose how they spent their money. While some would definitely spend their money on alcohol, I wanted to ensure that those people who were in need of cash for doctor's fees and medication were able to pay for these and other basic needs. Ultimately, by compensating in cash, I extended to them the same freedom of income expenditure as I enjoy. Upon visiting in 2015 for follow-up research, I heard from some participants about how they had used the money from the interviews and winnings from the game

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<sup>30</sup> 2013-2014 Exchange rate: \$1 = UGX 2500

(described below) for crucial activities like investing in small stock and paying taxi fare to transport sick family members to a private hospital.

*Risk sensitivity and time preference*

In the last phase of the project (August – October, 2014), I conducted the risk sensitivity and time preference games in both field sites, and a follow-up interview on coping strategies with male participants (see Appendix II). Since the study's overarching aim is to understand how individuals use social networks to manage risks, I felt it equally crucial to explore people's attitudes towards risk to understand the effect these attitudes have on decision-making behavior, and how risk sensitivity influences choice under uncertainty. The decision to add these games to the rest of the study stemmed from the observations I made during the course of fieldwork. In a period where Karamoja is undergoing profound change vis-à-vis livelihoods, pastoralism is nearly always complemented with an alternative income-generating activity. Due to the abysmal rain patterns of the last few years, food consumed by households is always, or shortly after consumption of grains from own garden, purchased from money earned through informal work or from NGO cash-for-work programs. A small portion of the population also received rations from the World Food Programme at the time of research (at the time of writing, Karamoja had officially entered the 'famine' phase, and region wide food distribution was said to commence).

A recurring complaint among development partners and government officials was the inability of pastoralists in Karamoja to save cash that they received either from cash-for-work programs or from daily wages. Median daily wages from informal work were barely enough to feed a household, let alone invest in a savings program, and the growing

problem of alcoholism only exacerbated the issue of savings. Village Savings and Loan Associations, although functional in several places, were failing to meet their goals due to the supposed inability and unwillingness of people to make regular payments. Critically, projects on afforestation that require a large time investment in the growing of woodlots were failing because people were, allegedly, impatient. In light of these conversations and observations, I chose to conduct these two experimental games to better understand choice under chronic food insecurity and poverty (Banerjee & Duflo, 2012; Spears, 2011), conditions that have plagued Karamoja for the past few years, and how wealth, varying levels of market integration, and gender influences risk sensitivity.

The main aim of the time preference experiment is to understand how individuals make immediate versus future consumption decisions. The experiment is based on the hyperbolic discounting model, which “refers to the tendency for people to increasingly choose a smaller-sooner reward over a larger-later reward as the delay occurs sooner rather than later in time” (Redden, 2007). An often-cited example of this phenomenon is that people would prefer \$100 today over \$110 tomorrow, but the same individuals would show greater patience by choosing \$110 in 31 days over \$100 in 30 days (Frederick, Loewenstein, & O'Donoghue, 2002). Subjects were asked time preference questions for the ‘near term’, as in today versus tomorrow, one week, and one month, and one ‘distant frame’ question on preference over four months versus five months (Ashraf, Karlan, & Yin, 2006). In order to avoid an ‘anchoring effect’ – when responses to the first choice influences subsequent answers in a set of multiple choice questions – the near term questions were asked first, followed by the gamble choice game (described later), and finally the distant frame question. Based on their preferences, individuals were labeled

‘impatient’ if they chose the immediate reward in either of the frames, ‘hyperbolic’ if they chose the immediate reward in the near term frame and the delayed reward in the distant frame, and “patient now, impatient later” when they were patient in the near term frames and but impatient, i.e. choosing the earlier reward, in the distant frame (after Ashraf et al., 2006).

Payoffs in the game were hypothetical due to coordination problems with long-term rewards. Participants were told that payoffs are hypothetical, but they must treat them as real. Amounts for the game were chosen based on daily income in Moroto District in 2014, which ranged from UGX 2,000 (\$ 0.75) – UGX 10,000 (\$ 4). Median daily income value ascertained from participant observation and interviews was UGX 5000 (\$ 2). This estimation does not account for highly profitable, yet very rare, instances of gold mining where people could earn up to UGX 400,000 (\$ 160). Similarly, I do not account for profits from animal trade that could amount to UGX 30,000 or more, but would, in many cases, be split among several herders. Median daily income had less meaning in Tapac sub-county where mining was the only source of alternative livelihood, and returns were not consistent.

Following the time preference experiment, I administered the gamble choice game to each participant. This game tests the risk sensitivity of players and was adapted from a protocol that has previously been used in Zimbabwe and Colombia (Attanasio et al., 2012; Barr & Genicot, 2008; see also Binswanger, 1980) (see Appendix II). Players were given six binary choices of different amounts from which they could choose one to play. Choices ranged from ‘extremely risk averse’ to ‘extremely risk taking’ and

participants were classified in the different risk categories depending on the choice of gamble.

*Post food security crisis transfer networks*

In July 2015, I returned to Karamoja to collect missing data, verify qualitative information from the year of fieldwork, and to collect another list of recent transfers ‘since last Christmas’ (*ethukuku*). The follow-up study was designed for two reasons: one, the ease of setting a time frame as most people have a hard time counting months, yet everyone knows about Christmas celebrations; and two, because of the critical food security situation in Eastern Karamoja in the early part of 2015, which allowed for an empirical assessment of study participants’ network of social support.

Conditions in the two field sites were dire when I arrived in late June 2015 due to the lack of rain, which was further battering fragile households reeling from the recent foot-and-mouth disease outbreak among livestock. In terms of income generating livelihoods, the situation in Rupa Sub-county remained unchanged from the fieldwork year and people were still engaging intensively in alternative livelihoods. However, the market for gold mining had dried up with the departure of the principal gold exporting Indian company, Jan Mangal. The popular gold reserves were also nearing exhaustion, forcing women to search in other areas for several days at a time. Food-for-Work and Cash-for-Work programs run by NGOs had also come to an end. The livelihood profile of individuals, however, had not drastically changed and participants merely intensified the livelihood that they were doing during the year of fieldwork.

In Tapac, on the other hand, the failure of harvest had a noticeable shift in both livelihood and residence patterns. Whereas several villages had moved *en masse* in 2012

to cultivate at the new trading center of Kolparok, many people had now moved further to the Kosiroi mines to excavate limestone. The only means of putting food on the plate in Tapac was to purchase it with cash earned from mining. Every study participant, whether or not he or she had an alternative means of earning in the year of fieldwork, was now working in the mines. This even included the older participants of the study (over 60 years of age).

To explore the actual flow of transfers during a time of crisis, I returned to the field to administer a short questionnaire to each participant on recent transfers (gifts, loans, and other transfers) received from and given to others since Christmas 2014 (see Appendix III). Although there were other pertinent questions to be asked, such as time allocation in different activities and analyses of consumption versus asset smoothing in the wake of a major shortfall, I decided to not include these variables due to the dismal circumstances in the field sites. While I made contact with most participants, they did not have much time on their hands due to the competition for casual labor. In Rupa, subjects had to compete with people coming from other districts to Moroto town in search of work, and this required leaving the village very early. On the other hand, in Tapac, people required a considerable amount of time for traveling to the mines (1.5 – 2 hours on foot from Tapac trading center) as well as excavating and breaking limestone. Needless to say, the study would be strengthened with data on individual-level shocks and responses.



## Chapter 6

### Stock Friendships & Men's Networks

#### *Introduction*

The animals you entrust to someone is like the money you put in a bank.

Participant, Rupa sub-county

Similar to livestock friendships among Pokot, Dassanech, Maasai, and WoDaabe pastoralists, Karimojong and Tepeth also exchange animals with friends for reasons ranging from gift giving to helping during need. Sharing animals is only one aspect of the institution of friendship where the gift of advice is claimed to be held in the same high regard as the gift of an animal. In addition, it should be reiterated that livestock transfers among African pastoralists, including those in Karamoja, occurs much less frequently than food sharing (Johnson, 1990, 1999; see also Moritz, 2013). According to Johnson (1990, p.159), the implicit difference between food sharing and livestock exchange is that while the former “provides a form of general social cohesion” the latter “differentiates specific individual relationships”. Food sharing, moreover, does not require a past relationship: if one is Turkana (or Karimojong or Tepeth) and has good relations with the requester, it is expected of him/her to share food. To not do so is regarded as shameful (*erai ngilec*).

In this chapter, I describe the institution of stock friendships among male pastoralists in Karamoja. I give an overview of the norms of friendship, distinguish the categories of livestock transfers, and explore how property rights and debt function within various livestock transactions. Further, I investigate the personal network characteristics of participants, including the size, spread, and composition of their stock friend networks. Besides analyzing the effect of individual level and locational

differences on these networks, I also explore how stock friends help each other, and the role of reciprocity, wealth effects, and homophily within this informal institution of mutual aid.

### *Levels of friendship*

As with other friendships around the world, stock friendships (*akoneo*) are formed at all stages of life: young shepherds meet each other on the grazing grounds; young men befriend others during ceremonies or at kraals; and at every stage, no matter how old, men are introduced to new friends through their existing friends. Neighborhood rituals are equally important meeting venues for prospective friends (Bollig, 2006). Typically, friendships between unrelated individuals do not begin with animal gifts; rather, a herding stick (*ebela*) is requested or voluntarily gifted to potential friends. From there, the two individuals go on to share items of clothing such as blankets and sandals. Finally, the sharing of tobacco (*etaba*) occurs, which is the first significant item that changes hands between imminent friends.

Men who visit kraals or villages befriend others by requesting snuffing tobacco from each other. The next time the two persons meet, the latter gives the former a piece of solid tobacco, which the receiver grinds into a fine powder (called *anyakaet*). He returns to the giver with a bottle of ground tobacco (*abuui*) and offers it to him as a gesture of friendship. At this point, the relationship between the two men is said to begin. According to participants, giving *etaba* is akin to giving a small animal, and it plays a significant role in the initiation of such relationships as friendships and courtships. Men also request tobacco from women they are interested in marrying, and the act of the woman presenting tobacco to the man signals the first phase of courtship.

The most paramount aspect of a friendship is said to be “attraction through blood”<sup>31</sup> or “when one person’s blood matches with another’s” (*Ngina ecamunator ngaakot kon ka nguna dang*). “Blood attraction” is not to be confused with “blood brotherhood,” which requires the ingestion of blood of another as a ritual act in order to seal an alliance not just between two individuals but between two sets of kin (Evans-Pritchard, 1933). Rather, the notion of “blood attraction” signifies the chemistry that attracts people to one another. This concept also plays a role in romantic relationships where men and women are said to marry the one with whom their “blood matches.” This obscure attraction, in the words of participants, is predicated on very specific traits, such as the way a person lives, talks, and the way two people’s hearts are exhilarated by the other’s words and actions. The importance of a person’s attitude towards others and especially his (or her) “peaceful” nature have great prominence, and are highly sought-after qualities in friends and spouses. A participant recounted the notion of “blood attraction/matching” in the following manner:

Take my second wife for instance. Many men wanted her but her blood accepted me, and that’s why she chose me among many to be her husband. A friend is the same. Whatever I say, the friend will accept. Whatever the friend says, I will accept. Our hearts cannot argue what a friend says (*Ngepeguni etau nguna alimu ekone*). This is also true for us (RA, Padmini and the Participant). We met in a crowded market, not at home or even a specific place. We just met by accident in a place where many people gather. But when the winds of our blood (*ekuam angaakot*) led you (RA and Padmini) to me, you found out that I would give you information and I can become your friend.

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<sup>31</sup> From the verb *acamun*: to desire, want, agree; or *akinir*: to like much, to desire. I choose the word “attraction” (*arikon*) as it is also used by some participants, and the English word “attraction” fits better.

Words such as “love” (*amina*) and “heart” (*etau*) are abundantly used and impassionedly stressed when talking about friendships. So great is the importance of the behavioral and emotional qualities of potential friends that these qualities allegedly outweigh other, more pragmatic considerations such as economic status and social standing. In the words of some participants, animals only feature later in the relationship and it is first and foremost “blood” that should “accept” the friend. (*Mere ngibaren bon arauniere ngikonei, erai ngaakotobon acamunothi*—It is not animals that make you friends; it’s only blood that creates friendships.)

The category of “friend” or *ekone* while used freely in parlance includes several levels of friendship. Friends could be one’s own brothers, various cousins, affinal relations, and those who have no relation at all. The intensity of the friendship or the degree of closeness is expressed verbally with the use of different adverbs: *nooi* (very) and *jik* (completely), as in *ekone nooi* or *ekone jik* are used to describe a close friend with whom one has frequent and deep contact and with whom significant events in life have been shared. Examples of such events include physically carrying friends through insecure terrains to the hospital during a medical emergency, and individuals risking their lives during a dangerous raid to save friends. Such close friendships travel through generations and spread into the family where, if one party were to die, the siblings of the deceased assume the role of friend and continue assisting the deceased’s friends in all the ways the deceased would have. Similarly, as the families of friends become well acquainted over time, sons and daughters of the friends go on to form friendships of their own with one another, thereby continuing the original friendship.

Closest friends who are not related by blood are considered brothers (*ngikaitotoi*)

once the friendship is sealed,<sup>32</sup> and they also become part of the same sub-clan (*ateker*<sup>33</sup>). Becoming a clan member (*ngatekerin*) through friendship brings with it the same prerogatives that members born into the clan enjoy. The most conspicuous of these prerogatives is the distribution of received bridewealth. When the demand for animals is made to the groom, all members of the family, a wide web of agnatic and affinal kin, are taken into account. Enmeshed within this web are also friends who by virtue of their close ties to the individual and thereby his family are now considered part of the clan. Every time there is a marriage in one's family, whether a daughter's or a sister's, his friends have the right to demand their share of the bridewealth (for more on bridewealth accumulation and distribution, see below).

Besides close friends, individuals also have those friends with whom they socialize, share local brew, food and information, but they do not necessarily share animals. These friends do not have an obligation to help in livestock accumulation for marriage or for dispute resolution. Referred to as *ekone ca* or "just friend", these friends fall under the category of "good acquaintances" with whom people have friendships that do not have the same emotional depth as with their good friends. The group includes those people with whom individuals have neighborhoodships (Foster, 1961), which are bonds of mutual interest borne out of sharing the same geographical area. Some neighbors can indeed be stock friends, but an individual's stock friend network rarely includes mainly neighbors. From a strictly self-interested motive, this strategy would not

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<sup>32</sup> *Erai ngikonei ngikonei anikoneunoi toruoretai ngikaitotoi*: Friends are friends, and in befriending each other they become brothers.

<sup>33</sup> Although the term *ateker* or clan is used, sub-clan is more meaningful because "it marks the limits of descent reckoning, exogamy, and widow inheritance, and may exhibit its own modification of clan name, brand, and ritual" (Dyson-Hudson, 1963, p. 355).

be prudent were there to be a covariate disaster, which would render geographically close neighbors unable to assist. “Just friends” and neighbor friends might help once in a while with such things as cash and food, but they seldom share animals, and therefore do not form the strong ties usually associated with stock friends.

A different term used for friends with whom one doesn't have a strong bond is *ngikonei a ngakipi* or “friends of water”. This term is also used for relatives, whether through descent or affinity, who are differentiated into two classes: cattle kin (*ngiyenet a ngaatuk*) and water kin (*ngiyenet a ngakipi*). According to Dyson-Hudson (1966, p. 91):

Cattle kin share stock received through bridewealth or gift, and accept an obligation to provide stock at need: they form an interest group in relation to the cattle transactions involving any of their members. Water kin are under the strongest obligation of mutual hospitality short of cattle transfer... It is cattle kin, as a group, that provide any man with his most reliable supporters, since quarrels of any kind are likely to involve payment or receipt or at least well-being of cattle, and in terms of cattle the interest of one member is substantially the interest of them all.

A similar distinction is made when speaking of friends, with *ngikonei a ngakipi* or “water friends” occupying a lower rung than friends with whom animals are shared. The depth of the relationship, however, goes beyond the value of the cattle. Participants highlight the difference in the two categories of friends in the following was:

He (“water friend”) is the one with whom your words do not match (there is a difference of opinion). When you have a problem, he does not rush to your rescue. He sees your children hungry, your wife sick, but he doesn't help. He doesn't have love for you. The real real (sic) friend comes home and checks how people are getting on. He is concerned about you. He visits you even if you have no food to offer. This is the person with whom you share animals. You share food. This friend really loves you.

Thus, the words *nooi* (very), *jik* (completely), and *ca* (just) appended to the term *ekone* (friend) reveal the intensity of the relationship and the closeness of one person to another.

These degrees of friendship also carry certain assumptions. For instance, while it can be

assumed that close friends or very good friends will play a major role in one's life, from marriage to dispute resolution to caring for a friend's family in the event of his sickness or death, "just friends" or "water friends" do not have as significant a role. They are, however, a degree of closeness above other categories of people who are referred to as either "chat mate" (*akiruoret*) or someone you socialize with, "walk mate" (*erukith*) or someone who joins your group while walking to town or to the kraal, "just a person" (*etunganan ca*) with whom one has no real relationship, and "a Matheniko" or "a Tepeth" (signifying someone from the community with whom there may not be a specific relationship). Although all these categories of people make up the vast and varied social network of an individual male pastoralist in Karamoja, it is with friends (*ngikonei*) that one shares animals.

#### *Categories of livestock transfers among men*

The exchange or sharing (*ameanakin*) of animals among stock friends, whether as gifts or during a crisis, is a significant aspect of friendship among herders. Despite the infrequency with which it happens, the transfer of animals from one friend to another in diverse circumstances also allows the receiver to fulfill certain social obligations such as paying bridewealth or a fine in a dispute. Most transfers from one friend to another fall under the category of *nguna/ngina*<sup>34</sup> *ke ekone*—or "as a friend". These can be classified as gifts that an individual gives to a friend without an explicit need on the receiver's end. Although both male and female animals are gifted in this way, one participant stresses that among Matheniko Karimojong, most voluntary gifts are male animals, and female animals, whether cows or small stock, are most often requested by the receiver.

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<sup>34</sup> Depends on the sex of the animal: *nguna* for male, *ngina* for female

“Friendship” animals that are gifted or requested become the property of the receiver and the giver loses all rights over it. The receiver may choose to do whatever he pleases with it. He may sell the animal to buy food, slaughter it to feed the family, milk it, or even relinquish it to someone else who needs it in the future. Were the gifted female animal to reproduce, the resulting calves or kids will belong entirely to the receiver and the giver will have no rights over them. The giver may eventually come and request an animal descending from his gift from the original receiver, and it’s the latter who decides whether he is in a position to grant the request.

Besides this most common category of livestock transfer, there exist several other types that carry with them different rules of ownership and rights over the original animal and its offspring. The following are the other categories of transfers that take place frequently among men. A few of these transfers can also occur among individuals who are not (stock) friends, but requests of such animals are usually fulfilled by friends before one has to approach an acquaintance.

*1) Ngarobai/Akitanap ekadongot (to cause to wear a bell)*

A *ngarobai* animal is a gift from one friend to another, even though it can be explicitly requested by the receiver. Friends never decline the request of a *ngarobai* animal. Friendships that feature the gifting of *ngarobai* animals carry great weight and both parties can expect help from each other in the time of need. In other words, friends to whom *ngarobai* animals have been gifted provide help without having to explicitly ask for it.

*Ngarobai*, in a strict sense, refers to a band made from strips of animal skin that is tied around certain prized animals. Oftentimes, these are castrated male animals, although



on rare occasions *ngarobai* animals can be female. These animals are painstakingly decorated through branding and manipulation of horns (see also Dyson-Hudson, 1966, p. 100). *Ekadongot* is the bell that is hung around a *ngarobai* animal to enhance its beauty. A *ngarobai* animal is not the same as a “name-ox”<sup>35</sup>.

A *ngarobai* animal usually conforms to someone’s preference, be it the color or pattern on the skin, or the shape of the animal. Men tend to know their friends’ preferences for animals, which are often reflected in the songs sung by the latter. If an animal of the color or pattern admired by a friend is born into an individual’s herd, he will call for his friend to come and take it. The giver may also make a *ngarobai* band for this animal in anticipation of his friend’s imminent visit to claim this animal.

A bull (*emong a ngarobai*) or male goat (*ekoroi a ngarobai*) that falls into this category has great emotional significance for the receiver, and eventual owner, of the animal. It is said that through the act of decorating in the style of *ngarobai*, a man shows his love for animals. Songs are sung in praise of these animals. Men take great pride in herding their *ngarobai* animals, and hearing the bells clang when the animals are out grazing brings great joy. Moreover, a man draws immense strength and courage from his *ngarobai* animals. He evokes their name when going for a fight or a raid. Indeed, in the words of some participants, the *emong a ngarobai* is what makes them “a man”.

Upon gifting a *ngarobai* animal to someone, the giver loses all rights over it. To ask for this animal back from its new owner would be considered an act of insanity (*ngini*

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<sup>35</sup> A “name ox” is the favorite ox of a man, which is typically gifted to him when he is young so that the man and the animal grow together. The man takes a new name that is derived from particular features of the ox (e.g. “father of the ox with black spots”). The man shares such a strong emotional bond with his name ox that if the man were to die, his name ox is also speared since the presence of this ox would remind the family of the deceased and bring renewed grief. (For more information on name oxen, see Dyson-Hudson, 1966, pp. 100–101).

*ewak*). In addition, there is no limit to the number of *ngarobai* animals that may pass from one individual to another. Each time an individual sees an animal that he likes in his friend's herd, he can request for it. Moreover, if he sees his preferred animal in the herd of his friend's brother, both friends would go to the brother in order to make a request. This would open a new pathway for the receiver as he would forge a new friendship with the brother of his friend. Similarly, each time an individual notices a calf with the characteristics admired by a friend, he can ask him to come and take it. However, if the requester notices that the giver does not have enough animals in his herd, he may choose not to request at that moment in the hope that he may do so in the future when the giver's herd has increased.

## 2) *Bridewealth and Ekicul*

Marriage has supreme importance in the social and economic life of communities in Karamoja, and is one of the main avenues for the activation of existing support networks. Not only does marriage, and hence the act of founding a family, elevate a man's status in the community, it also allows him to forge new relationships through his wife's family and thus establish new links in his forever-expanding social network (R. Dyson-Hudson & Dyson-Hudson, 1962). The affinal kin of a man play a major role in the man's life by relation as well as by becoming his stock friends, providing him material, moral and physical support as needed.

The process of marriage, however, requires the exchange of animals from the groom's family to the bride's, and enveloped within this process are multiple support sources on both the bride's and the groom's side. Conventionally, before the actual marriage ceremony, the groom has to consider the bridewealth that will be paid to the

bride's family. These animals come from his father's herd, herds given to the father's wives, the groom's independent herd, and those of his brothers, half-brothers, friends, and other relatives. An informal discussion with the bride's father is first held to ascertain the number of relatives who will be given animals. Thereafter, even if he has a bountiful herd, the groom must discuss the demanded bridewealth with his own father as a matter of respect, and the father may involve the son's mother, other wives, and the rest of the family in the discussion.

Animals from the groom's nearest kin, i.e. his father and brothers, are almost never sufficient for the demands of the bride's family. This is particularly the case for Matheniko Karimojong who, like the Turkana, tend to have high bridewealth. Following negotiations with the family, the groom begins the long process of accumulating bridewealth from friends and other relatives. An oryx horn with a cow's tail (*arupepe*) and a long, white feather in his hat signify that he is in the process of marriage and looking for support to pay bridewealth [*Akibut*: to help somebody to complete the dowry (Comboni Dictionary)] (for a detailed description of Karimojong marriage, see R. Dyson-Hudson and Dyson-Hudson, 1962, and Clark, 1952).

Among Matheniko, although an approximate number of cattle and small stock (and sometimes money) is decided at informal meetings, this almost never corresponds to the actual number of animals eventually given on the day of the marriage (*akidet a ngaatuk*—ceremony for “counting animals”). The first part of the wedding ceremony is a boisterous affair, with the friends and relatives of the bride and groom bargaining over the number of animals that should be exchanged. The bride's side loudly and convincingly presents a case for why a particular family member or friend deserves an

animal, and the groom's side follows suit by trying to evade or discount these demands. The groom's family and friends stand near the animal enclosure and after each demand from the bride's side, they evaluate the remaining animals and then ceremoniously bring the demanded animal out to bequeath to the particular member on the bride's side. This back and forth can continue for several hours before the bride's family is satisfied. At the end of this process, a bull or a male goat known as *lorikot* is given to the bride's family. Only when the *lorikot* animal is handed over can the bridewealth exchange be declared complete. The bride can now proudly adorn a metallic neckpiece (*alagait*) to show that she has been "paid" (sic) for completely.

The full or majority payment of bridewealth from the groom to the bride's family means that any children born of the union will belong to the clan of the groom since, by paying for the mother, he has successfully integrated his bride into his paternal clan. In the event that the bride falls pregnant before the groom is able to gather the bridewealth, he is still required to pay animals in order for the resulting offspring to join his clan. This "payment in installment" of bridewealth known as *ekicul*, or half-marriage, also requires payment of animals, although in smaller numbers than bridewealth, and is accumulated with the help of stock friends and relatives.

Friends of the groom have conventionally played a critical role in the accumulation of bridewealth and *ekicul*. Indeed, participants talked about bridewealth payment as paying for "their" wife, instead of one man's wife, signifying that it was a matter of collective interest for them to help their friend "pay" for his wife and that everyone was part of the ceremony without being the groom (*Potuayeta ayok aberu*: let's pay for our wife; *Mere bo ngasuban ngakece pei -a?* —Isn't the ceremony also theirs

(friends')?). Friends either give their own animals towards the payment or implore various and sundry male relatives and friends (who are not necessarily in the groom's own network of support) in order to support their friend in successfully conducting his marriage ceremony. It goes without saying that the giver of the animal loses all rights as the animal is to be transferred directly to the bride's family on behalf of the groom. However, in so doing, givers are assured of the promise of help from the groom in the future (albeit dependent on the state of his current asset holdings) either during their own marriage or in another circumstance.

Likewise, bridewealth received by the bride's family is distributed among near and far kin, as well as stock friends who, on account of their friendship to either the father or another family member of the bride, are entitled to their share of the received bridewealth (also known as *ekemoin* or finger; signifies one's share) as a gesture of friendship and in recognition of their help in the past. Similar to the Pokot ethos (Bollig, 2006, pp. 85–86), amassing and hoarding received bridewealth is not acceptable behavior; in fact, the redistribution of animals within the recipient's social network reinforces kinship and friendship ties and only further benefits the distributor.

### 3) *Eketepan (To Fertilize)*

In order to increase herds and in the absence of enough male animals, individuals request their friends for animals, primarily bulls, for fertilization (*eketepan*). Unlike the preceding categories of transfer where the giver (X) loses all rights over the animal, he continues to retain property rights over the animal given for fertilization. The receiver (Y) is merely taking this animal to increase his livestock number. Nonetheless, the giver may

choose to forego his rights over the animal, recognizing the need the receiver has for the fertilizing animal.

A second condition in this transfer is when Y comes back to ask for another fertilizing bull from X, having already taken such an animal earlier. In this instance, Y gives X a female cow in exchange for the bull. The cow, however, remains in the original herd and does not join X's herd. Y continues to care for the cow and his children profit from its milk. The cow also reproduces in Y's herd. The giver of the fertilizing bull, X, periodically visits Y to check on the cow and its calves. If X needs an animal for some reason, whether for milk or to support his friend/brother in bridewealth accumulation, he can come to Y's herd and take one of the calves of the cow that was exchanged for the fertilizing bull. He cannot however take all the animals that "belong" to him, i.e. the cow and all its calves. This is considered impolite. Instead, Y becomes the decider of the fate of the animals, although technically the property of X. X has to "beg" for animals from Y and provide an explanation for why he needs them, while fully knowing that the cow and its calves belong to him. Since these animals are in the custody of Y, he is the one who decides which animal X can have, and Y has the last word in this matter. In addition, Y may decide to not give any of the animals that "belong" to X.

The fertilizing bull never comes back to the giver's herd since it ages in the process of mating. Likewise, the original female cow that was exchanged for the fertilizing bull will never leave the herd of the receiver, Y. Whereas X can take some of the calves, he is obligated to leave a few calves and their mother in Y's herd. In this way, the lineage of the cow lives on in Y's herd, and the exchange relationship between X and Y never ends since X can come back several times in his lifetime to request for his "own"

animals from Y. Finally, the exchanged cow and its calves that remain in Y's herd follow the rules of entrustment (*akijokor*), described below.

4) *Akijokor (To entrust)*

In order to safeguard animals from the risk of sudden raids and diseases, individuals tend to keep some of their animals in another person's herd, often at a distance from their own village or even sub-county. These are animals that they "entrust" to a person or persons. These animals belong to the owner and are simply kept in a friend or relative's herd. Even if this animal reproduces, all offspring belong to the owner and not the custodian. The custodian herds, treats, and waters the animals, and alerts the owner of any developments such as the sickness or death of a certain animal.

Similar to the rules of the fertilizing bull, the owner of the animals that are entrusted to a friend loses decision rights over them. During a time of need, the owner becomes the "beggar" of his own property, and the custodian can decide whether or not to give the owner an animal. The custodian cannot give out the owner's animals for such purposes as supporting a friend in bridewealth accumulation or as a *ngarobai* gift. If a friend or relative of the custodian or any member of the community requests for one of the owner's animals for a ritual sacrifice (*ajulot*), the custodian then has the authority to give the animal. However, since the sacrificial animal is always a debt (described later), it is the responsibility of the custodian, and not the owner, to follow up on the debt and acquire repayment.

To appreciate the efforts of the custodian, the owner may decide to gift him an animal from his herd. The custodian, in turn, can continue requesting other animals from the owner, such as for *ngarobai* or for bridewealth payment, as he may not use the

animals entrusted to him without the explicit permission of the owner. The owner, however, may never take all his animals away from the custodian's herd. As with the rules of the fertilizing animal, the lineage of the owner's animals continues in the custodian's herd (*idongi aliyathit*—the lineage remains) and, thus, so does the exchange relationship between the two individuals.

5) *Alepunit or Nakidala (for milking)*

In either the absence or shortage of milking animals to feed the family, a man may request a cow for milking from a friend. The friend gives a cow that has recently calved and is accompanied by its own milking calf when transferred to the friend's herd. Both animals enter the herd at once, and the family uses the milk of the mother to survive. If the milking cow dies of natural causes while in the custody of the requester, it is not considered a debt because of the bond of friendship between the two parties. The calf remains in the requester's herd, and produces its own calves. All offspring are the responsibility of the friend who was entrusted the original cow and he has the authority to decide what to do with the animals. Were the custodian to give one of the offspring for a ritual sacrifice, the responsibility of following up on the debt will be his and not the owner's.

The owner of the animal can visit the custodian's herd to monitor the progress of these animals, and can even request one for any number of reasons. As in the fertilizing bull exchange, despite technically having ownership rights, the giver becomes a "beggar" of his own animals and the decision to give out animals rests entirely with the friend in whose custody the cow and its offspring are. The giver cannot, however, take all the animals that came from the original milking cow, and must leave some in his friend's



herd. Similar to the rules of the fertilizing bull and the entrusted animal, the lineage or gene pool (*aliyathit*) of the original milking cow that was given to the person in need remains in his herd, never to die off, like the bond of friendship between the two individuals.

6) *Ajulot (transfers for ceremonial purposes)*

This category of animal transfer occurs in the context of traditional religion, which has thrived despite the proliferation of Christianity in Karamoja. To a large extent, and particularly in more rural settings, diktats of traditional religion are still held supreme over Christian doctrines. Belief in prophecies and spirits still abound among people, and stories surrounding mythical creatures are recounted frequently. Tepeth have an even stronger belief in spirits and ancestors, and the community is renowned for an incredibly secretive society of older men (*kensan*) who, to this day, liaison with the spirits of the dead (see also Weatherby, 1988).

In the event of untimely deaths, disease (both animal and human), or climatic abnormalities, *Ngimurok* (sing. *emuron*) or “mediators”/ “oracles”/ “prophets” are consulted to rectify the problem afflicting an individual, household, or community. *Ngimurok* also have “the gift of prophecy”, or the ability to foresee problems as well as their cures, which god (*aku*) relates to them through their dreams (A. J. Barrett, 1998). For example, haruspeation or “reading of the intestines” (*akisemere ngamaliteny*) to foretell the arrival and intensity of the next rains or to predict the approach of raiding enemies is done by *ngimurok*. Whether through a prophecy or when approached by someone in need, an *emuron* usually either suggests the smearing of a special type of clay

(*emunyaen*) on the body and head of the affected person or animal, or the ritual sacrifice of an animal.

This animal, almost always sheep or goat, is called an *ajulot* and is sacrificed to ward off disease or a curse that may be afflicting a person or a household. Each peculiar malady or unwanted situation has its prescribed *ajulot* animal that may vary in color, size, age, and sex. The particularities of the sacrificial animal become known to the *emuron* in dreams in which god relays all the necessary information. The *emuron* then informs the person in need of help, who goes in search of the animal.

An *ajulot* animal never comes from one's own herd and is always requested from others, whether friends, neighbors, or acquaintances, after examining all possible herds to seek the exact animal prescribed by the *emuron*. One can also inspect the herd of a friend and take the particular animal without the explicit permission of the friend. Whereas an *ajulot* animal from a friend's herd is also, in its strictest sense, a debt, friends tend to disregard these debts in light of help they have previously received from the other party. Although participants insist that every *ajulot* animal is debt, even from a friend, in the very next breath they admit to these debts being frequently cancelled because of the ongoing exchange relationship between the two parties. The decision to uphold or cancel the debt ultimately depends on the friend's emotions towards the borrower (*Erai atametait kekone*—it's the thinking/consideration of the friend).

There are two exceptions to the rules of *ajulot* animal transfer. First, if the person for whom or for whose household an *ajulot* has been prescribed is far away from the homestead, his brother or friend may arrange for and perform the ceremony on his behalf. In this case, the responsibility of acquiring an animal and then repaying the debt lies with

the latter and not the person for whom the ritual is being executed. Second, the animal for an *ajulot* performed for the entire community during covariate shocks such as cyclical raids or relentless drought is chosen directly by the *emuron* from the collective herds of the entire community, and no individual is responsible for its debt.

### 7) *Miscellaneous*

Besides the categories of transfers listed above, animals are also borrowed in other ceremonial or social occasions. Chief among these is the borrowing of an ox for *asapan*, the process of initiation that young men undertake to officially enter an age-set (N. Dyson-Hudson, 1963). *Asapan* is a collection of ceremonies and its first stage is the spearing of an ox by the initiand. The sacrificed ox is speared, slaughtered and dismembered in a prescribed way, and its meat and chyme are used for anointment and blessing of the new initiand by members of the senior age-sets. The ox used for *asapan* always comes from someone else's herd because slaughtering your own ox, in the words of participants, would be akin to killing yourself (*ikwan kangola kin bon*—like spearing yourself). In most cases, the loan of an *asapan* ox is repaid with a heifer, either paid at the moment of borrowing or at a later time, although the lender may demand that an ox be returned.

Lastly, animals speared for food for a family member (*apukin*) or for a group of men (*Akiamakin ngikilyok*) is considered a debt. *Apukin* (def: to give away livestock for consumption (Ohta, 1989)), although usually used for occasions when animals are speared for food for family members or visitors, can also be part of a ritual where the animal is sacrificed and fed to someone suffering from an illness. In the absence or scarcity of animals in one's own herd for this purpose, individuals request any person

from the community, ranging from relatives to neighbors and mere acquaintances. No matter the type of relationship the giver has with the debtor, the animal is always a loan. Similarly, animals borrowed from others to feed one's visitors and fellow kraal members and other men are debts that must be repaid.

#### *Debts in Livestock Transfers*

The meaning of sharing is helping each other survive – Participant, Rupa sub-county

The instances of livestock transfer in which the notion of strict debt (*eden; amica*) applies are animals borrowed for ritual sacrifice (*ajulot*), animals speared to feed other people (*apukin/akiamakin ngikilyok*), and the ox for the initiation ceremony. Although norms dictate that the loan of animals for these purposes should always be paid back, creditors may choose to forgive the debt, particularly for the sacrificial animal and the initiation ox. Cancelling the debt depends on the degree of friendship between the two parties, and, more crucially, on the established back and forth exchange relationship. If the debtor had helped the creditor in a significant way, such as in the accumulation of bridewealth or feeding his children in a time of hunger, the creditor may forego the debt out of goodwill and appreciation of the way his friend helped him in the past.

If the creditors die before their debts are repaid, their brothers and sons assume the responsibility of reminding debtors of the animals owed. The responsibility of payment upon the death of the debtors, likewise, goes to their brothers or sons. There do exist stipulations in some cases. For instance, if an animal was speared for an entire family to eat, the responsibility for the deceased's debt would be on the individuals from whose home (defined as mother plus children) the head of the animal (*emuthiring*) was taken. Among all the offspring of the debtor, it would be the sons of that particular household whose duty it would be to pay back the debt. On the other hand, if the debtor

had slaughtered an animal to feed his friends or men from his kraal, the responsibility would be shared among all his sons.

In addition to these categories, unpaid bridewealth, particularly for those women who have been impregnated by their suitors, is considered a debt owed to the family. This type of debt is normally never written off because livestock transfer in marriage is imperative, no matter how great or small the demand. Young men often lament about their in-laws' demands for bridewealth, which, as noted earlier, is not fixed among Matheniko and thus provides the bride's family with the right to demand as many animals as they wish.

The nature of debt between friends is, therefore, fluid, subject to be cancelled or upheld on the whim of the creditor. Indeed, when asked about outstanding debts owed to participants during the baseline interview, only 6% of the debtors reported were friends, and these debts were animals that were killed for a feast. In general, people do not consider animals given to friends as debt. This is incontrovertibly true of animal gifts (described earlier as *nguna ke ekone*), but it also applies to animals given to solve the problem of hunger. Individuals usually designate these transfers under the colloquial term *apwataria* (to eat): animals are given to friends, almost always requested, to help them feed their family or "to survive" (*akiyar*). What the receiver plans to do with the requested animal does not concern the giver. The receiver may sell it to buy food, trade it for food, exchange it for another animal, or even slaughter it for its meat. The giver sometimes knows the exact destiny of the animal, but to him it is inconsequential. He gives the animal to his friend because the latter "begged" for it, and he will never expect it back.

Debts to friends are also not expected to be paid back immediately or even within a short period of time. The creditor recognizes that the debtor requires time to get his affairs in order to find a sustainable solution for feeding his family, and thus allows him time to repay his debt. While this is also applicable to debts given to non-friends, i.e. acquaintances, friends of friends, or neighbors, individuals will approach these debtors more frequently to remind them of the animals (or money) they owe. In contrast, creditors will not remind debtors who are friends of the debts owed unless the creditor finds himself in a serious situation that warrants the demand for the debt to be repaid. The repayment, above all, depends on the memory of the debtor and his ability and desire to pay back.

In essence, indebtedness among stock associates is “one expression of their emotional ties” (Bollig, 1998, p. 141). The long-running relationship that continues to hold parties to debt indeed strengthens their bond over time and reflects the trust between partners. Debts passed on from father to son benefits all parties involved such that the older generation has now ensured that their friendship continues through the next generation, and the younger generation, in turn, acquires a trustworthy partner in their expanding network. To circumvent the proposition that merely inculcating stock friendships provides insurance—the issue at the crux of the debate over the “utility” of these relationships—a better orientation to the study of pastoralist exchange systems is the argument that the mutual indebtedness between associates is what provides insurance (Werner, 1998).

Norms of livestock transfers, as demonstrated earlier, factor debt into many of the transfer categories in a significant way, and the cancellation of debt depends on the

established relationship between the two parties. Although a debt may technically be cancelled by the creditor, its prominence in the norms of exchange signals its symbolic importance. In stark contrast to its more widely-accepted connotation, debt in stock relationships appears to provide security because “if the indebtedness is lingering, a sense of both obligation and trust keep the relationship vital” (Renfrew, 1991, p. 28). After this description of norms of livestock transfers, I examine the personal stock friend networks in the next section.

### *Personal network analysis*

To explore the stock friendship networks of individuals in the two field sites, I turn to personal network analysis. Egocentric or personal network analysis (PNA), which has its roots in the anthropological tradition (Bott, 1957; Mitchell, 1969), was developed to study a focal individual and his/her relations. Although it falls within the repertoire of social network analysis (SNA), which looks at whole networks composed of several individuals (or organizations, countries etc.) in a bounded population, PNA considers the alters (or connections) of one ego either in general (all the people with whom an ego is connected) or in a particular context (e.g. in identifying the core emotional support group) (McCarty & Molina, n.d.). The PNA method uses data from ego’s alters to understand how these alters influence attitudes, behaviors, and various other critical aspects of the ego’s life including employment opportunities and community formation (Campbell & Lee, 1992; Fischer, 1982; Granovetter, 1973; McCarty, 2003; Wellman, 1979, 2007).

PNA’s main preoccupation is with the investigation of the *composition* and *structure* of egocentric networks: composition may refer to, for example, the proportion

of family members versus colleagues in an individual's personal network, and structure signifies the relationships between the alters of the ego under study (McCarty & Molina, n.d.). Data typically collected in PNA studies include characteristics of ego and alters (e.g. sex, ethnicity), relational characteristics (e.g. frequency of contact), relational content (e.g. emotional support provided by alters), and relational types (e.g. how an alter is related to the individual—family, work, neighbor) (Muller, Wellman, & Marin, 1999).

I take inspiration from the PNA method to explore Karamoja pastoralists' personal networks of social support. In particular, I look at the characteristics and composition of stock associate networks, channels of social support besides stock friends, and situationally dependent livestock acquisition networks. Instead of studying the social network structure at the neighborhood or village level, I opted to concentrate on personal networks for two reasons. One, the boundedness of SNA restricts the study of friendship/exchange networks particularly among transhumant pastoralists who have extensive geographical reach as a result of their livelihood. More generally, the study of “friendship” can rarely, if ever, be geographically restricted.

A second, more important, reason for not conducting SNA was based on information gleaned from the initial months of the research. In order to have baseline data for neighborhood network analysis (or SNA), I asked participants about their gifts and transfers in the preceding three months. Data collected in the first phase of research showed the geographical spread of actual transfer networks, which, predictably, extended to different sub-counties and even districts. These data, which corroborate findings that risk sharing networks do not occur at the village or community level (Murgai et al., 2002), made truncation of the network impossible.



Finally, my decision to focus on individuals was also driven by the objective of disaggregating the household as a unit of measurement in risk management. Studying the household's strategy is restricting in that it does not consider the role of an individual social actor of the household, and conflicting interests between actors (Werner, 1998). This is particularly important in the context of Karamoja where women's livelihood diversification may have an impact not only on their investment choices (social and financial), but also on the types of social bonds they can create. Lastly, whereas some bonds may overlap among household members, not all do, thereby resulting in a mosaic of friendship ties and their accompanying influence on the household's risk management strategy.

#### *Limitations*

It's been said that a topic such as stock friendships is difficult to study among pastoralists who are usually very secretive about these relationships (Moritz, 2013). This supreme limitation aside, I could not achieve some goals that would have expanded the analysis. First, I was unable to collect the relational content characteristics of "time period of contact" and "frequency of contact" between egos and their alters. When asked about time period of contact or how long parties had known each other, participants responded by demonstrating their height from the ground at the time of first meeting. Even though it was possible to estimate what they meant (and a few added that they were either "shepherds" or "old men" at the time of contact), respondent fatigue was a corresponding serious issue in comprehensive data collection. Coupled with their busy schedule or uncertain residence on any given day, I found it unfeasible to collect these data.

In addition, I cannot construct an actual structure of the social network from the egocentric networks because I did not collect alter–alter data. Although incredibly revelatory, these data would require substantial additional resources (both time and money to hire more RAs). Since the goal of my project was to explore the influence of individual-level and locational differences on social risk management, I concentrated on those aspects rather than the construction of the entire network. Learning the structure of the network may have elaborated on my understanding of sub-group level network formation; I did, nonetheless, glean some insights without the additional level of analysis (explained further).

#### *Sample characteristics*

For the study, 24 participants from Rupa and 21 participants from Tapac were included in the initial analyses. One participant from Tapac had to be dropped from the analysis of data collected in 2015 as he was killed in a raid. Table 6.1 shows the sample characteristics of participants. Participant age-groups were determined using the Karamoja events calendar (Akol & Gray, 2006)<sup>36</sup>. Participants are divided into wealth categories based on TLU per capita because my attempt to incorporate emic definitions of wealth by asking key participants to rank participants in categories was unsuccessful (Grandin, 1988). At both field sites, however, individuals categorically claimed that a person who owns 20 cows would be considered rich.

To divide participants into wealth classes, I adapt Potkanski's (1997) categories with certain modifications. The most recent food security and nutrition analysis of

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<sup>36</sup> Tepeth participants used different event markers than Matheniko Karimojong participants, which created some ambiguities in determining age. Research assistants were consulted in assigning ages in Tapac.

Karamoja shows that on average, across the region, households owned less than 1 TLU per capita (World Food Programme, 2014a). Moroto district, in particular, ranked on the lower end of the scale. Therefore, I categorize participants as “destitute” ( $< 0.5$ ), “poor” ( $0.5 - 1$ ), “medium” ( $1 - 2.5$ ), and “wealthy” ( $> 2.5$ ). TLU per capita were calculated by dividing total TLU by number of household members (men, wives, and children).

Although additional members may be residing at any time in the household, they may have different rights in livestock. Therefore, only the permanent members were taken into calculation.

**Table 6.1:** Sample characteristics of male participants by field site

	<b>Rupa (N=24)</b>	<b>Tapac (N=21)</b>
<b>Age categories</b>		
20 – 30	4 (16.7%)	3 (14.3%)
30 – 40	11 (45.8%)	7 (33.3%)
40 – 50	3 (12.5%)	2 (9.5%)
50 – 60	4 (16.7%)	1 (4.8%)
60 – 70	1 (4.17%)	6 (28.6%)
70 – 80	1 (4.17%)	0
<b>Household size</b>	Mean: 11.9 (range 3 – 26)	Mean: 15 (range 3 – 47)
<b>Actual wealth in TLU</b>	Mean: 19	Mean: 12
<b>Wealth categories</b>		
Destitute	4 (16.7%)	8 (38.1%)
Poor	5 (20.8%)	4 (19%)
Medium	9 (37.5%)	6 (28.6%)
Rich	6 (25%)	3 (14.3%)

*Stock friendship networks*

The rational pastoralist tries to involve partners from different sets of people in his personal network. He tries to incorporate patrilineal relatives, close and remote affines, and friends. There is no preferential set for an actor to rely on during times of stress. Although everybody can hope for substantial help, no one can be sure about where he will obtain assistance. (Bollig, 1998, p. 154)

Dyson-Hudson estimated that the typical Turkana herder has approximately 8 – 10 “close friends”, whereas Gulliver put that number at 30 (B. R. Johnson, 1990; Renfrew, 1991). In Renfrew’s study, the average number of *lopae* for the Turkana sample was 4.2. Stock friends are only one of the many groups of people to whom a herder may have access, depending on such factors as his household, livelihood, and wealth profiles. This point is best made through the example of one of my key participants who had to be dropped later from the actual study due to difficulty of data analysis. Etol is the son of a prominent Matheniko elder who spearheaded the Lokirama Peace Accords in the 1970s for the cessation of hostility between various communities on the Kenya-Uganda border. The elder was later assassinated during a peace meeting between Karimojong and the neighboring Teso community.

Etol’s father’s legacy, which has a significant bearing on Etol’s career as a pastoralist, is clearly visible in his children’s social networks among other things. Although not the wealthiest elder of the village, Etol’s father left behind an extensive social circle on which the family could rely. His wealth in animals, an added advantage, was inherited by the sons and only multiplied in the next generation thanks to their business and social skills. Etol and his brothers recounted how they learned the value of friendship from their parents:

When we were still growing up, we would find our mother or father leading clans or kraals and they would have lots of people around them.

We would ask: who were these people—they were our parents' friends. What can these friends do, we would ask. Father replied, these are friends who can become your clan members, friends who can help during time of need, help you, protect you, when you have hunger you can go to these people and get food. These are people we can always beg for cows, so that we can get life. When we have no sorghum, these are the people we run to. We now understood that you cannot handle the matters of your family or your kraal on your own.

This tradition of friendship that was passed down by the father to Etol and his brothers was observable throughout the research period. On many occasions, Etol and his brothers were unable to meet with me because they were visiting a friend or a friend from afar was visiting them. No matter where we went, Etol would find someone with whom he had shared livestock and with whom he could claim a real friendship.

When asked about the total number of his stock friends, Etol's number increased with every interview. He relented that for the sake of the study, he could truncate the number to one hundred. This number, though it may seem farfetched, does not strike me as impossible. Etol is one of the most important animal traders in his neighborhood of villages. His brothers and sisters own a large number of livestock kept in corrals near Kobebe dam. Every week or every other week, Etol makes the arduous trip on foot to his corrals to check on his animals, to delegate tasks to his shepherds, and to trade one animal for another. Since he is an extremely adept animal trader, Etol barter according to market trends: for example, when he noticed the demand for rams had increased, he exchanged one of his cows for four rams. His extensive network of associates, particularly among Turkana communities living on the border, assures Etol of a good barter with which he can respond to the market and also acquire a handsome profit.

His family legacy, wealth in livestock, and genial disposition make Etol an extremely attractive stock associate for others. It is therefore not surprising that the first

time I asked him about his friends, he replied *ngemarun* or countless. Etol's friend circle extends even to the Jie community, the erstwhile staunch enemies of Matheniko. Not even raids diluted their friendship and they continued to visit each other at the height of insecurity. Today, Etol uses his cellphone on which he stores his friends' numbers as symbols (he is preliterate), and continues to keep in touch with them through technology. Friends regularly call him to come and collect a portion of bridewealth gifts or *ngarobai* gifts, and when he is need, he does not hesitate to reach out to those living far away.

Etol was an outlier in that even at the very end of the study period when I asked him a final time to enumerate his friends list to me, he was unable to do so. Although he is not included in the analyses presented below, Etol's case goes to show that the size of a herder's stock friendship network is merely illustrative rather than representative.

Although individuals listed as stock friends are of great importance to a herder's career as a pastoralist, they reflect only a small percentage of the possible extent of mutual aid networks. In Chapter 8, I deliberate on this matter in greater detail.

#### *Size of networks*

Participants from Rupa reported higher average number of friends than those from Tapac. One participant from Rupa reported 32 friends, which resulted in the high average of 9 friends per person. The participant in question is a wealthy elder who maintains several herds, including a large herd of camel. Without this participant, the average number of friends drops to 8. This is in keeping with Dyson-Hudson's estimate of number of close friends of a male herder. The person with the second highest number of friends (17) belongs to an influential household of traders (including him), and

community leaders. The larger network can be explained in these cases because of the age, wealth, and household characteristics.

**Table 6.2:** Characteristics of men’s stock friend networks by field site. Numbers in parentheses indicate total number of friends in category.

	<b>Rupa (N=24)</b>	<b>Tapac (N=21)</b>
<b>Average no. of friends</b>	9.4 (226)	6.1 (129)
<b>Range</b>	32 – 3	12 – 3
<b>Percent kin friends</b>	31% (69)	38% (49)
<b>Percent agnatic friends</b>	38% (26)	29% (14)
<b>Percent affine friends</b>	62% (43)	71% (35)
<b>Female friends</b>	7	9
<b>Geographic dispersal</b>		
Same village	34%	27%
Same sub-county	51%	54%
Diff. sub-county	5%	9%
Diff. district	10%	9%

However, this reasoning does not apply to the next two participants with high number of friends. The one with the fourth highest (11 friends) is the son of the wealthy elder with 32 friends. As would be expected from the ethnographic information on the inheritance of friends from father to son, nearly 50% of his friends are either his father’s “step” siblings (*lokaapa*: brother, of the same father vs. *lokaato*: brother, of the same mother), his father’s friend, or in-law by marriage. Finally, it is more difficult to explain the person

with the third highest number of stock friends. He is not wealthy, although he is a trader who buys alcohol in Moroto and sells it to Turkana herders in exchange for small stock. He is not an elder and therefore the correlation of age and number of stock associates does not apply. In comparison, it is easier to explain the highest number of friends in Tapac where the top positions are occupied by either older men or animal traders.

### *Composition*

Non-kin amity loves to masquerade as kinship. (Pitt-Rivers, 1973, p. 90)

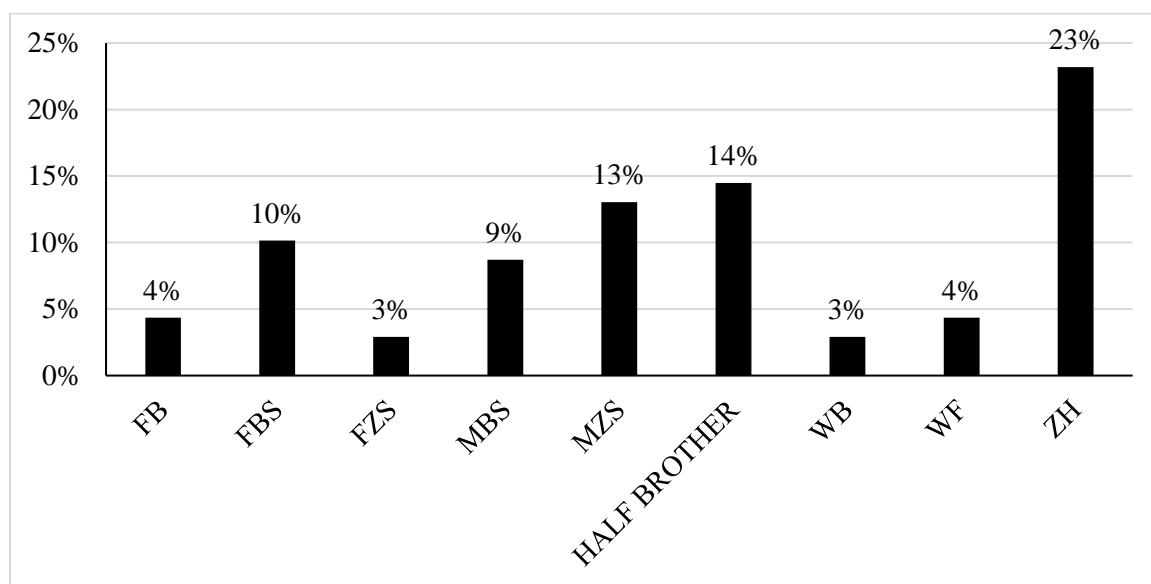
It is not uncommon for people around the world, including in Karamoja, to refer to their friends as “brothers”, a phenomenon variably described as “fictive kinship”, “social kinship” or “psychological kinship” (Bailey, 1989). There are many similarities in the ways individuals treat and regard their close kin and their close friends. However, that begs the question of why one even needs friends when kin members are readily available, and have a greater interest in one’s wellbeing owing to kin selection theory. Hruschka (2010) summarizes the evidence from the ethnographic record and offers three reasons for going beyond kin to befriend unrelated individuals. One, having friends outside the family increases the possibility of acquiring resources beyond the family’s holding. This allows an individual to access to resources on which there are no overlapping rights as within the family. Second, in activities that require the cooperation of many individuals, such as large game hunting or farming, additional people would be needed if the number of kin is not enough to accomplish the task. Finally, migration from the natal place or any such movement that forces an individual to a new environment may result in the complete absence of kin, in which case friends are extremely beneficial if not necessary.

Ethnographic studies that show high levels of correspondence between behavior towards friends and kin do not, however, adequately address their subtle differences.

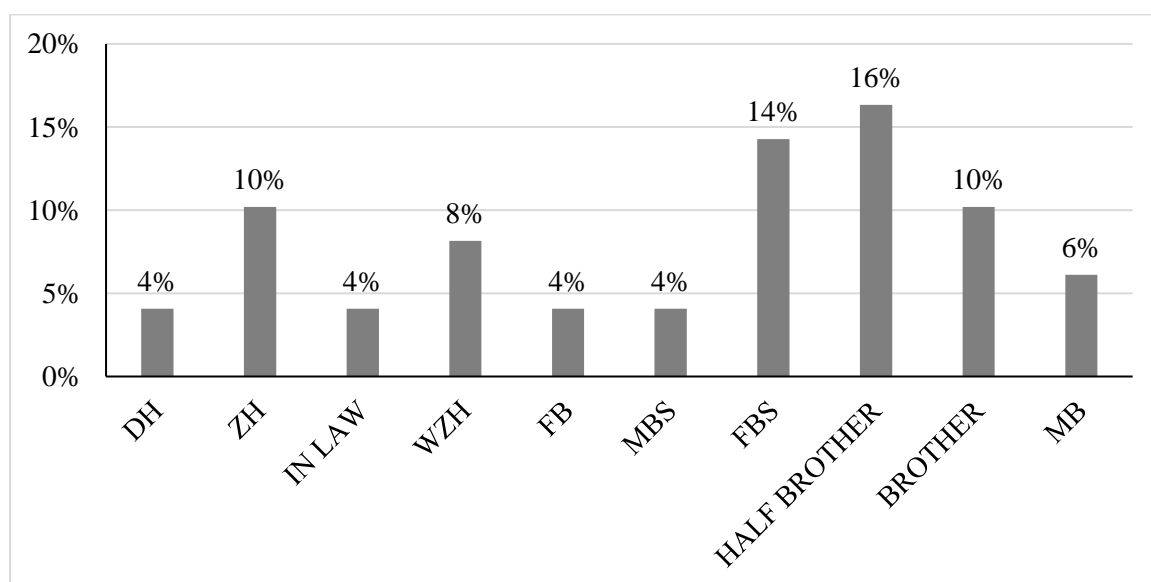


Psychological studies fill this gap to a degree through vignette experiments. The evidence suggests that friendship and kinship stem from different psychological processes and therefore have different effects on behavior (Hruschka, 2010). The primary outcome of these studies, “willingness to help”, is mediated by genetic relatedness and subjective closeness. For example, evidence of help after natural disasters shows people’s preference for helping kin followed by friends, neighbors, and strangers (Sime, 1983). Simultaneously, a definite distinction between kinship and friendship cannot be made as both these psychological processes can occur in the same relationship “in a hybrid form” (Hruschka, 2010, p. 103). The feelings associated with these relationships, on the other hand, influence behavior in distinct ways.

Relatives form an important part of the stock friendship network in my data; not all relatives, though, are stock friends. The same criteria used for founding a friendship with a “stranger” or a non-relative are at work when choosing friends who are relatives. Those with qualities desirable in a stock friend are chosen for the exchange relationship. Figures 6.1 and 6.2 show the composition of personal networks (only those categories with responses over 2% are shown). Although 90% of participants in Rupa and 85% in Tapac reported having stock friends who are related, these friends only comprised 30% and 38% of the total number of unique friendships in each field site respectively. Among Karimojong respondents, a sister’s husband was the most important kin member, followed by the half-brother (son of a different wife of the father), and among Tepeth, the half-brother is the most popular choice, closely followed by the father’s brother’s son. One’s own brothers are also a frequent choice of stock associate among Tepeth.

**Figure 6.1:** Men's stock friends related by kinship in Rupa

FB=Father's brother; FBS=Father's brother's son; FZS=Father's sister's son; MBS=Mother's brother's son; MZS=Mother's sister's son; WB=Wife's brother; WF=Wife's father; ZH=Sister's husband

**Figure 6.2:** Men's stock friends related by kinship in Tapac

DH=Daughter's husband; ZH=Sister's husband; WZH=Wife's sister's husband; FB=Father's brother; MBS=Mother's brother's son; FBS=Father's brother's son; MB=Mother's brother

Among Rupa participants, close agnates, particularly brothers, do not appear to have a prominent place in the friendship network. One reason for this, in the words of participants, is that as brothers they are obligated to assist each other, particularly with livestock needs, and hence are not counted among friends. Equally relevant is the fact that rights over animals are ultimately the prerogative of the father when he is alive. During his lifetime, the patriarch of the family maintains a central herd (*kiding awi*: the center of the corral) from which animals are extracted for sons' bridewealth, friends' gifts, and any other livestock transaction as the father sees fit. The central herd is separate from the animals allotted to each wife for her household's needs. If a son doesn't have the required number of animals of his own (acquired gradually through gifts, bridewealth share, or purchase) to fulfill a livestock need, he may approach his father for help because he has a rightful stake in the animals. Upon the death of the patriarch, the central herd is divided among the households as decided by the oldest son of the first wife. Unless relations between households are acrimonious, brothers expect assistance from each other and are therefore not necessarily named among stock friends.

A different reason posited for preferring distant relatives over close ones is that genealogically close relatives have overlapping rights and obligations that may increase competition for inheritance and power (Guichard, 2014). Simultaneously, the distribution of rights and obligations might result in the disregard of contracts: the receiver might be less inclined to return what was given to him because of their genealogically close relationship to the giver. Genealogically distant relatives may, therefore, pose less of a threat and seem more trustworthy. In a similar iteration of this idea, Schlee (1984, 1989, as cited in Guichard, 2014) discusses competition between brothers in Northern Kenyan

pastoralist communities over the aforementioned issues. A likely reason, therefore, for favoring individuals belonging to other kin categories is the possible rivalry and distrust that may arise between close kin.

A second relevant idea put forth by Schlee (2012) is that the tendency to have affinal relatives as stock friends depends on the type of bridewealth payment of the community. The two ideal types of bridewealth are the 1) fixed type in which the number of animals to be given to the bride's family is fixed and the payment may be made at once, and 2) open bridewealth with prolonged payments (Schlee, 2012). In communities that practice fixed bridewealth, affinal relationships are characterized by avoidance and formality. On the other hand, grooms in open bridewealth communities have the opportunity to increase their number of affinal relations and therefore their social network. Relationships with affines is marked by more cooperation and less reservations. Therefore, there is a higher chance of seeing stock friendships with affines in open bridewealth communities. As would be expected from Schlee's proposition, Karimojong (open bridewealth) participants list affinal relatives as the most popular choice, and Tepeth, who have fixed bridewealth paid up front (*etuko*), list brothers and half-brothers as stock associates.

Lastly, women friends were also enumerated by a fraction of the participants, even though the question specified a livestock transfer relationship. Women exchange livestock gifts with men to support them in accumulating bridewealth; they also apportion a share of the bridewealth received by their families for marriage to be given to male friends. Since men have access to livestock, they gift animals to women as "friendship gifts", therefore enabling women to acquire animals. For men, befriending women also

brings help from their husbands who can assist them in their livestock needs or otherwise. Women, on the other hand, share food with their male friends—either local brew if they are traders or rations of food that they acquire from cultivation or from food aid. Beyond material needs, male friends provide marriage advice to women, and older female friends were alluded to filling in the role of a mother.

The inclusion of women in the list of friends, however miniscule a number, points to the previously narrow definitions of stock friendships. This is not to refute the existence of male stock associates or the institution of bond friendship found in numerous pastoralist societies. As pointed out by Renfrew (1990), “special friendships” is a term better suited to the concept of stock friendships to symbolize the difference between the closest friends and other, looser relationships within the neighborhood or in the community. “Special friendships” adhere to the basic premise of stock friendships: the expectation of help during a time of need based on a previously established relationship. However, the term appears more inclusive by allowing relationships between men and women, as well as relationships in which exchange has not occurred.

#### *Geographic dispersal*

The geographic dispersal of stock friendships is one of the pillars of the theory that these relations serve as an avenue of risk management for pastoralists. In order to spread risk, the most prudent option for a herder is to inculcate close relationships with individuals in an area different from his own. In the event of an idiosyncratic (raiding) or a covariate shock (climactic variations), those suffering from shocks are entitled to seek help from friends, who may be in a better position to help due to their different location. Pokot herders have friends in 6 to 10 locations, and rarely did anyone have several

friends in the same community or even two friends in the same place (Bollig, 2006).

Renfrew (1990) showed that although the majority of Turkana *lopae* reside around the study area, they still showed dispersal within the South Turkana region.

Contrary to expectation, a relatively large percentage of friends in my sample come from the same village, and the highest percentage of friends reside in the same sub-county. Only one participant (the Tepeth man) from Rupa had all his friends in different sub-counties in Tepeth dominated areas. Rupa Sub-county (Rupa) and Tapac Sub-county (Tapac) are sprawling areas, but can be traversed on foot within a day. Crucially, Rupa Sub-county has only minor variation in rainfall and there is access to water sources for the animals and households across the area. Government-sponsored boreholes are scattered throughout the sub-county, particularly where the concentration of villages is high. Rainfall is generally higher closer to Mount Moroto, which lies on its southern flank. Nonetheless, only a small minority of stock friends reside in this zone. In fact, the villages respondents mentioned having most stock friends in, besides their own, were three surrounding villages that by virtue of being close didn't differ radically in their ecology.

Besides these villages, the highest number of friends (18) are located in Turkana District. Although I call it a district, the area where Turkana herders reside in Uganda is really the unmarked border between Kenya and Uganda. Herders graze their livestock alongside Karamojong communities at Kobebe dam within Rupa sub-county. When the mass disarmament of Karamoja was approved by president Museveni, vast numbers of Turkana herders left Uganda in refusal of handing over their weapons (IRIN, 2001). Since the end of the disarmament, many Turkana have returned to Uganda and continue

mutual aid and trade arrangements with Matheniko Karimojong. Isolated incidents of Turkana-Matheniko conflict, nevertheless, occurred on the border at the time of research. The drought in 2015 forced larger numbers of Turkana to cross over deeper into Karamoja, but Matheniko and Turkana herders (unlike Jie and Turkana, who are clashing anew) have found peaceful ways to share water and pasture in this stressed time (Karamoja Development Forum, 2016).

The close ties between Turkana and Matheniko Karimojong is illustrative of the historically close relationship between the groups. Participants from Rupa, besides enjoying camaraderie with Turkana, also engage in economically beneficial exchange. Since Turkana herders generally have more livestock than Matheniko, particularly in the aftermath of raids and disarmament policies, they provide attractive opportunities for barter. Alcohol and food can be bartered for livestock as there are fewer options for their purchase in the Turkana area. Similarly, livestock species can be exchanged by animal traders in accordance with market fluctuations. Usually, a pregnant cow is exchanged for seven small stock, and a donkey for three or four small stock. Having Turkana friends is thus economically beneficial for participants, although whether these relationships change with the worsening climate of northern Kenya and Uganda remains to be seen.

On the other hand, Tepeth and Turkana, who also share borders, do not have the same convivial relationship. Instead, participants from Tapac have stock friends in Pokot areas of Kenya. Tepeth and Pokot herders have a long history of good relations, alliance building, intermarriage, and trade. They also have a common enemy in the Turkana. Pokot and Tepeth herders regularly cross the border for grazing their animals, for finding sources of food when there's shortage in one area, and for regular visits. The two groups

have herded livestock on the plains of Nakonyen, where Karamoja's green belt to the south begins. Their comradeship is also visible in the fact that several participants in the study were fluent in the Pokot language.

Besides these friends in Pokot County, the data from Tapac resembles those from Rupa, where the great majority of friends reside in the same village or same sub-county as the ego. Because the sampling strategy in Tapac did not concentrate on one village, the locations of friends is scattered within the sub-county. A small number of friends (10 out of 117) reside in the areas of Kodonyo, Kakingol, Moroto, and Lopelipel, all at a significant distance from Tapac. Of these, Kodonyo, Kakingol, and Lopelipel are mountainous, Tepeth-dominated areas that typically see rainfall earlier and in a higher amount than other parts of the district. Consequently, residents invest heavily in agriculture, and people from Kakingol even sell produce in the market in Moroto. Though at varying distances from the homesteads of study participants, all these areas require a grueling half or full day's walk through the mountains.

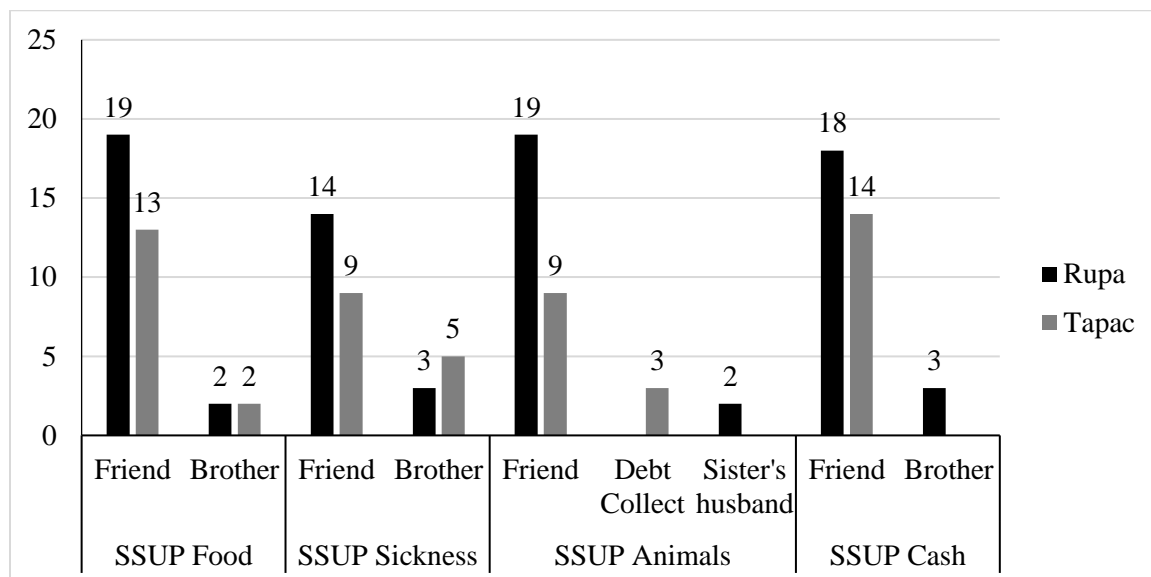
It's difficult to observe from the data on the geographic dispersal of friends how risk is effectively spread through the network of stock friends. It may be that participants chose to only enumerate those friends with whom they have regular or semi-regular contact, leading to a memory bias. Alternatively, recent historical events in Karamoja may have led to the concentration of friends within the immediate group and surroundings because maintaining friendships over long distances was a hazardous undertaking during the insecurity. Sedentarization could be an additional factor influencing the choice of friends. Although participants still follow transhumance to some extent, they spend relatively more time around the villages because the urgent needs of



the household require a substantial time investment in alternative livelihoods. Finally, the dependence on the cash economy can also contribute to restructuring friendships in that individuals living permanently outside the market zone may have less of an ability to help during a time of cash need.

These possibilities are further supported by data on men's social support networks, i.e. the first person they run to during a particular need (Figure 6.3). In cases of urgent need of food, help with sickness, cash needs, and when an animal is required, friends are the preferred category of individuals in both field sites. A few participants named the friends they first approached for help, and these friends also turned out to be their stock associates. Participants mentioned that friends, if they're unable to help, could connect a friend in need with another friend. Individual strategies, nonetheless, differ. Friends who are geographically close are often the first to be approached. In addition, the decision to look for help in the immediate surrounding versus going for help to farther places depends on the intensity of the problem. A few participants claimed that seeking help from family members was typically not fruitful, and friends showed more generosity in these matters. Lastly, some participants stated that they first attempted to collect unpaid debts, remaining bridewealth payments, and exploit any available opportunity to generate income before requesting help from people.

**Figure 6.3:** Frequencies of social support (SSUP) networks of men by category and field site



### *Gift exchange*

Exchange of gifts remains an essential aspect of stock friendships, and can be given or requested for a number of reasons. Livestock, in particular, takes precedence over other gifts for men. As seen in Table 6.3, bridewealth transactions, either given to support the payment of bridewealth or received as one's share for being a friend, made up the largest proportion of livestock exchanges. Friendship gifts were the second highest category followed by *ngarobai* animals. Though there are vast differences in frequencies between the two field sites, the trends in livestock exchange apply to both. None of the most frequent categories of exchange, as explained in the description of norms, creates material debt for the recipient.

**Table 6.3:** Animals exchanged between stock friends in field sites by major categories (rounded percentages)

	Rupa		Tapac	
	Cattle*	Small Stock	Cattle	Small Stock
Bridewealth transactions	45%	32%	65%	59%
Ceremony	0.3%	3%	0	7%
Dispute Resolution	1%	0	0	0
Fertilize	0.6%	0	0	0
Friendship/Kinship	31%	37%	23%	19%
Hunger	0.6%	4%	0.7%	2%
Herd	0.3%	5%	0	5%
Herd Increase	0.6%	5%	0	0
Milking	2%	1%	3%	0
<i>Ngarobai</i> **	11%	7%	3%	1%
Survival	8%	6%	3%	5%
Help during illness	0	1%	2%	3%

\*Includes donkeys and camels

\*\* See page 148

Stock friends are an integral part of the bridewealth exchange and distribution network in Karamoja, and over 90% of these transactions in Rupa and 58% in Tapac involved unrelated friends. Data collected at baseline on participants' bridewealth accumulation lend support to these results. In Rupa, friends' contribution comprised 13% of cattle and 37% of small stock on average in the total bridewealth paid (including any livestock payments for children before payment was declared complete). Kin members reportedly accounted for only 4% cattle and 4% small stock contributions. On the other hand, in Tapac, friends contributed on average 4% of cattle and 12% of small stock to bridewealth accumulation, while kin provided 12% and 8% respectively.

A plausible reason for a higher percentage of stock friend involvement in bridewealth transactions in Rupa is the historically high bridewealth among Karimojong. Of the 50% of Matheniko Karimojong participants who had paid any official bridewealth, a quarter had no remaining bridewealth debt – a large percentage of the total sample, thus, owed bridewealth. Payments ranged between 42 and 232 heads of cattle (mean: 48), and 5 and 104 small stock (mean: 21). Moreover, 90% of participants had to pay for children born of the un-officiated marriage (*ekicul*). In contrast, Tepeth bridewealth has historically been small, and in the 1960s was limited to “token bridewealth” in the form of honey and a few small stock until their transition to the pastoralist economy (Laughlin et al., 1979). Only 38% of Tepeth participants had remaining bridewealth debt, and a mere 19% had transferred animals as their un-officiated marriage payments. According to Laughlin et al. (1979), prior to their adoption of Karimojong social systems, Tepeth communities did not make a distinction between full and partial marriages.

For Rupa participants, among those who reported paying over 100 heads of cattle, all but one were men from the older age sets who would have paid the majority of bridewealth before the devastating livestock losses of the last two decades. High bridewealth payment was also correlated with the households whose patriarchs were known for their one-time immense livestock herds. The correlation of seniority and livestock-rich with high bridewealth payment might signify, as well, one of the few ways that the elder generation set is able to retain power in Karamoja (Broch-Due, 1999).

The dynamics of bridewealth, besides having a profound effect on a herder’s ability to found a family and have children belonging to his own lineage, also influence his future network of friends. Whereas rich individuals are able to pay high bridewealth

and therefore acquire many affinal relatives who may be enlisted for help in the future, the poor are unable to do so. Forming stock associations with unrelated individuals is conceivably more critical for poorer herders who cannot hold many affinal relations to an obligation of future assistance (Schlee, 2012). Livestock accumulation, thus, is destined for payment in marriage, particularly for young herders who aim to found families and increase the household's labor capacity. While this trend is mostly true among study participants, three men from Rupa stated their reluctance in acquiring a second wife. An extremely rare opinion in Karamoja, where having several wives and children is associated with elevated status (besides the added benefit of acquiring affinal relatives), the three men's unwillingness to have more wives stems from the steady and unabated rise of HIV transmission in Moroto District.

Friends also exchanged money at both field sites, although in comparison to livestock, money constituted less than 1% of gifts exchanged. In daily life, money is frequently exchanged among friends as well as with various levels of relatives and acquaintances. Monetary exchange between friends is a recent phenomenon; for instance, where at one time animals were given to support a friend's bridewealth accumulation, money is a suitable substitute if one does not have enough animals in the herd. Similarly, friends who are unable to contribute livestock may assist with the purchase of ceremonial beer for weddings and other occasions. In the sample, money was exchanged for the purchase of animals, food, medicine, clothes, and transportation.

Large sums of money given to friends can be designated as loans, e.g. when borrowed for purchasing livestock, large quantities of food, for the payment of hospital bills, to pay for labor, and so on. A quick repayment of the loan is not expected of debtors

who are close friends. Friends request for money in two ways: they may either state upfront that they will pay back the money, or they may just ask for monetary help. In other words, the money becomes a loan typically on the will of the requester. This method does not apply to money borrowed from acquaintances or neighbors.

Additionally, loan repayment is on more stringent terms when the creditor is not a friend. Among close friends, the time taken to repay the loan is typically not a great concern. Small amounts of money spent among friends, on the other hand, are rarely considered a debt. Friends buy and share local brew on a regular basis and the person who has the cash buys for the group without seeking contributions.

A likely reason for the low frequency of money gifts reported by participants is the disparate status of money and livestock within friendships. The types of bonds created by animals can hardly be rivaled by money: where animals solidify friendships, fortify existing bonds, and create a feeling of mutual obligation, money, according to Schlee (2012) creates envy. Furthermore, the fungibility of money makes it less emotionally or socially important as compared to animals, cattle in particular, which are imbued with the complexity of multiple and overlapping rights of individuals connected to one another in an intricate web of social relationships (Broch-Due, 1999; Goldschmidt, 1986).

Lastly, a miniscule fraction of participants listed non-material gift exchanges with friends. These included helping friends with courting a future wife, giving marriage advice, helping a friend's wife and children in his absence, sharing ideas about capitalizing on animal trade, naming children after friends, risking one's life to help a friend in a raid, and resolving disputes on behalf of friends. Participants listed intangible help given to and received from friends despite not being specifically prompted during

the course of the interviews. Characteristics of relationships unrelated to livestock exchange, namely trust, love, and support, were equally important gifts given to and received from friends. Similarly, “we share food” was a common response of many participants when describing their friendships. Shared food may encompass tobacco, brew, livestock products, and cooked food<sup>37</sup>. Whereas in the homesteads families tend to eat together with occasional visitors, food sharing is much more widespread on the rangelands where livestock are kept for the majority of the year. When an animal is slaughtered, people from the vicinity, whether they are herding partners or not, are invited to partake in the meat. Even within the village, local brew is widely shared with anyone who passes by or who may join the group. With friends, in particular, sharing food solidifies relationships since this is the time when friends also share conversations (*akeyan*), ideas, and advice.

A final intangible item of exchange mentioned by participants in both field sites was “the promise to help”. When a person is unable to help with a friend’s bridewealth support or is forced to turn down any other request for livestock, he may promise future help. The promise of future help can be fulfilled either when a friend is in need of help, or simply when the individual who promised help is experiencing a surplus of animals. In the second scenario, the friend will be summoned when the herd has increased, and he may claim an animal on the basis of the giver’s past promise. The promise of future help was mentioned by participants while listing items exchanged with friends because a friend’s word that he will provide help in the future is equivalent to help received.

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<sup>37</sup> Cans of food are typically shared between women.

*Reciprocity*

Despite the lack of complete network data, it can be said that social networks in Karamoja are characterized by a high degree of density, or the tendency of actors within the network to have a high degree of interaction (see also Bollig, 2006; Johnson, 1990). The level of interaction does not automatically imply positively correlated levels of livestock transfers. Within a settled village cluster, livestock transfers occur among most households (defined by the patriarch who established the homestead and all his descendants) because of the long history of intermarriage and friendship between their members as in Rupa. Although it is difficult to observe the same patterns in Tapac due to the recent upheavals in residence, there is nonetheless a great degree of interaction among people because of the comparably smaller population size and contiguous settled areas of the Tepeth community.

Stock friendship ties, however, observe a dyadic exchange pattern regardless of level of interaction among other household members. Dyadic exchange refers to the exchange of different types of resources and ties in the dyad, and is different from dyadic reciprocity that involves the exchange of similar resources (Agneessens & Skvoretz, 2012). The norm of reciprocity prevails over the system, though in no prescribed form. Individuals in a dyadic exchange contract governed by a norm of reciprocity are locked into an “endless” cycle of exchanges where the giver and taker alternate roles (Bearman, 1997). In my own data on transfers between stock friends, 25% of exchanges in Rupa and 34% in Tapac remain unreciprocated. Over 90% of unreciprocated ties involve livestock transfer. In Tapac, 32% of the unreciprocated ties were with agnates or affines, as compared to 8% in Rupa.



In Gulliver's (1970) estimation, reciprocity in livestock exchanges in Turkana and Jie communities follows a few basic rules. A man's wife's father and brother are superior to him and have the right to make more claims on him than vice versa. One's mother's brother (*mamae*) is expected to not only contribute to his nephew's bridewealth, but also to give more than receive in the course of the livestock transfer relationship. According to Gulliver, the truly asymmetrical relationship is between a man and his wife's father, or a man and his daughter's husband, where the nature of high bridewealth transfers makes it unlikely to attain balance through occasional livestock gifts. The unreciprocated ties in my data point to this imbalance.

It would be an error to assume account keeping reciprocity in any stock friend dyad because to make such statements requires long-term data on exchanges. The exchange of money and food occurs so frequently, especially with those who reside in the same village or in close proximity, that it would be equally erroneous to count only livestock transfers as a sign of reciprocity. Nonetheless, it can be definitively stated that people are not concerned with achieving equilibrium in these relationships and "one gives according to one's ability with reference to the particular relationship involved at the time" (Gulliver, 1970, p. 221). The bonds of a man with close agnates and affines, stock friends, and superior affines (wife's father, for example) demand the transfer of livestock, if dispensable animal assets exist. The weakening or dissolution of friendship, as explained in the last section, does not occur due to imbalanced reciprocity.

#### *Homophily in cliques and wealth effects*

Homophily, or the tendency to associate with individuals similar to us (McPherson, Smith-Lovin, & Cook, 2001), is central to the study of friendships because

information, whether cultural, behavioral or material, that flows I looked at age, wealth categories and livelihoods of participants who reported friendships with each other. Studies on friendships in industrial populations show strong homophily on age (e.g. Lozares, Verd, Cruz, & Barranco, 2014; Verbrugge, 1977), and this was also visible between cliques of friends in the two field sites where friends tended to be similar in age group (20-30 or 30-40 years). Second, stock friends also participated in animal trading groups. The traders work in groups and share all profits equally after the initial investment is apportioned. In other words, even if a herder invested low capital in the purchase of the trade animal, he will receive the same share of the profit as another trader who invested the bulk of the capital. The system of group trade appears more profitable than individual trade because it allows herders to spread risk. Working in groups permits traders to invest in several animals at once, designate a group member to buy or barter animals with Turkana herders, and access profits even when not actively participating in the trade. Moreover, trade groups are commonly formed by friends who implicitly trust each other to divide profits and maintain transparency in business deals, and can therefore avoid cheating from non-friend group members.

I analyzed member characteristics of three trading groups (two in Rupa, two in Tapac) to investigate wealth similarities. Nearly three-quarters of the members of trading groups in both field sites had actual TLU of more than 15, which is above the average in Tapac. Members of the trading triad in Tapac fell into the same TLU wealth category as well (category: wealthy). In Rupa, members of one trading triad were all in the medium wealth category. Members of the second group did not show any wealth homophily, and each member of the triad belonged to a separate wealth category (including “poor”).

It would be false to assume that wealth plays a minor role in structuring friendships. Wealth influences the ability of a person to reciprocate in need-based exchange friendships. Helping, in turn, strengthens relationships with those who will become future avenues of help. Wealth in pastoralist communities is not hidden away, the way money is in bank accounts, and it is particularly conspicuous within the neighborhood. Animal wealth cannot be kept entirely secret even though a man's animals may be kept in other people's herds for the purpose of spreading risk. In the study sample, apparent wealth, or a man's animals in his care plus any animals he keeps for his friends or relatives, and actual wealth, a man's total herds including those he has kept in others' herds, show high correlation (Pearson's  $r = 0.97$ ,  $p < 0.01$ ,  $N = 44$ ). In other words, for an individual to ascertain wealth of another is not a difficult task within a close-knit community, and it would be assumed that the rich have more friends than the poor because the former can use his animal wealth in cultivating exchange relationships.

Nonetheless, results from correlations between number of friends and wealth were mixed. In Rupa, no significant correlation was found between number of friends and actual wealth measured in total TLU (both variables were log transformed for normality). In Tapac, however, there was a statistically significant, yet weak correlation between the two (Pearson's  $r=0.45$ ,  $p < 0.05$ ,  $N=21$ )<sup>38</sup>. It is possible that in Tapac, with a close-knit community and fewer market options, it is beneficial for individuals to contract friendships with richer people, who in turn acquire relational wealth or social capital from asymmetrical relationships. Moreover, in a relatively smaller community like Tepeth, economically beneficial relationships may have greater importance than in Karimojong

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<sup>38</sup> Age was not a mediator.

communities who have greater mobility and larger population numbers. Finally, because of their generally better agricultural production and fewer market options, more stress may be assigned to livestock wealth wherein livestock rich individuals become attractive partners.

No such correlation was found in Rupa. Further illustrating the probable unimportance of wealth, or at least its inferior status in matters of friendship, are two participants who were among the four most frequently named as friends by other participants. Both participants have TLU < 1 per capita putting them in the “destitute” category. Economically speaking, contracting stock friendship relations with individuals who have low animal assets does not guarantee livestock help during time of need. Even in Tepeth, the weak correlation refutes the economic rationale of exchange relationships. So what role, if any, does wealth have on stock friendships? When I asked participants if poor people had friends or reliable support networks, they responded:

*Oi tokoi!* (Exclamation) Of course! They have many friends. It’s important to help a poor person, because that person might help you in the future when you are faced with the same problems. When you help a poor person, or someone who has nothing, and if he survives, he will help you every single day if he can. When that person survives and gets more animals than you, they will give you help. They will become a part of your family because you have helped them survive. And if they cannot help, they cannot. *Emam ngace!* (No problem!)

If we separate stock friendships from the burden of economic viability, the lack of asset wealth effect on larger personal networks can be explained by the proposition that friendship contracts form links of obligation between people, which can be exploited during a time of need. People in Karamoja are aware of rapid turnovers in wealth and well-being, perhaps more so because of the intensity of raiding in the recent past when it was in fact possible to become destitute from a single raid. Their precarious economic

conditions might hinder the formation of singularly economic relations with a risk management perspective. Rather, the risk is spread through ties of obligation instead of being stored in material wealth. These points are further illustrated by another participant from Rupa who had the second highest TLU in the sample (actual TLU 111.9). At his baseline interview, the participant mentioned “begging” for a goat from his half-brother to feed the family. When I asked him why he had asked for a goat when he had reported over a hundred small stock in his personal herd, he responded:

They say in Karimojong that even if you have hundreds of something, you cannot solve your problems by yourself. By going to a friend for a goat, I have opened a channel. Even if you’re rich, you go to a friend for help. This way you have also given your friend an opportunity to come to you for help when it’s time. Suppose you have five herds of animals now and you’re rich, what will you do if something happens to your animals. If you reach out to friends, you’re keeping that connection for when something serious happens.

#### *Dissolution of friendship*

An entirely economic perspective on stock friendships, at the center of which is their risk-buffering rationale, would lend credence to Dyson-Hudson’s (1966, p. 85) assertion that relationships between stock friends are “reciprocal and roughly keeps pace over the years or the contract breaks down.” If a stock associate ceases to fulfill his role as an ideal partner to whom one can turn for livestock or other needs, the utility value of the relationship diminishes. Similarly, if risk spreading were the only concern of these relationships, it would preclude the formation of relationships between the wealthy and the poor because while the wealthy herd owner may gain social capital from assisting the poor, he is not assured of material gain from a poor stock associate following a shock. Thus, from the perspective of a herdsman, for whom the proliferation of his herds and

advantageous social connections are crucial to his career as a pastoralist, engaging in asymmetrical stock friendships are imprudent.

For herders in Karamoja, balanced reciprocity is not a vital concern while evaluating the quality or usefulness of their friendships. As explained earlier, reciprocity can hardly be achieved in stock relationships due to the nature of exchanges. Livestock acquired from friends for milking, herding, or fertilizing need not and are not reciprocated immediately, or ever, if we take into account the permanent residence of the animal in the receiver's herd. Instead, reciprocation hinges on another's contextual livestock need, although friendship gifts may be given at any time. Therefore, it may take generations before any semblance of true reciprocity is achieved. Immediate reciprocation of a gift also signals a lack of desire in continuing the relationship; mutual obligation in the form of unreciprocated gifts perpetuates and strengthens the friendship (Cronk, 1989).

In the course of interviews on stock friends, nine deceased friends were listed by participants<sup>39</sup>. Of these, two relationships were imbalanced on account of flow of goods from only one party, and in one relationship nothing had been exchanged before the death of the friend. Yet, deceased friends were mentioned in the roster of stock friends because the relationship continues through the next generation—the offspring of those who did not receive anything from their friends have the ability to request for livestock or other help. In addition, the deceased's family will summon his closest friends at the time of a daughter's marriage so that the friend may claim his share of the bridewealth. Thus, it is firmly established within the ethos of stock friendships that whereas death may end the

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<sup>39</sup> It is not clear from Renfrew's (1991) data whether deceased friends were accounted for in stock friend numbers, or whether they were only counted as "lost" friends.

relationship between two individuals, the “gene” of the friendship remains forever between the two families of the friends (*iwapit aliyathit*: the lineage continues). Similarly, newly established friendships are mentioned by participants despite no occurrence of a livestock or other significant transfer event. Once recognized as stock friends, partners assume responsibility for making contribution to each other’s bridewealth payment, as well as other forms of mutual assistance. By listing these friends, participants conveyed that with these individuals they share future rights over livestock or other help.

The reasons for the break of friendship or the dissolution of the contract stems mainly from non-economic elements. Maintaining contact through visits is a paramount aspect of friendship without which, it is claimed, the friendship dwindles. For those friends who live in distant places, frequent visits are not as important. However, if an individual is visiting the vicinity of the village and does not ask after his friend who lives there, he is regarded with contempt. That is, if a friend doesn’t invest time more than anything else in the relationship or if he “goes silent” (*epei ethikini*: escapes silently without visiting), the relationship begins to rupture.

Lack of help from a friend during one’s time of need is generally not regarded as an appropriate reason to break a friendship. When a friend is approached for help, the requester may not know the friend’s economic situation. A refusal to help is not conceived as betrayal of the friendship contract. Individuals are keenly aware of the general economic and ecological situation of their area, and thus do not turn their backs on friends who are unable to help. Moreover, the visibility of livestock wealth, in comparison to cash or grain wealth, makes it difficult to conceal one’s apparent wealth

even though animals may be stored in others' herds. The high degree of acquaintance and frequent contact among herders, particularly those belonging to the same ethnic group or living in close proximity, also prevents deception in terms of available livestock holdings. Characteristics of close knit social networks in the pastoralist economy, therefore, allow individuals to know who may have livestock available for transactions.

However, repeated requests to friends for help that go unanswered are a sign of a weakening friendship. In the words of participants:

A friendship breaks when one person jumps away from the other (separates himself), or when he becomes difficult. Whenever he comes to you, you give him a cow. But when you go to him, his animals fail to come out of the kraal (i.e. he does not grant your request). And that is when you've done it repeatedly. Whenever you go to him for help, when you've been raided, or there is hunger or sickness, or just poverty, things do not happen. That's when the friendship ends. Then you realize that if this person is playing games with me, there is no use of me coming to him for help.

Although denial of repeated requests was clearly stated as a reason for the rupture of a friendship contract, there is a great deal of disagreement among people on this matter. For the majority, the mere denial of repeated requests is not enough; rather, the refusals need to be adequately weighted against the person's available wealth. In the event that the requester is not aware of the person's economic condition, the latter's attitude is taken into consideration. If he shows willingness to help despite not actually having anything, the refusal is accepted in good faith. Friendly conversations shared between the two parties are sufficient to keep the friendship alive. But when a person who noticeably has animals, money, or anything that is requested of him, continues to deny his friends the requester may walk away from him. Therefore, whereas bonds are sustained with a friend who genuinely lacks the means to help and may compensate by visiting, sharing advice,



and conversation, friendship ruptures with those whom you have approached “ten times” and who, despite having the ability to help, choose not to do so.

### *Discussion*

In this chapter, I discussed the norms and patterns of stock friendships among Matheniko Karimojong and Tepeth participants. Stock friendships are contracted with individuals, both kin and non-kin, at every stage of life and are initiated through a courtship-like ritual. Friends are chosen on the basis of personality characteristics, and “blood attraction” or chemistry between two friends. Friends and relatives who have claim on an ego’s stock are regarded with greater importance than those individuals with whom livestock are not shared. Livestock transfers between stock friend dyads are a fundamental aspect of these relationships. Whereas there exist many categories of livestock transfers and many of them carry a debt, they are typically written off by the giver. Moreover, norms of livestock transfer create emotional debt between friends wherein a livestock gift remains in the debtor’s herd and its un-reciprocation signifies the ongoing exchange relationship between creditor and debtor.

Stock friendships are carried over generations and do not typically end with the death of either member of the original friendship dyad. Descendants of stock friends continue the comradeship through livestock and other gifts. Thus, although several authors have discussed these relationships under the rubric of balanced, delayed reciprocity, it is difficult to ascertain using data at any given time point. Reciprocity is best seen as ensconced in the sense of mutual obligation between friends. Friends may gift each other animals without being requested, but the relationship is activated during a

time of need when, based on their friendship contract, friends have the right to approach each other for help.

The analysis of stock friend networks in Karamoja illustrates the resilience of the institution of mutual aid in the aftermath of devastating intercommunity violence. Although peace has returned to the region, livestock numbers have declined. Nevertheless, the exchange of livestock gifts, however few, remains vital to stock friendships. Results show that wealth was weakly correlated with size of stock friend networks, and that too only in one of the two field sites. Moreover, the geographic spread of the network, which appears fairly limited and within the same ecological zones, does not support its risk management logic. Therefore, I propose that instead of analyzing these relationships from a purely economically motivated risk management perspective, they are better understood as need-based transfer relationships in which the obligation to help is inculcated within the friendship. Responding positively to a friend's need (à la Peterson, 1993), when circumstances permit, allows the relationship to strengthen and a sense of obligation to develop – it is through this obligation that risk is spread in institutionalized friendships.

## Chapter 7

### Women's Livelihoods, Social Networks, & Friendships

#### *Introduction*

A typical day in Rupa sub-county sees a mass exodus of young and middle-aged women from the villages to town in search of economic activities. The winding dirt road from Moroto town to the villages is dotted with women carrying bundles of firewood, sacks of charcoal, or 20-liter jerry cans of the local sorghum brew (*ngagwe*) for sale by the cup-full or jug-full in village centers. In addition, women go to town to offer casual labor services to business owners in return for food or cash. The daily migration does not include those women who stay overnight at gold mines in order to avoid losing time in commuting. Like everywhere else in East Africa, women in Karamoja are at the forefront of economic diversification and market activities. Although traditionally tasked with agriculture, Karimojong and Tepeth women have now assumed the role of primary cash earners in several households.

Historically, commercialization and market integration have resulted in women pastoralists' economic self-reliance, a relatively improved position (K. Smith, 1998), and a positive effect on the nutrition of their children (Fratkin & Smith, 1995). Economic diversification also has an effect on women's exchange networks and to what ends these networks are used (Akong'a, 1988). Yet how pastoral livelihoods, market integration, and exchange networks interact is a relatively underexplored area (see Pollard, Davies, & Moore, 2015). Furthermore, studies of pastoralist risk management tend to fixate on the value of ex ante livestock transfers, a typically male domain, in conditioning ex post coping, while paying scarce attention to the economic contribution of women, and their

niche in a household's risk management strategy.

In this chapter, I examine the state of women's livelihoods and market integration in post-conflict Karamoja. I discuss the important yet overlooked institution of friendship among women, and the role that women's social networks play within a household's range of risk management strategies. Further, I examine how women have responded to the uncertainties in their environments through livelihoods, and the impact of women's livelihoods in the economic stability of the household. I argue that in order to advance our understanding of pastoralist resilience, taking into account women's social networks of support and their individual risk management strategies is of urgent importance.

*Women herders in the history of pastoralist studies*

The role of women in the pastoralist economy was regularly underplayed, if not neglected, in the history of pastoralism research (R. Dyson-Hudson & Dyson-Hudson, 1980; Hodgson, 1999a), and prior to the 1970s the vast majority of studies tended to focus on 'male' matters of livestock management, rituals, and politics (e.g. Evans-Pritchard, 1969). Whereas their role in small stock management was acknowledged, there persisted a cliché that women had less social and economic roles within the pastoralist livelihood because of their reduced mobility and weaker physique (Beaman, 1983; Goldschmidt, 1965). In a similar vein, whereas a significant amount of literature has been produced over the decades detailing the importance and significance of livestock in a male herder's life (e.g. Dyson-Hudson, 1966; McCabe, 2004), the value of livestock in women's lives has generally been overlooked until recently (for e.g., see Bianco, 2000 for a detailed description of Pokot women's material culture). Likewise, the sociopolitical significance of male age-sets (N. Dyson-Hudson, 1963; Kurimoto & Simonse, 1998) is

matched by very limited information on female age grades (e.g. Pazzaglia, 1982 discusses age-sets among Karimojong women).

The absence of female herders' perspectives and roles in the early ethnographies has been remedied to some extent by the comprehensive and women-focused studies of the relatively recent years (e.g. Dahl 1987; Hodgson 2000; Hutchinson 1996 among others; see also R. Dyson-Hudson & Dyson-Hudson 1980). Although in the area of livestock exchange, the dominant foci are male herders and large stock (e.g. Gulliver, 1970), scholars have documented the exchange of livestock among women, mainly small stock but also cattle, with men and with each other (Broch-Due, 1990; Hodgson, 1999a). In addition, the existence of stock friendships was documented for Southern Turkana women who formed *lopae* relations through the exchange of beads, food, and other household items (Renfrew, 1990). Although *lopae* is generally considered a male institution (Gulliver, 1970) and according to Renfrew's (1990) data women also preferred male *lopae*, her study makes an important contribution in recording women's *lopae* relations in addition to men's. A similar study on Marakwet women's *tilia* relationships was recently published, marking the first comprehensive study of a friendship institution among pastoralist women (Pollard, et al., 2015). Before further examining how Renfrew's (1990) and Pollard et al.'s (2015) studies on women's exchange relationships compare to similar data among Karimojong and Tepeth women, I first turn to a discussion on the role of women in the present-day Karamoja economy in order to adequately contextualize their social networks of support.

### *Women's economy*

In the agro-pastoral economic tradition of Karamoja, women bear the primary

responsibility of agriculture. Plots of land cleared for cultivation are the property of women who may pass on these rights to their daughters. When assuming patrilocal residence after marriage, daughters may lose these rights and the plots may be retained for the wives of the sons of the family (Quam, 1976). The land is cleared mainly by women but also by men when they are present at the homestead instead of at the dry season grazing areas. In order to efficiently expedite the process of clearing, and more important weeding after the first planting, help is enlisted from various and sundry members of the neighborhood or village who are compensated in food or local brew for their efforts. Women use grains either left over from the previous harvest or borrowed from someone to purchase labor. According to Quam (1976), similar to men's secondary use of livestock besides household sustenance, women use grain for exchange and future investments "for personal gain" (p. 47). It is considered their "property" and they can share or trade it as they deem suitable (R. Dyson-Hudson, 1960).

As for their role in the household's pastoral production, women, mainly young girls but also older women, bear the main responsibility of milking those animals kept within the homestead. Furthermore, women make various milk products such as *ngakibuk* (churned milk) or ghee (clarified butter) both in the homestead as well as in the migratory livestock kraals. At the livestock kraals, women are tasked with a variety of activities including: the construction of the kraal fence, the acquisition of a bushel of thorns (*egolit*) to cover the entrance of the kraal, fetching water for the camp residents as well as animals, in addition to their main task of milking animals. In what is a gendered division of labor, men, on the other hand, deal with butchering, slaughtering, and bleeding of the animals besides their general concern with the health and reproduction of their herds.

Far from being only peripherally connected to animal life, women have the right to own livestock either completely or with usufruct rights. Women acquire livestock in a few key ways. Fathers may give their daughters animals for their well-being and survival during the marriage, particularly if the newly wedded couple takes up patrilocal residence. At the end of the marriage ceremony and usually when most of the bridewealth demanded by the bride's family is paid, her new husband's friend may give her one or several animals known as *aate ngina nyarait aberu* (the cow for calling the women). This animal, typically a female, belongs entirely to the woman and only she has the right to milk it. Her husband may not sell or exchange this animal except with the explicit permission of the woman. A variation on this custom among the Tepeth is that the husband, rather than his friend, gives his new wife this particular animal called the *aate ngina ngaaret ekidor* (the cow for opening the door [of the animal enclosure]).

Besides these ceremonial animals, every woman is given a share of animals upon entering her husband's house. These are mainly female animals from whom milk is extracted for feeding the woman and her offspring. The woman does not 'own' the animals but rather has access to them. These animals belong to the central herd on which the man has all rights. When a son of the extended family (the man, all his wives, and children) is entering the marriage process, the herd owner may take a portion of these milking animals for bridewealth payment. The process of gathering animals for payment is done democratically within the household, where all the wives partake in the decisions regarding the animals to be extracted from household's herds for payment. A woman even has the right to oppose the decision that one or several of her milking animals would be taken for this purpose (Quam, 1976).

Finally, as a member of a vast kinship network, a woman also acquires animals as part of her share of bridewealth from the marriage of any of the girls in the extended family. If she resides far away, the family either sends word for her to come and claim her share, or they keep it on her behalf to be handed over at a later time. Moreover, those individuals with whom a woman maintains close friendships treat her as a member of the kinship network, and she therefore receives livestock gifts as a share of the bridewealth from the marriage of close friends' daughters and/or sisters.

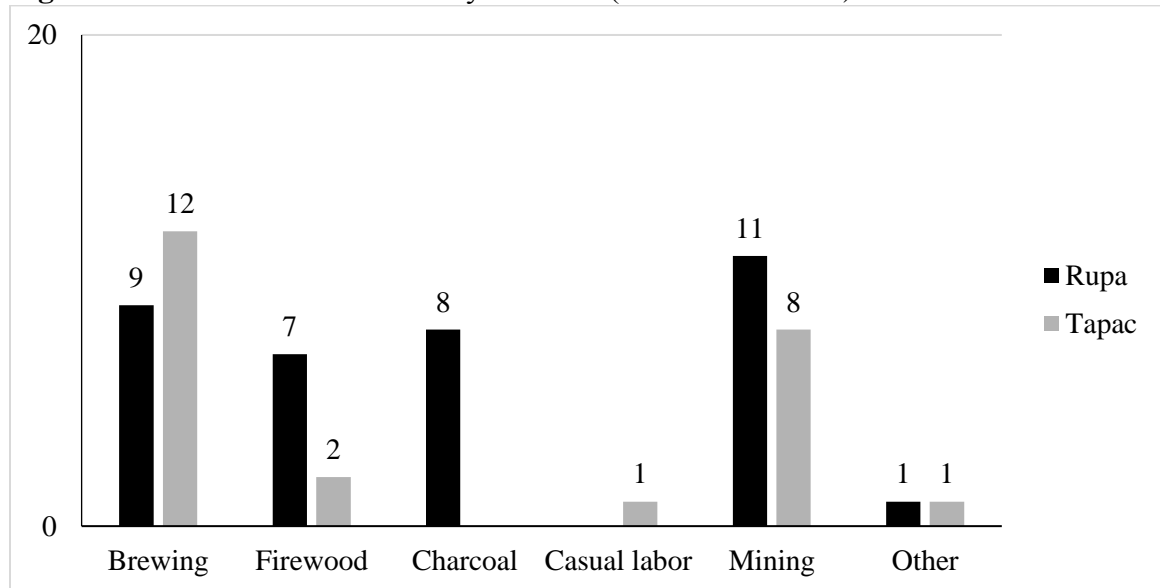
#### *Women's contemporary economy*

The current economic situation of pastoralists differs radically from the mid twentieth century when the economy of pastoralists in Karamoja was first described by ethnographers. Whereas early observations about the gendered division of labor within the household endure, where men are concerned mainly with the herds and women with agriculture, a range of alternative livelihoods have since entered the household's economic repertoire. It might be said that people have responded to the new market opportunities with great zeal. However, there are both 'push' and 'pull' factors to consider: whereas the wealthier pastoralists find the new opportunities afforded by market integration lucrative for accumulating more wealth through investments, the poor are forced to embrace the same opportunities for fear of destitution (Little et al., 2001). In the case of women, rapid market integration has resulted in a multifaceted livelihood profile characterized by a range of cash-generating activities. Women's earnings afford them new opportunities vis-à-vis livestock ownership and business investments, which further elevates their economic contribution to household suffering from low asset wealth. Here, I outline the main alternative livelihood strategies in which women



participate.

**Figure 7.1:** Women’s livelihoods by field site ( $N=15$  in each site)



### *Brewing*

In the aftermath of the years of insecurity and disarmament when livestock numbers dwindled, women increasingly turned to commercial beer brewing (*ekirab*) – a significant economic activity for women all over Sub-Saharan Africa (McCall, 1996). A staple of life in Karamoja, beer made of sorghum (generic term: *ngagwe*) has tremendous ceremonial importance: it features prominently in rituals like births, funerals, and marriages, in organizing communal labor parties, and as offerings to elders and visitors. A gathering of people whether to discuss bridewealth negotiations or problems of herd management is not complete without the consumption of beer. Its importance in social, economic, and nutritional life is best encapsulated in the Karimojong saying: “beer is the cattle of women” (Dyson-Hudson, 1966, p. 96).

Today, local brew provides sustenance to those who have little or no harvest to prepare meals. Concurrently, ‘drinking groups’ of men in town and trading centers are an

important venue of daily information exchange and stress release in the Karamoja context. Beer prepared for sale in these instances, however, differs from the ceremonial kind in that the latter is made only with different varieties of sorghum; on the other hand, maize or cassava flour is added to commercial beer to increase production (Dancause, Akol, & Gray, 2010). Moreover, the dregs (*adakai*) are left in the drink in the ceremonial beer but are removed from the commercial kind either to give away to people or to sell separately in exchange for cash.

Dancause and colleagues (2010), whose study is the first to highlight the nutritional and commercial importance of beer for women in Karamoja, show that 3 to 6% of daily energy intake in their sample was attributed to commercial beer. Furthermore, dregs from the beer made up between 3 to 12% of energy intake. This percentage was much higher (between 60 and 70%) for children under the age of fourteen. Dregs are rich in protein and fiber, but lack several critical nutrients and must be supplemented by other foods. Women who worked for brewers, assisting in such tasks as fetching firewood and water, were paid in beer and dregs. On the other hand, women who ran their own brewing business had cash for purchasing other food items such as maize and vegetables. Consequently, the study points to the close relation between the type of labor that a woman engaged in and the nutritional makeup and status of her family.

Today, women continue participating in the brewing business in varying degrees. Most large-scale brewers tend to live in or around Moroto town and supply to villages in Rupa Sub-county (Rupa), or in Tapac or Kolparok trading centers for supply in Tapac Sub-county (Tapac). Large-scale brewers produce many varieties of beer and other local alcohol (moonshine) varieties. Their cash flow is substantial and steady enough for them

to produce great quantities, which are then sold to retail suppliers. Beer sold on retail (locally referred to as ‘booking’) is bought in ten or twenty liter jerrycans that cost anywhere from five to fifteen thousand UGX (~\$6) at the time of my study<sup>40</sup>. At the villages, beer is sold by the mug (500 ml) or jug (1 liter) and can range in price from 200 UGX (~8 cents) to 2,000 Shillings (~80 cents).

In Rupa, the vast majority of women who purchased beer on retail have at one point brewed the beer themselves with harvest from their plots. From a successful harvest, women set aside a portion of the sorghum for brewing and the rest is saved in the granary. Profits from retail sale are generally low, ranging from 1,000 UGX to 3,000 UGX (20 cents to \$1.20). When a high enough profit is made, the most popular choice is to buy raw materials rather than extracting more grains from the household’s granary for further beer production. Brewing one’s own beer has the added advantage of obtaining dregs that can either be turned into porridge or fed directly to children. After multiple failed harvests, many of these women turned to buying on ‘booking’ from wholesalers in town. The competition for acquiring these jerrycans is high enough for women to depart for town as early as possible. Moreover, given that the number of potential buyers is high in Rupa, of whom many like to sample the product before committing to it, women are rightfully eager to procure the best product as early as possible.

Due to the lack of a large urban center like Moroto in Tapac, brewing is done personally by a number of women. One of the primary reasons for this is the general amenability of the soil in the mountainous region, which has previously yielded good harvests. A second related reason for the availability of household crops for brewing is

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<sup>40</sup> These amounts may vary by Sub-county and District.

the impetus to cultivate among people from the Tepeth community, possibly as a result of their differing livelihood profile than Karimjong. In contrast to the people in Rupa, who suffer from the lack of good agricultural conditions and attractive casual labor opportunities in Moroto town, people in Tapac plant large areas of land and continue trying to cultivate even if their first planting fails. Only in late 2015 – early 2016 was there an explosion of interest in alternative livelihoods in Tapac, which was the result of two consecutively failed harvests.

Large-scale brewers also exist in Tapac where they are most visible at the trading centers of Tapac, Kolparok, and Kosiroi. Individuals going for arduous labor at the mines may consume beer before starting work and upon coming back home at night. Women and men also buy jerrycans of beer for transportation to adjoining parishes or villages inside the mountains. However, unlike in Rupa, local brew is not the staple of people's diet in Tapac. Owing to their green surroundings, people are able to include some type of wild greens into their diet even if their harvest fails. In addition, I observed that people in Rupa fed their children dregs at a higher rate than in Tapac. Throughout the research period, I also observed a greater frequency of solid food or milk intake among adults in Tapac than in Rupa.

In short, what was initially a necessary move to fulfill household needs has transformed into a viable and lucrative business opportunity for women. Brewing allows greater cash in hand than any of the other livelihood strategies and unlike gold mining, which may yield high earnings but also suffers from wild unpredictability, brewing helps sustain a steady cash flow required for the purchase of food and to pay for medical emergencies.

*Natural resource extraction*

Besides brewing, the other major alternative livelihood women participate in is mining: gold in Rupa, and marble and limestone in Tapac. Until later in the year 2014 when it became increasingly difficult to find gold in substantial quantities, going to the gold mines was a matter of habitude for women in Rupa. Gold mines are scattered throughout the sub-county, but their locations are generally public knowledge. The most popular site is at the Nakabat mines located near the Kenyan border. Given the distance between these mines and most villages in Rupa Sub-county, many women choose to spend one or a few nights on site in order to maximize productive time.

Gold mining is carried out on an individual, couple, family, and other group level basis. Particularly in areas not close to water, gold mining takes the form of a partnership effort where people are assigned different tasks to expedite the process. For example, in the case of a husband-wife team, it's the wife's responsibility to bring water and the husband's to dig. Although the entire process of gold mining requires significant time commitment, the participation of partners and the delegation of tasks certainly eases the burden. These partnerships include husbands and wives, sisters, co-wives, and several other affinal and agnatic kinship combinations. Money acquired from the cooperative mining of gold is shared equally among partners.

Although amounts earned from gold mining can vary drastically (from nothing or \$3 a day, to rare cases of \$200), several women in the study made enough money over time with which they purchased animals. Of the participants in Rupa, four of the nine women who owned animals bought it from money earned through gold mining. This is one of the new ways in which women are able to possess animals, besides those they get

from families and friends. Women may choose to buy an animal on their own or ask their husband to buy one for them. The animal is usually kept in the husband's or the family herd (in the event that the wife does not reside with her husband). For women who keep their animals in their husband's herd, the animals become his property. He has the right to decide their fate; he may even gift them to friends without his wife's approval. However, if the animal dies in his care, the meat is brought back to the original 'investor's', i.e. the woman's, home rather than shared among all the wives and children. The woman may decide to share the meat with people beyond her nuclear family.

Money earned from gold mining is also helpful in initiating or re-starting a brewing business that may have become dormant from lack of grains. Alternatively, cash income is useful in buying larger quantities of beer from wholesalers for retail sale in village centers. Some women also use their income from gold on purchasing locally made alcohol (*etule*) for resale in areas where Turkana people reside. Since there are no significant markets in the dryland grazing areas on the border of Kenya and Uganda, women can make high profits selling alcohol and may even barter alcohol for small stock.

In sum, the gold mining business has proved relatively profitable for women in Rupa Sub-county. Not only does it allow them to purchase essentials such as food, medicine, and clothes, it also affords them seed money for different small-scale businesses. During a focus group discussion early in the research, when asked about the most profitable activity for women, there was a general consensus among participants that brewing and mining helped feed their children. However, one participant contested that the brewing business could not be sustained or even begun without the necessary

capital that gold mining provided.

In Tapac, marble and limestone are the main minerals mined by women, although scattered gold mining also occurs. (Similarly, marble mining is another critical cash earning activity in Rupa) At the time of research, Tepeth women's engagement in the mining industry was less intense than it is today. Particularly at the start of the wet season and throughout the cultivation process, women's work at the mining site was dominated by peripheral activities such as selling beer and food, and fetching water for men and groups that were actively excavating. Several women reported raising funds to organize labor parties for mining in 2015 because of the laboriousness of the task. Unlike gold mining, extraction of stone requires many hands, and individuals rarely do this activity on their own. Similar to communal gardening groups, women paid the participating members in food or money for their help in mining. In addition, women also intensified brewing in the wake of an increasing workforce at the mines – Tepeth individuals living deeper in the mountains and valleys began excavating stones in order to buy food after harvest failure.

Returns from marble and limestone mining tend to be fairly stable when compared to gold mining. Independent truck drivers buy stones at the site and typically pay around 250,000 UGX (approximately \$100 in 2014) for a truckload of stones. These truckloads can weigh as much as fifteen tons; when sold to factories in Jinja city, a single ton of marble can fetch 110,000 UGX (\$44) thus bringing a truckload's potential worth to 1,650,000 UGX (\$660) (Karamoja Development Forum, 2015). Local brews, alcohol and snuffing tobacco are in high demand thanks to the number of new residents at the Kosiroi trading center, and women have appropriately responded to this economic opportunity by

intensifying brewing and petty trade.

*Petty trade and casual labor*

Finally, women in both field sites do various types of petty trade and casual labor for cash income. Sale of firewood and charcoal are popular in both field sites, although in Tapac the intensity of cutting trees for these purposes was low at the beginning of the research period. As the problems of food shortage increased, there was a concurrent increase in firewood and charcoal sales. While firewood is used in the household (on a three-stone cooking fire) as well as sold in town, charcoal is produced predominantly for commercial sale within and outside Karamoja. A bag of charcoal costs approximately 15,000 UGX (\$6) in Karamoja, and sold in Kampala by retailers at 50,000 UGX (\$20) (Egeru, Okia, & de Leeuw, 2014). A bundle of firewood may range from 3,000 UGX (\$1.20) to 7,000 UGX (\$2.80), and prices of unsold bundles drop further towards the end of the day.

Women in Rupa sell vegetables in the villages that they buy in the town market. These include tomatoes, local collard greens (*ebo*, *edy*), and cabbage. Small packets of salt and oil are also sold by the same sellers. In Tapac, women living higher up the valley and in mountain villages sell different varieties of collard greens at the trading centers. Their relatively better location vis-à-vis agriculture affords them the opportunity to sell produce from their personal gardens. Cash from the sale of produce is used for buying such essentials as salt, oil, matchboxes, and razor blades. Wild mushroom is another locally grown produce sold in both field sites.

With respect to casual labor, women living in villages closer to Moroto town work as house-help, cleaners, construction workers, and store assistants. Wages from



these types of labor vary greatly but are generally low. For instance, the average daily wage rate in Moroto for the year 2014 was 5,000 UGX (\$2) (World Food Programme, 2014b), and the average daily wage rate in Karamoja between July 2014 and July 2015 was 3,600 UGX (\$1.44) (Uganda IPC technical working group, 2015). However, participants report earning far less than the average. Women who assist large-scale brewers may be paid in dregs, beer, or in cash, although most of them tend to purchase beer from their earnings (see also Dancause et al., 2010). In 2015, competition for daily labor in Moroto town was high due to the influx of women from the neighboring district. The ‘first come, first serve’ nature of many of these jobs meant that women were forced to leave for town very early in the morning. On the other hand, casual labor opportunities in Tapac are limited to agricultural groups, construction, or work in the Catholic Mission. NGO-run Cash for Work (CfW) programs also provide cash income, although the projects are short term.

### *Discussion*

Women, perhaps to a greater extent than men, depend on the market economy of Karamoja. Money occupies a compulsory role in their lives as communities living in the pastoral economic zone can no longer sustain household nutrition needs through opportunistic agriculture. Cash income use, however, differs by gender where men are more likely to invest in the animal trade or in increasing their herd, and women most likely to cater to household needs. Nonetheless, both men and women may buy food for the household; the extent to which they invest in nutrition depends on the characteristics of the household. For example, in a household of animal traders, men’s preoccupation remains trade herds and any income generated is destined for the purchase of additional

stock. Women, thus, use income to buy food, clothing, and medicine for children. With that said, women have the prerogative to choose how to spend their money without the approval of their husbands, as is the case in other parts of Africa (Aspaas, 1998).

Women in Karamoja have embraced the colossal changes to their pastoral way of life, and have done so with adaptability and entrepreneurship. The tendency among the government and development interventionists to focus on the vulnerability and weakness of women is wont to disregard the business savvy and resilience that they bring to these changing circumstances (Hodgson, 2000). Women are at the forefront of the rapid market integration of pastoralists in Karamoja, and a large number of households depend on their earnings. The responsibility to feed the family has a powerful impact on the degree of women's involvement in the market economy, and therefore their economic autonomy (Little, 1987). So central is the role of food in women's lives that it mediates their crucial social relationships and networks, as I explain in next section.

*Pastoralist women's friendships and other social networks*

The ethnographic literature on pastoralism is generally silent on the topic of women's friendships, exchange networks, and the role of these relationships in risk management. A few exceptions, however, do exist. Beaman (1983) discusses the formation of friendship type networks among Rendille women who established relationships that bound the partners by an obligation to assist one another. Only women with children were allowed to enter into these relationships since feeding children formed the rationale behind begging or asking for help. According to Beaman (1983, p. 25) "a skilled woman keeps a mental record of her relationships with others, in what amounts to a mental card file," which signifies a type of account keeping in order to balance favors.

The greater the network, the greater the chances a woman has to provide a steady supply of food to the household. Interpreted differently, Beaman's description of Rendille women's friendship has an unmistakable risk management component.

On the contrary, a study on nomadic Fulani women's health networks in central Chad suggests that while several types of networks might be available to women (e.g. husband, male kin, affines etc.), access to health care is influenced heavily by social, economic, and cultural barriers such as gendered access to health information (Hampshire, 2002). Moreover, although Fulani women, in theory, have access to different networks, effective mobilization of these networks may not be possible during a health crisis due to the geographic mobility of nomadic pastoralists. Gray's (1994) study on Southern Turkana women, on the other hand, provides evidence of the positive influence of social networks by showing how food sharing within kin networks allows women to buffer seasonal nutritional stress.

In the context of institutionalized friendships, two studies have taken women into account – Melanie Renfrew's study on Turkana *lopae*, and Pollard and colleagues' study of Marakwet (a Kalenjin group) and Pokot *tilia* relationships. Situated within a broader study of the effects of sedentarization on social stratification in Turkana, Renfrew's ancillary project on *lopae* ('friend' in the Turkana and Karimojong languages) relationships among men as well as among women presents preliminary data on which to build comparative studies. Renfrew's study (1990, 1991) of two Turkana communities leads her to conclude that *lopae* relations are characterized by dyadic, balanced reciprocity. However, locally identified 'leaders' (diviners, rich people, people in the

government) and wealthier individuals gave more gifts than they received, and were expected to do so because of their elevated status.

Although equal numbers of men and women were interviewed, men were preferred as *lopae* because men generally have decision power over livestock. Female heads of households had fewer associates than male heads. The most frequently exchanged item in this study was goats (78%), followed by sorghum (50%). Over 60% of participants reported acquiring new friends from distributing food grown in their personal *shambas* (gardens), pointing to the equal importance of food in these relationships. Money (31%) was also an important item shared between *lopae*, even as early as 1989 during the time of Renfrew's research. Even though conventionally men's domain, women had the right to 'pursue' animal gifts; nonetheless, they only held usufructory rights over animal gifts. More often, women used beads, food (cooked and grains), and household items to cultivate *lopae* friendships.

Despite the sparse data on *lopae*, Renfrew's study takes an important first step by including women in the discussion of institutionalized friendships among pastoralists. Critically, Renfrew concludes that *lopae* was a form of investment and risk dispersal in Turkana. Pollard and colleagues (2015), in their detailed investigation of how *tilia* relationships interact with the market economy, also come to a similar conclusion: that *tilia* relationships among women was a form of "environmental risk management" (p. 433). Their study focuses mainly on Marakwet *tilia* relationships, but includes data from informal discussions with Pokot women. Marakwet women form special exchange relationships or *tilia* with only women and not men. Women identify three types of *tilia*: 1) between kin, 2) between neighbors, and 3) between communities. *Tilia* who are related

by kinship tend to be those who live farther away rather than geographically close immediate kin. Among the three categories of *tilia*, the geographically far kin group is the one to whom a woman turns first for help. Relationships may also be formed across communities as is the case of Marakwet women who have Pokot *tilia*.

*Tilia* relationships serve many benefits to Marakwet women both within the market context and outside of it. *Tilia* are very important for women who have businesses because their relationship allows them to acquire items on credit. Moreover, *tilia* bring customers to each other, sell goods on each other's behalf, and lend money for the expansion of business. A woman will also prefer to buy from her *tilia* in the marketplace over other sellers. Beyond their integral role in the marketplace, *tilia* also provide emotional and material support to each other. In a time of need, especially during food insecurity, a woman can approach her *tilia* for assistance and they would be obliged to share food with her. In turn, a woman who helps a *tilia* gains the right to request support during her future time of need. In the same vein as other scholars (e.g. Quam on Karimojong and Renfrew on Turkana), Pollard and colleagues conclude that the relationships follow a 'delayed reciprocal obligation' system of giving and receiving.

#### *Karimojong and Tepeth women's friendship*

Women in Karamoja, unsurprisingly, also retain a close circle of friends who are an important part of their social support system. Similar to men, women separate their circle of friends into two categories: *ekone/akone a etau* (male or female friend of the heart) and *ekone/akone a ngakipi* (friend of the water). The former, according to participants, are the ones towards whom they feel love (*aminanar*) and who feature prominently at every significant step of life. The latter are generally friends who are

better classified as ‘good acquaintances’ with whom food is shared depending on availability. Unlike men, however, the number of these friends for women is not a matter of ambiguity: where men often answered ‘too many to count’ when asked about their stock associates and required additional interview time in order to recall all names, women nearly always mentioned a small and set number of friends.

‘Friends of the heart’ can be acquired at any age and may belong to a significantly different age group than oneself. Napua, a study participant, recounted the following story on how she met her friend, an old woman:

When Napua and some people were in a camel kraal in Bokora (territory of the former enemies of Matheniko Karimojong), some approaching Bokora women asked Napua’s group of young girls for water. Everyone, except Napua, refused. Upon her giving water to these women, the other girls from Napua’s group warned her that she would be caned for having given away the water. When her parents asked where the water was, the other girls told on Napua that she had given the water to thirsty strangers. Instead of reprimanding her, Napua’s parents asked her to invite the women to their home. In turn, the Bokora women invited Napua to their kraal. The old woman who was to become Napua’s friend sent word to Napua’s father (a prominent Matheniko elder) to have Napua come to her place so that she may give her sorghum and maize. When Napua visited, the old woman instructed her daughters to help Napua carry the food to her family’s home. Since this encounter, Napua and the old woman became close friends. When there is hunger in the old woman’s area, she visits Napua’s village to request food and vice versa.

Although the process of friendship among women is not as formal as with men’s stock associations, the emotions underlying the relationships and their accompanying rights and obligations are similar. However, the importance of friends for women goes beyond mere economic concerns. Several women reported taking care of friends’ children when hunger was unevenly distributed. At these times, those with nothing to feed their children handed over the responsibility to their friends. Consequently, the children come to treat the friend as their own mother and even after the passing of their biological mother

continue to maintain a relationship with the friend. Intergenerational transfer of friendships between women mirrors the dynamics of male stock friendships, which are frequently passed on from fathers to sons.

*Size, composition, and geographic dispersal of friends*

Table 7.1 shows the characteristics of women's networks in the two field sites. The number of close friends was generally small and averaged 3.5 friends in the first field site and 2.6 in the second. Sixty percent of participants from Tapac mentioned only two friends, whereas several women in Rupa had three or four friends. Related individuals comprised 28% and 18% of all unique friendships in Rupa and 2 respectively. Only four participants from Tapac had kin-friends as compared to ten participants from Rupa.

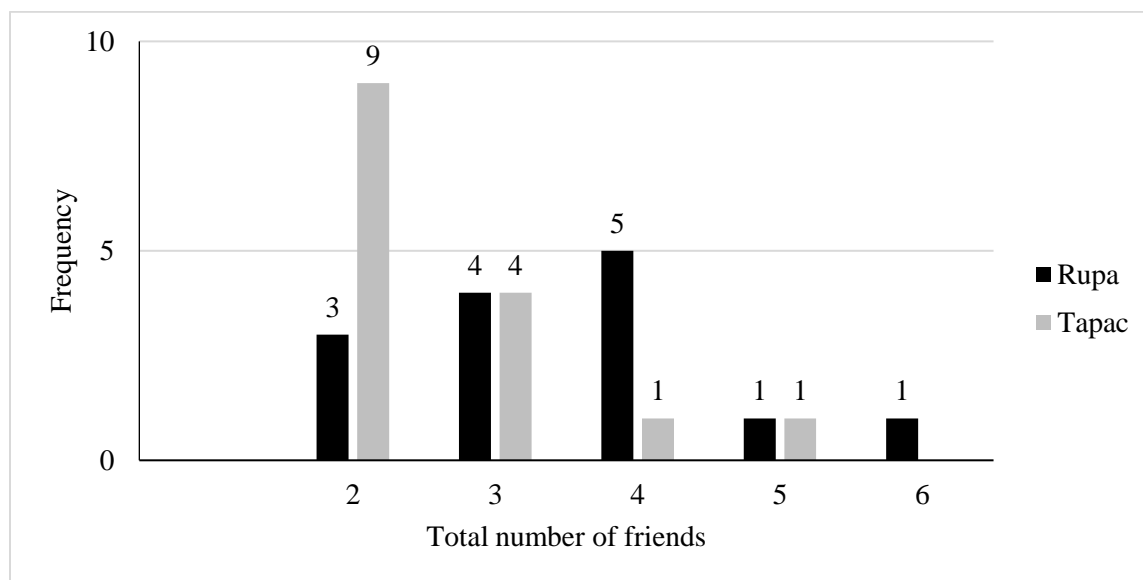
**Table 7.1:** Women's friendship networks by field site. Numbers in parentheses indicate total number of unique friendships in category.

	<b>Rupa (N=15)</b>	<b>Tapac (N=15)</b>
<b>Average no. of friends</b>	3.5	2.6
<b>Range</b>	6 – 2 (53)	5 – 2 (39)
<b>Percent related friends</b>	28% (15)	18% (7)
<b>Percent agnatic friends</b>	55%	45%
<b>Percent affine friends</b>	45%	29%*
<b>Male friends</b>	8	10
<b>Friends' location</b>		
Same village	55%	31%
Same sub-county	34%	62%
Diff. sub-county	6%	5%
Diff. district	4%	3%

\* + Unknown "far relation" 29%

Agnatic kin were preferred over affinal kin in both field sites, and the most popular choice of kin friend in Rupa were half-sisters (same father, different mothers). In Tapac, no such category is distinct due to the relatively smaller number of kin friends. Over half of all unique kin friends at both sites live in the same village or kraal as the participant. These data do not correspond to Marakwet women's kin *tilia* who, by definition, are those relatives who live farther away (Pollard, Davies, & Moore, 2015). When taking all friendships into account, however, participants in Rupa had more friends in the same village than Tapac.

**Figure 7.2:** Friendship network sizes for women by field site. Numbers above bars indicate frequency.



One plausible explanation for the reported geographic proximity of friends could be an effect of the sedentarization of pastoralists in Karamoja. In interaction with economic and ecological instability, sedentarization has a stronger influence on women's livelihoods than men's. In Rupa, numerous men continue their pastoralist careers and migrate between the kraals and the village. Women, on the other hand, face restrictions



from vast movements due to the changes in their livelihoods and thus need to be around towns. Moreover, declining livestock assets means that women's role in pastoral production is equally diminished. Since not many individuals are left with enough animals to adequately feed the household, children may be taken to the kraal in rotating batches. Children left in the village depend heavily on purchased food, thereby also reducing women's movement. In Tapac, on the contrary, women have more opportunities for developing friendships with those outside the village because of the current residential pattern. Participants from Tapac reside in small villages, trading centers, and livestock corrals. Until recently, the population was not concentrated around an upcoming urban center (Kosiroi trading center near the limestone and marble mines). The frequent reconfigurations of residence patterns in Tapac from the time of cessation of hostility to the intensification of mining means that intimate social networks may extend over the sub-county instead of being confined within the village.

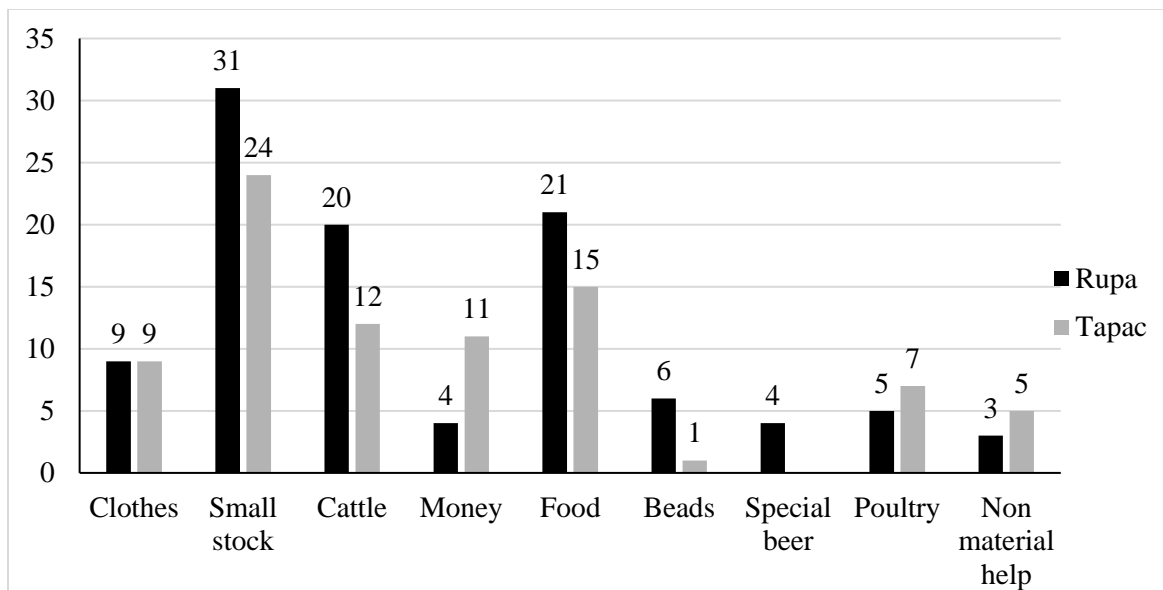
In contrast to Marakwet women's strictly female *tilia* partnerships, women in Karamoja also consider particular men their close friends. Generally, close male friends belong to the same age-set as women. At the time of marriage, existent male friends receive a share of the bridewealth that the woman's family obtains from the groom. This is an important prerogative that all close friends, men and women, who are not related by blood have: their quasi-kinship with women entitles them to a share of the bridewealth as any blood-related kin of the bride. If the groom refuses to do so, she may threaten him that she will not come out of the kraal (where the bride sits while the bridewealth negotiations occur) to conduct the final step of the marriage ceremony.

*Items exchanged*

Quam (1976) delineates transfer events among Karamojong men and women as fixed patterns: agricultural produce is transferred from women to men, and livestock produce from men to women. Whereas within the household these statements might be relatively true, data on items exchanged between friends contradicts Quam's conclusion on the movement of pastoral products only from men to women. In fact, small stock is reportedly exchanged more frequently than food between women at both field sites (Figure 7.3). Over 90% of small stock exchanged in Rupa was 'for friendship', or as a gift to support a friend. Over 60% of small stock exchanged in Tapac was the recipient's share of bridewealth from the marriage of daughters or other female relatives and 20% of small stock was exchanged as friendship gifts.

Similarly, cattle exchange follows closely behind food exchange at both field sites. In Rupa, nearly all cattle were exchanged as friendship gifts, while in Tapac the majority of cows transferred were either to support a male friend in accumulating bridewealth (25%) or a share of the bridewealth received as a friend (50%). Cows were also exchanged for herding, milking, and for friendship. Animals gifted to friends may be the woman's property or she may request her husband for them. In one instance, a participant gifted a cow to her friend who is her co-wife, who in turn also gifted a cow to the participant. Both these animals were the property of the husband and entered the same herd after the exchange. This case provides evidence of an underlying symbolism in exchanging animals as part of sealing a friendship (although this is not a requirement in women's friendships).

**Figure 7.3:** Frequency distribution of gifts exchanged by women and their friends by Field Site



Despite the high number of animal gifts, food is the second most important item exchanged between friends. Women can give each other food from their harvest if they have surplus, a share of purchased food, or from NGO food aid rations. Due to the poor rains of the recent years, contemporary food sharing among women typically falls under the latter two categories. At the time of research, however, women in Tapac still had their own harvest. Men do not engage in food exchange (of rations) as frequently as women because agriculture and food supply to the household remain, in general, women's responsibility. Moreover, women have greater access to food even if they depend on food aid because World Food Programme's beneficiaries tend to be women. The centrality of food sharing among women is also reflected in baseline data, where I asked participants to list the types of items received from anyone (not only friends) in the preceding months. Nearly 50% in Rupa and 40% in Tapac of all items received was food—either grains, seeds, or other form of food.

For women, male friends could be exceedingly beneficial because they have greater rights over and access to livestock, which provide more food security than rain-fed agriculture. In Rupa, five out of eight unique male friends gifted animals to the women, of which all but one animal became the woman's property. One male friend lent an ox from his herd to his female friend so that she may plough her garden. Two male friends also received animals from women as gifts. Conversely, in Tapac, more animals (six) were transferred to male friends from women than received by women (two, of which one was slaughtered for food). Women gifted animals mainly to help with men's bridewealth payments.

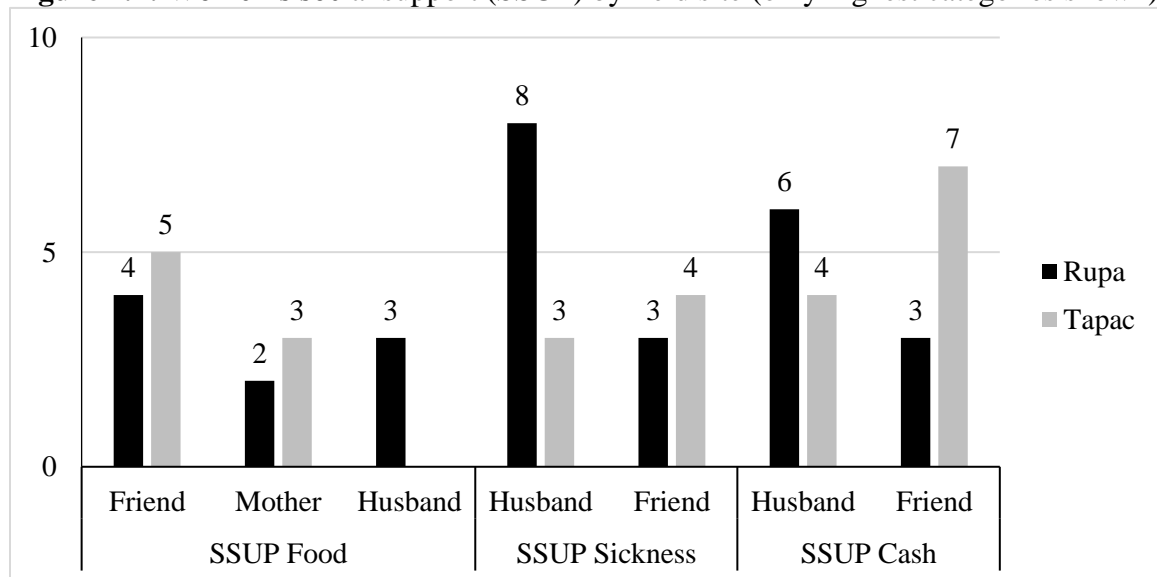
Besides animals and food, money features prominently in friendship exchanges particularly among women in Tapac. Since there were fewer avenues for earning cash in Tapac, money is an attractive and useful gift from the point of view of the recipient. Of the 11 observations of money exchanged in Tapac, three were given as gifts to friends. In contrast, only four instances of money exchange occurred between friends in Rupa – possibly because of the area's proximity to Moroto town, and, therefore, the relatively greater ease of earning money. In the two field sites combined, nearly half the money exchanged was for sickness-related help—either to pay the doctor's or hospital's fees or to buy medicine.

In sum, women's friendships in Karamoja appear to differ from men's stock friendships in a few ways. First, friendships develop gradually over time and do not necessarily involve the exchange of a particular object for the founding of the relationship. Although exchange is part of any friendship, it does not appear to play the same role as transfers among men. Moreover, unlike men, women do not necessarily aim

to expand their friendship network. A larger network of stock friends who may provide rehabilitation following a shock to the asset base is more economically meaningful for men than for women because the former bear the responsibility of livestock. This does not imply that women have static networks or that they have little use of social support systems. In fact, a woman's network is constantly expanding throughout her life as she makes connections through friendship or marriage of household members.

Trends in social support networks collected at baseline show to what extent a particular network is activated during a specific need (Figure 7.4). Data show that women approach their husbands for help during illness and miscellaneous cash needs at a far greater frequency than male participants reported seeking help from wives. With food emergencies, however, women reported approaching friends and agnatic relatives over husbands.

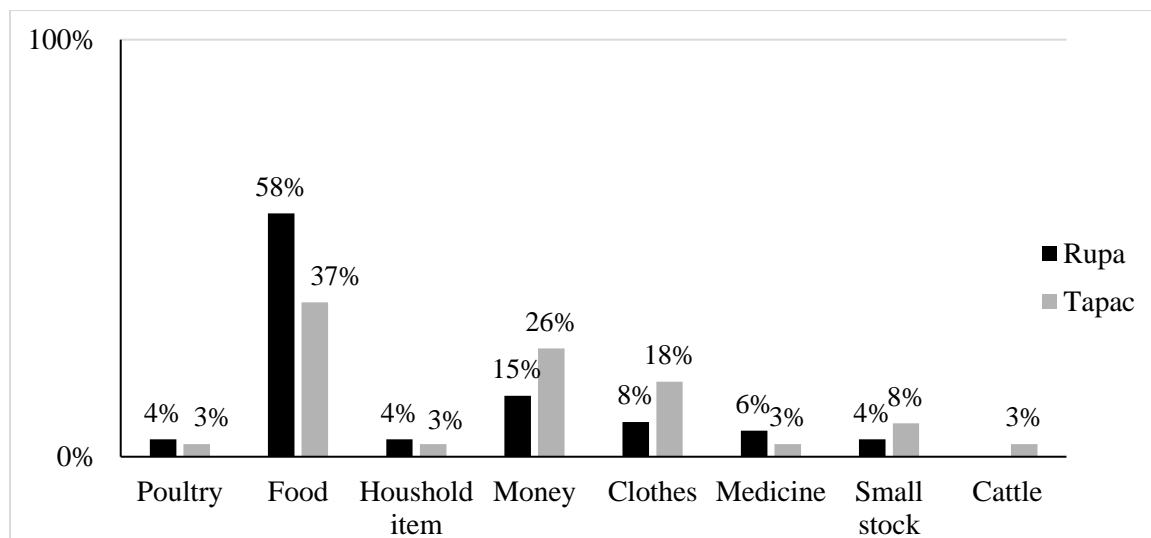
**Figure 7.4:** Women's social support (SSUP) by field site (only highest categories shown)



In bearing primary responsibility of the household's nutrition needs, women, their new livelihoods, and their food exchange networks are indispensable to household

survival in today's Karamoja, with its low livestock wealth and worsening climatic conditions. Baseline data on items received by women from anyone in the preceding few months (Figure 7.5) show the large percentage of food transfers in comparison to other items. Friends accounted for 57% of food transfers in Tapac, and 28% in Rupa. Paternal family members and children, on the other hand, contributed to 28% and 29% of food transfers in Rupa and 2 respectively. Help was also sought from the husband's family, which constituted 24% in Rupa and 14% in Tapac. Important to note is that all transfers, food or otherwise, occurred with individuals with whom participants had friendship or kinship (agnatic or affinal) relations.

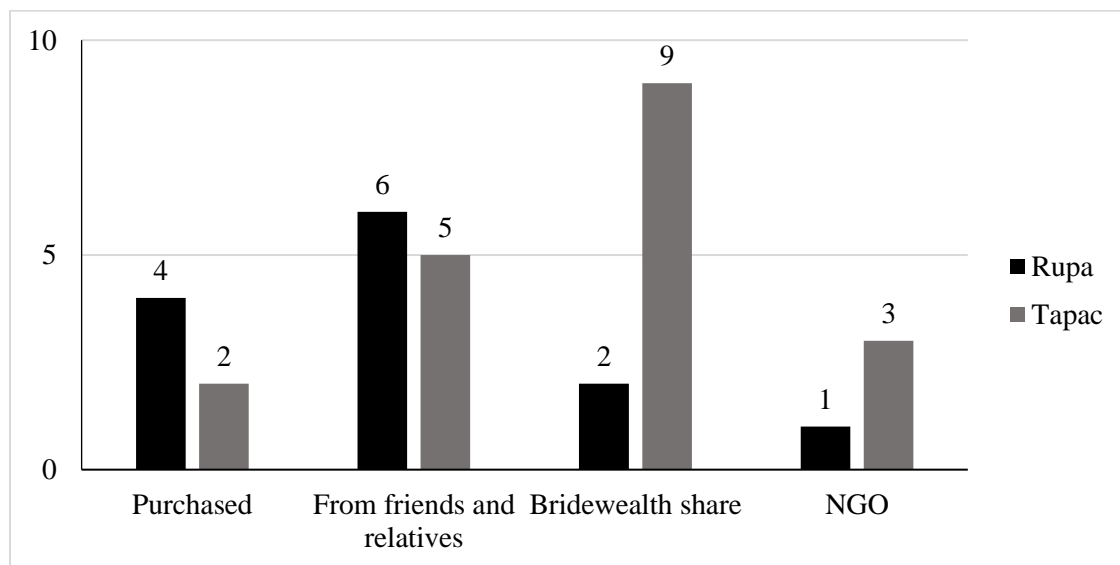
**Figure 7.5:** Items received by women from anyone since the last harvest (4 – 5 months prior)



Social networks are also crucial in women's acquisition of livestock. Besides animals assigned to her by the husband upon assuming post-marriage patrilocal residence, a woman acquires livestock throughout the course of her life as gifts. Sources of livestock ownership (Figure 7.6) listed by participants show that the vast majority of animals were received as bridewealth share in Tapac, and as gifts from friends and

relatives in both field sites. Government restocking programs implemented by the National Agricultural Advisory Services (NAADS) and Karamoja Agricultural Pastoral Development Programme (KADP) also contributed to women's livestock wealth. Furthermore, similar to men, women use livestock to strengthen relationships with friends and kin members. Although food items take precedence in women's exchange relationships, the role of livestock in friendship cannot be overlooked, particularly when evaluating data on friendship gifts from participants.

**Figure 7.6:** Avenues of animal acquisition for women by field site



Sedentarization, access to markets, and economic diversification have far reaching consequences for pastoralist women's autonomy (Ensminger, 1987, 1992; Hodgson, 1999a, 1999b; Little, 1987; Talle, 1987). 'Separate purses' allows women in Karamoja to make their own decisions regarding investments; nonetheless, because of their central role in food production and acquisition, the ability to participate in the livestock economy remains restricted. Men nearly always intend to reinvest their cash earnings in animals, unless there is a medical emergency or the wife has not been able to

provide food. While women insisted that they have all decision rights over animals they own, they also added the following:

When you get money from gold, you can have animals. You can give it to your husband to buy goats or cows. But these animals, when you buy them, you know very well that they are not yours. As soon as they enter the man's herd, they become his. Even if he gives it away to a friend or anyone, it's his decision. Sometimes he won't even tell you that he has given it away. He will tell you after some time has passed that 'I gave out your goat.' Generally, women will not get annoyed by this. But if your kids were hungry and sick, and you're always telling your husband to sell this animal so you can take your kid to the hospital and he refuses. Then when he gives it away to a friend, you get annoyed. When you ask him or quarrel with him about this, you get beaten. If you make the husband angry, he will follow the offspring of your goat and keep giving them out. When you ask the husband—why are you giving away all the goats from the one I bought—we will again get beaten.

On the other hand, women who do not keep their animals in the husband's herd, but rather their son's, brother's, friend's or other relative's herd appear to retain rights over their animals to a greater extent. Despite the persistence of gendered roles in livestock ownership, animals feature prominently in women's exchange networks. Moreover, aside from providing food, clothing, and medical help to children, young women in the study reported saving profits for investment in small stock and/or their small trade ventures.

### *Discussion*

Development economists have focused on asset risk and the analysis of inter-household transfer of livestock to understand survival and poverty traps in the pastoralist economy (Huysentruyt et al., 2009; McPeak, 2006). While these studies provide important insight on the dynamics and efficacy of livestock transfers, and make significant contributions to the development studies literature by focusing on the centrality of asset accumulation, they do not take into account multiple mechanisms



within the same household. Anthropological studies of risk management, in comparison, have produced comprehensive accounts of strategies that vary by gender, wealth, access to markets, levels of sedentarization among other factors (e.g. Fratkin & Smith, 1995; Ensminger, 1992; Little, et al., 2001; Zaal & Dietz, 1999). Men and women differ in their assessment of risks that afflict livelihoods and survival in pastoralist areas (K. Smith, Barrett, & Box, 2001), and differential risk perceptions produce variable coping mechanisms.

In this chapter, I describe the many ways in which women herders in Karamoja have adapted to their changing ecological and economic circumstances. Whereas the pastoralist enterprise rests on the multiplication of herds, women's food production activities are a mandatory aspect of household food security. Since livestock is unable to fulfill even part of the nutrition needs in some households, women have assumed the role of head breadwinner of the family. In the marginally ecologically favorable Tapac, women strive to cultivate gardens even if the preliminary plantings fail. When asked about how they prepare for future risk, Tepeth women's first response, invariably, was intensifying cultivation. Moreover, they mentioned teaching their children the value of gardening as a way to prepare for the uncertain future. In contrast, Karimojong women know from experience that the soil in their area is not conducive to agriculture if there is no rain, no matter how many plots of land they clear. Instead, they have come to rely on a range of alternative livelihoods from which cash can be earned.

Besides these coping strategies, women also rely heavily on their social networks. In many of the same ways that men build and maintain friendship networks, women cultivate relationships and activate them in a time of need. Though livestock transfers

have conventionally been associated with men, data show that women also exchange livestock to build and nurture relationships with friends and kin. Although the explosion of alternative livelihoods can undermine sharing by encouraging individualization of production, this does not appear to be the case. Food exchange, in particular, remains a vital aspect of women's social relationships – those who have surplus harvests or those who receive relief food share it with those who experience a shortage. This is because of the uncertainty associated with alternative livelihoods whereby income variability precludes total self-reliance and necessitates exchange.

On the other hand, their intense engagement in alternative livelihoods has allowed some women to invest in livestock assets, which, as is well-acknowledged, provides better security in the arid lands. Women use their livestock wealth in quite the same way as men – to assist male friends in bridewealth accumulation and to gift to female friends for the fulfillment of a particular need, such as to sell to buy food or to pay for children's school fees. In other words, women also use livestock assets as investment in social networks. Although my data is rudimentary and barely scratches the surface of women's friendship networks, it revises a few of the established ideas about pastoralist risk management. In particular, I show that women's friendship networks function in similar ways as men's stock friendships. Whereas male institutions may be vital to herd growth and viability, women's networks allow the redistribution of food and money. In the next chapter, I investigate how men and women actually use their social networks during drought-induced stress.

## Chapter 8

### Coping Strategies, Exchange During Drought, & Ex Ante Risk Management

#### *Introduction*

For the pastoral economic zone of Karamoja, 2014 was another disappointing year of unpredictable and damaging rains alongside devastating foot-and-mouth disease in livestock. Herders employed a battery of coping strategies including reduction and change in diet, animal sales and slaughter, borrowing money, consuming seed stock meant for the following year, and reduction in non-food expenditure (World Food Programme, 2014a, 2014c). Despite these strategies and the availability of options for income diversification, Moroto district (where the two field sites are located) ranked lowest in several health and welfare indicators. For instance, even though 96% of households in Moroto district have at least one income earner, the district ranked among the highest in food insecurity and global acute malnutrition (World Food Programme, 2014a). In addition, Moroto district overall had the highest number of households who undertook loans for food or medical expenses during the first half of the year.

In this chapter, I explore the many intertwined aspects of survival in Karamoja. These include the main risks herders face, the strategies they adopt to minimize these risks, and how they actually responded to the prolonged drought of 2014 and 2015. I draw on the literature, my observations, and interviews with participants to investigate which coping strategies were intensified, and how individual factors influenced the choice of strategy. I describe historical risk management strategies as recounted to me by the elders of the two communities to illustrate the changes in coping mechanisms. Further, I examine the mutual aid networks that were activated mid-year in 2015, after

the rains had failed a second time since I began my research. In comparing actual networks of support during a drought, I comment on the mechanisms of social risk management strategies and the value of ex ante risk mitigating institutions.

#### *Risk and coping in Eastern Karamoja*

The greatest risks faced by herders in Moroto district are environmental, although the incidence of political risks in the form livestock thefts persists. For participants, the risk of hunger (*akoro*) surpasses all others. Conversely, the incremental peace process over the years has resulted in an increase in individuals' ability to exploit other means of acquiring food when the environment fails. However, there are several inter-related hazards that affect people's lives depending on their location. Rank ordered, the most prevalent hazards in the district are: drought, human diseases, environmental degradation, flood, strong wind, bushfires, cattle theft, livestock and crop diseases, pest and parasitic infestation, and land conflict (UNDP, 2014). Rupa sub-county (Rupa) faces all of these hazards, while Tapac sub-county (Tapac) is spared from strong winds and land conflicts for now. The majority of these hazards are short-term events and do not have enduring effects on the resource base. However, all hazards are interlinked via negative feedbacks (Bollig, 2006): for instance, environmental degradation increases during a drought when people attempt to eke out a living through the sale of firewood and charcoal. Low and unproductive rainfall also leads to the early depletion of food stocks and drastic changes in dietary patterns, which in turn lead to health vulnerabilities.

#### *Changes in diet*

The first observable coping strategy following depleted food stocks is the household change in food consumption. Data from the follow-up interviews in mid 2014

show that none of the participants in Rupa had food stores from the previous harvest, while 60% of participants from Tapac had food in their granaries. Despite this, 90% of participants in Tapac had purchased food in the preceding three months. Children are given first priority when devising a household's consumption strategy in anticipation of rising food insecurity. All families cooked supper, however meager, and any leftovers were given to children in the morning. In Rupa, the primary caretakers of children were mainly grandmothers, older siblings, or other family members who hadn't ventured out in search of income. If any of the caretakers were able to acquire local sorghum brew from the traders in the village, they shared it with the children. Dregs from local brew contain calcium, iron, lysine, riboflavin, and niacin. Although dregs provide energy and most of the required amino acids, they need to be supplemented with other foods (Dancause et al., 2010). The vast majority of households provided children with a heartier meal at the end of the day, mainly consisting of maize meal or sorghum porridge, kidney beans, and wild greens.

Milk was a significant component of the diet of young children in the household, although it did not feature prominently in adults' diet. Prioritizing children's consumption of milk over other members of the household is emblematic of the radical changes to diet that have occurred in Karamoja since the 1970s. Milk production within the household has dropped alongside the decrease in livestock numbers (Stites & Mitchard, 2011). Many households rely on purchased milk instead. Adults, in general, consume less milk on a daily basis except when they are in the livestock kraals where milk is the main source of food. Despite the rationing of milk in their favor, the gradual decrease in milk production within the household has grave effect on children's well-being.

During the 1960s, at the time of a major drought, a study on children's nutritional status showed that despite signs of malnutrition, the levels of amino acids in Karamoja children's blood was near healthy (Rutishauser & Whitehead, 1969). Although they have lower caloric intake, pastoralists acquire a substantial amount of protein, fat, calcium, and iron from milk, meat, and blood (Fratkin, Roth, & Nathan, 1999; Galvin, 1992). The nutritional status of Karamoja's children in the last two decades shows high levels of malnutrition and stunting possibly due to the overall decrease in livestock products (Gray, 2011). Bolstering this assumption is the evidence on the lowest rate of stunting in children from Amudat District of Karamoja (Pokot-dominated area), where the highest percentage of households own livestock (World Food Programme, 2014c).

The prolonged dry spell of 2015 has had a particularly devastating effect on household nutrition in general, and children's in particular. Children are usually given local sorghum brew (*ngagwe*) from a young age. With an alcohol content of 2.8% (Leung, 1968), sorghum brew is a good source of protein, carbohydrates, fat, B vitamins, and iron (Dancause et al., 2010; Gray, 2011). Nonetheless, at the time of research, I observed more instances of brew in children's diet in Rupa than in Tapac, where milk and greens were relatively plentiful. The situation in Rupa deteriorated as the drought persisted in the latter half of 2014 and into 2015. Children showed classic signs of malnourishment during field work, and official reports confirm Moroto district's critical levels of wasting, stunting, and malnutrition (World Food Programme, 2014c). As the food security worsened, reports of parents feeding crude alcohol to children made the news (Jumbe, 2015).

An important strategy to alleviate food insecurity was the use of fallback foods, in particular wild fruits, vegetables, and game. Hunting wild meat, particularly bush pigs and dik-diks, provided relief to many households. Game meat also filled in the vacuum left behind from the ban on slaughter and sale of animals at the time of the foot-and-mouth outbreak. Even though the hunting of game is strictly forbidden in the protected areas of Karamoja, hunters were able to profit from the sale of game within the village or the trading centers. An entire dik-dik, for example, could be sold for anywhere between UGX 6,000 (\$ 2) and UGX 10,000 (\$ 3.3). Sale of wild game was concealed in Moroto town due to the fear of authorities. Although hunting was mainly done by young men, women also found a way to profit from the sale of game. In Rupa, women purchased and cooked dik-diks to sell by the plateful to the surrounding villages and gathering areas. Typically, women sell the cooked dish of *enyoyo* (kidney beans, maize, and sauce), which costs as little as UGX 500 (17 cents) for a mugful.

The incorporation of wild fruits and vegetables into the diet increased with the extension of the drought. Across Karamoja, there are 126 plant-based food sources that are exploited during food security crises (Egeru et al., 2014). One of the most abundant trees is *Ekorete* or *Balanites aegyptiaca* whose leaves, fruits, and kernels are eaten. The availability of edible plants is, evidently, greater in the mountains than on the plains, and the use of wild plants and mushrooms to stave off hunger has a long history among Tepeth (Weatherby, 2012). The use of root tubers and seeds as famine reserves is also known among Karimojong groups (Muhereza, 1995). For the majority of the participants, wild greens were the quintessential food source, particularly in Tapac. At the follow-up

visit in July 2015, participants in Rupa remarked that many people in the village were surviving thanks only to wild greens.

Local brews were equally important in the diets of people, particularly in Rupa. The frequency of women engaging in the sale of brews grew because of the profits that could be made. Brew sellers were one of the critical lenders in the village because they allowed people to drink on credit. Whereas brews have always been a vital part of the diet in Karamoja, their cost effectiveness (a mug cost between 200 and 500 UGX or 15 cents) made them a necessary option. Participants claimed that with the meager amount of cash they have on a given day, it was more prudent to consume brew and save any other food for children. Participants also joked that the consumption of brew was so high that babies were also drinking brew through breastmilk. The residue (*Adakai*) or dregs of the brews were fed to children in the vast majority of households in Rupa, where it's generally a staple of the diet. In Tapac, it was rare to see children eating residue except in trading centers where brewers run their businesses.<sup>41</sup>

#### *Sale and slaughter of animals*

The sale and slaughter of livestock normally sees a sharp increase during periods of stress (McCabe, 1987). Livestock losses during the foot-and-mouth epidemic meant that slaughter was not necessary to make up for food shortage. It is known that people in Karamoja do not discard the carcass of dead animals even though it is strongly recommended to not consume sick animals. Meat feasts were seen with some regularity in the period of foot-and-mouth quarantine. Nonetheless, 42% of male participants (8 in Rupa, and 10 in Tapac) reported the slaughter of animals at the follow-up interviews.

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<sup>41</sup> This finding mirrors that of Stites, et al. (2007) who report that residue was not consumed in Tapac sub-county.



A total of 24 small stock (male – 57%; female – 43%) and one bull were slaughtered in the two field sites combined. The main reasons for slaughter in descending order were ritual slaughter (*ajulot*), for consumption, and to feed visitors. Ritual slaughters were done for a sick family member, to pray for rain, to keep enemies at bay, to ward off livestock diseases, and, in the case of one participant, to conduct a cleansing ritual upon his release from prison on charges of female genital mutilation. Owing to the overall low livestock holdings in the region as well as the loss of animals due to foot-and-mouth disease, I did not expect to find a sharp increase in slaughter. Additionally, there was no meaningful correlation between slaughter event and the TLU of the household.

In terms of selling livestock, nearly 50% of the sample combined (9 individuals in Rupa, and 12 in Tapac) engaged in occasional livestock sales in the three-month period preceding the interview. Animals sold included cattle (9), small stock (16), camel (one), and chicken. The most frequent reason for the sale of animals was to obtain cash to purchase food. Individuals also sold animals to pay for hospital bills, children's school fees, reinvest in the animal or brew trade, and to repay past debt. 45% of those who sold livestock were “destitute” and “poor” (< 1 TLU per capita), and 40% and 15% fell in the medium and wealthy categories respectively.

Sale of livestock from the separate trade herd of an animal trader was not included in the analysis, and only household livestock wealth sold was taken into account. Separate trade herds, in some cases, are jointly owned by multiple individuals who share profits from the sale of animals from this herd. Unlike the cyclical liquidating and subsequent replenishment of trade herds, the sale of household livestock wealth has implications for a household's income, its members' future consumption, and, critically,

asset investment decisions. By liquidating assets in the present, a household may reduce its future expected income (McPeak, 2004).

In a study of West African farmers, including pastoralists and agro-pastoralists, it was shown that contrary to the theory of optimal saving, which predicts that households facing risk will use assets for self-insurance (in the absence of other forms of credit or insurance), households in the study did not dissolve their livestock assets to smooth income shocks due to crop failure (Fafchamps, Udry, & Czukas, 1998). Analyses show that only fifteen to thirty percent of income shortfalls are compensated by livestock sales, which leads the authors to conclude that livestock plays a less important role in consumption smoothing following a drought. A main reason for keeping livestock assets intact during shocks is the possibility of their appreciation following a drought. This could be a result, post-drought, of the availability of proportionally greater pasture to the animals that survived (Livingstone, 1986), as well as recovery of livestock prices (Fafchamps et al., 1998).

Selling livestock is a negative coping strategy especially, in the case of study participants because of their low livestock holdings per capita. In order to sustain a pastoralist livelihood, a household needs between three and five TLU per person (Dahl & Hjort, 1976; N. Dyson-Hudson & Dyson-Hudson, 1982; Fratkin & Roth, 1990). Since their asset holdings on average were small at the outset, it is evident why not many livestock were sold. A more pertinent explanation for the low rates of livestock sales is the availability of less costly alternatives, for e.g. alternative livelihoods, than liquidating assets that are difficult to recover. The marginally higher percentage of participants who engaged in sale and slaughter of animals in Tapac (50 – 55% vs. 35 – 40% in Rupa) is,

therefore, indicative of the fewer options for smoothing consumption available to them at the time.

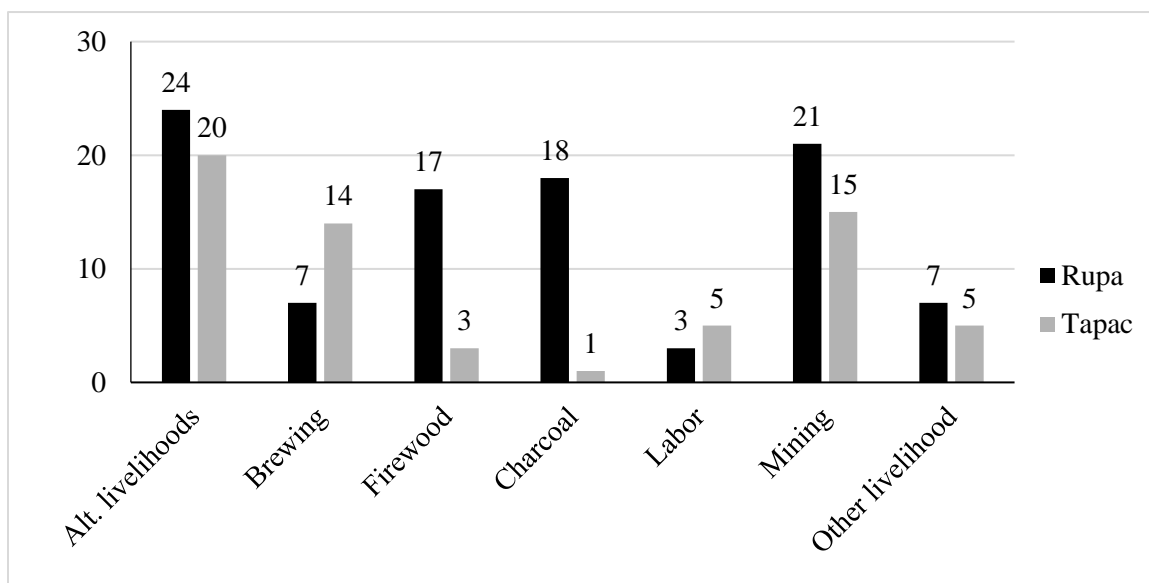
### *Changes in livelihoods*

Diversification of livelihoods was an important strategy for participants at both field sites, though there were differences. While diversification is one way to deal with risk, it depends on the individual's asset wealth and other factors, namely proximity to town, gender, and climate (Fratkin & Smith, 2005; Little et al., 2001). Some herders are pushed into diversification because their low asset wealth leaves them few options to sustain their livelihood. Wealthier herders, on the other hand, pursue diversification as a means of expanding their livestock wealth or increasing their cash holdings. Herders may also choose to diversify at a particular time in life, such as when a male pastoralist collects income for the purchase of animals for bridewealth (Little et al., 2001). Thus, pastoral diversification is a complex system of push and pull factors, as well as time or context dependent needs.

In the case of study participants, all but one participant reported household engagement in alternative livelihoods (Figure 8.1). In general, a single household at any given time has a few different livelihoods, which tend to be gendered. Women are mainly responsible for firewood, charcoal, and brewing, although men may assist with the task. Similarly, men, in general, deal in the animal trade although women may occasionally sell animals as well. Evidently, due to their proximity to town, a greater number of individuals participated in alternative livelihoods in Rupa in all categories except mining. Participants in Tapac were pursuing mining, even at baseline. By the time of follow-up interviews, thirty-six participants, 78% of all participants in Rupa and 90% of all in

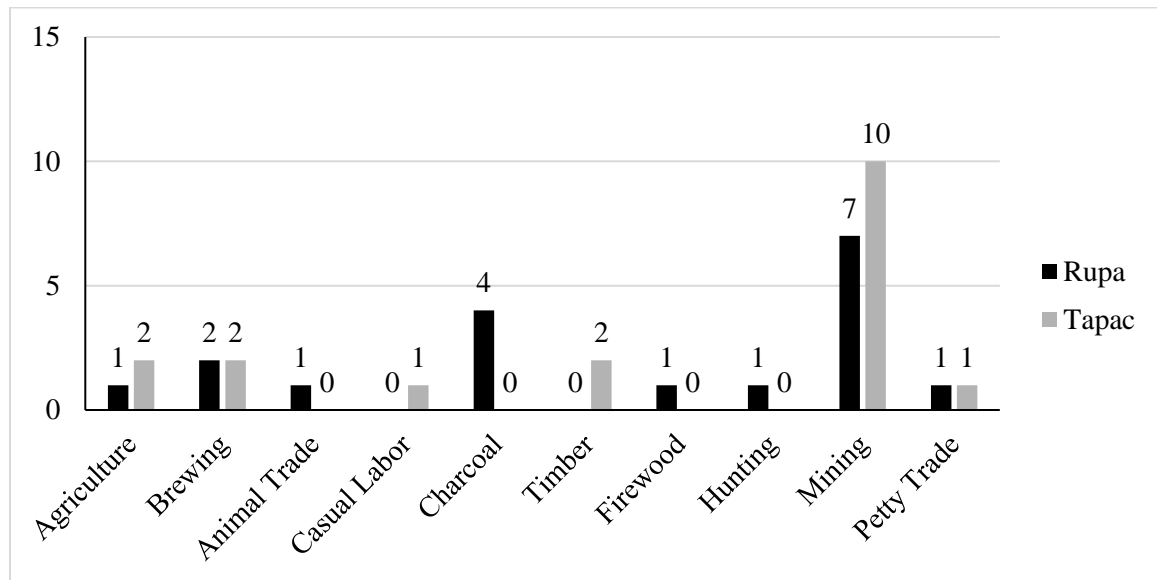
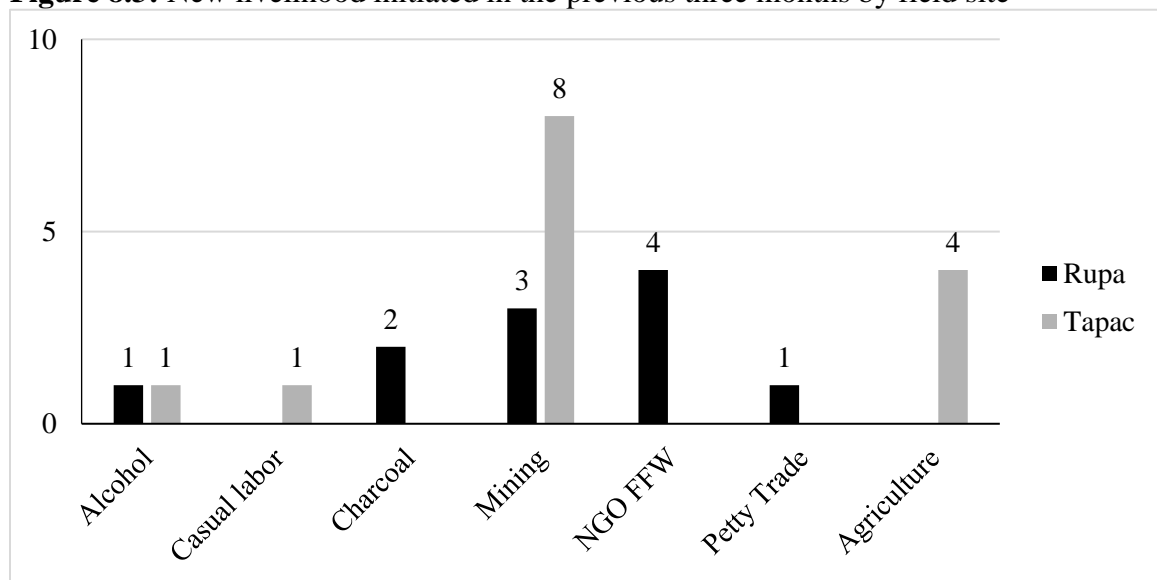
Tapac reported intensification of alternative livelihoods. Mining was the main source of income for the majority of them. In Rupa, gold and marble mining were pursued, and in Tapac, limestone mining.

**Figure 8.1:** Alternative livelihoods at baseline of households by field site (Rupa  $n=24$ ; Tapac  $n=21$ )



\*Alt. livelihoods – yes/no

Numerous participants, 48% in Rupa and 78% in Tapac, also reported starting new livelihoods to smooth consumption. In Tapac, the proportion of individuals working at the mines grew exponentially. Some individuals also reported diversification in agricultural activities such as growing vegetables and clearing new land for cultivation. Finally, the most important livelihood for survival according to participants in both field sites combined was mining. After mining, in Rupa, the next two vital sources of income or food were charcoal sales and food-for-work programs, whereas in Tapac, individuals reported surviving mainly on animal sales and agriculture.

**Figure 8.2:** Livelihood intensified in the last 3 months by field site**Figure 8.3:** New livelihood initiated in the previous three months by field site

\*NGO FFW = food-for-work program

Thus, among all the coping strategies available to participants, the intensification and initiation of new alternative livelihoods were the mechanisms of choice. The difference in the choice of alternative livelihoods was influenced by proximity to a major town as well as climate. Individuals in Tapac continued agricultural activities despite the

failed rains because, in the past, agricultural intensification had resulted in some yield. By contrast, only one individual from Rupa reported agricultural intensification; this individual does not live in the main village cluster, and although his village is close to town, it also has relatively higher rainfall than other areas in Moroto town's vicinity.

Near Rupa, the rapid growth in Karamoja's market economy opened up new opportunities regularly, though returns from petty jobs remain uncertain. The expansion of the main market town, Moroto, allowed participants to sell their goods and labor to fulfill household consumption requirements. Because of the high level of diversification at both field sites, wealth was not a significant predictor, and only 43% of those in the wealthy category still listed animals as their most important source of survival. Those poorest in animal wealth, as is well known (Hogg, 1986), are pushed into petty trade and casual labor in order to meet the basic needs of the household.

#### *Historical risk management*

Drought is not a matter of surprise for the people of Karamoja. Unlike fast onset disasters such as livestock disease, the slow onset Karamoja drought can be expected once every four years as shown by Dyson-Hudson's (1966) estimates of total crop failures between 1919 and 1958. While a suite of options of poor yield and limited sustainability are available to pastoralists today (Fratkin et al., 1999), communities in Karamoja depended on conventional methods of risk management in the past. In focus group discussions with elders in the two field sites, I sought to understand how risk management strategies have changed over time. To do this, I used the Karamoja events calendar (Akol & Gray, 2006) and interviewed elders about the coping strategies adopted during specific ecological crises in the middle and latter half of the twentieth century.

To adequately contextualize historical risk management strategy, it's imperative to revisit, in brief, the changes to the ecological structure of Karamoja. The loss of land, which began during the colonial expansion, continues unabated today as communities lose pastoral land to mining companies and wildlife reserves. Although over half of the land area gazetted for conservation during British rule was subsequently degazetted in 2002 to attract investors, 40% of land in Karamoja remains under the Uganda Wildlife Authority<sup>42</sup> (Rugadya, Kamusiime, & Nsamba-Gayiiya, 2010). A further 25% of the land is under Exclusive Mineral Exploration and other licenses. Moroto district has the highest number of licenses, and 1,500 of its 3,500-square kilometer land area is under mining. Despite being left with only 25% of the original resource base, pastoral production in Karamoja has continued to survive (Krätli, 2010).

Mobility of livestock, from daily grazing movement to seasonal migration or transhumance, is the most important response of pastoralists living in climatically unstable environments. Moving herds periodically allows herders to use resources opportunistically, and it also prevents degradation of wet season pasture from continuous use (Niamir-Fuller, 2005). Whereas mobility is still practiced by participants in both field sites, the range of movement is severely restricted. According to participants, prior to the advent of intensive raiding when their local water sources dried up, herds were taken west to Nyakwai, north to Dodoth (present day Kaabong district), southwest to kraals in Tesoland (Soroti district), south to Nakapiripirit district, and even as far as Lake Kyoga (Soroti district). With the intensification of intra-community raiding, these vast movements of herds were no longer possible.

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<sup>42</sup> According to the authors, information on the degazetted land and its demarcation has not been adequately revealed to the resident communities yet.

Individual herd owners were forced to be vigilant with their livestock during the insecurity, when they would accompany the younger shepherds to the grazing grounds with their weapons for self-defense against a raid. Herd owner decisions regarding mobility of livestock was further reduced with the installation of army-managed protected kraals. Today, the return of peace has allowed herders to leave their animals in the dry season grazing areas in Rupa where the largest dam in the district is located. Younger shepherds are given the primary responsibility of grazing and watering, while older relatives make decisions regarding the movement and wellbeing of animals.

In Tapac, herd owners with sizable livestock holdings continue to reside in kraals in the conventional transhumant manner where household members tend to accompany animals when they migrate. Livestock kraals are littered along the base of Mount Moroto as well as in the upper reaches of its valleys, areas where semi-permanent springs or streams flow. Thanks to their relatively greener surroundings, pasture is generally not a grave issue for Tepeth communities. In the dry season, animals are taken to the Nakonyen grazing area on the plains towards the south, where Pokot, Tepeth, and Karimojong herders manage their livestock in peace today.

Though reduced mobility remains a cause for concern for a transhumant pastoral production system, an accompanying issue is the steady increase in population alongside a declining resource base. Compared to other districts that show drastic population growth rates, Moroto grew at an average annual rate of 2.5% between 2002 and 2014, which is closer to the national average of 3.03% (UBOS, 2014). Despite the modest growth in population, the demographic pressure exerted on the already fragile ecosystem is a harbinger of conflicts over the essential resources—water and grazing land.



Population growth in tandem with low agricultural output hastens natural resource extraction, which exacerbates the quality of the limited area of land. In what appears to be a feedback loop, the introduction of land tenure reforms that have little to do with the extant livelihood system has set in motion a process of ecological degradation and conflicts over customarily owned land, which threaten to be a source of risk for the foreseeable future (Krätli, 2010; Rugadya et al., 2010).

Having contextualized the changes in sources of risk (besides the expected climatic variability), I now turn to descriptions of risk management as recounted to me by men in the oldest generation set at the two field sites. A researcher in Karamoja frequently hears two general and complementary statements about “the past”. On the one hand, livestock holdings are always depicted as much greater in the past such that bridewealth demanded of men were exponentially higher than what they are today (Schlee, 2012). On the other hand, agricultural productivity is also said to have deteriorated steadily over time, and key participants claim that Rupa sub-county (Rupa) has not had a good harvest in nearly a decade. For the older generation set, however, neither of these factors is as critical to the current and future welfare of people as the cessation of intra-community fighting.

Elders played a central role in the process of reinstalling peace in the region by spearheading government and NGO-led efforts to bring conflicting parties together for dialogue. The involvement of elders has influenced the peace process substantially, and the process helped reinstate the customary authority of the senior generation sets that had weakened during the insecurity (Carlson et al., 2012). Elders have once again resumed their role as community decision makers vis-à-vis kraal movements and dispute

resolution, though not entirely as in the past due to the authoritative power of the local government, the policy, and the army.

The most palpable change in the lives of the elders interviewed has been the arrival of the central government to Karamoja. Prior to the government's involvement, extended drought could result in famine especially if nearby regions were equally affected. Two such instances were *ekaru a lotira* (the year of *lotira*) and *ekaru a lorengalaga* (the year of *lorengalaga*). *Lotira* occurred in the early fifties (1952–54), whereas *lorengalaga* marks the beginning of a decade of drought from 1943 (Akol & Gray, 2006; Gray, 2000). Participants distinctly remember *lotira* when there was, allegedly, no differentiation in the seasons—just one long dry period that lasted four years. Large-scale food aid was to vigorously arrive only in the 1960s and 70s, therefore leaving herders to fend for themselves during prolonged droughts. People are said to have survived by consuming animals “they never ate before” such as lizards (*lokibobo*). Various wild trees, plants, and tubers were exploited for survival. Tepeth old men remark that “god cut people in half during *lotira*” (half the people died).

Preceding *lotira* was the devastating time of *lorengalaga*, named for the rust that developed on the marriage bands due to lack of ghee to grease them (Akol & Gray, 2006). Although a few old men were born around this time, the information on coping strategies was passed on to them by their elders. In the year of *lorengalaga*, a livestock disease characterized by violent dysentery (*loliyao*) afflicted many animals and eventually began killing them. The colonial government, it is claimed, responded to the combined dire situation of livestock disease and widespread drought by offering food aid. Not many people were receptive to aid brought by the British and thus chose to survive

on their own. A few, however, did accept food rations. Others mixed their stock of sorghum with dirt to prevent people from eating it so that they could save it for the next cultivation when the weather improved (similar to hiding food from neighbors; Colson, 1979).

Since people tend not to waste animals dead from disease, they consumed down to the skin of these dead animals. In addition, the amount of bridewealth is said to have decreased in response to the deteriorating state of livestock and crops. Wild game meat and agricultural tools became acceptable payments for bridewealth. Unlike previous rinderpest epidemics, not all animals died during *lorengalaga*. Individuals were left with a handful of animals that multiplied eventually as the rains appeared and the pasture grew back. Marriage ceremonies resumed and animals were redistributed in the community through bridewealth payments.

During times of stress, the flow of animals from the rich to the poor increased. Rich herders would slaughter animals for the community to eat, or share milk and milk products with poorer individuals. Special help from the wealthy was extended to those households whose animals were not providing enough milk. Redistribution from the haves to the have-nots also occurred following a raid that resulted in significant loss of livestock. In a ceremony similar to bridewealth accumulation (*akidet a ngaatuk*: counting the animals), friends and relatives contributed to the reinstating of a person's herd—if not to its full extent, at least some part of it. This, it is claimed, would prevent the person from mounting a counter raid in a bid to regain his lost animals. In the words of elders: “the person who loses all his animals is not treated differently. In fact, he is brought closer to the chest (*ayaunyo natorob*), so that he does not go elsewhere or commit

suicide. We take care of the person.” After the collective loss of animals in the field sites, either from raids or from the government’s punitive animal management practices, the reconstitution of herds is not always successful. The community, instead, offers emotional support to the afflicted, and asks him to be patient in restoring his herd. Although friends and relatives, or the community at large, may be unable to provide animals, they help the person with food and money to the best of their ability.

The presence of international aid agencies and the government in Karamoja has been a proverbial double-edged sword. Missionary organizations and NGOs have distributed food in the region nearly continuously for over three decades following the great famine (*akoro*) of 1980 (Novelli, 1988). The consequences, both positive and negative, of food aid to pastoralist areas are well documented (Fratkin, 1992; Hogg, 1986; Levine, 2010; McCabe, 1990). In Karamoja’s case, Levine (2010) argues that far from being a necessity, food aid was used to create a “political famine” characterized by the rejection of the viable livelihood system (pastoralism), and the proliferation of corruption. Despite the enduring negative consequences of food aid, the presence of development agencies, growth of urban centers, and the present connectivity of Karamoja implies that droughts will no longer lead to large-scale famine. Communities will have less costly alternatives to smooth consumption. However, the problem of sustaining asset wealth remains a grave issue.

Elders from Rupa, when asked about a “bad year”, discussed *ekaru a lupid* or the year of anaplasmosis (possibly in the 1970s), when scores of animals perished. The disease is said to have reach Pokot, Turkana, and southern Karamoja. Animal numbers in many herds dwindled to single digits, particularly small stock. The government began

providing livestock medicine in response to the decimation of herds. A prominent elder from the village was sent to Kampala where he found enough medicine to bring back. It was then that the value of obtaining and storing animal medicine seemed to have taken firm roots in the minds of people in this particular village. Since this epidemic, individuals have strived to purchase livestock medicine for the wellbeing of their animals. Money from alternative livelihoods is channeled into the purchase of medicine so that the remaining animals may be safeguarded.

Despite these precautions, the lack of involvement from the government and development sectors in strengthening livestock management resulted in the foot-and-mouth epidemic of 2014. With that said, there are proportionally more ways today to avoid disaster in the form of starvation than there were in the 1940s or 50s. While obtaining adequate food rations remains a concern for most of the population, market integration provides a few opportunities to overcome harvest losses for those near urban centers. In continuation of risk management strategies employed by the older generation sets, fallback foods such as wild greens and game meat are still a necessary choice for households experiencing food shortage. NGO-sponsored cash and food-for-work programs also prevent some households from drastically destabilizing consumption. In Moroto district, households do not necessarily need to, or are able to, move to other locations in search of better harvesting conditions or liquidate livestock assets because of the less costly alternatives outlined above and described in the preceding section on coping strategies. In the next section, I explore how exchange functions during stress, which in this case was the extended drought of 2014 – 15.

*Drought patterns of sharing*

To investigate networks of support during stress, I collected data in July – August 2015 when I asked participants to list all exchanges in the preceding six months (since Christmas 2014). Erratic rainfall and above average temperatures resulted in only twenty to thirty percent of the harvest expected annually (FEWS NET, 2015). As described earlier, intensification of alternative livelihoods was the main coping strategy for most participants because replenishment of household harvest stocks was not possible. Cash income was necessary to meet household consumption needs, particularly as prices of staple foods increased.

**Table 8.1:** Frequencies of exchange by gender and field site

	<b>Rupa</b>		<b>Tapac</b>	
	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>
Total transfers	176	138	158	79
Transfers in	91 (52%)	80 (58%)	79 (50%)	46 (58%)
Transfers out	85 (48%)	58 (42%)	79 (50%)	33 (42%)

The exchange of goods between individuals was extremely common from January to June 2015 (Table 8.1). Only one male participant reported receiving nothing, three male participants gave nothing, and one male participant reported exchanging nothing in the time period. No women reported lack of transfers in or out. Of 314 exchange events in Rupa, 20% were loans (men: 22%; women: 17%), and in Tapac, loans made up 23% of 237 exchange events (men: 27%; women: 15%). Money transfers were the most frequent type of loans (71%), followed by animals (21%). A variety of relationship networks were involved in the exchange of goods as I explain below.

Figure 8.4 shows frequency of exchange by relationship. The highest frequency of transfers occurred between friends: in Rupa, 151 (48%) observations were exchanges among friends (men: 52%; women: 44%), and in Tapac, 75 (32%) exchange events were among friends (men: 30%; women: 35%). Affinal relatives were the second most frequent category of exchange for men in both field sites (11% in Rupa, and 24% in Tapac). In comparison, agnatic kin made up only 6% (Rupa) and 5% (Tapac) of total exchanges. Close relatives or immediate family members constituted 18% of transfers in Rupa and 14% in Tapac. Male participants from Tapac listed brothers as their category of highest exchange among close relatives. In Rupa, men enlisted help from their sisters (both full and half-sisters) the most among close relatives. Women, on the other hand, listed sisters (in Rupa) and mothers (in Tapac) as most frequent exchanges.

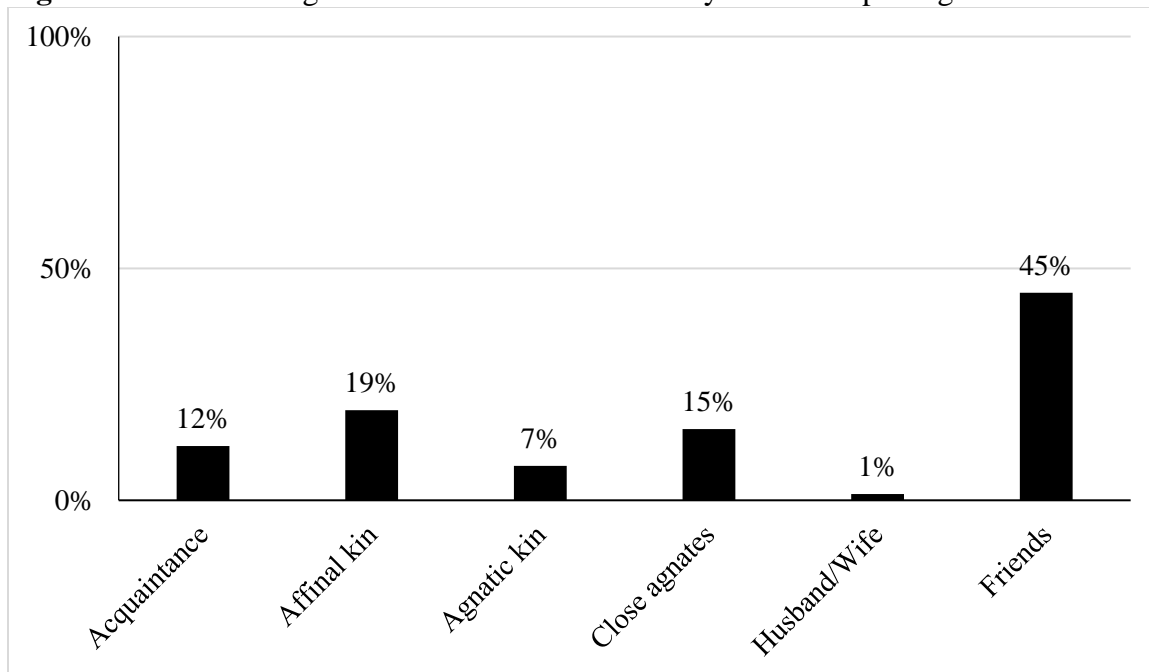
Animal exchanges comprised 36% of all items exchanged in the two field sites ( $N=198$ ; 32% in Rupa and 41% in Tapac). Whereas the majority of transactions were with single animals, there were fourteen instances of multiple animal gifts either for bridewealth or for ceremonial purposes. Small stock were the most frequent item of exchange (69%), followed by cattle<sup>43</sup> (25%). Despite the postponement of initiation ceremonies (*asapan*) due to the failed harvest, bridewealth exchanges continued to take place and comprised 9% (Rupa) and 12% (Tapac) of transactions. The largest proportion of bridewealth transactions occurred between friends (42%), who were assisted in accumulation, and affines (40%), who were either given a share of bridewealth or received animals as pending payment from the groom's family. Friendship gifts constituted 15% of exchanges, and a further 4% of animals were given out as *ngarobai* or

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<sup>43</sup> Includes donkeys.

“decorated gifts”. In keeping with expectation, 85% of all livestock transactions involved male participants from the two field sites, and women comprised the remaining 15%.

**Figure 8.4:** All exchanges in 2015 in both field sites by relationship categories



- Close agnates: brother, sister, son, daughter, father, mother
- Acquaintances includes “neighbors”, “walk mates”, “chat mates” and “village persons”
- Transfers from government and NGO aid programs not included above

Livestock transactions were not limited to friends and relatives; 13% (26) of these exchanges involved individuals classified as “chat mate”, “village mate”, neighbors, and general acquaintances. Of these, nearly half of the exchanges incurred debt on the part of the recipient, i.e. they were expressly labeled as a debt that needs to be repaid in the future with less chance of being cancelled by the creditor. Livestock loans were also given to kin members and friends, but mostly fell under the prescribed criteria for debt: sacrificial animals for ceremonies, for milking (*nakidala*), for herding (*akijokor*), or oxen for ploughing fields. Loan transactions of this nature, as explained in the first part of this chapter, create emotional rather than actual debt, where the loaned animal reifies the



existing relationship between the debtor and the creditor. These debts, while prescribed by the norms of livestock transactions, may be canceled in the future by the creditor. Lastly, male participants exchanged proportionally more livestock with non-kin and non-friend individuals than women (only 2 out of 30 livestock transactions among women were with acquaintances).

The exchange of money was the next combined highest category of transfers (33%), accounting for 36% of all transfers among women, and 31% among men. There was a marginal difference in money exchanges between the two field sites (31% in Rupa, and 35% in Tapac). A large percentage of the money exchanged was to fulfill household nutrition and other general needs. *Apwataria* (to eat) was a common response from participants when they were asked for the reason behind the transfer; while the meaning of *apwataria* implies food purchases, the word connotes general help where the receiver can make decisions over its use *ad libitum*. Of all food related purchases, only 5% were used in agricultural investments while the rest were used to pay for household consumption. Individuals also borrowed money to invest in their brewing business or to hire labor for mining activities. Money transfers were also obtained from government and NGO programs (4% of transfers in Rupa, 10% in Tapac). Older participants of the study (over 65 years in age) received social security funds through the Social Assistance Grants for Empowerment (SAGE) initiative. Cash-for-work programs and salaries for Village Health Technicians were other sources of income.

Finally, food transfers were the last most frequent commodity of exchange (21% of total observations). Food was exchanged more frequently in Rupa (24%) than in Tapac (16%). Women from the two field sites were responsible for 75% of food transfers

( $N=104$ ). Of all food sharing transactions, only 0.07% were considered loans. Only nine individuals (5 men, 4 women) received food aid or donations during the time period. At baseline, 11 men (46%) and 4 women (26%) from Rupa, and 2 men (10%) and 3 women (20%) from Tapac reported their registration under food aid programs. Targeted food aid rosters change annually; households are defined by the presence of old women and accordingly classified as extremely vulnerable household (EVH) or moderately food insecure (MFI). Households registered as MFI typically receive food-for-work benefits to the tune of 40.2 kilograms of maize for 45 days of work<sup>44</sup>. EVH, on the other hand, receive 9 kilograms of maize, 1.8 kilograms of beans, 2.25 kilograms of soy, 0.45 kilograms of cooking oil, and 0.225 kilograms of salt, multiplied by the number of children of the old woman beneficiary. Food aid is also provided for pregnant women, small children, and breastfeeding mothers under the targeted supplementary feeding program. Food aid registration for participants at the two field sites is generally low, and there was a higher involvement of people in food or cash-for-work programs. As these programs typically only make one disbursement before the shuffling of rosters and commencement of new projects, a fraction of participants reported NGO or government help in food acquisition.

#### *Geographical spread of transfers*

A decisive component of risk spreading is the location of partners because, by pooling risk with individuals not living in the same area, a person has a better chance of receiving help during covariate shocks when immediate friends, kin, and neighbors may also be affected. As I demonstrated in the chapter on men's and women's friendship

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<sup>44</sup> Interview with General Food Distribution coordinators of the Danish Demining Group, Moroto field office (implementing partner of WFP).

networks, the hypothesis that people choose to spread risk in areas different from their own is not supported. Study participants report having exchange partnerships with individuals living mostly within the same village or sub-county, and, importantly, within close enough distance that weather pattern variation is negligible and does not significantly influence agricultural output. Apart from friends, individuals, evidently, maintain relations with kin and affinal members living in various parts of the district. Unless they reside in a different district or are of old age, there is frequent contact among individuals and their social networks.

To investigate the spread of actual networks of support, I analyzed trends in the geographical range of exchange relations during the first half of 2015. In Rupa, 58% of transfers occurred within the village cluster<sup>45</sup>. An additional 38% of exchanges were within the same sub-county, or within a day's walk from residence. In Tapac, on the other hand, only 17% of transfers took place between participants and village residents; participants reported exchange events with 68% of individuals living in the same sub-county. This discrepancy is readily explained by the shifting residential patterns in Tapac where, because of failed harvests and greater investment in alternative livelihoods, many able-bodied individuals tend to spend varying amounts of time in their village, the limestone mines, or at the trading centers.

Upon further exploration of intra-village exchange trends in Rupa, I observed that animal traders from the village were a dominant source of monetary transactions, and had the highest frequencies of "transfers out". The frequent sales by the trade group results in a steady cash flow for traders, which makes them an important source of credit for the

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<sup>45</sup> The two individuals from Rupa who are not from the village cluster reported no intra-village transfers, and thus do not comprise these data.

village. Traders are not necessarily the wealthiest individuals in the village when counting animal assets. However, cash-in-hand proves more valuable when individuals are less willing to liquidate assets during emergencies. Traders, hence, are the “prestigious lenders” in the village, or those whom many individuals named as lenders (Caudell, Rotolo, & Grima, 2015). Among women, the primary help givers were those who received relief food aid, and local brew traders. Recipients of food aid are typically allotted food in bulk and may use rations to assist other members of their extended kin network, friends, and neighbors with food shortage. Baseline data on Rupa women’s received transfers shows that approximately 50% of all food related transfers came from food aid<sup>46</sup>. Similarly, women engaged in the brewing business operate a system of credit for those who want to drink and cannot pay. At baseline, several women reported owing money to brew traders, and in 2015, this number increased drastically. The brewing business showed a sharp spike during the 2015 drought because of the increase in demand. Consequently, brewers in villages became critical sources of sustenance credit. Some brewers decried the lack of repayment from debtors but continued to provide brew on credit.

Thus, availability of surplus cash is a necessary determinant to the question of what influences transfers in and out during stress. Individuals who have semi-regular access to larger sums of money (as in animal traders or women who have a brewing business) become sources of credit (transfers out) within the Karimojong village economy. To further investigate predictors of “help received” or frequencies of “transfers

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<sup>46</sup> Not clear in Tapac.

in”, a simple linear regression analysis was conducted on data from male participants<sup>47</sup> with outcome variables of actual wealth in TLU, total number of friends in stock friendship network, and age. Predictor variables were log transformed for normality. I hypothesized that wealth would show a negative correlation with help received (since it would be expected for transfers to flow from the wealthy to the poor), and size of network would have a positive effect. Initial zero-order correlations showed that only the size of friend network was weakly, but significantly, correlated with help received<sup>48</sup> (Pearson’s  $r=0.39$ ,  $p < 0.05$ ,  $N=44$ ). In the regression model, the size of stock friend network was found to be a statistically significant predictor of help received (Beta=0.532,  $p < 0.01$ ), and age and wealth had no significant effect. The model accounted for 12% of the variance, but the overall strength was not significant [ $F(3, 39) = 2.84$ ,  $p=0.05$ ]. When I re-analyzed the data divided by field site, only in Rupa was the size of friendship network a significant predictor of help received during stress (Beta=5.5,  $p < 0.05$ ).

*Relationship between ex ante mutual aid networks and exchange during stress*

I now circle back to the question at the heart of the inquiry of stock friendships: do these exchange relationships truly serve as a risk management strategy? Although there is little doubt that it would be false to draw conclusions based on fourteen months’ worth of research, some early observations can be made. Since friends constituted the majority of transfer partners in the six months preceding my follow-up data collection, and the size of friend networks had a significant correlation with help received during drought, I compared the friends with whom exchange events occurred in the follow-up

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<sup>47</sup> Initial zero-order correlations showed no significant effect of friend network on women’s exchange data.

<sup>48</sup> Bollig (1998) also did not find a wealth effect in his data on exchange during drought in Pokot.

interviews with those who participants (men and women) listed as their close friends (or stock friends for men). The comparison revealed that only 8% and 4 % of stock friends listed by male participants in Rupa and Tapac respectively, and 34% (Rupa) and 2% (Tapac) of the close friends of female participants provided help during stress. The question that naturally occurs is: who are the other friends that, together with listed close/stock friends, amount to 41%<sup>49</sup> of all exchanges in both field sites?

One interpretation of the presence of non-stock relationship friends in the post-drought stress network is the argument of weak ties (Granovetter, 1973). Weak ties differ from strong ties in that there is infrequent contact between individuals in weak tie relationships. In addition, strong ties are typically associated with continuation, greater trust, and reliance, and consequently more economic benefits for both parties in the tie (Granovetter, 1985). However, strong ties do not offer heterogeneity in network structure as they tend to be in the same social milieu; weak ties, on the other hand, provide heterogeneity that can be contextually beneficial (Burt, 1992). Thus, a network structure comprised of strong and weak ties offers diversity in resources and information, which is not possible with only one of the two types of ties.

It is possible that many of the individuals classified as “friends” in the post-drought transfers are weak ties—these may be “friends of friends” (Boissevain, 1974) who become a critical link in the resource acquisition chain. According to Granovetter (1983), this phenomenon is expressed as follows: a person (ego) will have a densely knit group of close friends, each of whom has contact with one another. The same person will also have acquaintances and only a few of them know one another. “Each of these

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<sup>49</sup> Of the original 45% of friends in the drought exchange networks, 4% were spouses or parents of friends and are therefore not considered in this analysis.

acquaintances, however, is likely to have close friends in his own right and therefore to be enmeshed in a closely knit clump of social structure, but one different from Ego's. The weak tie between Ego and his acquaintance, therefore, becomes not merely a trivial acquaintance tie but rather a crucial bridge between the two densely knit clumps of close friends" (p. 202).

Considering the fact that communities in Karamoja are closely knit to begin with, where individuals are linked to each other in a complex web of kinship, marriage, friendship, and neighborhoodship ties, it is possible that those listed as "friends" in the transfers are in fact, friends of friends—those with whom occasional contact is maintained and these are relationships in which mutual help is predicated on the idea of "need". Stock relationships or close friendships entail strong obligations vis-à-vis the maintenance of bond and dyadic flow of help, and communities living with perpetual uncertainty are willing to engage in these types of demanding relationships because the benefits they provide (such as mutual insurance) outweigh the costs (Hruschka, 2010). Friendships characterized by weak ties do not carry the same obligations; they, nevertheless, act as bridges through which an individual can access networks other than his/her own. Specifically, a man has a circle of stock friends unique to him and with whom he has strong ties. His friends, in turn, have strong ties with other, non-overlapping stock associates. These "friends of friends" become resources for help beyond one's own social circle (Granovetter, 1973).

What role, then, do ex ante risk-reducing mechanisms such as stock friendships play? How do the obligations of stock friendships relate to or differ from looser friendship and neighborhood ties? Finally, how can reciprocal obligations to help be

explained in the absence of reciprocity? I agree with Moritz (2013) that livestock transfers cannot be the only yardstick against which risk management is analyzed. I do not agree, however, with his characterization of the theory of livestock transfers whereby “individual pastoralists are motivated by concerns of risk management when they engage in these transfers” and that “risk management may simply be an epiphenomenon or side effect of cultural practices rather than an adaptive strategy” (p. 217). I argue that the motivation to engage in livestock and other transfer relationships that engender a sense of reciprocal obligation and mutual aid is the result of environmental stochasticity: in a non-equilibrium environment and in the absence of institutionalized insurance, maintaining mutual aid networks is in fact an adaptive strategy because not doing so has significantly higher costs to lives (fitness).

Pastoralists in Karamoja are profoundly aware of the deteriorating climate, worsening ecology, low asset holdings, and the influence of these factors on food security. Drought, the greatest risk to herders<sup>50</sup>, is a regularly occurring phenomenon, and is not a “shock” in the strictest sense of the word. To fortify oneself against the deleterious effects of food shortage and drought in general, social ties are as important as food storage, alternative livelihoods, and mobility. Livestock-based relationships by way of stock friendships among men are one of many ways in which an individual exploits his social network for help during need. These friends, moreover, are entitled to livestock claims during their own marriage, as well as a share of the bridewealth received for the marriage of a sister or daughter of stock friends. In having greater claims on a herder’s

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<sup>50</sup> Livestock or human disease are equally severe threats; however, whereas these can be controlled to some extent, the sole use of rain-fed agriculture cannot reduce the effects of drought.



stock than any of his other social circles (other than brothers), stock friends are the closest friends of a herder. However, they are one of the many other social exchange networks a pastoralist has—herders, as shown above, exchange animals, food, and money with non-friend affinal relatives, agnatic kin, and with weak tie relations such as neighbors, “loose” friends, and acquaintances.

Whereas stock friendships may ultimately serve a risk buffering purpose, friends are selected on the basis of personality characteristics over considerations of wealth. A strictly economic logic in stock relationships would mean that wealthy herders would attract many more stock friends who may receive help from him in the future, and the wealthy herder in turn acquires social capital. My preliminary investigation into the dynamics of stock relationships revealed that wealth has significant correlation neither with the size of friend network nor with frequencies of transfers in and out during stress. The inability to receive help from a stock friend during a time of need does not lead to the dissolution of the relationship. Help is sought from a variety of people connected to a herder, including his stock friends, and help may be received from any member of a herder’s various overlapping social circles. While it’s easier to explain help between genetic kin on the basis of kin selection theory, it proves more complicated to interpret the role of reciprocity in stock relationships with unrelated individuals.

Restated briefly, stock friendships are cultivated with individuals with the expectation of reciprocal help in a time of need, both before and after shocks. As is evident, exchange in stock friendships does not follow a tit-for-tat logic, or rather, it is difficult to accurately account for tit-for-tat given that stock friendships extend over generations beyond the original friendship dyad. Moreover, for those stock friends who

move to geographically distant places, a reciprocity logic would predict the rupture of the relationship on account of decreased interactions and uncertainty of future interactions. How, then, can a relationship such as stock friendship—with its lack of true reciprocity and balancing of accounts, and variable size of favors between friends—be explained in evolutionary terms?

Hruschka (2010) uses a “raise the stakes” strategy to explain helping among friends that cannot be adequately explained by standard game theoretic models. In a repeated interactions game with two players, Hruschka shows how both players have more to gain by agreeing to help each other in the future (a facet implicit in stock friendships). The first step, therefore, relies on the agreement between the two players to engage in a long-term cooperative relationship. In a tit-for-tat strategy, one player may threaten to end the relationship when she does not receive help from the other. In a world where there were no other options for the two players but each other, this strategy would provide the required incentive to continue helping. In reality where alternative partners exist, one of the two players may receive favors from the other for a time, but may choose to defect when asked for reciprocation. One way to avoid “flighty” friends is for both players to require a courtship period where small gifts are exchanged. According to Hruschka, the time spent in the courtship period of friendship acts as a cost that deters a player from walking away. In other words, abandoning a partnership in which costs have been incurred during courtship to form a new partnership with a different individual is costlier than maintaining the original contract.

Moreover, the size of gifts or favors increases over time, where if one partner’s large gift is reciprocated with an equally large gift (or favor), the relationship reaches a

new level. If the partner does not reciprocate in equal terms, the friendship is not lost but merely remains at the lower level. If the two partners build up a friendship that includes large favors, the inability of one partner to help the other can be resolved by low levels of monitoring and retaliation without dissolving the friendship. The risk of losing a mutually beneficial relationship utterly outweighs the risk of exploitation by a partner.

Taken together, the raise-the-stakes strategy has several properties similar to friendship: a courtship period, long-term imbalance of favors as determined by partners' needs, and a gradual increase in stakes. Finally, in this strategy, the value of friendship increases over time, thus providing partners an incentive to maintain the relationship. The psychological mechanism underlying friendships, where individuals go from cost-benefit analyses in the relationship to "knee jerk altruism", is "based not on past behaviors or the shadow of the future, but on simple decisions about whether a partner is a friend" (Hruschka, 2010, p. 207). This type of decision-making occurs when the relationship's value increases and cost-benefit calculations become progressively complex. Hruschka's model on friendship shows that it is adaptive to move away from tit-for-tat decisions and account keeping in friendships to decisions based on "knee jerk, stimulus-response action, in which the stimulus is a friend in need and the response is to help" (p. 211).

Hruschka's model, which explains the formation and maintenance of friendships in terms of evolutionary game theory, can be applied to stock friendships as well. Stock friendships begin with a courting period where small gifts are exchanged, and morphs into a higher stakes strategy of mutual aid through livestock transfers and now money. Although this model can be used to understand the stability of stock friendships in the absence of tit-for-tat reciprocity and balancing of favors, we are still left with the

question of what drives transfers or exchanges after a shock between friends who are not tied by a commitment to help each other. Why do people who have no reciprocal obligation to each other choose to help at a cost to themselves? If we were to do away with reciprocal contingency from our understanding of mutual aid partnerships and focus instead on the issue of “need”, not only can we draw conclusions from the data on post-drought transfers, we can also elaborate on our understanding of stock friendships.

In an environment characterized by frequent droughts and recent political instability, even those who would be considered rich in asset wealth cannot effectively ensure household safety on their own. For the asset poor, networks of support can prove life-saving and can deter (or defer) their excommunication from the pastoralist economy. Both the wealthy and the poor can find themselves in need under varying circumstances; not long ago in Karamoja’s history, the loss of livelihood could, without doubt, occur overnight in a cattle raid and leave even the wealthy wanting. Analyzing stock friendships as risk pooling through need-based transfer arrangements, it can be said that while both parties are likely to suffer losses from the unpredictability of the environment, the severity of the loss is decreased by entering into institutionalized forms of informal exchange (Hao et al., 2015). The cost associated with engaging in stock friendships is offset by the benefits friends provide in the event of larger, more significant losses.

Besides environmental stochasticity, the closely knit community structure also influences the flow of help. Under these circumstances, and resources permitting, assisting a friend-of-a-friend, neighbors, and other casual acquaintances is not a cost to oneself if the uncertainty of the future may prove costlier to the asset base. Furthermore, helping those with whom no exchange contract exists serves to elevate one’s social

capital in the community. A circle of friends unique to a person is advantageous in that these are the people the person approaches first for help. But the unpredictability of receiving of help from a particular person is acknowledged by herders in Karamoja: “in a time of need, you do not know who is going to help you.” For this reason, the flow of help extends over a wide network that includes those with whom there exists no profound and binding relationship such as kinship or close friendship. In an uncertain environment, the activation of need-based transfer arrangements with these individuals becomes critical for survival.

## Chapter 9

### Risk Sensitivity & Time Preference

#### *Introduction*

Risk has a disproportionate effect on the poor as compared to the wealthy, and a shock to the poor's income, livelihood, asset base or health can have irreversible consequences. Economic success, as defined by economists, is related to aspects of human preferences such as risk and time. The study of poverty traps – when households cannot escape impoverished conditions – has at its core the investigation of risk preferences: if the poor are risk averse and do not invest in risky financial or asset options, they will remain poor, unlike those who, through their economic security and risk avoidance strategies, manage to climb out of poverty (Banerjee & Duflo, 2012; Mosley & Verschoor, 2005; T. Tanaka, Camerer, & Nguyen, 2010, see figure 9.1).

The poor, or 'peasants', are regularly charged with cultural rigidity, ignorance, and low education – factors that have a profound influence on risk preference, adoption of new technologies, and therefore on their well-being and economic stability (Henrich & McElreath, 2002; Marra, Pannell, & Abadi Ghadim, 2003; Moser & Barrett, 2006). Studies responding to these charges show that instead of an ingrained aversion resulting from conservatism, individuals in subsistence societies made risk averse choices that factor cost-benefit analyses within their unpredictable environment (Norman, 1974; Wolgin, 1975).

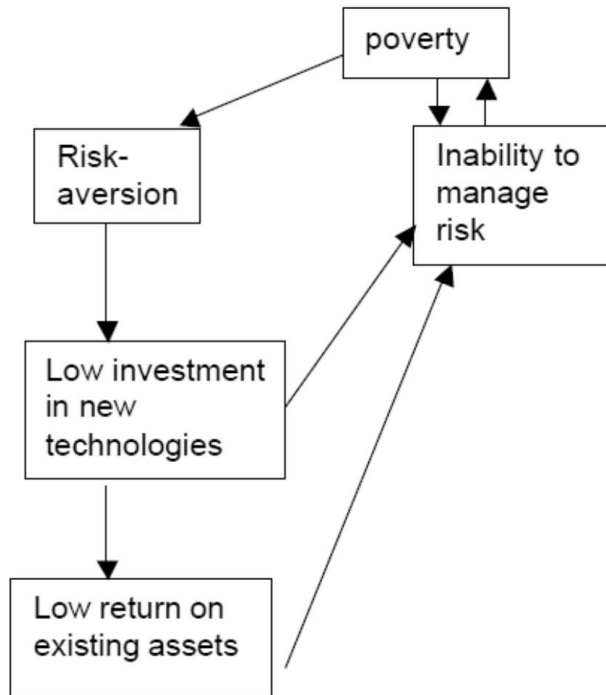
Additionally, several studies report on the poor's impatience, where the desire for a smaller certain reward supersedes a future larger reward; this impatience, in turn, influences future investments in savings, education, and health (Frederick et al., 2002; Spears, 2011). Risk aversion and impatience together, it has been claimed, may explain

the persistence of poverty traps (T. Tanaka et al., 2010). My motivation to conduct risk and time preference experiments in Karamoja stemmed from the inescapability of development projects in the two communities where I worked. Many of these projects failed to achieve a 'sustainable' solution to the problem of food insecurity despite having worked in Karamoja for decades. A central issue perplexing development practitioners was the delayed or reluctant adoption of novel agricultural techniques in some parts of Moroto District. A related issue was the lack of a savings culture in the communities, where money earned from cash-for-work programs or even from daily labor seemed to disappear rather quickly. In addition, development agencies grew concerned with the rapid deforestation due to the firewood and charcoal trade, which are a primary coping mechanism during food shortage. Finally, the unwillingness of herders to sell livestock assets in exchange for cash with which children's schooling and household nutrition needs can be fulfilled is a cause of despair for some in the development community.

The culprit, according to many in the development community, is the shortsightedness of herders. Attributing poverty to impatience and wealth to the development of patience is a phenomenon dating decades, if not centuries, and one that has been reproduced in different forms in academic studies of poverty (Banerjee & Duflo, 2012). Most studies of risk and time preferences focus on agricultural communities, and only scant attention has been paid to the possible influence of these factors on pastoralist decision making (Kuznar, 2001; Liebenehm & Waibel, 2013; Lybbert & McPeak, 2012). Therefore, my aim is to contribute to the literature on pastoralists' risk attitudes and time preference by presenting preliminary data on preferences; with these, I attempt to

contextualize their choice of *ex ante* (mutual aid institutions) and *ex post* (coping mechanisms) strategies.

**Figure 9.1:** ‘Vicious circles of poverty’ based on risk-aversion and inability to manage risk (adapted from Mosley & Verschoor, 2005)



### *Brief review of risk and time preference*

Anthropologists have long considered the role of risk and uncertainty in decision making in primates and in subsistence economies (e.g. Cancian, 1967, Gilby & Wrangham, 2007; Hayden & Platt, 2007; Smith, 1991, Winterhalder, 1986; see also Winterhalder, Lu, & Tucker, 1999). Many of the human studies seek to explain hunter-gatherer or other subsistence economy decisions that do not conform to principals of rationality (specifically, rate maximization). By modeling risk sensitivity, these studies account for the stochasticity in the environment, which produces a range of probabilities that humans (and other organisms) have to choose from when making a context-specific decision. Stochasticity is not factored in adequately by deterministic optimization models



of behavior (Winterhalder et al., 1999). Equally relevant here is the distinction between *risk* and *uncertainty*: whereas uncertainty can be overcome by acquiring information, in a risky situation the organism may know the probability distribution of outcomes and can assign odds to outcomes, stochasticity in the environment or resource precludes predictability of a particular outcome (Winterhalder, et al., 1999).

Before reviewing theories of and selected literature on risk and time preferences I turn to their definitions. First, 'preference' refers to "an individual's subjective evaluation of an objectively measurable quantity" and can be conceptualized as a value trade-off (Tucker, 2012, p. 149). Risk preference is the trade-off between a smaller, certain reward and a larger, unpredictable reward. One of the central theories to explain risk preferences is the Expected Utility (EU) Theory (Von Neumann & Morgenstern, 1944), which states that when making a decision between risky prospects, the decision maker compares the prospects' expected utility values. The following is an example of EU:

A particular choice of cultivars for one particular field will result in a certain frequency distribution of yields, say of barley. Then each outcome, or in this case each yield, must be assigned a value which might be measured as fitness, utility or some other currency of relevance. Each yield of barley has a certain fitness value to the peasant family engaged in subsistence endeavor. The summed product of the distribution of outcomes times their individual values gives the overall or expected value of the option (Winterhalder, 2007, p.434).

In other words, an individual (or household) faced with alternative options, some of which include risk, might choose a lower average payoff with less risk in order to maximize expected utility. This is a risk averse choice. Individuals who choose riskier prospects would be considered risk seeking or risk prone. Finally, those who are indifferent to the options are risk neutral. EU theory, in practice, does not imply that individuals make conscious calculations when faced with a variety of prospects from

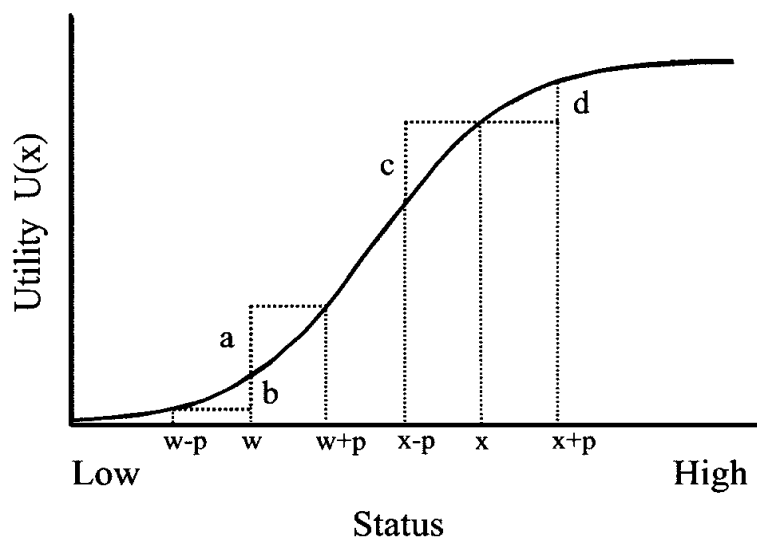
which to choose. Their decisions are based on their 'subjective perception of probabilities' (Kuznar, 2001).

A main method to ascertain people's risk sensitivity is through experimental games pioneered by Binswanger (1980). In the experiment, rural Indian participants were given eight gambles, where each gamble had a positive and a negative outcome and its probability of 0.5 was decided by a coin toss. The first gamble had no alternatives and provided a fixed and certain amount. The last gamble had a positive outcome of Rupees 200, and a negative outcome of zero. Thus, the first gamble is the most risk averse and the last the riskiest. Individuals fell on a continuum of risk sensitivity between these extremes. Binswanger's results show that over half the participants were intermediate or moderately risk averse, over a third risk preferring, and less than 10 % in the extremely risk averse categories. There exist other risk eliciting experimental methods besides Binswanger's experiment and variations on the gamble-choice or multiple price lists procedure (reviewed in Charness, Gneezy, & Imas, 2013). The most important of these methods is experiments that use accept/reject lotteries – where participants are given two columns with pair-wise lottery choices and they have to accept one lottery per line and reject the other. The first column offers a sure income, and the second column offers two different amounts with probabilities. The first column is the dominant choice in the beginning. As the probability of high outcome of the second column increases, the second column dominates. In other words, persons who are more risk averse will continue choosing lotteries in the first column for longer (Holt & Laury, 2002).

There is overwhelming discussion in the literature on the effect of wealth and ethnicity on risk preferences (Henrich & McElreath, 2002; Kuznar, 2002; B. Tucker,

2012). Ethnicity effect implies that individuals learn economic practices and ‘contextually specific decision making heuristics’ from their social environment through cultural (and biased) transmission mechanisms (Boyd & Richerson, 1985; Henrich & McElreath, 2002). Henrich and McElreath arrive at this explanation because of the risk prone behavior displayed by their Sangu and Mapuche participants, which could not be explained through wealth or sex differences<sup>51</sup>. Wealth’s interaction with risk, on the other hand, relies on the idea of diminishing marginal utility: “the utility resulting from any small increase in wealth will be inversely proportionate to the quantity of goods previously possessed” [Bernouille, 1954 (1738), p.25]. This implies that as individuals receive more and more of a good, its value decreases with each additional increment. A sigmoid utility curve (Figure 9.2) has been used to demonstrate the influence of wealth on risk preference.

**Figure 9.2:** Sigmoid utility curve, adapted from Kuznar, 2001



<sup>51</sup> In a series of publications, Henrich and McElreath have engaged in an intellectual debate with Kuznar over disparate interpretations of wealth and ethnicity effects (reviewed in Tucker, 2012).

In the sigmoid curve illustrated above, risk prone decision makers are on the convex end of the curve: an individual of wealth  $w$  will accept the gamble of either winning or losing  $p$  because the potential gain  $a$  is greater than the potential loss  $b$ . On the other hand, risk averse decision makers, represented by wealth  $x$ , are at the concave part of the curve, where a gamble on winning or losing  $p$  is rejected because the potential gain  $d$  is less than the potential loss  $c$ . Despite decades of research on the topic of wealth and income effects on risk sensitivity carried out in various countries and communities, the results remain mixed (Binswanger, 1980; Harrison, Lau, & Rutstrom, 2007; Wik, Aragie Kebede, Bergland, & Holden, 2004).

Experiments based on EU theory and the concept of diminishing marginal utility were criticized for presenting an inappropriate model through which to investigate risk preference. For instance, there is a lack of congruency between real-life high stakes versus small rewards based experiments; the scale of risk is what might determine people's choices in experiments rather than their risk attitudes (Rabin, 2000). Secondly, independent of wealth effects, risk attitude is contingent on whether the choices are framed as gains or losses, the central tenet of prospect theory (Kahneman & Tversky, 1979)<sup>52</sup>. Despite these criticisms and evidence showing behavior that violates the axioms of EU, Binswanger's games are still adapted by economists as the hunt for a suitable theory continues (Barr & Genicot, 2008; Mosley & Verschoor, 2005).

Lastly, prospect theory has also been used to explore the influence of climatic zone and village characteristics, besides wealth, on risk preferences. Variation in agro-

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<sup>52</sup> However, in a study of risk attitudes of the poor in India, Ethiopia, and Uganda, authors find that expected utility theory and prospect theory play roughly equal roles in explaining behavior (Harrison, Humphrey, & Verschoor, 2010).

climatic zone not only influences investment and coping behavior but also risk and time preferences. For instance, a farmer residing in a zone characterized by erratic or unimodal rainfall may be more risk averse than a farmer living in a favorable area (Cardenas & Carpenter, 2008). In a study of 94 villages across Uganda (excluding most of Karamoja and other northern regions), economists investigated differences in risk attitudes as a function of variation in agro-climatic zone (Y. Tanaka & Munro, 2014). The experimental method employed was the Holt & Laury (2002) accept/reject lotteries. Results show the following: 1) risk aversion, loss aversion<sup>53</sup>, and discount rates vary across agro-climatic zones; 2) participants from coffee producing regions are highly risk averse, and those from rice producing areas highly loss averse; 3) households in unimodal areas are on average more risk-averse, more loss-averse and less patient than households from other areas; 4) households in poorer villages are more loss averse, and households from wealthier villages are more risk averse.

Time preference, on the other hand, is the trade-off between a smaller, immediate reward and a larger, delayed reward, or the preference for immediate utility over delayed utility (Frederick et al., 2002). The term discounting is used to signify the act of delaying rewards: a person with a high discount rate would prefer to have one unit of the good today over two units on some specified future day; conversely, a person with low discount rate would prefer to wait for the specified time to gain two units of the good (Kirby et al., 2002). Present bias or impatience is said to be correlated with wealth or

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<sup>53</sup> An individual is loss averse if he/she dislikes 50-50 bets and the aversion to such bets increases as the size of the stakes increase (Kahneman & Tversky, 1979). Prospect theory, which looks at decisions when choices are framed as gains or losses, provides evidence for some of the anomalies of expected utility theory. One of the hypotheses of prospect theory is that people tend to be risk averse in gains and risk seeking in losses.

income, where poverty “increases the want for immediate income even more than it increases the want for future income” (Fisher, 1930, p.72).

The neoclassical economics assumption is that people discount the future by a fixed percentage for every unit of time – a phenomenon known as exponential discounting. For example, assuming that the discount rate is 10% per year, a person should equally like \$100 now and \$110 a year from now. In addition, the same person should prefer \$100 in a year and \$110 in two years (Redden, 2007). Subsequent research in psychology and economics found this to be false, and animals and humans are, in fact, hyperbolic discounters – meaning, people discount future rewards at a greater rate in the short term, but are more patient in the long term (Ainslie, 1975; Berns, Laibson, & Loewenstein, 2007; cf. Harrison & Lau, 2005). In other words, a person would prefer \$100 today to \$110 tomorrow, but the same person would choose \$110 in 31 days over \$100 in 30 days (Redden, 2007).

From the evolutionary perspective, animals aiming to maximize lifetime reproductive success would be expected to maximize the consequences of their actions over the long term; however, experimental studies show that animals tend to lack far sightedness (Rosati, Stevens, & Hauser, 2006). However, intertemporal choice in animals may be influenced by foraging efficiency and feeding ecology (Kagel, Green, & Caraco, 1986). For example, a study on cotton-top tamarins and common marmosets showed that marmosets were more patient for food than tamarins. The authors explain that the selective force shaping discount rates was the difference in feeding ecology where tamarins need to act fast to acquire insects while marmosets need to wait for gum and sap

to exude from plants, a behavior replicated under experimental conditions (Stevens, Hallinan, & Hauser, 2005).

Although the same evolutionary mechanisms are at work as in other animal species, humans are found to be at once present oriented as well as capable of anticipating and caring about the future (Berns, Laibson, & Loewenstein, 2007). Time preference and discounting are further influenced by their underlying psychological motives such as self-control, impulsivity, compulsivity, and anticipation. In the real world context, hyperbolic discounting manifests itself in savings, health, and other consequential behaviors (Angeletos, Laibson, Repetto, Tobacman, & Weinberg, 2001; Khwaja, Silverman, & Sloan, 2007). Discounting the future also has an effect on resource use sustainability: as an example, for individuals who heavily discount the future, investments with near-term benefits and long-term costs (e.g. cutting trees) appears more attractive than investments with long-term benefits but near term costs (e.g. planting woodlots) (Pender, 1996).

Similar to the discussion of wealth effect on risk preference, time preference is also said to be modulated by wealth and income effects (e.g. Pender, 1996). Studies employing exponential discounting find the rich to be more patient than the poor (e.g. Harrison, Lau, & Williams, 2002; Nielsen, 2002). Quasi hyperbolic models have also found a positive correlation between wealth and patience (e.g. Tamaka, et al., 2010). Taken together, the literature shows that risk and time preferences have a significant bearing on decision making and future wellbeing, where wealth and other factors (gender, ethnicity etc.) may influence preferences. Building on these studies, the objective of my investigation is to analyze risk and time preference in the two field sites in Karamoja and

to examine how demographic and economic characteristics influence choice under uncertainty.

*Risk and time preferences in Karamoja*

To examine time preferences, I asked three questions to participants: whether they would prefer UGX 5000 (\$2) today or UGX 7500 (\$3) in one week; UGX 5000 (\$2) today or UGX 15000 (\$6) in one month; UGX 5000 (\$2) today or UGX 25000 (\$10) in three months (see Appendix B). I then played the risk sensitivity game before asking them the last of the series: would they prefer UGX 15000 (\$6) in four months or UGX 25000 (\$10) in five months. I did this to avoid an anchoring effect where the first choice influences subsequent choices. I consolidated their answers to form categories of time preference; only the first option (today vs. one week), also referred to as the near term frame, and the distant frame question (four months vs. five months) were used to create the composite variable (after Ashraf et al., 2006). If the participant was impatient in either term, he/she was labeled 'impatient'. If the participant was impatient in the near term and patient in the distant frame, he/she was labeled 'hyperbolic'. Patience in both terms was labelled 'patient' and patience in near term frame and impatient in distant frame categorized participants as 'patient now, impatient later' (Ashraf et al., 2006).

Table 9.1 presents data on time preference by gender and field site.



**Table 9.1:** Time preferences by gender and field site. Numbers in parentheses indicate frequencies

<b>Time Preference</b>	<b>Men</b>	<b>Women</b>	<b>Rupa</b>	<b>Tapac</b>
<b>Patient</b>	37.8% (17)	34.5% (7)	46.2% (18)	16.7% (6)
<b>Impatient</b>	31.1% (14)	24.1% (10)	25.6% (10)	38.9% (14)
<b>Hyperbolic</b>	20% (9)	24.1% (7)	15.4% (6)	27.8% (10)
<b>Patient now, Impatient later</b>	6.7% (3)	17.2% (5)	7.7% (3)	13.9% (5)
<b>Total obs.</b>	43	29	37	35

*Patient:* choice of delayed reward in both near term frame and distant frame

*Impatient:* choice of immediate reward in both near term frame and distant frame

*Hyperbolic:* choice of immediate reward in near term frame and delayed reward in distant frame

*Patient now, impatient later:* choice of delayed reward in near term frame and immediate reward in distant frame

An examination of the raw data on time preference show that there are no glaring differences between the genders, and women are only marginally more hyperbolic than men. Results show that individuals in Rupa are more patient than those in Tapac; individuals in Tapac are greater hyperbolic discounters than those in Rupa; and men are more impatient than women. It is plausible that the lack of income-earning opportunities in Tapac result in the marginally greater hyperbolic preference and impatience than seen in Rupa. I examine the statistical association of socio-demographic variables on time preference further below.

To examine risk preferences, I used Attanasio and colleagues' (2011) modified version of Binswanger's gamble choice game. In the game, each participant is presented with six cards with two choices on each card (see Appendix B for card example; see also Table 9.2 below). The card is divided into blue and red colors, where the lower payoff is

on the blue color and the higher payoff on the red color. The participant was instructed that he/she may choose one card on which to gamble. Once he/she chooses the card, the researcher will hold out her closed fists, where in each fist there is a red or a blue coin. In other words, there is a 50% probability of winning either of the gambles. The participant then chooses one of the hands and receives the payoff, depending on the gamble selected and the coin color he/she gets.

**Table 9.2:** Gamble choices adapted from Attanasio et al., 2011

<b>Gamble Choice</b>	<b>Low Payoff (Blue)</b>	<b>High Payoff (Red)</b>	<b>Expected Value*</b>	<b>Risk Aversion Class</b>
Gamble 1	3000	3000	3000	Extreme
Gamble 2	2700	5700	4200	Severe
Gamble 3	2400	7200	4800	Intermediate
Gamble 4	1800	9000	5400	Moderate
Gamble 5	1000	11000	6000	Slight-neutral
Gamble 6	0	12000	6000	Negative

\* $(\text{Low payoff} \times 0.5) + (\text{High payoff} \times 0.5)$

This method is extremely effective in presenting probabilities to preliterate participants. Whereas individuals are not able to read roman numerals, they are well versed with various Uganda Shilling bills, and can thus determine how much is on each half of the card. Prior to actually playing the game, the research assistants and I demonstrated to each participant how the game is played so that they may completely understand the objective of the game. Further, we made sure that each participant could adequately calculate how much money was associated with each of the two colors on each of the six cards.

Tables 9.3 present results of the gamble choice game by field site and by gender respectively. In both field sites, the majority of participants chose the riskiest option, where they either won nothing or UGX 12,000 (\$ 6). The payoff in the riskiest gamble choice was particularly attractive given that UGX 12,000 was nearly four times (or more) as high as the average earnings in the field sites. However, getting the lower payoff this card meant receiving no money at the end of the game. Disaggregated by gender, the riskiest gamble was chosen by over half of all male participants. Women, on the other hand, gambled on choices 5 and 6 (the riskiest two of the choices) in nearly equal proportions.

**Table 9.3:** Gamble choice results by gender and field site. Numbers in parentheses indicate frequencies

<b>Gamble Choice</b>	<b>Men</b>	<b>Women</b>	<b>Rupa</b>	<b>Tapac</b>
<b>Choice 1</b>	0	0	0	0
<b>Choice 2</b>	7% (3)	0	5.4% (2)	2.9% (1)
<b>Choice 3</b>	11.6% (5)	10.3% (3)	13.5% (5)	8.6% (3)
<b>Choice 4</b>	9.3% (4)	17.2% (5)	13.5% (5)	11.4% (4)
<b>Choice 5</b>	18.6% (8)	34.5% (10)	24.3% (9)	25.7% (9)
<b>Choice 6</b>	53.5% (23)	37.9% (11)	43.2% (16)	51.4% (18)
<b>Total obs.</b>	43	29	37	35

To investigate whether gender is associated with risk and time preference, I conducted a Pearson's chi square test. Scholars have claimed that risk preference behavior will show gender differences based on evolutionary theory because, for example, impatient and risk prone men would have greater fitness (M. Wilson & Daly,

1985). Economic studies provide evidence of gender differences in risk behavior and find that women are generally more risk averse than men (Charness & Gneezy, 2012; Gong & Yang, 2012). In my data, I found no significant relation between gender and risk preference [ $X^2(3, N=72) = 5.56, p=.238$ ], and between gender and time preference [ $X^2(3, N=72) = 2.97, p=.396$ ].

In order to investigate the role of other demographic and economic variables on risk and time preferences, I estimated a multinomial logistic regression models. Additional variables that influence preference such as household size as a proxy for resource needs, and children in school (yes or no) as proxy for investment in education were included in the model (B. Tucker, 2012). Wealth effects using actual TLU wealth were analyzed separately for men due to the difficulty of assigning income scores to women. None of the independent variables were found to be statistically significant predictors of either risk or time preference. Although these results are in line with well-established studies that have found no wealth effects (e.g. Binswanger, 1980) or gender effects (e.g. Tanaka, et al., 2010) on risk preference, my sample size is too small to make any meaningful conclusions. However, some general observations can be made.

In terms of risk preference, the raw data refutes the risk aversion charge – nearly half the participants in both field sites chose the riskiest gamble. However, this could be because the gamble choices weren't framed as losses and the game relies on a one-shot decision as opposed to the Holt & Laury method of a series of lotteries where gains and losses change over time. In keeping with expected gender differences, men were found to be more risk prone than women; however, women are not exceptionally risk averse and

over 70% chose from the riskiest two gambles. There was only a marginal difference in gamble choice between the two field sites.

The choice of the riskiest gamble choices by both men and women may reflect the situation during which the games were conducted. Due to the rising food insecurity at the time, many participants aimed to maximize earnings from the game, and since choices were not framed as losses, participants were more likely to make the riskiest choice. It was a particularly arduous to play the game with women in Rupa, many of whom said they wanted all the money on all the cards when the RA and I described the game. Consequently, it took several iterations of the trial game for women participants from Rupa to understand the game. This was possibly due to the urgent food needs of the households, which could only be fulfilled with money. I was surprised to note that none of the participants from either of the field sites chose the first gamble, which would earn them UGX 3000 (\$1.25) right away. Considering the situation in the field sites in this period, it would have made sound financial sense to accept the lowest risk gamble and earn a day's worth of wages without expending energy. The urgency of household needs and the biting hunger, however, influenced choices towards riskier prospects. Moreover, playing with money, a fungible commodity unlike asset wealth, may have confounded the true risk preferences of herders.

A different approach for measuring risk sensitivity in the pastoralist context would be to offer hypothetical choices in terms of livestock. Kuznar (2001), for example, presented Aymara herders in Peru with a choice of prizes that included either a particular number of animals of the herder's preference or a lottery that offered probabilities of winning a larger number of animals. In his game, Kuznar varied the probabilities of the

lottery until the herder had difficulty choosing between the lottery and the fixed number of animals. When gambling on animals, the center of the pastoralist world, herders may make choices that are more relevant to their lives. I decided not to elect this method because of the extremely hypothetical nature of the game. However, future work on risk preference with Karamoja herders can be bolstered with Kuznar's method.

### *Implications*

Pastoralism is risky business, even more so in the current climate of East Africa. When presented with new alternatives or innovations, herders must assign probabilities to the possibility that these alternatives will result in an improved condition for the household (Mosley & Verschoor, 2005). In the case of Karamoja, these new alternatives invariably revolve around agricultural inputs such as new seeds; no alternative to rain-fed agriculture, for instance modern irrigation methods, has yet been provided. Yet, people are regularly blamed for their own poverty, which is seen as a direct result of their failure to intensify agriculture. The argument against the unsubstantiated charge against the risk averse poor (or, in this case, the poor herder) can be summarized as follows:

...faced with the choice between enjoying leisure now and starving later or investing time in a risky activity such as crop production, risk averse households naturally choose to take risks and produce. Second, if production requires purchased inputs such as improved seeds, fertilizer, or pesticides, poor households might refrain from producing not because they are risk averse but more simply because they do not have sufficient funds. Furthermore, even if they have access to credit for these inputs, they might still refrain from purchasing because they fear bankruptcy. In this case, it is not so much the variance of output per se that is an issue but rather the fact that output might be insufficient to cover input costs (Fafchamps, 1999, p. 93).

In these circumstances, the herder may choose to invest asset wealth, i.e. livestock, in networks of risk sharing such as stock relationships. Ex ante risk sharing, conversely, is said to prevent the accumulation of assets and result in a low level equilibrium trap that in

turn limits the ability to accumulate precautionary savings (C. Barrett et al., 2007).

However, in a system of mutual insurance, the cost of failure is also reduced – if one household were to experience a shock, other households that pool risk with it will come to its rescue and decrease the severity of the shock. Furthermore, types of risk sharing may also influence the interplay between risk sharing and risk taking: egalitarian norms of redistribution would discourage accumulation whereas patronage, with its elevated social status and power dynamics, would encourage wealth concentration.

By contrast, a system of mutual insurance such as risk sharing through livestock transfers, as is seen in Karamoja and elsewhere, may not entirely prevent risk taking because the accumulation of material wealth is essential for the building of a risk pooling social network. These networks do not include entire villages or communities, but are best seen as a non-overlapping circles unique to an individual (Gulliver, 1970). Additionally, risk sharing networks of stock friends go beyond mere economic concerns, as I show in Chapter 6, by providing emotional and social support to each other. In economic terms, this network absorbs the losses of its members and can further incentivize asset accumulation instead of disincentivizing it. As the notion of pastoralist egalitarianism has already been disproved (Borgerhoff Mulder et al., 2010), the reasoning that redistribution of assets within a network prevents wealth accumulation equally does not hold. Since the institution of stock friendship redistributes livestock within a trustworthy circle of associates, rather than a random distribution, not only does it encourages accumulation, it may even promote risk taking.

The reluctance to embrace agriculture as the primary source of subsistence in certain parts of Karamoja, in particular the significantly more arid region of Rupa, is not

surprising – the cost of energy expenditure significantly outweighs the benefits of return during a prolonged drought. Moreover, agriculture in Karimojong communities (in comparison to Tepeth) has always been a matter of opportunism. Under these conditions, investment in livestock assets as a way to reduce risk (or herd accumulation), and in risk sharing arrangements may be assigned greater probabilities of return, and may prove more advantageous for long-term viability in the pastoralist economy. Although risk aversion has been demonstrated in one study among West African cattle herders (Liebenehm & Waibel, 2013), where income, investment in education, and religion act as predictors, it remains to be seen how pastoralists in other regions fare on risk and time preferences.



## Chapter 10

### Conclusion

Risk management in subsistence economies is a topic of interest spanning decades and academic fields, and a large body of research has highlighted and debated the value of social exchange in mitigating future risk (e.g. Cashdan, 1990, Fafchamps & Lund, 2003, Platteau, 1997). In pastoralist communities of East Africa, scholarship on the social aspects of risk mitigation has focused on livestock transfer based friendships among men as a way to spread risk. By founding such relationships, herders built a social network of friends unique to them on whom they could rely during times of crisis. The livestock transferred within these relationships acted as guarantor of future help. Though there is general consensus in the literature on the significance of social networks in pastoralists' lives, the value of livestock transfers in effectively managing future risk by securing forthcoming help from stock friends has been a subject of debate.

From the point of view of herd viability, stock friends may not provide the requisite amount of help – requests for herd reconstitution made after disasters may take a long time to materialize (McPeak, 2006) or may only be advantageous in the short term (Moritz, 2013). Investigating the influence of risk buffering livestock relationships on herd longevity also requires extensive panel data. However, the assessment of pastoralist risk management as fiercely dependent on herd longevity willfully ignores the reality of pastoralism in the twenty first century. Although there are contextual differences, nearly all pastoralist areas in East Africa have been and remain under threat from a combination of factors including land loss, commercialization, deteriorating climate, worsening health indicators, and, critically, a declining livestock base against a growing human population.

Moreover, analyzing risk management through the lens of livestock transfers, a primarily male domain, ignores the role of women in household food security. Women bear the main responsibility of providing food to the household and the strategies they employ are equally if not more important than traditional male strategies when the diminishing livestock base is considered. These observations ring true in Karamoja, Uganda where recent events in history, the decades of cattle raiding in the 1990s and 2000s in particular, have altered the very nature of pastoralism. Livestock wealth per capita is generally low, supplemental agricultural output even lower and there is an increased reliance on market activities and relief food.

Through my dissertation project, I aimed to understand the role of *ex ante* risk mitigating institutions such as stock friendships in managing future risk. I conducted the study in two communities in Karamoja's pastoral livelihood zone – one a Matheniko Karimojong community, and the other a Tepeth community. The two field sites differ in their access to markets, geographic mobility, and agricultural productivity. In particular, I investigated the influence of location, wealth, and kinship on the structure of stock friend networks. Rather than focusing only on male strategies, I expanded the scope of my study by investigating the role of women's friendships, their economic profiles, and exchange networks in a household's risk management. Besides an ethnographic investigation of risk buffering relationships and friendships, my project also examined the role of exchange networks during stress, which in the case of Karamoja was the prolonged drought of 2014 and 2015. Ultimately, I address the theory of livestock transfers in risk mitigation, its strengths and shortcoming, and explain how social exchange in Karamoja is better understood as risk pooling through need based transfers.

*Ethnography of stock friendships*

Male herders in Karamoja engage in livestock transfer relationships in the vein of stock friendships described for other East African groups. Stock friends or ‘friends of the heart’ are differentiated from other, looser friends known as ‘friends of the water’. The distinction lies in the profundity of the relationship between stock friends, whose relationship is imbued with love, trust, and an obligation to assist each other. Loose or second- tier friendships do not carry the same obligations as stock friendships, and mutual aid is not an expectation within these relationships.

Stock friends are chosen on the basis of personality characteristics – the foremost aspect of these friendships is the chemistry between the two parties, which in Karamoja is referred to as “blood attraction”. Friends can be acquired at any stage of life – from shepherd-hood to old age. The process of friendship begins with the transfer of small items such as tobacco or herding sticks, before graduating to livestock. However, the transfer of livestock is not an imperative condition for the founding of a friendship.

Once established, a friendship reflects the qualities of kinship whereby friends attain the privileges of receiving a share of bridewealth from the marriage of daughters or sisters as well as support during their own bridewealth accumulation. Friends refer to each other as ‘brothers’, and the rights and duties traditionally assigned to biological kin is transferred to unrelated friends. In the vein of kinship, friendship does not end with the death of either party in the dyad – the descendants of friends continue the relationship both in spirit and in kind, where material exchange and mutual aid endures inter-generationally.

This continuation is also reflected in the norms of livestock transfer between friends. Livestock are transferred for many reasons *inter alia* as friendship gifts, for ceremonial purposes, to herd, to milk, and for fertilization. Although many of the categories of livestock transfers are technically debts, where the giver continues to own the animal after the transfer, the debt is symbolic in that the animal remains in the receiver's herd and ensures the continuity of the relationship between the two friends. Whereas the giver may take some of the offspring of the animal he gifted to the receiver, the gene pool of the original animal remains in the receiver's herd as a symbol of the continuation of the friendship.

Although friendships can come to an end, the dissolution of the relationship occurs over a long period of time. The expectation of help from a friend during one's time of need is the cornerstone of these relationships, and from the risk management perspective the singular reason for the founding of a friendship. However, the flow of help depends mainly on the recipient's need and the giver's ability. While friends are held by a pact of "reciprocal" help, there is no account keeping of favors as balancing accounts would signal a desire to end the relationship. Moreover, the inter-generational transmission of friendship means that accounts may never be balanced. An unfulfilled request is not seen as a break of the contract – only after several attempts and obvious signs of one party's unwillingness to help despite being able to do so would a friendship's deterioration begin.

An analysis of the stock friend networks of participants highlighted the following: on average, individuals in Rupa (Matheniko Karimojong) had larger networks than those in Tapac (Tepeth) which is most likely due to the disparate population sizes of the two

communities. In Rupa, affinal relatives, specifically sisters' husbands, were a popular choice of kinship related friends, while in Tapac, agnatic relatives were more frequent. These contrasting trends could be explained by the different bridewealth systems in the two communities. Friend networks did not show a vast geographic spread contrary to expectation from the risk mitigating rationale – this could be a result of the recent insecurity in the region, which necessitated the maintenance of bonds that were geographically close. In terms of cross-community friendships, Karimojong participants maintain stock relationships with Turkana, and Tepeth with Pokot. Lastly, the fact that men also listed female friends when asked about livestock transfer relationships points to the hitherto limited definition of 'stock friendships.'

The question of the influence of wealth and the flow of help from between wealth categories is a subject of debate in the anthropological and economic study of livestock transfer relationships. Wealthy individuals would be expected to have a large network because in the event of a shock, the wealthy would be better protected on account of greater assets and would be better equipped to help others. The poor, on the other hand, would not make desirable partners due to their potential inability to help – except in regards to attaining social capital in the community. The analysis of wealth effects on stock friendship networks showed a weak positive correlation in Tapac. No such effect was found in Rupa. In qualitative interviews, participants described the importance of assisting the poor despite the uncertainty of receiving help in return – by helping someone in need, an individual can create not only an obligation but also a sense of gratitude. When the tables turn, as they certainly can in an ecologically variable region, the one who has been helped will offer assistance on the basis of previous help.

### *Women's friendships*

To contribute to the literature on the role of women's friendships, on which there are only a smattering of studies, I collected data on women's friendship networks. Like men, women make a distinction between close friends and 'friends of the water' – where the relationship with close friends is emotionally significant. Friendships between women do not require any ceremonial transfers – however, friends gift each other items, for e.g. clothes, beads, whenever possible. Besides helping each other with material needs such as food and money, close friends also play the role of proxy mothers to each other's children.

Unlike men, women typically have small close friendship networks of between 2 – 3 individuals. Kin related persons are also included in friendship networks – in Field Site, for example, agnatic kin were preferred over affinal kin. Women also listed men as close friends – this is a particularly beneficial relationship as men have rights over livestock and can help women in accumulating their own animals through friendship gifts. In comparison to men's networks, women's friendship networks are further geographically limited, possibly due to the restrictions in movement – women in Rupa, who reported a majority of friendships within the village, maintain more or less permanent residence in the village because of its proximity to town and therefore its conduciveness to alternative livelihoods. In contrast, the shifting residence patterns in Tapac as a result of government interventions and due to failed harvests translates to networks that extend beyond the village. Where friendships between men and women really differ is from the point of view of network expansion: men are always keen to establish new friendships and enlarge their stock friend network while women expressed

no such strategic aim. This, of course, does not minimize the role of a large social network in women's lives, and in fact, women's networks are constantly expanding through marriage and neighborhood ties.

Even though women herders are typically associated with agriculture and other food procurement activities, data on transfers between friends show the prominence of livestock in exchange. Women exchange small stock as well as cattle for purposes of bridewealth distribution, bridewealth accumulation, or as friendship gifts. However, the most consequential item of exchange between women friends is food since women bear the main responsibility of feeding the household. Whereas in years of bountiful harvest, food from one's own granary would be shared among kin and friends, these days purchased or relief food is shared within the network.

#### *Networks during drought*

After describing friendship institutions and their dynamics among men and women, I investigated the coping strategies employed by herders during the prolonged drought of 2014 and 2015. In 2014, in the early stages of the drought, I examined such coping strategies as livestock sales and slaughter, initiation and diversification of livelihoods, and changes to household nutrition. Further, in July-August 2015, I collected data from all participants on the items given to and received from anyone in the preceding six months – the aim of the analysis was to explore the flow of help in the two field sites when food insecurity in the area was reaching a crisis level.

Participants reported the exchange of livestock, money, and food in the six-month period preceding the interview. Whereas livestock exchanges were primarily done by men, women were responsible for three-quarters of all food transfers. Exchange between

friends was the most common category of transfer in the two field sites. Exchange events with close family members, and affinal and agnatic relations were significantly lower in comparison. In Rupa, nearly 60% of all exchanges occurred within the village cluster; animal traders and local brewers were important sources of cash thanks to their relatively steady income streams, and women who received food aid were equally crucial help givers. Due to the shifting residential patterns in Tapac, exchange was not concentrated within the village and instead spread over the sub-county; consequently, it was difficult to ascertain concentration of exchange based on occupation.

To investigate the effects of wealth and size of friendship networks on help received and given, I estimated a linear regression model with data from male participants. Whereas wealth showed no effect however, [Bollig (1998) shows that wealthy Pokot families gave significantly to other households during drought], the size of stock friend network had a positive effect on frequency of help received in Rupa ( $p < 0.05$ ). No effect of friendship network size on drought exchange was found for women. Next, I compared the list of friends with whom exchange occurred during the drought against those in the stock friend or close friend network. Results showed that only 8% of stock friends and 36% of close friends were involved in drought-induced exchanges with men and women respectively. Yet, nearly half of all exchanges in the two field sites occurred among friends. I argued that these 'friends' may be 'friends of friends' or other looser friendship or weak ties that herders maintain for help during need. Whereas weak tie relationships do not carry the same obligations as a strong tie relationship (e.g. stock friendship), they may prove extremely beneficial in the event of a shock. In the next section, I explain how trends in helping during drought, the composition of exchange



networks, and the influence of ex ante risk management strategies can be understood through the theory of need based transfers or demand sharing, without having to rely on reciprocal contingency – a popular idea among scholars of stock relationships, but one that does not hold up to scrutiny.

### *Limitations*

Before summarizing the theoretical contribution of my study, I list its several limitations. The foremost limitation is that data were collected over one year and a few months, and to make conclusions about the influence of risk buffering relationships on the future would require detailed panel data over a protracted period of time. The sample size is equally deficient. Moreover, monitoring of participants' herd dynamics over time would strengthen the analysis by elucidating the influence of stock friendships in herd growth and reconstitution. Similarly, detailed food transfer events over a year or more would further illustrate the dynamics of women's social networks. In terms of networks, collecting comprehensive data on attributes of all members (egos and alters) of a personal network will not only help construct an entire social network, but also aid in a statistical investigation of homophily indices. The dynamics of flow of help between stock friends, relatives, and other social relations can be greatly illuminated by researching it alongside the dynamics of herd growth of all parties. Finally, it will be necessary to investigate 'cheater detection' within dyads – or how those friends who violate the friendship exchange contract are identified – and how honest signals about need are displayed to avoid the free-rider problem within egocentric friendship networks. All of the points listed above are important directions for future research.

*Theoretical contribution*

The overarching theory of livestock transfer relationships, or stock friendships, posits that by establishing these partnerships, individuals are guaranteed future help in a time of need. From the risk management perspective, these relationships fall under risk reduction in which livestock are spread in others' herds to reduce risk, and risk transfer whereby gifting or transferring livestock to others creates a bond between the parties and an obligation to help each other during a time of need (Dorfman, 2007). I propose that a better orientation to study the effectiveness of risk buffering relationships is the concept of need – the transfer of livestock or food is contingent on the need of the recipient and on the willingness and ability of the giver (Hao, et al., 2015; Peterson, 1993). Whereas cultivating close relationships in the form of friendships allows an individual to have a network of associates unique to him/her, there cannot be a guarantee of help since fortunes change abruptly and one who may be able to help today may not be in the same position tomorrow.

The logic of need based transfers when applied to stock friendships obviates the need for reciprocity – although stock friends assume the responsibility of providing help to each other when circumstances permit, the lack of reciprocity does not end the relationship. Given that friendship, for both men and women, is imbued with profound emotional qualities, friends show great willingness to and happiness in helping each other from more than a simplistic risk reduction perspective. The inability to help is not construed as a rupture of the contract. Rather, a friendship starts to deteriorate when one party who has the obvious means to help refuses to do so, and when such transgression occurs repeatedly, the strength of the relationship wanes.

Likewise, the fact that a large percentage of individuals in the drought sharing network were ‘weakly’ related to participants – i.e. neither through kinship nor close friendship – lends support to the idea that the flow of help is predicated on need. Moreover, various levels of acquaintances were included in the sharing network through transactions that did not necessarily create debt. In other words, help flowed between those who were related, those who shared a strong friendship connection, and even those who had weak ties. The tenuous existence of pastoralist communities necessitates a system of help based on need instead of one that relies on the existence of strong, obligatory relationships or associations where a balance of favors may be required. This is a result of the general volatility of the environment, the uncertainty of herd dynamics, and the extreme variability in income streams from livelihoods in which herders participate.

Besides contributing to our understanding of how environmental dynamics influence behavioral strategies, findings from this study help us inch closer to deciphering the mechanisms underlying the evolution of cooperation between non-kin. Whereas reciprocity (or “reciprocal altruism”) is consistently used to explain non-kin cooperation in the human behavioral ecology literature, it is not the best mechanism to explain friendships. Tit-for-tat or account-keeping reciprocity, in particular, is assumed to be the main mechanism in the evolution of friendship (Silk, 2003). Yet mental scorekeeping of favors is cognitively demanding and difficult to maintain long-term if the currency and volume of exchange changes over time. In other words, the puzzle of human friendships is that while people establish close, cooperative relationships with non-kin and expect reciprocal help, they also do not keep a ledger of favors exchanged.

Moreover, whether one helps a friend is contingent neither on past behavior nor on expectation of future reciprocation (Hruschka, 2010). Therefore, the current models of reciprocity, according to Silk (2003), do not adequately explain the evolution of friendship. As I argue through the dissertation, viewing non-kin cooperation (here between non-kin stock friends and ‘weak’ tie friends) through the lens of risk-pooling via need-based transfers provides an alternative to the reciprocity paradigm.

In addition, the mechanisms underlying stock friendships are highly congruous with kinship, and the psychological motivations underlying the two may also be similar (see Hruschka, 2010). In using kin terms for friends (*lokaato* or brother for stock friend, and *nakaato* or sister for female friend), individuals may be activating the psychology of kinship and, therefore, kin selection. Moreover, livestock transfers during the course of the friendship are imbued with deep emotions of love. In giving each other livestock gifts, two individuals create a strong tie and an obligation between the parties to help each other when possible. The obligation and trust, nurtured through gifts both material and immaterial, that guarantee the continuation of the relationship are valued greatly over tracking whether or not a friend has actually provided help or reciprocated. While livestock gifts are critical both in general herd building (de Vries et al., 2006) and in coping after a shock, evaluating the role of stock relationships solely through their capacity to revert an individual’s livestock wealth to its pre-shock volume misses the significantly more meaningful aspects of these relationships.

The emotional profundity of social relationships in the pastoralist setting is further illustrated by an aspect of herd allocation in the Karimojong community. When the patriarch is alive, he allocates animals to each of his wives according to her household’s

needs. During the course of his life, animals may be moved from one wife's herd into another's as needed such that the animals are "mixed together" between the various wives. Upon his death, the central herd (*ngakibou ka ekasikout* – the animals of the old man) is brought together under the direction of the 'first family' – the first wife and her sons. Subsequent bridewealth payments for sons of the patriarch is withdrawn from the patriarch's central herd as well as the herds allocated to the wives. However, even after the death of the patriarch, every family (defined by each wife and her children) has animals in the other family's herd – these herds are then divided among the sons of the wife.

If disease or raiders strike one son's herd, his brothers will also lose animals in the process since the herds were mixed. The person who loses animals will not demand his animals that were kept in the other families' herds – he will simply approach his brothers for help. Then, one brother, for example, might give him five cows, three of which technically belong to the receiver's family and two belonging to the giver. Not all the animals that belong to the receiver's family will be returned after a disaster. With help from multiple brothers, friends, and various agnates and affines, the person who lost animals may be able to recover some portion of his herd.

In the same way that livestock transfers create symbolic debt, whereby gifts given to friends remain the property of the giver but are seldom reclaimed, a portion of an individual's herd remains in the other families' herds. Whereas the 'rightful owner' may acquire an offspring of the original animal from the person keeping it, the original animal itself remains in the other's herd – the continuation of its lineage in a friend or brother's herd symbolizes the perpetuation of the friendship or relationship. Similarly, in keeping

each other's livestock for life and beyond, individuals ensure the longevity of the trust and obligation in the relationship – “For the rest of your life, some of your animals will be mixed with your brother's or friend's herds. We do this because we want our brother also to survive and look after his children. This way the family won't die out. This is how it's always been, is now, and will always be”.

## Appendix A – Questionnaires

### Men's Baseline Questionnaire

Translated by K. Padmini Iyer, with the help of Research Assistants. Verified by two reviewers, both native speakers of the Karimojong language.

ID: \_\_\_\_\_

Field Site: \_\_\_\_\_

#### Baseline: Demographic

- 1) What is your name? *Ngae ekonikiro?* \_\_\_\_\_
- 2) When were you born? *Alikaru ikidounere iyong?* \_\_\_\_\_ (use local calendar)
- 3) Which village do you reside in? *Alire iboyo iyong?* \_\_\_\_\_
- 4) Have you always lived here? *Iboi iyong alorealo ngina pei a?*
  - a. YES/NO
  - b. If not, where do you come from? *Ai ibuntor iyong?* \_\_\_\_\_
  - c. Approximately when did you move to current location? *Ori iwotoneya iyong lore lo?* \_\_\_\_\_
- 5) How many people are in your household? *Ngitunga ngiae iboete a lokal kon?*
  - a. Number of wives *Ngaberu kon ngae?* \_\_\_\_\_
  - b. Any wives deceased *Eyai ngina etuanitya?* \_\_\_\_\_
  - c. Number of children (from each wife) *Ngidwengiae?*

	<b>Sons</b> <i>Luthapa ngiai?</i>	<b>Daughters</b> <i>Ngapesur ngai</i>	<b>Total</b>
Wife 1			
Wife 2			
Wife 3			
Wife 4			
Wife 5			

- 6) List other AGNATIC family members (numbers)
  - a. Brothers *Ngikaitotoi ngiae?*

- b. Sisters *Ngakaitotoi ngae?*
- c. Father + mothers (alive) *Apa ka ito kon (eyarete a)?* \_\_\_\_\_
- a. Others in household (+ relationship)
- 7) Any family members living away from home? [e.g. at kraals; town] *Eya ngikontunga ngulu emam ngiboyete a lore a? [Nabur kori nawi]?*
- a. Town \_\_\_\_\_
- b. Kraals \_\_\_\_\_
- c. Other \_\_\_\_\_
- d. Are any kids in school? YES/NO *Eya ngikondwe ethyomete lothukul a?*
- e. How many (+sex of children in school)? *Ngiae?* \_\_\_\_\_

**Baseline: Bridewealth + Initiation**

- 8) Have you paid bridewealth? *Irikak iyong akiit akonberu/ngakonberu a?*

YES/NO

	<b>Cows</b>	<b>Small stock</b>	<b>Other</b>
Wife 1			
Wife 2			
Wife 3			
Wife 4			
Wife 5			

- 9) Debt *Eya iyong ngamicae?*(details)

- 10) Who helped you pay bridewealth? *Ngae ikingarakinit iyong akiit ngakonberu?*(by species and relation)

- 11) Did you have to pay *ekicul?* *Amaikina iyong totac ekicul a?* YES/NO

- a. If YES, for which wives? *Ngolo ka aniberu?*

\_\_\_\_\_

- b. How much have you already paid? *Itac iyong ngibaren ngiaekona?* (by species)



- c. Debt *Eyai iyong ngamicae?* (details)
  - d. Who helped you pay *ekicul?* *Ngae ikingarakinit iyong akitac ekicul?* (by species and relation)
- 12) Have you been initiated? *Ithapanit iyong a?* YES/NO
- 13) Age Set *ngasapaneta*/Generation set *anyamet* \_\_\_\_\_
- 14) Who gave you the bull for *Asapan* (exact relation)? *Ngae ikinakin iyong emong ngolo ithapanya iyong?* \_\_\_\_\_
- 15) Have you returned it? *Inyaka iyong a?* YES/NO
- a. If YES, what did you exchange for it? *Arai anibarathit ilokonyiarya iyong?* \_\_\_\_\_

### **Baseline: Livestock**

- 16) Do you have livestock? *Iyakatar iyong ngibaren ya?* YES/NO
- 17) How many animals do you have in your herd currently? \_\_\_\_\_
- a. Number of cows (+ calves) *ngaaturuk + ngitaakngiae?:* \_\_\_\_\_
  - b. Number of bulls *Ngimonginngiae?:* \_\_\_\_\_
  - c. Number of ox *Nguucakngae?:* \_\_\_\_\_
  - d. Number of goats *Ngakineingae?:* \_\_\_\_\_
  - e. Number of camels *Ngikaalangiae?:* \_\_\_\_\_
  - f. Number of donkeys *Ngithikiryangiae?:* \_\_\_\_\_
- 18) Do you also have a trade herd (*emucurut*)? *Iyakatar iyong ngibaren ka amucurutho a?* YES/NO
- 19) Animals in trade herd *Ngibaren ngiae?:*
- 20) Do you keep some animals at home for milking? [Number; species] *Eya ngibaren lore nguna kidaala?*
- 21) Do all these animals you listed above belong to you? *Erai ngibaren ludaadang ngulu kon ya?* YES/NO
- a. If NO, to whom else do they belong? *Anipakerai ngulu kon, ngulu a ngae?*
- 22) Do other people have some of your animals? *Eyaa ngibaren ngulu etingito ngicietunga a?* YES/NO

- a. How many animals are with other people? \_\_\_\_\_ (by species)  
*Ngiae?*
- b. Who has them? *Ata ngae etingit?*
- 23) Do you have any other animals for consumption or otherwise? [Chicken, ducks etc.] *Eya ngikokoroi kori ngibaatae a?*
- 24) Where do you keep your livestock? *Ai eyai ngibaren?*
- a. Wet season *Nakiporo* \_\_\_\_\_
- b. Dry season *Nakamu* \_\_\_\_\_
- 25) Do you move them from time to time – please tell us in detail? (Temporary kraals/cattle kraals/home) *Ewothenete ngikoni baren a?*
- 26) Who takes care of your animals? *Ngae etuarit ngikonbaren?* (relation)  
\_\_\_\_\_
- 27) GET DETAILS OF ACQUISITION FOR 20 ANIMALS IN HERD. *Iriamun iyong ngibaren ikwai?*
- 28) Do you do any of the following to earn money from your animals? *Iriyamun iyong ngithilinga alobarenkon ikwai?*
- a. Sell cattle
- b. Sell small stock
- c. Sell milk
- e. Lending animals
- f. Animal trade
- g. Other \_\_\_\_\_
- 29) Besides your animals, do you have other ways of earning money? *Aleamar ngakoniituk, Eya ngicepitethio iriyamuniya iyong ngithiling a? YES/NO*

Activity	Persons in household responsible
Brewing <i>Achuare</i>	
Firewood sale <i>agyelanar ngakito</i>	
Charcoal sale <i>agyelanar Ngamakai</i>	

Small-scale labor <i>Elejelej</i>	
Mining (if yes, what) <i>Akibok</i> <i>Enyota/ngamoru</i>	
Other <i>ecie rot</i>	

30) Which activities do you mainly do in the wet season? *Nyoitiyaene iyong/ngakonberu nooinakiporo?*

Subject: \_\_\_\_\_

Wives: \_\_\_\_\_

31) Which activities do you do in the dry season? *Nyo itiyae iyong/ngakonberu nooi nakamu?*

Subject: \_\_\_\_\_

Wives: \_\_\_\_\_

32) Have you done all of these activities always – even when you had the animals? *Itiyaine iyong ngiborolu tar eya iyong ngaatuk ya?* YES/NO

a. Which activities that you do more now than before? *Nyokonaitiyaene iyong nooi kakilopaan?* \_\_\_\_\_

33) Which activity, including animals, brings the most money to your household currently? *Nyo nooi eyauni ngithilinga ngulu iyatakina lokal kon?* \_\_\_\_\_

34) Do you do agriculture? What do you grow? What do you sell and what do you store? *Itainene iyong a? Alunyomen itainene iyong? Erai ngulu kimuja kori ngulu gyelara?*

<b>Agri Produce</b>	<b>Pers. Cons. (Y/N)</b>	<b>Sale (Y/N)</b>	<b>Storage(Y/N)</b>
Sorghum <i>Ngimomwa</i>			
Maize <i>Ekidikidi</i>			
Greens <i>Edya</i>			
Beans <i>Emaret</i>			
Millet <i>Ngakima</i>			

Sunflower <i>Lokide</i>			
Other			

35) Do you own your land? *Erai ngalup nguna itainene iyong nguna kon ya?* YES/NO

- a. If YES, No. of plots *Ngamanatangae?* \_\_\_\_\_
- b. If YES, how did you acquire your land? *Iriamun iyong ngamanatakonikwai?* \_\_\_\_\_
- c. If YES, what implements do you use? *Aluboro ithitiyae iyong akitaa?* \_\_\_\_\_
- d. If NO, whose land do you grow on? *Ngalup angaeitainene iyong?*  
[Community, NGO-allocated, rented, belonging to another family member or friend] \_\_\_\_\_
- e. If NO, do you pay something for its use? *Itacenene iyong a?* \_\_\_\_\_

36) What do the children of your household eat on a typical day? Number of times.

*Nyo imujenete ngikondwe apaaran? Ngarua ngaie imujanata alotooma apeipaaran?*

37) What do the adults of your household eat on a typical day? Number of times.

*Nyo imujenete ngitunga ngulu apolo anapaaran? Ngarua ngaie imujanata alotooma apeipaaran?*

38) How often have you bought food since the last harvest? (weekly/monthly estimates)

*Ngina pei adaunotor ngimowa/akimujalodulakon ngarua ngaie igyeluneya iyong akimuj?*

### **Baseline: Social Support**

39) Who is the first person/persons you go to when you are in need? *Ngae itunganan*

*ithiyauni iyong alothit neni keng?*

- a. Food shortage *Akoro?* 1<sup>st</sup> \_\_\_\_\_  
2<sup>nd</sup> \_\_\_\_\_
- b. Sickness *Edeke?* 1<sup>st</sup> \_\_\_\_\_  
2<sup>nd</sup> \_\_\_\_\_

- c. Need animals for your herd *Ngibaren?* 1<sup>st</sup> \_\_\_\_\_  
 2<sup>nd</sup> \_\_\_\_\_
- d. Cash for misc *.Ngithilinga?* 1<sup>st</sup> \_\_\_\_\_  
 2<sup>nd</sup> \_\_\_\_\_

40) In the past, have you taken cash loans? YES/NO

*Idenuntor iyong ngidithilinga paan a?*

- a. If YES, from whom? \_\_\_\_\_
- b. What was the reason? *Ngulu a nyo?* \_\_\_\_\_
- c. How much? *Ngiae?* \_\_\_\_\_

41) Do you owe anyone any debt? *Iyakatar iyong amica?* YES/NO (details + relation of debtor)

- a. If YES, to whom? *Amica ngae?* \_\_\_\_\_
- b. What do you owe? *Amica ani?* \_\_\_\_\_

42) Do you seek help from any of the following? *Iriamuni iyong akingarakineta neni kapuukan kori a lojokotau kori a ekelethiya?*

- a. Local Council/Government YES/NO  
 If YES, in what instance in the past?  
 \_\_\_\_\_
- b. Food Aid *Ekibaba* YES/NO
- c. Other NGO help YES/NO
- d. Church YES/NO. If YES, in what instance in the past?

43) Do you participate in Village Savings Group? *Eyai iyong logrup a ngithilinga?*

YES/NO

- a. If YES, in what instance has VSLA helped you in the past? *Ikingarakinit iyong a?*

**Baseline: Transfers Received since Last Harvest**

44) Since the last harvest, list all gifts and transfers you have received: *Tolimokinai iswa ngiboro ngulu iriamu iyong daadang ageun akiporo ngina ngoon – eketoi, akimuj, ngibaren daadang.*

Item	Giver	Relation	Purpose	Loan (Y/N)

record answers to the following questions

45) When was the last time you had to ask for help? What happened, who did you approach for help, and who actually helped you? *Aranipakilipar iyong/ingithitor iyong akingarakino? Neni a ngaeibu iyong tolot akingarakino? Ngae abuikingarak iyong?*

46) What are some of the challenges in the future that you have to prepare for?

*Anutyokithyo ite iyong alongaren nguna era iyong tothubanakin?*

47) How do you prepare for those challenges? *Ithubanakin iyong ikwai?*

.....

### Stock Friends

1) Are there people with whom you share livestock? *Eyangitunga*

*nguluimoratar/ipakatar/imeyanakinotor iyong ngaatuk? YES/NO*

a. If NO, did you share livestock with certain people in the past?

YES/NO

2) Friends [Not Related] – CONFIRM WITH EACH ENTRY

Friend	Location	Help given + Reason	Help received + Reason
<i>Ngaeekreko?</i>	<i>Ai iboiyo inges?</i>	<i>Ingarakintor iyong ingesikwai?</i>	<i>Ikingarakinitor inges iyong ikwai?</i>

1) Agnatic & Affine Friends – CONFIRM WITH EACH ENTRY

Friend	Relationship	Location	Help given + Reason	Help received + Reason

**Men's Follow Up Questionnaire: Coping Strategies**

**ID:** \_\_\_\_\_

**Field Site:** \_\_\_\_\_

1) Main food for household in the last 3 months: \_\_\_\_\_

*Nyo emujete ngitunga a lokal ngilapio ngiuni ngulualunyar?*

2) Do you still have any stored food from last year's harvest for consumption?

YES/NO

*Eringa akimuj ngina kekaru angolobien eyailodula?*

3) Have you purchased food in the last 3 months? YES/NO

*Igyel iyong adyo kimuj alotooma ngilapiyo ngiuni ngulu alunnyar a?*

4) Among your other livelihoods, have you intensified any in the last 3 months? YES/NO

a) If YES, which –

*Alotoma ngikonticithyo eyai ngoloimunik iyong nooi – ngilapiyo ngiuningulualunyar?*

5) Have you started any new work (alternative livelihood) in the last 3 months? YES/NO

a) If YES, which –

*Eyai edyo etic ngolokitete ngoloegyau iyong?*

6) Which activity is helping your family survive best during this drought and quarantine?

*Anibore itoyarit ekal nooi ngirualu?*

7) Did you slaughter any of your animals in the last 3 months? YES/NO

a) If YES – details of animals slaughtered + reason

*Eyai edyo barasit kon ngini ingol iyong a?*

8) Before the quarantine and in the last 3 months, did you sell any of your animals?

YES/NO

a) If YES, how many (species specific) + reason

*Eyai kon ebarasit ngini egyala iyong a?*

9) Have you collected any debts from debtors in the past 3 months? YES/NO

a) Details of kinds of debts and debtors

*Eyai amica kon adyo ngina imicau iyong a?*

10) Have you taken a loan in the past 3 months? YES/NO

a) If YES, from whom & reason

*Eyai idyo ibore ngini ideneu iyong a?*

11) In the past 3 months, list all gifts from people, requests you have made, any items received – *Alotoma ngilapio ngiuni eyai adyoinakinet ibu iyong kilip ido ikinakin*

Item	Giver	Relation	Purpose	Loan (Y/N)



**Women's Questionnaire**

ID: \_\_\_\_\_

Field Site: \_\_\_\_\_

- 1) What is your name? *Ngaeekonkero* \_\_\_\_\_
- 2) When were you born (*estimate age using local time markers*)? *Alikaruikidounere iyong?* \_\_\_\_\_
- 3) Which is your village? *Alireiboyo iyong?* \_\_\_\_\_
  - a. Do you live mainly in a kraal or village? *Iboyo iyong alorekorinawi?*  
\_\_\_\_\_
- 4) Do you live with your father's family or with your husband's family? *Ibooi iyong alokal apapakon kori alokal ata lokile kon?* \_\_\_\_\_
- 5) How many children do you have? *Ngidwengiae?*
  - a. Boys *Luthapa* \_\_\_\_\_
  - b. Girls *Ngapethur* \_\_\_\_\_
- 6) Are any children in school? *Eya ngikondweethyomete a lothukul?* YES/NO
  - a. If YES – Number and Sex of children in school - \_\_\_\_\_
- 7) Does your husband have other wives? *Eyakatar lokile kon ngace beru a?*  
YES/NO
  - a. If YES, how many *Ani keyakatar, ngayai?* \_\_\_\_\_
- 8) Has your brideprice been paid? *Ikiisitae iyong a?* YES/NO
  - a. How much brideprice was paid?  
Cows *Ngaatuk ngae?:* \_\_\_\_\_  
Small stock *Ngakinei ngae?:* \_\_\_\_\_  
Other brideprice:
- 9) Has any *ekicul* been paid? YES/NO
  - a. If YES – For which children
  - b. If YES – how much *ekicul* has been paid? (species specific)
- 10) Do you own any animals [REMINDE NOT OF HUSBAND]? *Iyakatar iyong ngibaren a?* YES/NO

a. If YES – how many?

Cows (female) \_\_\_\_\_ Camels \_\_\_\_\_

Calves \_\_\_\_\_ Donkeys \_\_\_\_\_

Bulls \_\_\_\_\_

Goats \_\_\_\_\_

Sheep \_\_\_\_\_

b. If YES – how did you acquire them? *Iriamun iyong ebarathitikwai?*

11) Which of the following cash-earning activities do you do?

*Eyai ecepite iriyamuniya iyong ngithilinga?*

Activity	
Brewing <i>Achuare</i>	
Firewood sale <i>Ngakito</i>	
Charcoal sale <i>Ngamakai</i>	
Small-scale labor <i>Alejelej</i>	
Mining <i>Enyota</i>	
Other <i>Ecie rot</i>	

12) If alternative livelihood YES, what do you do with your earnings? *Isitiyae iyong ngikonisilinga ikwaai?*

13) Primary activity in the Wet Season *Nyoitiyaene iyong nooi nakiporo?*

\_\_\_\_\_

14) Primary activity in the Dry Season *Nyoitiyaene iyong nooi nakamu?* \_\_\_\_\_

15) Which activity is the most important for your family's survival? *Nyo nooi eyauningithilingangulueyatakinalakal kon?* \_\_\_\_\_

16) Do you own gardens [ONLY HERS, NOT OTHER WIVES]? *Erai ngalup nguna itainene iyong nguna kon a?* YES/NO

a. If YES – How many? *Ngamanatangae?* \_\_\_\_\_

b. If YES – How did you acquire it? *Iriamun iyong nagamanatakonikwai?*

\_\_\_\_\_

c. If NO – Whose garden is it? *Ngalupangaaitainene iyong?*

\_\_\_\_\_

17) Who is the first person/persons you go to when you are in need? [relation of person to subject] *Ngae etunganan ithiyaun iyong alothitneni ken?*

- b. Food shortage *Akoro* \_\_\_\_\_
- c. Sickness *Edeke* \_\_\_\_\_
- d. Cash for misc. *Ngithilinga* \_\_\_\_\_

18) Do you have any cash debt? *Idenuntor iyong ngidithilinga paanya?* YES/NO

- d. If YES, what was the reason you borrowed money? *Ngulu a nyo?*  
\_\_\_\_\_
- e. From whom (relationship)? *Neni a ngae?* \_\_\_\_\_

19) Do you owe anyone any other debt? *Iyakatar iyong amica?* YES/NO

- c. If YES, to whom (relationship)? *Amica ngae?* \_\_\_\_\_
- d. What do you owe? *Amica ani?* \_\_\_\_\_
- e. Why did you borrow (above item)? *Nguna a nyo?* \_\_\_\_\_

20) Do you get help from any of the following?

- e. Local Council/Government YES/NO  
If YES, what kind of help [Incl. NAADS, SAGE]?  
\_\_\_\_\_
- f. Food Aid YES/NO
- g. Other NGO help YES/NO  
\_\_\_\_\_
- h. Church YES/NO  
If YES, how has the Church helped you?  
\_\_\_\_\_

21) Do you participate in Village Savings Group/Any other group? *Eyai iyong logrup a ngithilinga?* YES/NO

- b. If YES, what kind of group? *Egroup ngolo ikoni ai?* \_\_\_\_\_

- c. If YES, how has the group helped you? *Ikingarakinit iyong a?* \_\_\_\_\_

22) TRANSFERS SINCE LAST HARVEST – List all items received as gifts or requested from others since last year’s harvest. Including – animals, food, clothes, money, medicine. *Tolimokinai iswa ngiboro ngulu iriamun iyong daadang agyaun akiporo ngina ngon – eketoi, akimuj, ngibaren daadang.*

Item	Giver	Relation	Purpose	Loan (Y/N)

Record answers to the following questions:

When was the last time you had to ask for help? What happened, who did you approach for help, and who actually helped you? [Probe coping strategies – social and otherwise] *Aranipakilipotor iyong/ingithitor iyong akingarakino? Neni a ngaie ibu iyong tolotakingarakino? Ngaie abuikingarakin iyong?*

23) What are some of the challenges in the future that you have to prepare for?

*Anutyokithyoite iyong alongaren nguna era iyong tothubanakin?*

24) How do you prepare for those challenges? *Ithubanakin iyong ikwai?*

### Women’s close friendships

1) Who do you consider your close friends (number of individuals)? List number.

*Atangae ipedori iyong atemar erai ngikonei ngulu ka etau (kimaru)?*

*Kimarakinae.*

2) Details of items/help given and received from friends

Name	Village	Relation	Help Given	Help Received

## **Appendix B: Game Protocols**

### **Time Preference**

The main aim of this experiment is to understand how individuals make immediate vs. future consumption decisions. The experiment is based on the hyperbolic discounting model. Individuals will be labeled “impatient”, “hyperbolic”, and “patient now, impatient later” based on a combination of their answers to the different options\*.

Before playing the Gamble Choice game, participants will be asked the following questions:

- 1) Would you prefer to receive UGX 5000\*\* today or UGX 7500 in 1 week?  
*Ipedori acamun/atheun ngalipiyo ngakan nakolongitna kori ngalipiyo ngakanikarei a ngamiyangakan kelonyar epei ethabit?*
- 2) Would you prefer to receive UGX 5000 today or UGX 15000 in 1 month?  
*Ipedori acamun ngalipiyo ngakan nakolongitna kori ngalipiy ongatomon a ngakan kelonyar epei elap?*
- 3) Would you prefer to receive UGX 5000 today or UGX 25000 in 3 months?  
*Ipedori acamun ngalipiyo ngakan nakolongitna kori ngalipiyo ngatomon a ngakan kelonyar ngilapiyo ngauni?*

*Front-end delay* (asked after Gamble Choice game)

- 1) Would you prefer to receive UGX 15000 in 4 months or UGX 25000 in 5 months?  
*Ipedori acamun/atheun ngalipiyo ngatomon angakan elonyar ngilipiyongomwon kori ngalipiyo ngatomon ngareiangakan elonyar ngilapiyo ngikan?*

\*Payoffs will be hypothetical due to coordination problems with long-term rewards. Participants will be told that payoffs are hypothetical, but they must treat them as real. Hypothetical and actual game behaviors are known to be consistent from previous studies.

\*\*Daily income in rural Moroto district can range from UGX 2000 – UGX 10,000, depending on the type of work and opportunity for petty trade. Median daily income value ascertained from participant observation and interviews is UGX 5000. Median daily income has less meaning in Tapac subcounty where mining is the only source of alternative livelihood, and returns are not consistent.

### Gamble Choice Game

Each subject will be called for a private meeting with the researcher and the RA. The RA will translate the following:

*Here are 6 cards with one amount on the blue and one amount on the red. Each card has different amounts on the red and blue. You will choose 1 of the 6 cards*

*Eya nege ngakadio 6, ngace epusiaka, ngace erengak. Ngina kad eyakatar etyae ngolo egalaana alotooma anguna pusiyeek ka nguna arengak. Iseuni iyong apei alotooma ngakadio nukanikapei nugu. (the original cards had money taped on them for subjects to calculate the amounts associated with the two colors).*

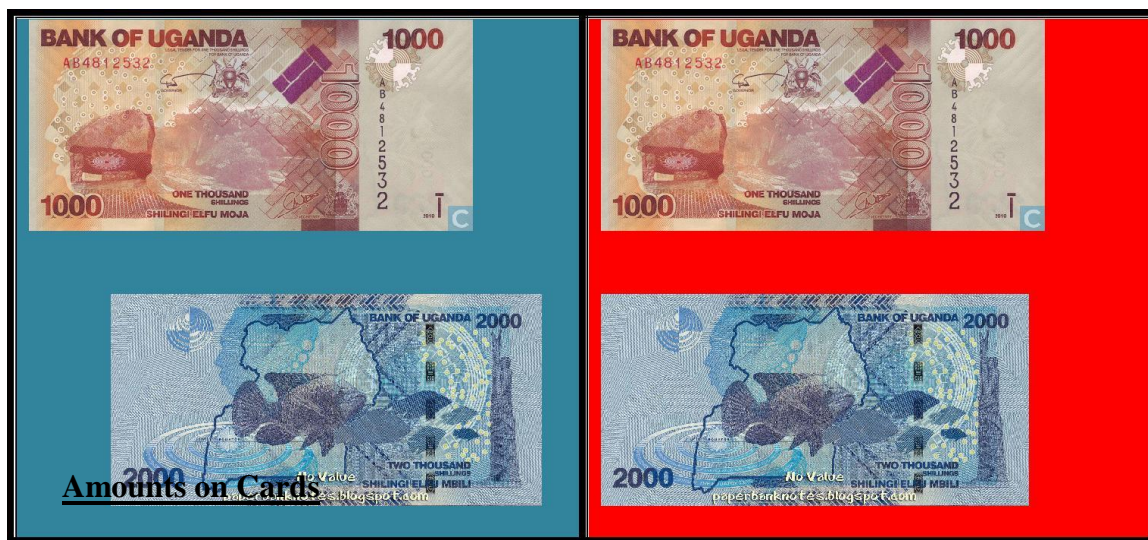
*The researcher has a blue coin and a red coin in each of her hands. You will try to guess which hand has the red coin and which has the blue. If you find the red coin in the hand you guess, you will receive that money as shown on the card. If you find the blue coin, you will receive the money shown on the card.*

*Eyakatar akemiman esimon ngolo pus ka ngolo arengan nakan keng. itedori iyong akan ngina eyakatar esimon ngolo arengan, ka dang totedo ngina eyakatar esimon ngolo pus. Kitedo iyong kisiyook akan ngina eyakatar esimon ngolo arengan, ikiinio ngisilinga ngulu igirakinitae nakad ngina. Kitedo iyong akan ngina eyakatar esimon ngoolopus, ikiinio ngisilinga ngulu igirakinitae nakad dang ngina pus.*

You can only choose one gamble, and you can only make one guess on which hand has the coin.

*Itedori iyong apei tedoret bon, ka dang isudokini iyong apei kisudokinet bon, atemar ani kan eyakatar esimon.*

### Sample of Card I



CARD NUMBER	AMOUNT IN BLUE	AMOUNT IN RED
1	3000	3000
2	2700	5700
3	2400	7200
4	1800	9000
5	1000	11000
6	0	12000

**Time Preference & Risk Sensitivity**

ID: \_\_\_\_\_

Field Site: \_\_\_\_\_

	NOW	LATER
5000 NOW <b>or</b> 7500 in WEEK		
5000 NOW <b>or</b> 15000 in 1 MONTH		
5000 NOW <b>or</b> 25000 in 3 MONTHS		

**GAMBLE CHOICE CARD NUMBER:** \_\_\_\_\_

**WIN or LOSE** (Circle one)

**Time Preference Front End Delay**

15000 in 4 months	25000 in 5 months
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