

Climate, change and insecurity: Views from a Gisu hillside

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Abstract

In this study I investigate the significance of climate variability and extremes (and by analogy, climate change) for human security in an African context of multiple risks, shocks and stresses. I consider the sociocultural dynamics of people's responses to these diverse threats and their implications for climate adaptation. The location is a poor hillside village in Uganda. Its Gisu inhabitants rely on subsistence farming and are exposed to climate variability and extremes as well as acute land scarcity and environmental degradation. I interviewed over 80 men and women in different structural positions and with different social identities.

Destructive rainfall destroys food crops, erodes soil and triggers landslides. Analysing these impacts helps to build understanding of the possible context-specific consequences of climate change in East African highland communities. Villagers' ability to cope with and adapt to destructive rainfall is socially differentiated, with gender relations an important influence. The impacts of destructive rainfall contribute to a complex cycle of human insecurity, which needs to be viewed as an integrated whole. Hunger and poverty are at the core; but tensions, contestations and conflicts among differently-placed social actors are also prominent. Some of these socially-constructed threats are associated with unequal power relations and maladaptive responses to deteriorating environmental and economic conditions. The metaphor of 'threat landscapes' is useful for explaining differences and changes in individuals' awareness of threats and the epistemic limitations of subjective accounts.

Responses to climate and non-climate threats alike are shaped by cultural norms, values and traditions. They can be undermined, as well as supported, by conjugal, kin and community relations and by governance institutions and actors. Sociocultural issues such as these should be at the centre of climate adaptation narratives because they are critical to adaptive capacity.

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Dedication

TO THE PEOPLE OF BUBUFU

‘When you told me that she was a student I understood it very fast, and I was happy because she is now our daughter. Let us teach her like our daughter, and in future if she succeeds she might remember that the college she went to was Bubufu.’

Gregory N.

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Introduction

This is a study of the threats that the inhabitants of a small Ugandan community perceive around them and how they respond to those threats. Through this enquiry I hope to be able to provide answers to this two-part research question; ‘How important are climate threats (and by analogy, climate change) to human security in a rural African context of multiple risks, shocks and stresses, and what do the socio-cultural aspects of current threats and responses imply for climate adaptive capacity?’

I started my research with a sharp focus on the social impacts of climate change and adaptation, but I soon became uncomfortable with this. Two doubts nagged me. First, based on my experience working as a social development specialist in the international development ‘industry’, it seemed to me that there was a danger of the climate change discourse overshadowing fundamental development issues. These misgivings grew during my first visit to Uganda to identify a suitable location for my study. Talking to local government officials and villagers in Manafwa District it became clear that this was an area where weather shocks and stresses had serious negative impacts, but that it also suffered from widespread poverty and challenging environmental problems other than climatic ones. How legitimate would it be for me to impose my narrow climate change focus on the people living there?

As well as this ethical dilemma, an analytical problem bothered me; it would be pointless to consider the social effects of climate change without taking into account these other aspects of people’s situations (Cannon and Muller-Mahn, 2010). Many researchers have drawn attention to the fact that most poor Africans live in a context of multiple risks, stresses and underlying problems, all of which intersect and interact (Reid and Vogel, 2006; Yohe *et al*, 2007). A burgeoning sub-genre of research is based on the premise that climatic factors need to be considered not in isolation but in interaction with the many other threats that confront people, including wider environmental change (Homer-Dixon, 1999; O’Brien, 2006; Reid and Vogel, 2006;

Thomas *et al*, 2007). Rather than pursue a singular narrative of climate change, I decided not to assume *a priori* that climate impacts are the main problems facing individuals in my study location.

That location is a Gisu village in the foothills of Mount Elgon, in Manafwa District in south-eastern Uganda. Its inhabitants are poor, rely on subsistence farming for a large part of their livelihood and are exposed to climate variability and extremes. All over the developing world communities like this will bear the brunt of anthropogenic climate change (Boko *et al*, 2007; World Bank, 2010). The village is also a rather dramatic, although not untypical, case of an African community confronted by land scarcity (Homer-Dixon, 1999), conflicts over land (Berry, 2002; Peters, 2004), environmental degradation and a range of governance pressures (Bryceson, 2002; Ellis, 2006). Although the impacts of climate variability and extremes and people's responses to them are context-specific, answering my research question will involve developing insights that may be extended beyond this location to other vulnerable communities in the region. It will also enable me to contribute to the important ongoing debate about the relationship between climate change adaptation and development (Cannon and Muller-Mahn, 2010).

But what is the relationship between current climate variability and extremes and anthropogenic climate change (which for the sake of brevity I just call 'climate change' from now on)? This is both a theoretical and an empirical question relating to my study location. African farmers have always had to deal with climate variability and extremes (Morton, 2007), usually with very little support from their governments. How they deal with it now is a 'solid basis' for assessing how they will respond in future (Parry *et al*, 2007:31). There are two different arguments available to support this view. First, people's responses to damaging climate impacts can be seen as proxies for their future responses to climate change (Thomas and Twyman, 2005:121). Secondly, some researchers argue that current climate variability and extremes are part of a continuum of long-term climate change, so there is no real distinction between the current and future responses of private individuals (Washington *et al*, 2006; Cooper *et al*, 2008).

Are current climate variability and extremes in Uganda a manifestation of climate change? Like people in other highland areas in Uganda, the inhabitants of the Mount

Elgon foothills perceive an increase in the intensity and frequency of heavy rains, leading to more floods and landslides than used to be the case (Economic Policy Research Centre, 2001a:14; Republic of Uganda, 2007). It is possible that perceptions of a deteriorating climate may be due to the denuding of slopes, which intensifies the impact of heavy rain. On the other hand, Ugandans in general, not just in the highlands, believe that the climate has changed over the last 20 years or more (Republic of Uganda, 2007). This is consistent with studies in other parts of sub-Saharan Africa which also report perceptions of increasingly unpredictable rainfall patterns (Thomas *et al*, 2007; Conway, 2011).

The authors of Uganda's National Adaptation Programmes of Action (NAPA) frequently imply that the reported increases in destructive rainfall are due to anthropogenic climate change (e.g. Republic of Uganda, 2007:4) and predict that the trend will intensify (Republic of Uganda, 2007:21). Since the publication of the NAPA, government communications, the Ugandan press and some international NGOs have tended to blame all weather shocks on climate change (Magrath, 2008; Tenywa, 2009; Kirunda, 2009; and see Appendix 1). Yet there appear to be no meteorological data to associate these shocks with climate change. The East African climate is considerably under-researched. One problem is the shortage of weather-monitoring stations in working order.¹ Another difficulty is that the region's climate is naturally variable and as yet not well understood, being linked in complex ways to surface temperatures in the Indian Ocean and the El Niño Southern Oscillation (Conway, 2011). Conway also points out that the few existing regional climate studies and scenarios have coarse resolutions and so do not take into account the effect of large surface features. This is a notable shortcoming in relation to my study location because of its proximity to the vast mass of Mount Elgon.

While there appears to be no meteorological evidence to link current weather shocks with climate change, some researchers do predict increasing rainfall in East Africa. Reviewing five different studies, Goulden (2006) found that they all projected significant rainfall increases during the main rainy seasons in 2070-2100, with some projecting increases as early as 2010. In addition, some of the scenarios point to

¹ When I tried to obtain rainfall figures from Department of Meteorology officials in Kampala in June 2009, I was told there were no working weather stations in the Mount Elgon area.

increased mean rainfall during the second rainy season in the middle and late 21st century. McHugh (2005) predicts that higher annual and seasonal rainfall will be accompanied by an increase in the frequency of extremely wet periods. The implications of these studies for Uganda are very serious, as it is reported to be one of the most vulnerable and-least prepared countries in the world in relation to climate change (Hepworth, 2010).

Given the lack of meteorological evidence, in this thesis I use past and current weather shocks as an analogy for climate change rather than claiming that climate change is already happening. I explain my analogical approach more fully in Chapter 1, where I also discuss my investigative framework, human security. In Chapter 2 I take the reader on a ‘guided walk’ through my study location, pointing out features of interest, and in Chapter 3 I give an account of my methodology.

Chapters 4 to 9 all address both parts of my main research question. In Chapter 4, I investigate and contextualise the impacts of destructive rainfall on farming and consider some of the socio-cultural dynamics that influence coping and adaptation. Chapter 5 is about landslides, another threat arising from heavy rainfall. Here I am particularly interested in gendered cultural norms, ideology and traditions in relation to villagers’ experiences of landslide crises, and I briefly discuss the behaviour of governance actors after a recent landslide disaster.

The topic of Chapter 6, the cost of healthcare, marks a move away from concerns about weather shocks. I frame healthcare charges as an abuse of unequal power relations that undermines people’s ability to cope with and adapt to a changing environmental and economic context. In Chapter 7 I analyse the socio-cultural dynamics of conjugality in relation to household-level food insecurity and poverty and argue that the social status of married women may be in decline. Chapter 8 looks at theft and violence in the community; I frame crime and responses to it as types of maladaptation to worsening conditions. The contestations over brideprice and defilement charges that I analyse in Chapter 9 are priorities for young unmarried men in the village and are another manifestation of conflicting interests within the community.

I then discuss the polarities of social relations, for instance between spouses, kin and neighbours (Chapter 10), and in particular how they affect people's attempts to diversify their livelihood activities. Finally, in Chapter 11 I synthesise insights from all these chapters and draw out the main contributions to knowledge. Throughout, my interest is in individual, subjective experiences of human security, and how they react to it, as I look for insights that may be applicable to a climate change scenario.

Chapter 1: Developing an investigative framework

1.1 Introduction

How important are climate threats (and by analogy, climate change) to human security in a rural African context of multiple risks, shocks and stresses, and what do the sociocultural aspects of current threats and responses imply for climate adaptive capacity? In this chapter I discuss the ideas, distinctions and debates that have influenced the development of this research question, which is essentially about the dialectic of threats and responses. I begin by discussing the concept of human security, which provides the investigative framework for the thesis (section 1.2). This leads to a consideration of the empirical literature about the threats that face rural Africans (section 1.3). Both these sections address the first part of my research question. In section 1.4, I switch to considering the ideas behind the second part of the question, which is about the ‘response’ side of the dialectic. I discuss the concept of adaptive capacity together with other closely-related ideas from the climate change adaptation literature. In section 1.5 I retain the focus on adaptive capacity, reviewing recent literature that illuminates important influences on people’s ability to adapt to climate change, notably resources and sociocultural factors. I sum up the chapter in section 1.6, depicting the interrelationships among these ideas in a diagram.

1.2 Human security: A holistic investigative framework

For reasons I explained in the thesis’ Introduction, I am interested in the totality of the threats that the people in my study location perceive, including the relative salience of climate shocks and stresses. That means I need an inclusive investigative framework. In this section I explain why I have chosen the idea of human security as my framework and discuss its key features in relation to my study.

Human security is a normative concept which originated in the 1994 Human Development Report, where it was defined as ‘freedom from fear’ and ‘freedom from want’ (Alkire, 2003.) However its roots go back to Sen’s capabilities approach to well-being (1993) and the concept of ‘human development’ through which the capabilities approach has been operationalised, notably in annual reports produced by the United Nations Development Programme (e.g. United Nations Development Programme, 2010). Essentially, the distinction between human security and human development is one of emphasis. Whilst human development is ‘concerned with progress’, and is ‘upbeat’, human security is about the protection of ‘life, livelihoods and dignity’ from severe and widespread threats emanating from any source and over varied time-scales (UN Commission on Human Security, 2003:4).² Such a defensive stance is appropriate for my study location, where a formidable combination of problems is damaging lives.

The UN Commission on Human Security defines ‘dignity’ rather widely as matters pertaining to ‘love, culture and faith’ and self-determination (2003:4). Alkire stresses that this is a minimalist ‘working definition’ (2003:2) in that it concerns only a subset of basic functionings. It is clear, though, that even this subset is much broader than a livelihoods approach, although livelihoods are an important component of human security; this is the main reason why I have decided to use human security, rather than livelihoods, as a framework.

Since the publication of the UN Commission on Human Security’s report in 2003, various scholars have considerably enriched human security thinking. For instance, Truong *et al* (2006) highlight how individuals’ social identities affect their experience of human insecurity. This implies that the individual has to be the unit of analysis, because perceptions of human security may differ among individuals in the same community and even the same household due to their different structural positions and the cultural norms and values pertaining to them. This is an important point, because alternative investigative frameworks, notably the livelihoods framework, often take households as the units of analysis, and unitary models of the

² According to this definition, a threat need not affect every member of a population in order to qualify as ‘widespread’. For instance, idiosyncratic threats such as ill-health come into this category, provided they are common among a population (UN Commission on Human Security, 2003).

household can hide conflicts of interest among household members (Folbre, 1986; Quisumbing and Maluccio, 2003).

It follows from this emphasis on diverse social identities that the epistemic basis of human security is individuals' subjective perceptions (Tadjbakhsh and Chenoy, 2007; Gasper 2010). However the social relations that link individuals together are critical to identity and well-being, so they also need to be included as referents (Truong *et al*, 2006; Tadjbakhsh and Chenoy, 2007:109; Gasper, 2010). Analysing social relations as objects of enquiry requires a consideration of the ideologies that underpin them and the discourses through which these ideologies are articulated (Truong *et al*, 2006). All these features of the framework are critical to my analysis in Chapters 4-10.

While some scholars have criticised the concept of human security as vague (e.g. Paris, 2001), Gasper (2010:20) maintains that its holism enables it to function as a 'boundary object' that pulls together disparate threats that would normally be considered separately. With specific reference to sub-Saharan Africa, several authors demonstrate how a human security approach enables disparate issues to be addressed in a single framework. For instance, Tadjbakhsh and Chenoy (2007) argue that 'in Africa, food security, conflict and gender inequalities may be the most pertinent insecurities' (2007:242), and Ajakaiye and Dercon (2008:ii3) include issues such as the unsustainable exploitation and depletion of natural resources, environmental degradation, poverty, social inequality, HIV/AIDS and conflict as key aspects of human insecurity across the region. Researchers involved in the Global Environmental Change and Human Security Project have developed a conceptualisation of human security which privileges environmental factors (e.g. O'Brien, 2006) and recently scholars have started to use human security thinking to analyse the impacts of climate change (e.g. Adger, 2010). In particular, Gasper (2010) champions it as an alternative to the economic discourse on climate change that has tended to predominate in policy circles (e.g. Stern, 2007).

A human security framework can facilitate sophisticated social analysis of the impacts on individuals of diverse risks, stresses and problems. The understanding of human security that I operationalise in this thesis incorporates both the mainstream conceptualisation (Human Security Commission, 2003) and the scholarly

elaborations that I have briefly discussed above. I now consider some of the recent empirical literature analysing the problems that constitute human insecurity for rural Africans in a variety of locations.

1.3 Sources of human insecurity in sub-Saharan Africa: Recent empirical literature

Rural Africa is well-known as a high-risk environment (Ellis, 2006; Fafchamps, 2003; Dercon, 2008). Shocks and stresses arise both from disasters and from the vicissitudes of everyday life, and different research traditions have grown up that accentuate one or the other. The disaster literature primarily deals with risk in connection with natural hazards affecting vulnerable populations (Blaikie *et al*, 1994; Wisner *et al*, 2004), although these authors do argue that poor people themselves tend not to distinguish between such out-of-the-ordinary risks and the risks that permeate their daily lives. Another strand of relevant research does not have a disaster focus but uses participatory methods to explore people in rural African communities' perceptions of everyday threats (Smith *et al*, 2000; Quinn *et al*, 2003; Thomas *et al*, 2007; Tschakert, 2007; Getachew *et al*, 2008; Westerhoff and Smit, 2009; Bunce *et al*, 2010). Although some of these studies are framed in terms of climate change, what comes across very strongly is the multiplicity, intersectionality and everyday nature of the risks and stresses that characterise life for poor people across rural Africa. I should point out that these studies are not framed in terms of human security; nevertheless, their findings help to build a picture of what drives human insecurity in the region.

The overall picture is that climate variability and extremes are perceived as serious threats in quite different contexts throughout sub-Saharan Africa in interaction with many other shocks, stresses and underlying problems. In some contexts climate variability and extremes seem to be a 'modest' contributor to food insecurity compared to political, economic and social forces (Westerhoff and Smit, 2009:327), while in others they are important sources of risk (Thomas *et al*, 2007). Study participants often prioritise the risk of ill-health above everything else (Smith *et al*, 2000; Thomas *et al*, 2007; Tschakert, 2007; Bunce *et al*, 2010). Other non-climate priorities that recur from study to study include lack of access to basic services (e.g.

Smith *et al*, 2000; Quinn *et al*, 2003), income poverty and food insecurity (e.g. Tschakert, 2007). In general, the findings resonate with disaster vulnerability assessments which often find that poor people themselves prioritise similar day-to-day problems rather than the disasters that external agencies are concerned about (Cannon, 2008; Cannon and Muller-Mahn, 2010). Understanding how these ordinary risks and stresses compare and interact with climate change risks over time has been identified as a critical research imperative (Yamin *et al*, 2005), and my study is in part a response to this challenge.

An interesting characteristic of the above studies is that the concepts of ‘risk’ and ‘stress’ tend to be conflated, along with underlying structural problems. Smith *et al* (2000) comment on the difficulty of distinguishing between ‘risks’ and more general ideas such as ‘worries’ or ‘concerns’ when conducting research in the field, remarking that their study participants, pastoralists in Ethiopia and Kenya, made no such distinctions. Similarly Tschakert (2007) uses the terms ‘concern’, ‘worry’, ‘stress’, ‘stressor’, ‘hazard’, and ‘threat’ interchangeably, although she does not comment on this in her article. Quinn *et al* (2003) write that they deliberately avoided introducing the idea of ‘risk’ in interviews and asked about ‘problems’ instead, although again they do not explain why they made that choice; in their analysis they conflate risks, stresses and problems.

This blurring of distinctions is significant for my own study. As I explain in Chapter 3, I began my own research by enquiring about risk; in other words events that, if they happened, would result in damage or loss of some kind (Thomas *et al*, 2007). Renn (1992) writes of a ‘spectrum of thinking’, with ideas of risk as objectively measurable at one end and as pure social or cultural constructions at the other. My own epistemological stance falls between these two extremes. I take the view that risks have an undeniable objective reality in contexts such as my study location, but that how they are experienced and perceived may depend on social, economic and cultural factors; in other words, they are socially constructed.³ Soon after I began my fieldwork I decided to broaden my enquiry to include current stresses and problems as well as risks. I agree with Smith *et al* (2000:1956) that academic preoccupations

³ I discuss my epistemological position more generally in Chapter Three.

with conceptual distinctions should take second place to reporting people's own perceptions: the relaxed attitudes of the researchers I cite above to matters of temporality and causality also encouraged me in my decision. My use of the term 'threat' covers perceived risks, current stresses (that is, long-term pressures such as chronic income poverty) and underlying problems.

Several African studies show that perceptions of threats to well-being are a matter of individual perspective associated with social position and identity, and gender in particular emerges as an axis of difference in several studies. For instance, Quinn *et al* (2003) found that women tended to rate problems associated with social and human capital more highly than men, while men were more concerned about natural capital issues. Tschakert (2007), who carried out gender-disaggregated participatory risk-ranking with men and women farmers in Senegal, found gender differences in priorities and perceptions, but it is hard to discern any pattern and little interpretation is offered. Thomas *et al* (2007), who were researching climate perceptions of climate, found a clear gender difference in the type of risk perceived. More women than men saw heavy rain as a distinct risk, and conversely, fewer women than men recognised drought as a distinct risk, which they attribute to the requirements of gender-specific livelihood activities. Similarly, a study of risk perception among pastoralists in Ethiopia (Getachew *et al*, 2008) found differences based on gendered roles and responsibilities, in that men were more concerned with livestock prices and women with food availability.

Life-stage also shapes rural Africans' perceptions of threat. For instance Tschakert (2007) found that young men in her Senegalese study location prioritise the lack of electricity in the village because of their consequent vulnerability to attack when they conduct night-time security patrols. In the same village, young men and women alike see the lack of training and employment opportunities as a threat to their future livelihoods. Young male pastoralists in Ethiopia, on the other hand, prioritise land scarcity (Getachew *et al*, 2008). Turning now to the influence of wealth status on perceptions of threat, Smith *et al* (2000) report differences among study participants across three wealth terciles, connected to poor people's vulnerability to cattle raids and the ability of wealthier pastoralists to live in healthier environments. Taken together, these studies indicate some of the most significant axes of social identity

and structural position in relation to threat perceptions in my study location, and their findings inform my sampling strategy (Chapter 3).

I have discussed the concept of human security and empirical evidence indicating that climate-related threats are not necessarily the main concerns of rural Africans and that people's perceptions of what threatens them are to some extent a matter of individual perspective. This and the previous section have helped me to ground the first part of my research question 'How important are climate threats (and by analogy, climate change) to human security in a rural African context of multiple risks, shocks and stresses?' I now move on to deconstruct the second part of my research question: 'What do the sociocultural aspects of current threats and responses imply for climate adaptive capacity?' by discussing a family of concepts from the climate change adaptation literature.

1.4 Climate adaptive capacity and related concepts

The idea of climate adaptive capacity is one of the conceptual nodes of my thesis. However, before I discuss it I first need to explain the concept of climate adaptation. I also briefly discuss a relatively new addition to this nexus of ideas, climate maladaptation, a concept to which I also refer in later chapters.

Climate adaptation

I begin, then, with the concept of adaptation to climate change. Until recently the literature has tended to concentrate on large-scale technical adaptation strategies to the detriment of other types of response (Pelling and High, 2005; Tschakert, 2007). My own interest is with micro-level private adaptations, because African smallholders already have to respond to climate risk with little or no support from governments or aid agencies and this situation seems unlikely to change significantly. There are various competing definitions of climate adaptation, and this is one of the most straightforward: 'the ability ...to respond successfully to climate variability and change' (Adger *et al*, 2007:727). The core idea is that adaptation reduces long-term vulnerability (Thomas *et al*, 2005; Ziervogel *et al*, 2006; Morton, 2007; Vincent, 2007), and this is the main distinction between adaptation and coping behaviour. Researchers working on food security, livelihoods and climate change

have found that attempts to cope with shocks after the event may exacerbate long-term vulnerability; for example the distress sale of productive assets to tide a household over a famine (Corbett, 1988). However, the distinction between coping and adaptation on the ground is not always obvious, and some authors see coping as a component of, or a stage towards, adaptation (Yohe and Tol 2002; Ebi *et al*, 2006; Eriksen *et al*, 2005; Morton, 2007; Agrawal and Perrin, 2008). Several authors make the point that behaviour can only be defined as adaptation if it is motivated by an explicit awareness that the climate is changing (Smit and Pilifosova, 2001; Fussell and Klein, 2006; Thomas *et al*, 2007; Tschakert, 2007). However Thomas *et al* (2007:303) argue that such awareness may be experiential rather than scientific.

Recent years have seen several studies investigating how African smallholders respond to interlocking threats, including current climate threats, framed as contributions to literature on climate change adaptation (Eriksen *et al*, 2005; Roncoli, 2006; Thomas *et al*, 2007; Bryan *et al*, 2009; Goulden *et al*, 2009). The following have been identified as types of adaptation activity in rural Africa: adjustments to farming; seeking off-farm and non-farm sources of income in the immediate location; the establishment of income generation projects; and selling labour, including urban migration (Boko *et al*, 2007:452). All these activities fall under the heading of 'livelihood diversification', the process by which households or individuals increase the range of productive activities they engage in (Ellis, 2000), and some authors (Bryceson, 2002; Sabates-Wheeler *et al*, 2008) have challenged the tendency to frame all diversification in sub-Saharan Africa as responses to climate change. So is the climate change adaptation literature simply putting new labels on old bottles?

Bryceson (2002) argues that the search for non-farm livelihood activities was initiated decades ago by economic liberalisation policies and structural adjustment. Ellis (2000) and Fafchamps (2003) have pointed out that livelihood diversification can serve many functions, depending on the context. It can be a coping strategy, a form of risk management, a way of exploiting new opportunities or an adaptation to changed conditions. For *de facto* female household heads in the area where my study is set, diversification is often the product of desperation (Dolan, 2004). Livelihood diversification is an example of how African smallholders tend to employ generic

strategies in response to combinations of livelihood threats rather than addressing them separately (Homer-Dixon, 1999; Reid and Vogel 2006; Smit and Wandel, 2006; Ziervogel *et al*, 2006; O'Brien *et al*, 2009). Empirically, it is often impossible to disentangle people's adaptive responses to climate variability and extremes from their adaptations to other threats to their livelihoods. Does this matter? Drawing on examples from southern Africa and Canada, Thomas and Twyman (2005:121) argue that there is nothing 'special' about adaptation to climate change compared to adaptation to other types of change, so it may be futile to try to separate them out.

Maladaptation

The concept of climate maladaptation has only recently been added to the analytical tool-box. Barnett and O'Neill (2010: 211) define maladaptation as 'action taken ...to avoid or reduce vulnerability to climate change that impacts adversely on, or increases the vulnerability of other systems, sectors or social groups'. Although they do not use this particular term, other researchers have pointed out that community or household level responses to shocks, stresses and risks may in fact heighten some individuals' vulnerability (Leichenko and O'Brien, 2005; Thomas and Twyman, 2005; McLaughlin and Dietz, 2008). The above definition, then, could usefully be extended to include adverse impacts on other *individuals*, and this is how I use it in the thesis.

Adaptive capacity

The idea of adaptive capacity has antecedents in other knowledge domains. For instance there is Homer-Dixon's notion of 'social ingenuity': the ability to respond to interlocking environmental and social changes (1999). The capacity or lack of capacity to adapt to climate change is generally understood as an important component of climate vulnerability. For instance, a definition commonly used in the literature sees adaptive capacity as one of three components of climate vulnerability, the others being exposure and sensitivity to climatic hazards (McCarthy *et al*, 2001). Proponents of the social vulnerability approach to climate change (e.g. Kelly and Adger, 2000) privilege adaptive capacity in the mix. Climate change researchers have sought to measure adaptive capacity at the national level (Alberini *et al*, 2006; Yohe and Tol, 2002), but the idea is also applied to small communities, households

or individuals (e.g. Grothmann and Patt, 2005; Tschakert, 2007), and this is the level at which I study it here.

1.5 What shapes adaptive capacity?

In this section I look at the climate change adaptation literature for insights into the factors that influence adaptive capacity. Adaptive capacity is often defined in terms of resources, including information and social capital as well as physical and financial assets. The concept of social vulnerability, initially developed by Blaikie *et al* (1994) foregrounds poverty, social marginalisation and discrimination as constraints on people's climate adaptive capacity (Kelly and Adger, 2000), which is socially differentiated at the individual level as well as being dependent on broad socioeconomic and political patterns (Few, 2007).

In general, adaptive capacity in sub-Saharan Africa is said to be low because of the widespread extreme poverty, frequent natural disasters and structural problems at various levels (Boko *et al*, 2007:453). There is certainly plenty of evidence showing that a lack of financial resources constrains the adaptive capacity of poor individuals and households. For instance, for the poorest farmers in two study sites in South Africa and Ethiopia, even slight increases in wealth would improve their ability to adapt (Bryan *et al*, 2009). Thomas *et al* (2005) found that in South Africa and Mozambique only farmers with surplus cash could experiment and innovate, for instance by trying out short maize varieties to protect against crop loss from erratic rainfall. Ziervogel *et al* (2006), on the other hand, found simple adjustments to farming methods such as a change in planting dates to be a cost-free way of protecting against crop loss due to rainfall variability. In fact poor households in their South African study location were more likely than better-off farmers to use such safeguards because they had more to lose if they did not. This shows that even resource-poor farmers have some adaptive capacity.

In recent years researchers have reacted against what they see as the deterministic equation of adaptive capacity with resources (e.g. Grothmann and Patt, 2005; Smit and Wandel, 2006; Burch and Robinson, 2007). They argue for the importance of individual agency, 'the ability to define one's goals and act upon them' (Kabeer, 1999:3). Thomas and Twyman (2005) emphasise poor people's resourcefulness in

the face of climate change in order to counter what they see as a demeaning tendency to cast poor people as hapless victims. Others temper an acknowledgement of poor people's ingenuity with recognition of the harsh realities and negative historic legacies they have to contend with. For instance, for small-scale farmers in Senegal the Sahelian drought period between the 1960s and the late 1990s has given rise to an inventiveness that may support adaptation to future climate stress, while at the same time farmers' adaptive capacity has been badly undermined by problems such as poor health and inadequate infrastructure (Tschakert, 2007).

A focus on agency represents a welcome move away from material determinism, but much more work needs to be done to build an understanding of the factors apart from resources that underlie adaptive capacity and the adaptation choices that people make. In recent papers (e.g. Burch and Robinson, 2007; McLaughlin and Dietz, 2008; Adger *et al*, 2009; Moser, 2009) authors have privileged different influences, as well as sometimes framing the same influences in different ways, so that it is hard to provide a concise summary of the debate. In general terms, though, climate adaptation behaviour is said to be heavily influenced by sociocultural characteristics manifesting through governance and social institutions; they set the scene in which adaptation agency is enacted. Next, I briefly discuss three broad categories of sociocultural factors that have recently emerged as critical to adaptation; micro-level social relations, cultural identity, norms and values, and lastly governance institutions.

Micro-level social relations

In considering this category of influences I look first at evidence that intra-household gender relations influence adaptation. Then I look at evidence on the importance of social bonds and networks.

Intra-household gender relations

Some studies of climate adaptation are gender-blind, some treat gender as a social category (e.g. Deressa *et al*, 2009), and a few explore the ways in which gendered *relations* between men and women, both as groups and as individuals, shape adaptation choices, implementation and outcomes. Gender relations are central to African smallholder livelihoods (Francis, 2000; Morton, 2007:19680), and

Whitehead and Kabeer (2001) draw attention to the paradox that, despite African women's crucial role in production, intra-household gender relations are shot through with inequalities which are often taken for granted by study participants and researchers alike. In this thesis I use Sen's cooperative conflict model of households (1990) to conceptualise conjugal relations in my study community. As its title suggests, the model is premised on the idea that intra-household relationships are characterised by both cooperation and conflict. The outcomes of explicit and implicit bargaining are influenced by three factors; each spouse's breakdown position, that is his or her degree of vulnerability should the marriage fail; his or her perceived interests; and his or her perceived contributions to the household, which may differ from what they actually contribute.

Two studies of climate adaptation in Africa are unusual in that they pay special attention to how conjugal relations shape adaptation. First, a study of smallholders' responses to climate stress in Kenya and Tanzania (Eriksen *et al*, 2005) explores how gender norms restrict non-farm livelihood options for married women. Diversification at the household level is accompanied by the specialisation of individual household members. Married women are excluded from profitable activities because of local taboos and their heavy domestic responsibilities. Instead, they tend to pursue activities such as rearing chickens, which although not very profitable can be done at home and which women can control independently of their husbands. These findings reflect many studies in the gender and development tradition (e.g. Vaughan, 1987; Whitehead and Kabeer, 2001:13; Dolan, 2004). The second study I want to comment on is Carr (2008). Based on research in central Ghana, Carr (2008) argues that male household heads adopt certain household livelihood strategies because they reinforce existing gender inequalities concerning the control of land, even though they are suboptimal in terms of household income. He labels such strategies 'socially sustainable' because they are based on the gender *status quo*.

Both Carr (2008) and Eriksen *et al* (2005) show that livelihood diversification may enhance security at the household level while at the same time damaging the interests of individual married women (Ellis, 2000). They paint a rather gloomy picture of the effects of adaptation on gender relations and married women's status. An earlier

study of smallholders in a drought-affected area of Burkina Faso, on the other hand, indicates that married women's participation in coping strategies can lead to an improvement in their status in the household (Roncoli *et al*, 2001:128). In general, culturally-specific conjugal relations affect both adaptation choices and their outcomes.

These articles are mainly concerned with male-headed households, but the situation of *de facto* female household heads in relation to adaptation also deserves attention. In East Africa, such women are often characterised as mere caretakers of their husbands' farms because they have no decision-making power over land use (e.g. Francis, 2000), although Chant (2007) has pointed out that there is considerable variation in this particular social group. In keeping with Chant's point, a study of climate vulnerability in South Africa did not find that the gender of the household head was significant because of the many cross-cutting factors involved (Vincent, 2007); instead of deploying the gender of the household head as a variable, the author recommends an enquiry into gendered vulnerabilities among household members.

Social bonds and networks

Heald (1998) vividly describes the dense web of social interactions that make up a Gisu community such as the one featured in this thesis and in general kin relations and other social bonds and networks have long been recognised as crucial elements of African livelihood strategies. In many African societies both men and women deliberately develop and maintain these links as a form of insurance (Ellis, 2000; Dercon, 2005). The importance of social networks in supporting coping and adaptation is also well recognised (e.g. Boko *et al*, 2007:456), and several empirical studies conducted in contexts of climate stress in Africa illustrate the very practical benefits they can bring in this context (e.g. Roncoli *et al*, 2001; Thomas *et al*, 2005; Roncoli, 2006; Getachew *et al*, 2008; Goulden *et al*, 2009). On the other hand, geographically compact social networks have obvious limitations in situations of covariate climate risk such as drought (Dercon, 2005; Getachew *et al*, 2008). Moreover the poorest households and households headed by women tend to have less access than others to social bonds that could facilitate coping and adaptation (Cleaver, 2005; Goulden *et al*, 2009).

Cultural identity, norms and values

Recently, a few climate adaptation researchers have turned their attention to the role that cultural identity, norms and values play in adaptation choices. For instance, Pelling argues that successful adaptation necessitates changes to cultural norms and routine behaviour (2011:35), while Ensor and Berger highlight the ambiguity of cultural norms and values in that they can play both positive and negative roles in relation to adaptation (2009a:228). Adger *et al* (2009) focus on how places and environments become imbued with symbolic meaning for the people who live in them, and how this might set psychological limits on adaptation. Empirical studies exploring cultural influences on adaptation are, as yet, rare, as Nielsen and Reenberg (2010:142) point out at the start of their fascinating paper. They analyse how culturally-specific views of ‘the good life’ as well as historical processes have led two ethnic groups living in the same Sahelian village to take different livelihood paths in a context of drought and economic pressures. Because of their cultural self-image, the Fulbe have turned their backs on the main adaptive strategies practiced by the Rimaiibe, whom they regard as inferior. While Rimaiibe married women are active in independent income generation, the Fulbe’s isolated way of life in the bush prevents Fulbe women from being so. Nielsen and Reenberg suggest this is one reason why Fulbe men prefer to follow a traditional life in the bush rather than moving to towns where they would have wider range of adaptation options, as they deplore the greater independence of Rimaiibe women compared to their own wives. In consequence of these differences, the Rimaiibe, who used to be slaves to the Fulbe, are now better-adapted to local conditions and exceed their former masters in income and assets. Nielsen and Reenberg make a bold and possibly controversial argument when they state that livelihood diversification in this particular village ‘is determined by culture’ (2010: 150). While this may be going too far, it is clear that culture is a strong influence on the forms that adaptation takes in particular contexts. Responses to threat have to be culturally imagined, whether as incremental changes to the old way of life or abrupt disjunctures.

Local governance institutions

Moser (2009) likens governance to a ‘fulcrum’ for the ‘levers’ of adaptation strategies; if the fulcrum is weak, the action of the levers is impaired. My interest is

in the part that *local* governance institutions and actors play in adaptation practices, another area as yet under-researched (Boko *et al*, 2007:452). What evidence there is presents a mixed picture. Goulden *et al* (2009) found that micro-level governance institutions exercised both positive and negative influence on the ability of villagers in their three study sites in Uganda, Tanzania and South Africa to implement adaptive strategies. Negative influences arose, for instance, from weak government agricultural extension programmes, the limited availability of emergency aid and lack of access to formal credit. Village-based institutions such as council committees and credit groups, on the other hand, tended to exert a positive influence. Working in KwaZulu Natal in South Africa, Reid and Vogel (2006) found that farmers' groups, community networks and Department of Agriculture programmes all had a pivotal, if not always beneficial, role in farmers' livelihood strategies, and that their strengthening would support effective adaptation to climate stress and other pressures.

Based on the theory and empirical evidence cited here, I conceptualise climate adaptive capacity as rooted in access to various types of resource but mediated by individual agency and sociocultural dynamics. Comparatively few researchers have analysed these sociocultural dynamics in relation to climate change: because of this research gap I privilege them in my analysis.

In this and the previous section I have discussed the ideas that are the building blocks for the analysis that will enable me to answer the second part of my research question. However, there is also a much broader debate going on, concerning the relationship between climate change adaptation and development. Much of the discussion centres on the implications of climate change for international and national development policy-making (Newell, 2004; Lemos *et al*, 2007; Hassan, 2010) and for development paradigms (Brooks *et al*, 2009). Tanner and Mitchell (2008a) have a strong poverty reduction focus; they advocate pro-poor adaptation that builds on nuanced understandings of poverty and vulnerability. Yet another subdivision of the literature champions community-level adaptation as a way of bringing together climate change adaptation and development agendas on the ground (Yamin *et al*, 2005; Ensor and Berger, 2009b). There is a pressing need to generate micro-level empirical evidence that can form the basis of theory on climate change

adaptation in development contexts (Tanner and Mitchell, 2008b), and this is where I position my study.

1.6 Summary

My overall investigative framework is a holistic understanding of human security. In order to address the first part of my research question, and to understand the sources of human insecurity in my study location, I explore individual subjective accounts of threats, bringing into the analysis risks, shocks, stresses and underlying problems from any source. Rather than assuming that climate threats are a priority for poor people, I keep an open mind.

In order to answer the second part of my question I investigate how people respond to the threats they see. Like Tschakert (2007), I take the view that people's responses to both climate-related and non-climate threats today or in the past can provide useful insights into how they might respond to climate change in future because the underlying factors are the same. In other words, my analogy approach embraces responses to current non-climate threats. I am especially interested in exploring various micro-level sociocultural influences, because this area is under researched.

I have structured my argument in this chapter around human security on the one hand and a family of concepts from the climate change adaptation literature on the other. It may be useful at this stage to explain how I see their interconnections, which I show in Figure 1.1.

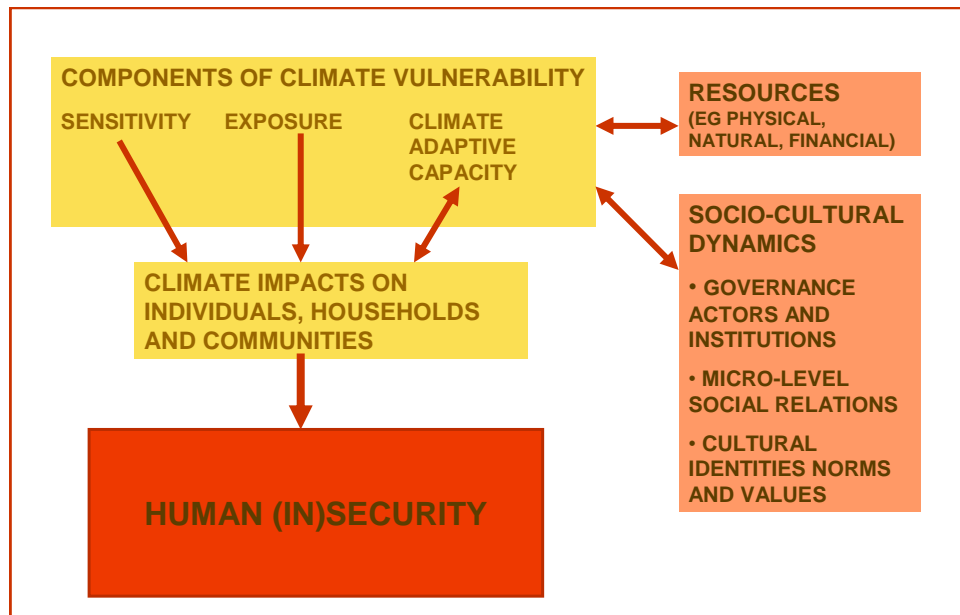


Figure 1.1: Climate vulnerability and human insecurity: Dynamic relationships

Figure 1.1 presents climate vulnerability as having three components: livelihood sensitivity, exposure and climate adaptive capacity (McCarthy *et al*, 2001), which act in combination to mediate climate impacts. The double-headed arrows between the elements of the diagram signify mutual construction. For instance, climate vulnerability has a bearing on resources and sociocultural dynamics, while conversely resources and sociocultural dynamics affect climate adaptive capacity and hence climate vulnerability. The net outcome for human security is ambiguous, and depends on many diverse factors and their permutations. In the next chapter I describe the context in which I apply these ideas: my study location.

Chapter 2: A walk in the Mount Elgon foothills

Bubufu⁴ is situated in Manafwa District in Uganda. In this chapter I use the format of a guided walk to present notable features of the study location and to introduce some of the themes that appear in succeeding chapters. The Google Earth hybrid satellite image and map (Figure 2.1 shows the volcanic mass of Mount Elgon and the Uganda-Kenya border running north to south across it. The red pointer indicates Bududa town, a few miles from my study site. Manafwa District has a population of around 317,500 (United States Agency for International Development, 2008), and is one of four Districts that comprise Bugisu, which is located in the south-eastern corner of Uganda and occupied by the Gisu people. The Gisu are one of the smaller ethnic groups in the country and have inhabited the area for several hundred years.



Figure 2.1: Google Earth satellite map of the Mount Elgon area of Uganda

⁴ Bubufu is not the settlement's real name. In this thesis I use fictional names for villages, parishes and people in order to preserve the anonymity of the people involved in the study.

In 1902 the Sub-Commissioner of the Uganda Protectorate made what seems to be the first published reference to the area, describing it as ‘a densely populated region to the west of Mount Elgon in a very hilly area...little is known of these people’ (Hobley, 1902). The region came under colonial control in 1905, and the first European to settle in the area described the people as ‘perhaps the wildest people to be found anywhere in the protectorate’ (Purvis, 1909:268). These hill people still have something of a reputation for unruliness and violence. On hearing where I was doing my fieldwork, people in Mbale and even in Bubulo, just half an hour’s taxi ride away, expressed amazement. ‘Mmmh, they are tough, those people up there’ said the proprietor of a Bubulo guest-house, using ‘tough’ as a euphemism for a propensity for physical violence.

At the time of my fieldwork, in early 2009, Bubufu comprised two adjacent administrative units or ‘Local Council 1s’. The official boundaries during that period are marked on the sketch map (Figure 2.2). At times I refer to the Local Council 1 (LC1) unit nearest the Manafwa River as the ‘lower village’, and the LC1 above it as the ‘upper village’. These two LC1s have since been further subdivided.

Describing a short walk through Bubufu is a good way of introducing some of the notable features and characteristics of the location, as well as the topics and themes that I develop in later chapters. What follows is based on my own observations of the landscape and the people in it; it is a description from an outsider’s perspective, and of course the villagers themselves would doubtless describe it very differently. I have divided the walk into stages linking defined points, which are numbered 1-10 as marked in Figure 2.2, below.

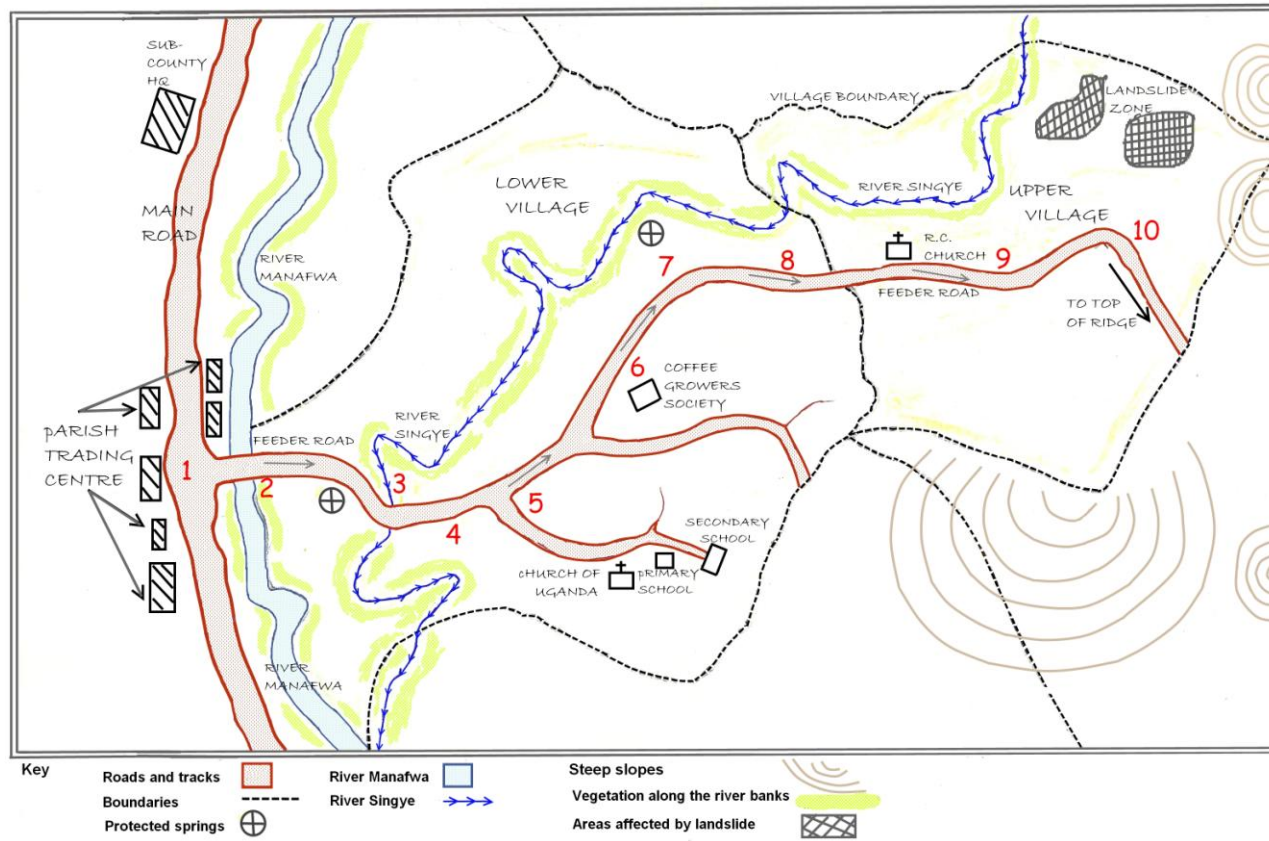


Figure 2.2: Sketch map of Bubufu (from a drawing by Mr John K., 2009)

2.1 Point 1: Arriving at the parish trading centre



Figure 2.3: The parish trading centre

There is only one means of road access to the village, via the road running along the Manafwa valley. At this point a feeder road branches off the main road and leads up through Bubufu to the crest of a ridge. A parish trading centre has grown up at the junction (Figure 2.3), comprising a few shops, eating places and a private maize mill. There are often one or two women on the shop verandahs selling small heaps of vegetables.

Apart from the vegetable-sellers most of the people at the trading centre are men and boys, socialising, ‘doing business’, looking for work or eating in one of the cafes. There are usually one or two men leaning on rented bicycles hoping for a *boda boda* fare (Figure 2.4). Someone might want a ride to Bukawai, the much larger and busier trading centre about two kilometres along the road, or to Bududa General Hospital, a few kilometres away.

In the 1950s, La Fontaine wrote:

The district as a whole makes an impression of prosperity; there are an increasing number of Gisu-owned cars and lorries and almost every man has a bicycle. (La Fontaine, 1959:261)



Figure 2.4: Boda boda riders waiting for a fare

Since then, Bugisu has seen dictatorship, civil war, structural adjustment, economic liberalisation, changing terms of trade, and rapid population growth. Bicycles are few and far between, an indication that the area is now far from prosperous. Bird and Shinyekwa (2005) comment that the region is much poorer than in the 1950s, while researchers working in other parts of the country have also remarked on the economic decline (Reynolds Whyte, 1997; Jones, 2009).

The vegetable-sellers and boda boda riders in the trading centre embody the search for non-farm livelihood activities that preoccupies many people here. Land scarcity is acute, and in a survey of three villages close by, researchers found that subsistence consumption by value represented only one third of total income for households in the poorest income quartile (Ellis and Bahigwa, 2003). Cash is essential to pay for food, to pay school fees and buy uniforms and learning materials and for medical costs, clothes and household necessities. Selling coffee, the area's traditional cash crop, is a source of income for those with land, as is the sale of food crops. In Eastern Uganda as a whole, 81 per cent of farm households sell part of their produce (Uganda Bureau of Statistics, 2002, cited in Bahigwa *et al*, 2005). But this still leaves a shortfall. While the better-off practise a skill, run a business or find salaried employment, people without any capital ride boda bodas, buy and sell tiny quantities of food, look for casual farm labour in the locality or seek jobs as 'shamba boys' and 'house-girls' (domestic workers) in Kenya. In addition, large-scale out-migration,

predominantly of men but also involving women, has been practised for a long time; Heald (1998:94) cites the 1949 and 1959 censuses as showing that ‘as many as twelve per cent of Gisu were living outside their home districts’. La Fontaine writes that in every village there is a contingent of men who only reside there intermittently but who aspire to settle permanently in the village (1962:115). On average, around 50 per cent of SSA rural household incomes comes from non-farm sources and transfers such as remittances (Ellis, 2006:390).

A few yards beyond the trading centre the sub-county headquarters are housed in a lock-up (Figure 2.5). The building is often empty but for a watchman. The sub-county officials do not live locally but commute from Mbale town, and they are frequently engaged elsewhere. I called several times to try to introduce myself to the sub-county chief, but on each occasion I was informed that she was in Mbale or elsewhere, attending meetings. According to the District government, this sub-county has the highest population density of any in the District; 699-871 persons per square kilometre (Community Based Services Department and District Planning Unit Manafwa District, 2007). It is also one of the most densely-populated areas in Uganda (Kagoda 2008; Verschoor, 2008). In addition, it is very vulnerable to flooding because the Manafwa River passes through it (Community Based Services Department and District Planning Unit Manafwa District, 2007).



Figure 2.5: Sub-county headquarters

2.2 Point 2: Crossing the Manafwa River



Figure 2.6: Manafwa River after rain, viewed from the bridge

The next landmark is the bridge over the Manafwa River (Figure 2.6), which was built a few years ago to replace the one destroyed by flooding in 1997. This is where the feeder road crosses the river. Hundreds of people use this bridge every day, walking to and from the villages along the ridge to the shops, markets, schools and health facilities in the valley. The road is steep for most of the way and very rough. In the rainy season it is impassable on bicycles or even motorcycles, so the vast majority of journeys are made on foot.

The river has burst its banks several times in recent years. The most serious floods occurred in 1997, following heavy rain associated with an El Niño event. There were more floods in 2007, and in 2010 the river burst its banks again following weeks of unseasonal heavy rain.

2.3 Point 3: Crossing the Singye



Figure 2.7: The Singye with piles of stones ready for sale in the background

A few yards beyond the bridge over the Manafwa River a much smaller bridge takes the feeder road over the Singye, a small tributary (Figure 2.7). From this point the road runs up the Singye valley more or less parallel to the stream. The Singye is insignificant during the dry season, but it tends to flood after heavy rain, when it is a hazard to children, some of whom have to cross it on stepping stones on their way to school. During the fieldwork period contractors were widening the feeder road, and in May 2009 their mechanical digger was bogged down here beside the Singye for several days. Dotted along the road are piles of stones and sand gathered from the stream bed, waiting to be sold for use as building materials. This is a popular livelihood activity among young men in the village

A few small makeshift bars cluster at the other end of the bridge (Figure 2.8) and there are always a few customers, even quite early in the morning. Beer-drinking is a traditional pastime in the area, but husbands' expenditure on alcohol is a major source of conjugal tension in some households and much of the violence in the village is linked to drinking.



Figure 2.8: Ernest M.'s bar near the Singye bridge

2.4 Point 4: Passing the schools



Figure 2.9: A classroom in the primary school

Climbing gently, the road passes a track that branches off on the right towards the village's two schools; a dilapidated primary school (Figure 2.9) and the spanking new sub-county secondary school (Figure 2.10) built in 2009 with finance from the African Development Bank.



Figure 2.10: The new secondary school

Although the national government adopted a policy of universal primary education in 1997, fees still have to be paid at secondary school level. Even so, this secondary school has opened up new opportunities for the young people of Bubufu. Previously, secondary schooling was only available to the children of better-off parents, who paid for them to attend boarding schools in other parts of the district. Although I have no figures for adult literacy at the village or sub-county levels, according to the sub-county chief only 52.5% of men and 47.4% of women in Manafwa are literate (pers. comm.). She said the national rates are 76 per cent and 61 per cent respectively: according to the United Nations Education, Science and Cultural Organization (2010) the overall literacy rate for adults (defined as over 15 years old) in the period 2000-2007 is 72 per cent. Although having this school in the village means that children no longer have to be boarded out, many parents struggle to pay their sons and daughters' school fees and other educational costs.

The school has also provided jobs for several villagers, while others make money selling snacks or lunches to the pupils. As the only public building of any significance in the sub-county, in 2010 it was used to host official International Women's Day celebrations which were attended by local M.P.s, the District Chairman and several District Councillors. This was seen by villagers as an important event (e.g. interview with Albert N.).

There is a brick-built church on the same piece of level ground, belonging to the Church of Uganda, which many of the church-going villagers attend.

It is official government policy for every parish to have its own health centre, and if there *were* a clinic in the parish, one might expect to find it on the comparatively large area of flat land where the schools and church stand. However, the inhabitants of Bubufu either have to climb up the hill to a clinic about forty minutes' walk away, use a drug shop in Bukawai or make the journey to Bududa General Hospital beyond Bukawai.

2.5 Point 5: The Coffee Growers' Cooperative building

The defunct Coffee Growers' Cooperative building (Figure 2.11) is a few yards beyond the turning for the schools. It is kept locked, although meetings of the National Agricultural Advisory and Development Service are occasionally held on the verandah. Mr B., who used to be the cooperative's secretary, lives in a small house just behind this building. He brought his family down here in 1998 after landslides forced them to abandon their house on the slopes.



Figure 2.11: Villagers outside the Coffee Growers' Cooperative Society building

Mr B. used to be one of the most important people in the area because all of Bubufu's farmers sold their coffee harvest to the cooperative until this national marketing system was dismantled in the 1990s as part of a raft of neo-liberal

economic policies. Nowadays individual farmers take their raw coffee beans to traders in Bukawai and Mbale, or sell them to buyers who go from house to house during the harvest season. Villagers elsewhere in the district told government researchers in 2002 that since the demise of the cooperative system that they had received low prices for their coffee and were exposed to international market fluctuations (Ministry of Finance, Planning and Economic Development, 2002). In 2009 the itinerant traders were paying Bubufu's coffee growers USh2,000 per kilogram, while traders in Mbale paid between USh2,500 and 2,800.⁵ Coffee is the only crop grown exclusively for cash here, and male household heads usually control the proceeds.

2.6 Point 6: A spring



Figure 2.12: Children collecting water at a protected spring

The unmade road, which is dusty in the dry season and dangerously muddy in the rainy season, winds uphill towards the crest of the ridge. For a short distance after the Coffee Growers' Cooperative building, houses and compounds line the feeder road in a pattern of ribbon development. The Gisu live in nuclear families, and it is unusual to find more than two generations living under the same roof (La Fontaine, 1979). The vast majority of houses in the village are built of a greenwood

⁵ During my 2009 visit the exchange rate was approximately USh2,800 to the US\$.

framework and plastered mud; only a handful of houses belonging to the better-off have walls made of permanent materials. Most, however, have a tin roof rather than one of banana leaves, although often in a dilapidated condition. Inside, the furniture comprises at most a few rough chairs and a low table, with a foam mattress or two in a room behind. In some houses a few pages from a Kenyan newspaper are stuck to the walls, a sign that a household member has worked in Kenya. Floors are of beaten earth, and it is common for children to sleep on the floor. Kitchens are low shelters made of traditional materials and situated in a corner of the compound. Many houses, especially on the upper slopes, do not have a latrine, so people use the land around the compound.

These days most villagers use water from protected springs such as the one next to the Singye here, where the ground slopes sharply down to the stream (Figure 2.12). There are usually a few women and children collecting water in jerry cans to carry up the hillside to houses on the far slope. There are two of these water points, which were built with donations from a faith organisation in the American mid-west. Before that, villagers took water straight from the Singye.

2.7 Point 7: A young man's hut

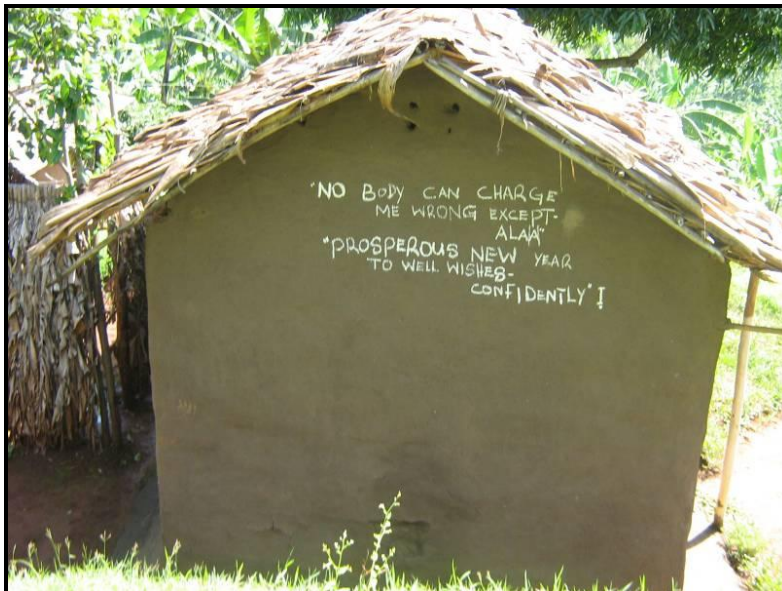


Figure 2.13: A young man's hut

A little further uphill near the road there is a small, newly-built young man's house, situated on the very edge of a compound (Figure 2.13). Traditionally Gisu boys would move out of their parents' house, either building themselves a hut like this one in their father's compound or going to live with a friend until they married and set up their own households. According to Heald (1998:31) this would happen when boys were eight or nine years old, but La Fontaine (1959:24) names puberty as the time for this transition. Daughters, too, would move out once they reached puberty, usually to stay in a married male relative's house.

This particular house has a New Year's greeting painted on the wall, together with the declaration; 'Nobody can charge me wrong except Alaa'. Muslims are a small minority in the village. However this inscription is interesting not because of the reference to Allah but because its defiant tone testifies to what Heald calls 'the aggressive or violent individualism' (1998:3) of Gisu culture. According to Purvis (1909), in Bugisu 'every man, woman and child claims to be independent' (1909:336), and this theme of Gisu individualism runs through succeeding chapters.

The population density decreases markedly as one moves uphill, and as the houses thin out this is a good place to take a closer look at agriculture in the village, especially as narrow footpaths strike out across the food gardens in all directions. The climate is bimodal, with the first rainy season lasting from March to June and the second shorter one from September to November. The high average rainfall of 1,500 mm per annum (Community-based Services Department and District Planning Unit, Manafwa, 2007) is very conducive to farming. The village falls into what Ellis and Bahiigwa (2003:1000) describe as a 'higher altitude land-scarce intensive coffee-banana system' of agriculture. The main food crops are plantains and beans (Figure 2.14), although banana wilt has killed many plantain trees here as well as elsewhere in Uganda. Irish and sweet potatoes, rice, soybeans, millet, wheat and vegetables such as cabbages, tomatoes and spinach are also grown. There are mango and avocado trees near the houses, and eucalyptus wood-lots on steep slopes and along water-courses. Although maize flour or *posho* is the main staple alongside plantain, the landholdings are too small to grow maize except in very small quantities for roasting, so it has to be bought.

There are no livestock to be seen grazing, again because of the shortage of land. Cows, pigs and even goats are kept stalled: where the path skirts a compound one may see or smell a stalled cow or pig. Even hens are kept tethered during the growing season, to prevent them from eating seedlings and triggering disputes with neighbours. A cow is seen as a benchmark of a thriving household, but less than half of Bubufu households own one. This is not unusual in the area; according to a survey in 2001, 63 per cent of households in three nearby villages owned no cattle (Ellis and Bahiigwa, 2003). People who cannot afford to buy a cow may rear one for someone else and keep a calf as payment.



Figure 2.14: Garden with plantains and bean seedlings, house behind

Back on the road and continuing uphill, a few more minutes' walk bring one to a rudimentary structure built of traditional materials, the Roman Catholic church. This and the Church of Uganda building by the schools are the only two churches in Bubufu.

2.8 Point 8: A lineage elder's house

Beyond the Roman Catholic church stands an isolated house built of permanent materials on a levelled plot cut into the side of the road, with the land falling away steeply behind it towards the Singye (Figure 2.15). Excavating the slopes sometimes triggers landslides, so this is an example of how human activity creates

environmental risk in the area. The house belongs to Mr S., leader of the largest lineage in the village.⁶



Figure 2.15: Lineage elder's house with Orange mobile phone mast behind

Traditionally, clans occupied separate ridges and were divided by streams (La Fontaine, 1979:102). Local government organisation started out as a systematisation of the Gisu clan and lineage structure (1979:106), with each village corresponding to what La Fontaine calls a minimal lineage, consisting of between thirty and fifty adult men and their households. While the identification between lineages and territory is weaker than it used to be, sub-counties, parishes and LC1s still have clan and lineage names. Land here is held under customary tenure and has traditionally been held by individuals rather than communally. While land is mainly in men's hands, about 15-20 per cent of women in this region also own some land (Tripp, 2004:14). The lineage elders are the ultimate guardians of the land; they are called upon to resolve land disputes among kin and are supposed to be consulted before land is sold to someone outside the lineage. Lineage elders are also responsible for maintaining the tradition of male circumcision which makes the Gisu unusual in Uganda. In the front room of his house Mr. S. keeps a carved stick and a goatskin studded with shells, the emblems of his role as overseer of the biennial circumcision ceremonies.

⁶ According to La Fontaine, while sub-counties corresponded to the territory of a clan, the villages within them corresponded to maximal lineages, and a single village might have several minimal lineages within its boundaries (1979).

As well as being a lineage head Mr S. is one of the richest men in the village. According to other villagers he owns about fourteen acres of land as well as several lock-up shops in the parish trading centre on the main road. Behind Mr S.'s house there is a good view of the ridge, which is topped by the Orange mobile phone mast that was still under construction in 2009. The only motor vehicle I ever saw using the feeder road was a smart Mitsubishi Pajero with the Orange logo emblazoned on its side, grinding up the hill. It contained the only other white person I ever saw in the vicinity too, presumably an engineer. In Bubufu only the sub-county Vice Chairman had a mobile phone. However, some of the men working outside the village use them to pass messages to their families via intermediaries at the trading centre.

From here it is easy to see how the land is cultivated on the steep slopes, in some places up to the very crest of the ridge. Trees have been planted too. Local government officials promote tree-planting on the slopes and villagers appreciate the opportunity to earn cash from avocado or mango trees. The demand-induced aspect of land scarcity is not confined to this part of Uganda, nor is it a recent phenomenon. In many parts of Uganda, lack of land and declining soil fertility are seen as major livelihood constraints (Ministry of Finance, Planning and Economic Development, 2000). As long ago as 1909, the first missionary in Bugisu wrote that 'almost every foot of land seems to be under cultivation' (Purvis, 1909), while La Fontaine comments that land pressure was first identified as a problem in the region in the 1930s and 'has become increasingly severe since then' (1959:103). The shortage of land is recognised as a serious crisis in Bugisu and as a threat to the traditional way of life (Jenkins *et al*, 2010). One problem is that the traditional rotation system, whereby gardens were left fallow after a growing season, has not been practised for many years, and this is contributing to the declining soil fertility.

Land scarcity mainly arises from the combination of rapid population growth and the traditional partible inheritance system. There appear to be no figures for district-level annual population growth; a recent report simply uses the estimated national rate (Community Based Services Department and District Planning Unit Manafwa District, 2007). The current annual population growth rate for Uganda as a whole is 3.2 per cent, one of the highest in the world (United Nations Department of

Economic and Social Affairs, Population Division, 2011a). The gazetting of Mount Elgon National Park in 1992, which was accompanied by the clearing of settlements within the park boundaries, is also said to have exacerbated the problem by pushing many people down from the mountain itself into the surrounding foothills. While the government has made efforts to relocate people from the overcrowded hills onto the plains of Sironko to the north, many are unwilling to quit the fertile soil and high rainfall that are so conducive to agriculture (Nalugo and Naturinda, 2010). A survey of three nearby villages found that 61 per cent of households had less than a hectare of land and 34 per cent had less than half a hectare (Ellis and Bahiigwa, 2003).

2.9 Point 9: Viewpoint for the landslide zone

A closer look at the hillside behind Mr S’s house reveals a long scarp (Figure 2.16) which marks a landslide that killed an entire family during the night of 17th November 1997 during that year’s disastrous rains. Close by, on the other side of the road, deep gullies scar the slopes marking rainwater channels. Soil erosion is a massive problem for farmers here, as in many parts of Uganda.



Figure 2.16: Site of the 1997 landslide from behind Mr S. 's house

From this point another fifteen minutes’ strenuous uphill walking takes one to the top boundary of the upper village, where Bubufu ends and the next village begins (Figure 2.17). Looking back from here there is a good view of Bubufu and the

Manafwa valley; the landslide zone is to the right, out of view. Tin roofs glint in the sun, making the dispersed settlement pattern very clear. While there are no houses along the road between here and the LC1's upper boundary there are still a few dotted about the hillside, despite the landslide problem.



Figure 2.17: Looking back over the village from above Mr S's house

The walk from the trading centre has taken about fifty minutes, but it will take considerably less time to return, due to the gradient. Some of the threats and underlying problems that confront the inhabitants of Bubufu, such as environmental degradation, have been clear to see. Other threats are less obvious and are best understood by talking to the villagers themselves. This, then, is my study location. In the next chapter, I explain the methodology of my study.

Chapter 3: Methodology

3.1 Introduction

In this chapter I introduce my research approach and methods. I begin with an overview of the study design then I outline my epistemological position, set out my subsidiary research questions, go into detail about the methods I used and explain why I used them. I also explain the practicalities of the fieldwork and some modifications that I made to my methods.

3.2 Overview

Broadly speaking, my study falls into the category of interpretive social science (Malone and Rayner, 2001). I am interested in individuals' perceptions of the threats in their lives, what they do about them and the underlying reasons for their perceptions and responses. The design is a hybrid of cross-sectional research and a case study. The location is a paradigmatic, perhaps rather extreme, 'case' (Flyvbjerg, 2001) of a poor rural African community whose members rely on subsistence farming for a large part of their livelihoods and are exposed to the impacts of climate variability and extremes as well as other shocks, stresses and risks, including the effects of environmental degradation. Insights from the study may be applicable to other locations with these characteristics. On the other hand, my interest is primarily in individuals and their relations with one another, so that the village is the context for my study rather than its object (Bryman, 2008). The real core of my study is the cross-sectional research whereby I collected data from interviewees over a single time period, ensuring that people in different structural positions were included and looking for differences in perspectives and experiences. I decided to use qualitative methods that would allow individuals to discuss what threats they themselves see as important, rather than presenting participants with preconceived lists in the form of questionnaires (Gustafson, 1998). Collecting

qualitative data also meant that I could explore underlying explanations for the phenomena I was studying (O’Laughlin, 2007), including social relations. As I indicated in Chapter 1, I also wanted to see how useful ‘human security’ is as a framework for research on the sociocultural dimensions of climate change.

3.3 Epistemological issues

The epistemic basis for my study is individual subjectivities and the only way I could hope to access individual perspectives, experiences and meanings is through what people said. According to Tadjbakhsh and Chenoy (2007:106, human security is about ‘the feelings of insecurity that individuals express’. However, as part of the interpretation stage I also used secondary data concerning the historical, ethnographic, economic, political and social context; data that interviewees could not or did not articulate themselves. I adopted a critical realist standpoint. My premise is that objective realities exist and can be accessed, but they are doubly mediated by subjects’ articulations and by researchers, who interpret accounts from their own perspectives (Blumenfeld-Jones, 2009). In other words, my evidence is a co-production (Polkinghorne, 2009).

The researcher’s social identity starts to influence a study right from the moment the research questions are developed (Harding, 1987). In my case, a longstanding personal interest in climate change initially directed me to the topic. I have worked as a ‘social development’ adviser for several years and this propelled me towards the social aspects of climate change, while my training as a gender and development specialist meant that I was committed to exploring its gender dimensions. Conscious of being a conspicuous white outsider, I tried to be alert to the way my presence was affecting the study and in the empirical chapters I allude to some of the ways it might have shaped the data I collected. Generally speaking, during some interviews and discussions I got the sense that individuals were consciously presenting a certain image directed towards me as a type of ‘performance’ (Goffmann, 1969). I attempted to treat such performances as integral elements of my data.

3.4 Research questions

In order to answer my main research question I devised a set of subsidiary questions. The core subsidiary questions are listed in Table 3.1, matched to their data collection methods. I also needed to investigate the social, economic and cultural context in order to facilitate the analysis. Further research questions concerning the study context are listed in Appendix 2.

Overall research question: How important are climate threats (and by analogy, climate change) to human security in a rural African context of multiple risks, shocks and stresses and what do the socio-cultural aspects of current threats and responses imply for climate adaptive capacity?		
Subsidiary research questions	What information do I need?	How can I obtain the information?
What threats to themselves, their households and the community are individuals in different structural positions aware of and what priority do people give to climate variability and extremes?	Risks, stresses and problems that individuals are aware of and prioritise Relative prominence given to impacts of climate variability and extremes Variations in perspective shaped by social relations and cultural norms and values	Semi-structured interviews (SSIs) and group discussions with individuals
How do sociocultural factors influence individuals' response to threats?	Responses to climate and non-climate threats at individual, household and community level Social variation in choice of responses Influence of cultural norms and governance institutions/actors on responses to climate-related and other types of threats	SSIs and group discussions Observation Key informant interviews Secondary literature
What are the social and cultural outcomes of villagers' responses to threats and how do they differ?	Short-term distribution of costs and benefits of coping and adaptation. Longer-term changes to micro-level social relations and cultural norms	SSIs and group discussions with men and women from range of sampling categories Observation Key informant interviews Ethnographic literature Other secondary literature

Table 3.1: Core research questions matched to methods

My research methods traced a definite trajectory during the course of the fieldwork, in that although I began by relying on specifically selected and designed research instruments during the individual interviews, after the pilot interview stage I adopted a more open, less structured and more flexible approach to collecting and analysing

data. Also, as our fieldwork proceeded, the semi-structured interviews began to be complemented by more natural encounters with villagers, usually with people who had already been interviewed. Talking to them informally during these chance meetings turned out to be an excellent source of data and a considerable proportion of my evidence is derived from such fortuitous conversations. Throughout the fieldwork I used observation.

Table 3.2 sets out the distinct phases of my fieldwork and the methods I used during each phase. I then go into some detail about the different phases of the work and the individual methods.

FIELDWORK METHODS						
Study stage	Observation	Key informant interviews	Household enumeration survey	Participatory rural analysis	Semi-structured interviews	Focus groups
Reconnaissance visit	√	√				
Preliminary fieldwork	√	√	√	√ (Participatory wealth ranking)	√ (Piloting)	
Main fieldwork	√	√		√	√	√
Follow-up visit	√				√	

Table 3.2: Fieldwork methods in each phase

Reconnaissance visit

I first visited the Mount Elgon region in October-November 2008, when I spent three weeks identifying a suitable location. Before leaving the UK I read relevant literature on Uganda and in particular Bugisu, the south-eastern region of the country that is inhabited by the Gisu people. During the visit I had several meetings with local government officials and elected officers in Bududa and Manafwa Districts and had a chance to see the topography of the area, seasonal agricultural activities and other livelihood activities.

By prior arrangement I also met Joshua Balungira, who had been recommended to me as a potential research assistant by a faculty member of the School of International Development at the University of East Anglia. A Gisu man and a resident of Mbale, Mr. Balungira had a social sciences degree from Makerere University in Kampala and had worked as a research assistant for various British and European academics. People with this level of qualification and experience are few and far between in Bugisu, so I quickly arranged to hire him as my senior assistant

for the duration of the fieldwork. He made a very significant contribution to the study, for instance undertaking a follow-up visit in 2010 as I explain below, and showed professionalism as well as a genuine interest.

After travelling around both districts and talking to a large number of people, I decided to choose Bubufu as my location. I have already explained that it represents a paradigmatic case of communities in Africa that are poor, dependent on natural resources and exposed to multiple risks, shocks and stresses. It is also fairly typical in other ways. It is neither particularly remote nor close to a major town, and it is not as badly exposed to landslides as some villages in the area, where I thought people might be completely preoccupied with that particular source of risk. My choice was confirmed by the welcoming attitude of local government officials and the village chairmen.

Preliminary fieldwork

I returned to Uganda in January 2009. This phase included recruiting and training junior research assistants to carry out the household enumeration survey and translate for me during my own interviews with women in the village. Local government officials spread the word that temporary work was available for local people with a specific educational standard. Several people applied by letter, and the final selection of three extra assistants was made by interview. Two 'fixers' from the village were also recruited by word of mouth; it was their job to contact villagers chosen for interview and arrange a convenient time and place with them.

After a two half-days of training in a local venue we began the household enumeration survey, initially with Mr. Balungira and me accompanying the other assistants. For more information on training the fieldwork team see Appendix 3. Semi-structured interview instruments and topics were then piloted with ten individuals. Several key informant interviews were also carried out at this time with local government officials and village elders, and a participatory wealth-ranking exercise was conducted. Appendix 3 contains details of the methods used in the preliminary and main fieldwork phases.

Main fieldwork

The remaining semi-structured interviews and key informant interviews, focus group discussions and participatory rural analysis (PRA) discussions were all carried out between the start of March and the end of June 2009. Appendix 4 contains the semi-structured interview guide. Interviews were nondirectional in that they did not steer people towards talking about climatic threats despite my particular interest in this topic.

The semi-structured interviews varied greatly in the amount and quality of evidence they produced. The relatively large number of interviewees (58 individuals, some of whom were interviewed twice) was vital to achieve data saturation, the point beyond which no new topics or themes emerge (Bryman, 2008:462). They also provided a matrix of data against which the validity of insights from the most productive, detailed and interesting interviews could be appraised during the analysis (see below).

Follow-up visit

In 2010, after I had returned to the UK, I commissioned Mr. Balungira to return to Bubufu to conduct some follow-up interviews, instructing him by email on the topics to pursue. Although a follow-up visit had been planned for some time, a landslide that killed over 300 people a few miles away at the beginning of March injected urgency; Mr. Balungira made his visit to Bubufu a few days later. The aims were, first, to find out how the village had been affected by the heavy unseasonal rains that, according to the media, were causing havoc in the Mount Elgon area at the time. More specifically, I also wanted to find out what had happened to some of the individuals we had interviewed in 2009. Had the worries they articulated in 2009 been realised in the intervening months? If so, how had they dealt with them? This visit produced very useful data. As well as revisiting individuals who had been interviewed already, Mr. Balungira also spoke to people whose houses were at risk from landslides but who had not been in our original sample.

Analysing transcripts and notes

Once all the recordings were transcribed and the notes typed up, back in the UK I used NVIVO8 to organise the data and code it according to emerging themes. As social differentiation is an important theme running through my study, I looked for patterns and variations of perspective associated with my sampling categories; gender, wealth rank, household headship and life-stage. A common criticism of qualitative research is that it allows ‘verificationism’, the tendency of researchers to look for evidence that supports their preconceived ideas and to ignore any evidence that undermines them. As I developed interpretations I tried to avoid this trap by deliberately looking for counterexamples in the data.

Sampling

I treated two Local Council 1 areas (LC1s) as a single sampling frame because neither was large enough to serve as a sampling frame in itself. Until a few years ago they had comprised a single administrative unit. Administrative boundaries in this area are frequently changed in response to rapid population growth and the need to legitimise claims to government resources; two LC1s are eligible for more government funding than a single LC1. Most villagers I asked did not know where the boundary between the two LC1s ran, and shortly after my fieldwork they were further sub-divided anyway, so I am confident that conflating the two LC1s made no difference to the evidence I gathered. I defined a household as a group of people who ate together. Before they marry, young men commonly live in separate huts in their father’s compound but eat with their parents; I counted such young men as members of their father’s household.

My sampling strategy was purposive and ‘theoretical’, in the sense that it was driven by my hypotheses about what criteria would be likely to differentiate perspectives and experiences within this small community (Gomm, 2008). First, I wanted to interview roughly equal numbers of men and women in order to avoid gender blindness. I also needed to talk to men and women in a range of structural positions, defined as ‘the perceived set of possible interactions with other actors and the perceived likely outcomes of these interactions’ (Homer-Dixon, 1999:137). The ethnographic, African risk perception and gender and development literatures

suggest that gender, wealth rank, household headship and life-stage/marital status would all be significant.

Each household in the village was assigned to one of three wealth ranks through a participatory wealth-ranking exercise (Appendix 3). Working in three villages near my own study location, Dolan (2004:647) found that 20 per cent of all sample households were female-headed, so clearly this was an important category to include in my sample. Female household heads have to be distinguished between *de facto* and *de jure* female household heads. I decided to interview female household heads from households assigned to all three wealth ranks: however, in practice all the village widows fell into the lowest wealth rank, which reflects the custom of stripping a wife of land and household assets after her husband dies, and only one of the *de facto* female household heads belonged to a household in the highest wealth rank.

I also included in the sample young unmarried men and women aged 18 or over: these young people are poised to pass into adulthood and start their own households so they might be expected to have specific perspectives. Previously-married men now living alone were also included in a separate sample segment. According to the ethnographic literature (La Fontaine, 1959; Heald, 1998), Gisu inheritance traditions have the effect of creating impoverished men at both ends of adult life, and Gisu men living alone, whether widowers, divorced or never married, often experience specific vulnerabilities. It was important, then, to interview a sample of the men who fell into this group and take into account the reasons that they were living alone.

Based on these criteria, I created 15 sample segments, trying to get roughly equal numbers of interviewees in each segment (Appendix 5). The sampling was done by populating the segments with named individuals based on information from the household survey and selecting interviewees from those names. It was not entirely random, because I tried to interview spouses and children over 18 from the same households with a view to highlighting intrahousehold differences. In the event, that was seldom possible and the 58 people interviewed individually were drawn from 40 separate households. As well as being interviewed in 2009, a good number of these people were also interviewed in 2010 depending on their availability at the time of Mr. Balungira's follow-up visit.

Appendix 6 lists the people who were interviewed individually about threats and responses, using the pseudonyms I assigned to them to protect their anonymity. It also shows where interviewees belonged to the same household. In the event, in some categories we interviewed more people than we had originally intended, for reasons I explain below.

Participants of the group discussions were segregated by gender because I anticipated that it would be a key differentiating factor in threat perceptions and responses. One group consisted mainly of married women and the other of married men. In both cases there was a mix of all three wealth ranks to try to access differences in perspective along wealth lines; see Appendix 3 for more information about the participants.

3.6 Fieldwork challenges and adjustments

In this section I discuss some of the challenges that arose during the fieldwork and the changes I made to my methods in the course of it. Some of these issues were very informative in relation to my investigation.

Identifying and defining households

It was sometimes not easy to decide which category of household an interviewee belonged to. For one thing, during the household enumeration survey married women always gave their husband's name as the household head, even in cases where the man had not visited the village for many years. This caused some initial sampling errors because often such households were registered as male-headed. On the other hand, these mistakes were instructive regarding the position of *de facto* female household heads: even if their husbands have to all intents and purposes vanished from the scene, the wives are still regarded as temporary residents on their land.

A second sampling problem arose from rapid changes in household composition. Several researchers have remarked on the dynamism that characterises African households (e.g. Moore, 1994; Reid and Vogel, 2006; Thornton *et al*, 2007). In Bubufu, nuclear households were the norm, but their composition often changed due to circular and longer-term migration, the practice of sending older children to

boarding school, marriage breakups, the fostering of relatives' children and so on. This constant churning of the village population illuminated the precariousness of livelihoods and marriages and drew attention to possible sources of human insecurity. In relation to research methods, it meant that some households that were sampled as female-headed at the start of the fieldwork became male-headed before we could get to them because the husbands had returned from wherever they had been working, whereas others that started as male-headed households became *de facto* female-headed as men left the village to find work. These changes caused over-sampling in two categories: wives with husbands in wealth rank 3 and married men in wealth rank 3. This was because several men in this wealth rank returned to the village after we had identified their wives as *de facto* female household heads; once we had arranged to interview someone it would have been rude to cancel or abandon the interview on realising that the household headship was different to what we had expected.

Interviewing young unmarried women

It was difficult to find young unmarried women who were self-confident and mature enough to talk to me. Young women aged 18 or over from the better-off households were usually at boarding school elsewhere, while their counterparts in poorer households had already married and moved to their husband's village. It was no accident that two of the young women we interviewed were in difficult circumstances because this was the very reason they were still in the village rather than being married or educated elsewhere. One of these young women was blind. Another lived as an unwelcome guest in her grandmother's house and was ostracised as an outsider because she had been brought up in Kenya; she had nowhere else to go. Two other young women refused point blank to be interviewed, despite their mothers' exhortations, one because she was on her way to meet a man. Eventually, by visiting the village during public holidays when the schools were closed, I managed to conduct interviews with six young women. However, two of these were not at all useful, as the young women concerned were very nervous. The high proportion of girls from better-off households who were attending secondary school was an interesting finding, while the determination of the young woman to meet her boyfriend corroborated what several adults told us about young women's agency in

relations with the opposite sex (Chapter 9). In general some of my difficulties in interviewing young women can be interpreted in the light of Ardener's theory of women as a 'muted group' whose interests and status in the community are marginal to the mainstream (Ardener, 1975).

Modifying the semi-structured interview focus

I started my fieldwork with research questions that focussed on risks – damaging occurrences that might happen in the future – rather than current stresses and problems. Interviewees were asked about 'the bad things that could happen' to them as individuals, to members of their household or to the community in general, and what they could do about them. This way of formulating the question was decided by my research assistants, who told me there was no single Lugisu word equivalent to the English word 'risk' and agreed among themselves that 'bad things that could happen' was the closest equivalent. Although I expected some deliberation about the precise translation, in fact this decision was quickly arrived at without much debate. See Appendix 4 for the Lugisu translation.

I planned to use a two-dimensional metric in interviews, asking people to rate both the probability of something occurring and the severity of the impact if it did, on a three-point scale. Before I began, though, I had three concerns. First, I thought that questions about risk might seem remote, hypothetical and difficult to answer. Second, I thought that people might find it difficult to rate risk, particularly using the scale I provided. While many Europeans are familiar with such scales I guessed they would be alien to people in Bubufu. Third, during my preliminary visit I had seen that poverty and livelihood vulnerability were both widespread and acute in the Mount Elgon area. With this in mind, it seemed to me that it would be crass to ask people to engage in such a rating exercise.

Once in the field, my concerns were quickly resolved one way or another. During the pilot semi-structured interview stage it soon became clear that far from being remote and hypothetical, it was all too probable that the risks people talked about would indeed occur because this was a high-risk environment and people's perceptions were rooted in their past experiences. This meant that people tended to talk about stresses and problems that were already affecting them or had affected

them in the past as well as risks. I realised that trying to retain a narrow focus on a hypothetical future was artificial and, given the problems that people were already facing, insensitive too. So I decided to broaden my analytical focus to include current stresses and problems as well as risks. That brought my research into line with other studies of risk in Africa (e.g. Smith *et al*, 2000; Quinn *et al*, 2003) which I have already mentioned in Chapter 1. These early interviews brought home to me the pervasive nature of human insecurity in the village.

Another, associated, change was that I dropped the idea of asking people to rate risks and threats after the pilot interviews. Interviewees tended to rate every risk or stressor they mentioned as both highly probable and very severe in impact, without discriminating. This seemed not unreasonable in view of the high-risk environment, which meant that the rating system was inappropriate analytically as well as from the perspective of sensitivity. In a few cases, too, interviewees seemed to manipulate the rating exercise in order to represent themselves as in need of assistance. Because of these experiences during the pilot stage, in subsequent interviews people were simply asked which of the threats they had mentioned caused them most anxiety.

Time constraints

Although there was a suitable empty house in the village the absentee owners refused to rent it to me. This meant that we had to stay in a guest house in Bubulo and travel to Bubufu and back by 'taxi' each day of the fieldwork, a journey that often took an hour each way inclusive of waiting time. The fieldwork began in the dry season, but the rains came on a few weeks later, making the taxi service unreliable because they tended to stop running in the afternoon once the heavy rain set in. In any case it was difficult to get a seat on a taxi after mid-afternoon on the twice-weekly market days in Bududa district, as vehicles were crowded with traders returning to Mbale with their goods. Because of these transport restrictions the time we could spend in the village each day was often curtailed, and this problem was compounded by the amount of time spent walking between interviews due to the dispersed nature of the settlement and the steep terrain. On many days, Mr Balungira and I could only finish two or three interviews each before we had to start back to Bubulo.

Accuracy of data

During the course of the fieldwork it became clear that many interviewees had given us inaccurate information in the household survey, usually by understating their assets and overstating the number of people living in their household. The survey was conducted when we were new to the village and people did not know what we were doing; many assumed we were forerunners of a 'project' (see below). Clearly, they hoped to gain some material advantage by their inaccuracies. Later, word spread about what we were doing and some degree of trust was developed, so I think the villagers became less likely to deceive us on matters such as these. In about five cases Mr. Balungira or I abandoned interviews because we realised we were being deliberately misled. During the training I encouraged my assistants to use their own judgement to appraise the likely veracity of what people were telling them about their material circumstances and to comment on this in their interview notes. I myself did likewise. I also spent 20 minutes or so at the end of each day's fieldwork discussing the interviews with other team members. It was often easy to cross-check information about assets and household members.

Another tactic for enhancing the accuracy of the interview evidence was to use a 'vignette' of a typical household to depersonalise discussions in the hope that it would encourage frankness, especially regarding sensitive issues. After talking to individuals about the threats they themselves perceived, I showed a picture of a rural couple, their children and their livestock, which I commissioned from a sign-painter in Mbale town (Appendix 7). I asked people to imagine that members of the pictured household were menaced by the same threats as they were; what would they advise them to do? While the vignette did not seem to encourage interviewees to talk about sensitive issues as I had hoped, it served to highlight common preoccupations, attitudes and strategies. On the other hand, data saturation point was soon reached, with interviewee after interviewee making the same observations about the picture. Lastly, using the vignette added to the length of the interviews and some of the interviewees politely complained that we were taking up too much of their time. Taking all this into consideration, I decided to discontinue use of the vignette during the remaining interviews.

Recording, translating and transcribing

Mr. Balungira and I each used a digital voice recorder during interviews, as well as taking hand-written notes as a backup and to record information about settings, body language, impressions and so on. Focus group discussions were also recorded. I did not record the PRA discussions for several reasons. First, the room where these meetings were held was very small and crowded, so there was nowhere a recorder could be safely placed. Secondly, participants were moving around writing and drawing on sheets of paper, which did not lend itself to recording.

Getting the interviews and discussions accurately translated and transcribed turned out to be one of the biggest challenges of the fieldwork. For one thing it was hard to find individuals with the required English language and typing skills, even in Mbale. After two false starts I eventually succeeded in hiring two transcribers, both of them Mbale residents. They complained that they had difficulty understanding the Bubufu accent and that extraneous noises (in particular, rain drumming on tin roofs during individual interviews) made it hard for them to hear what was being said. Translating and transcribing is very time consuming and there was quite a long delay between finishing the last interviews and obtaining the first transcriptions. Unfortunately, when the transcriptions began to arrive I found that in some cases they fell far short of my memories and notes. I asked Mr. Balungira to do a random check of ten per cent of the transcriptions. He reported many cases of inaccurate translation, as well as perfunctory summarising rather than the comprehensive verbatim translations I had commissioned. Many of the transcriptions had to be redone, and I decided to retain only one of the transcribers, with Mr. Balungira checking all her transcriptions.

Low interpersonal trust as a barrier to effectiveness

During the fieldwork I sometimes experienced at firsthand how endemic mistrust increases transaction costs and is a drag on effectiveness, alerting me to some of the problems I discuss in Chapter 10. For example, not being paid for work done is a perennial problem in the area. One woman, who mistakenly thought she would be paid for her transcription work day by day, destroyed the transcriptions she had worked on when I failed to return from the village in time to pay her at the end of the

afternoon. A simple transaction like hiring a vehicle to take my team up to the village one day turned out to be fraught with dishonesty and deceit, with the result that our arrival in the village was delayed by several hours. Although minor, such incidents were frustrating and wasted time.

3.7 Ethical considerations

The main ethical exigencies were the need for confidentiality, including among household members; the avoidance of pressure or coercion when asking respondents to cooperate; ensuring that respondents were not inconvenienced; avoiding researcher bias; and lastly making sure that respondents benefitted in some way from the study. I also had to damp down expectations of ‘project’-style support, which unfortunately I could not meet. I will explain how I addressed each of these issues in turn.

First, I ensured confidentiality during the fieldwork by instructing my assistants never to discuss what named individuals told us with anyone else in the village and by sticking to this rule myself. In this document I have ensured confidentiality by anonymising my findings and the names of the settlements concerned.

With regard to consent and convenience, we asked individuals a day or so in advance whether they would agree to talk to us, and if so, when would be convenient. Occasionally we happened to bump into individuals in our sample segments who were willing to talk to us then and there, so advance notice was not required. At the start of each interview a short statement in Lugisu was read out explaining that we were gathering information as part of a university study and that we were not associated with a non-governmental organisation. We then asked the individual if s/he was happy for us to proceed. Many of the villagers cannot read or write, so their verbal agreement was considered sufficient.⁷ No-one refused to be interviewed at this point, although some villagers refused the initial invitation and two or three turned out to be uncooperative despite having given their assent.

⁷ I took advice on this from the UEA’s School of International Development’s research ethics adviser.

As a researcher I embody a certain positionality and perspective (Harding, 1987; Blumenfeld-Jones, 2009), as the few lines I gave about myself earlier indicate. However, I tried to avoid researcher bias by constantly reflecting on my own reactions to interviews and transcripts and recording them in a journal.

Regarding the participants' expectations, I was warned by a faculty member who had carried out his own PhD study in Uganda that villagers would assume I was 'bringing a project', and other researchers have commented on the same issue (e.g. Quinn *et al*, 2003:114). I tried to deal with this possibility by explaining to local government officials and the village chairmen that I was a researcher and not connected with an NGO, in the hope that they would pass this information on to villagers. We also explained this at the beginning of each interview or discussion, stressing that my objective was simply to gather information and that I was not associated with any organisation. While I cannot be sure how successful these disclaimers were, very few people attempted to extract any immediate material benefit from me, which I am inclined to think was because the message was, in fact, received. This is not to say that villagers did not expect something in return for their assistance, which seemed entirely reasonable. Interviewees and discussion participants were compensated for their time with small gifts of sugar or soap, although these were not used in advance as an inducement. At the end of the fieldwork a small gift was also made to every household in the village, to thank the community for its cooperation. I did not offer incentives to the village chairmen or local government officials, but at the request of one of the village chairmen I am writing up my study in the form of an accessible report that the LC1 Chairmen can use as they see fit.

In the next chapter I begin my analysis of perceived human security threats.

Chapter 4: Destructive rainfall: impacts, coping and adaptation

4.1 Introduction

In this chapter I investigate the impacts of current climate variability and extremes on farming in a context where there are many other agricultural constraints, thus addressing the first part of my main research question. I also discuss coping and adaptation strategies, drawing attention to some of the socio-cultural dynamics that influence them, in this way addressing the second part. The chapter is structured as follows: after a brief overview of the full range of climate threats that cause villagers concern (section 4.2), I concentrate on crop loss and soil erosion, both of which are linked to destructive rainfall (section 4.3). In sections 4.4 to 4.6 I discuss coping and adaptive strategies, arguing that access to these is socially differentiated and influenced by Gisu ideology. I also discuss the extent to which agricultural adaptation to destructive rainfall impacts is supported by government services. I conclude the chapter in section 4.7. The evidence cited here was collected at individual interviews held in 2009 and 2010 and to a lesser extent at group discussions using PRA techniques in 2009.

4.2 Weather shocks and stresses as threats to human security

From now on in the chapter I use the term ‘weather shocks and stresses’ rather than ‘climate variability and extremes’, because in general people spoke about day-to-day weather impacts rather than variability over a longer time-scale. My evidence strongly indicates that weather shocks and stresses have highly damaging impacts on people’s lives in the study location, in large part because they jeopardise food security. During non-directional interviews, roughly 75 per cent of adult men and 50 per cent of adult women brought up the impacts of weather shocks and stresses, including landslides, as a threat to themselves, their household or the community as a whole.

Weather shocks and stresses	Impacts that cause concern
Destructive rainfall (includes both intense rainfall and periods of prolonged rainfall)	<p><i>Crops</i> Damage to foliage, flowers and fruits affecting food crops and coffee Food crops washed away Sweet potato mounds damaged</p> <p><i>Land/soil</i> Mini-landslides make land uncultivable Land next to river and streams flooded, cut off or washed away Land next to feeder road suffers from runoff Gully erosion on steep slopes</p> <p><i>Property</i> Houses on steep slopes threatened by landslides Flooding of houses Pit latrines overflow, causing health hazards Livestock injured or killed by landslides</p> <p><i>People</i> Risk to life and limb from landslides Food insecurity due to poor harvests Short-term hunger due to physical inability to harvest food during periods of intense rainfall Risk of drowning in swollen and flooded rivers (especially children and drunks) Risk of water-borne diseases Risk of injury from slipping in mud Risk of traffic accidents due to slippery roads</p>
Hailstorms	<p><i>Crops</i> Damage to crop foliage, coffee flowers and berries</p> <p><i>Property</i> Hens killed by hail</p>
Storms with high winds	<p><i>Crops</i> Plantains and fruit trees damaged or uprooted</p> <p><i>Property</i> Damage to house, e.g. roofs blown away and damage from falling trees Livestock injured or killed</p>
Delayed rains and dry spells during growing seasons	Loss of seeds and the cost of resowing Crop loss and reduced harvests

Table 4.1: Impacts of weather shocks and stresses that cause concern

Table 4.1 contains a list of weather shocks and stresses and the outcomes that interviewees said caused them concern. A few complained that the start of the long-season rains was less predictable than it used to be, and about dry spells during the

long growing season. However these were a small minority. With respect to the problem of late rains, some people pointed out that it was an easy matter to wait until the rains set in before sowing, in order to protect against crop losses. Destructive hail (which I witnessed myself on one occasion) and windstorms were also mentioned as causes of damage, and people talked about a range of weather shocks that affect people and property as well as impacts on crops (Table 4). Overwhelmingly, it was destructive rainfall that people said they worried about, which is consistent with reports from other highland areas in Uganda (Republic of Uganda, 2007). In this chapter I concentrate on crop loss and soil erosion. I discuss landslides, which are also associated with rainfall, in Chapter 5.

4.3 Destructive rainfall impacts: crop loss and soil erosion

The loss of standing crops, especially food crops, due to severe runoff or flooding is generally seen as a very significant problem. Villagers talked in their interviews about the sheer destructiveness of heavy rainfall and the consequent food insecurity in a context of multiple constraints to agricultural productivity:

Dorcas K: extract from interview transcript

For beans [heavy rain] removes all its leaves, cassava it uproots, then the potatoes it covers with more soil that is washed down, and then it breaks *matoke*, mangoes, and pawpaw. This is all calamity of hunger.

John M: summary from interview notes

Rain and hunger is what he worries about most because he spends money buying the seeds, and sometimes he just borrows the seeds, and just when they are starting to grow the rain comes and destroys them. Sometimes even when someone wants to help you with some seeds he hesitates because he knows that even if you plant them they might be destroyed by the rain. Getting seeds is very difficult.

I return to the lack of agricultural inputs that John alludes to later in the chapter. In the PRA sessions only men in the lowest wealth rank prioritised crop loss due to

destructive rainfall as a threat, although all groups identified food insecurity and poverty, to which destructive rainfall contributes, as priority issues. I am not sure how to interpret this, given the consensus from the individual interviews that destructive rainfall is a highly significant threat. One explanation may be that the participants tended to see the PRA sessions as vehicles for communicating 'project'-type needs rather than for considering underlying problems. Also, men in the higher wealth ranks, who in contrast to men in the lower wealth ranks did not prioritise crop loss due to rainfall, are less reliant on farming for their livelihoods than men in the lowest wealth rank and have enough land to be able to spread the risks of weather damage; this could explain their different priorities relative to poorer men.

In order to get a clearer idea of the agricultural damage inflicted by weather shocks and stresses, in March 2010 I asked Mr. Balungira to re-interview some of the individuals we had spoken to the previous year. The aim was to supplement what they had said in 2009 with their reports of their farming experiences during the year that followed. Mr. Balungira talked to 23 farmers (15 men and 8 women), all of whom had been interviewed during the original fieldwork period; in 2010 they were informally selected from that original sample on the basis of their availability for interview. The relevant information is contained in Table 4.2. These data are not necessarily representative of 2009 farming outcomes in the village, but they do indicate that the loss of food crops to destructive rainfall was widespread among this group of farmers that year. All except one reported crop loss due to some type of weather shock or stress, mainly heavy rain, and only four reported losses due to dry spells, confirming that destructive rainfall is by far the more significant threat to farming. Table 4.2 also contains data on agricultural coping techniques, which I discuss later in the chapter. See Appendix 8 for comments on the information contained in the table.

	Name	No. of plots & estimated acreage	Loss of food crops (rainfall)	Loss of food crops (delayed rains or dry spell)	Reduced coffee harvest (due to rainfall)	Coping and adaptation measures
1	Rachel N.	4 plots, 4 acres	√	√		Trenches
2	Elizabeth N.	1 plot, 1 acre		√		Runoff pits
3	Paul M.	1 plot, 0.5 acre	√			No information
4	James L.	3 plots, 3 acres	√		√	Trenches
5	George M.	1 plot, 1.5 acres	√		√	Has planted trees in places affected by runoff. Has trenches, but they are ineffective due to intensity of rain
6	Fred W.	1 plot, 2.5 acres	√			Runoff pits and trenches. Pits filled up with soil and so did not prevent damage entirely
7	John M.	1 'very small' plot	√			None, but plans to plant elephant grass around boundary
8	Conrad B.	2 plots, 2.25 acres	√			None; his land is prone to flooding and 'there is nothing I can do about it'
9	Ezra K.	3 plots, 3 acres	√			Uses trenches and elephant grass, but says they are ineffectual during intense rainfall. Thinking of planting eucalyptus instead
10	Patrick N.	3 plots, 1.25 acres		√		None
11	Gertrude N.	2 plots, 3 acres				Did not dig trenches; says people only dig trenches in years of especially high rainfall
12	Ida N.	1 plot, 0.5 acre	√			Runoff pits
13	Nyree M.	2 plots, 0.75 acre	√			Runoff pits and trenches, but still lost crops due to high rainfall
14	Gregory N.	3 plots, 4 acres			√	Runoff pits, trenches and elephant grass. Has planted trees on land next to stream
15	Sandra N.	4 plots, 1.25 acres	√			None. Her land is susceptible to flooding and 'there is nothing you can do about it'
16	Wilfred T	2 plots, 1.5 acres	√			Trenches, but ineffective due to intensity of rain
17	Julia N.	4 plots (No information on acreage)	√			Trenches ineffective because they were badly-made
18	Emmanuel W.	2 plots, 1.5	√			Trenches and runoff pits, but ineffectual
19	Benjamin J.	1 plot, <0.5 acre	√			No information
20	Geoffrey M	3 plots	√			Runoff pits
21	Harold B.	2 plots, 1.5 acres	√			Trenches – has found them very effective
22	Samson N.	8 plots, 8 acres	√			Drainage channels limited crop loss
23	Catherine N.	1 plot, 1 acre		√		None, but plans to terrace for second 2010 season following heavy rain in first season.

Table 4.2: Reported agricultural losses from rainfall and delayed rains/dry spells and coping measures taken (2009)

The small size and number of landholdings (several farmers in the table only own one plot) heightens vulnerability to destructive rainfall, because having only a single plot means that there is no possibility of spreading the weather risk among different gardens, which can be a useful tactic in an area of spatial variation such as Bubufu with its mix of steep hillsides, gentle slopes and riverbanks. Two farmers figuring in the table have particularly interesting stories in this regard. John M. (no. 7) said he lost an entire season's bean crop when his one 'very small' garden next to the Singye was flooded. Years before, his garden in the upper village had been destroyed by a landslide (Chapter 5) and he had been forced to sell a third plot to pay for medical treatment (Chapter 6). Benjamin J. (no. 19) said that crops in his only garden, which was a mere half an acre, suffered from runoff from the feeder road that runs alongside it. The problem became worse when the road was widened in 2009 without any compensation for the encroachment or the increased losses from runoff. Benjamin was not the only village resident who suffered from the road-widening project, and this is not the only instance I shall cite of government initiatives and actors harming individual human security. These two men were caught at the intersection of different types of shock, the impact of one shock rendering them more vulnerable to others.

While farmers with only one plot are highly vulnerable to the impact of heavy rain, farming several scattered plots does not entirely eliminate weather risk. This is because the diverse impacts of destructive rainfall may offset the benefits of spatial variation. For instance, James L. (no. 4 in the table) and Julia N. (no. 17) said they had lost crops both to runoff in hillside gardens and to floods in valley gardens. Julia N. and her husband (wealth rank 2) had rented steeply-sloping land which they knew was vulnerable to runoff because there was no other land available and they wanted to grow more food. This is one way that land scarcity heightens exposure to weather risks. However, not all farmers are prepared to farm such high-risk land, perhaps because they are less able to afford to waste inputs. For instance Ezra K. (no. 9), who was classed as belonging to the lowest wealth rank, sold a food garden in 1999 due to repeated crop losses from runoff.

Whereas crop loss from destructive rainfall is a short-term shock, the problem of soil erosion is more gradual, though no less dramatic.

'We shall be left with sand': Soil erosion



Figure 4.1: The Singye after rain

Figure 4.1 shows the Singye after rainfall, its waters muddied by the silt washed down from hillsides and crumbling riverbanks. Soil erosion did not come up as often as crop loss or landslides in individual interviews, and in the group discussions it was never mentioned except as a contributor to poor harvests, hunger and poverty by men in wealth rank 3. This may reflect the question we put to people, which invited them to focus on risks rather than current stresses or ongoing problems. Soil erosion is not a 'bad thing that might happen', as the question was put to them, but a serious ongoing problem.

Elijah N: extract from interview transcript

When it rains heavily...it will also wash away topsoil and we shall remain with sand...In the end, nothing that one plants will grow, because the rain will have destroyed the soil and all the crops will die. Hence people will be perpetually poor, and whatever they plant they will be wasting their time.

Data from one season (e.g. as in Table 4.2) cannot show the effects of soil erosion on soil fertility and agricultural productivity over time. Soil erosion is a factor in supply-induced land scarcity (Homer-Dixon, 1999), because it combines with overcultivation and landslides to reduce long-term soil fertility. It has been identified

as a huge problem in Uganda as a whole (Republic of Uganda, 2007) and as a driver of poverty (Ministry of Finance, Planning and Economic Development, 2000).

Be that as it may, the fact remains that only a handful of people raised soil erosion as an issue during the individual interviews. As well as attributing that in part to the type of questions asked, I suggest that it may also have been linked to gender inequality in the community because all the interviewees who spontaneously mentioned soil erosion were men. Based on her research in another part of Manafwa District, Kagoda (2008) claims that women are not aware of soil erosion as a threat, which she attributes to their low level of education and exclusion from agricultural extension activities. Adult women's literacy rates are lower than men's in my study area (Chapter 3). Also, my discussions with local government officials and a perusal of visual materials displayed in local government offices⁸ suggest that soil erosion features prominently in official discourses, and my own observations concur with Kagoda's findings (2008) that very few women are party to these discourses. These gender inequalities regarding access to information may explain why the issue of soil erosion does not tend to be salient for women, unlike crop losses due to runoff and flooding. Alternatively, rather than being 'unaware' of soil erosion, which implies a cognitive deficit, married women may simply be less concerned than men about the long-term health of the soil. I discuss this possibility in the next section, where I consider the effectiveness of physical coping measures to control runoff and erosion, and how even the simplest coping tactics are not available to all farmers.

4.4 Physical measures to control runoff: limitations and access

The last column of Table 4.2 shows the various physical measures used by 23 farmers in 2009 to deal with runoff and soil erosion, namely trenches, elephant grass, rainwater collection pits and tree-planting. Trenches and pits capture runoff, while elephant grass, which is a large, strongly-rooted plant, has multiple uses. It acts as a physical barrier to prevent soil being washed away and also as animal fodder, a boundary marker and a natural fence. Rainwater collection pits have been introduced

⁸ For instance, a poster in the sub-county office warns villagers against farming on the riverbanks because it hastens erosion.

to the village in the last few years by researchers from the National Agricultural Research Organisation (NARO) and Makerere University, working under the auspices of the Nile Basin Initiative, a multilateral programme funded by Nile Basin nations and international donors. The NARO researchers are experimenting with the pits in selected gardens and demonstrating their value to farmers. I discuss tree planting separately in section 4.5.



Figure 4.2: A rainwater collection pit

Pits (Figure 4.2), trenches and elephant grass are mainly used on slopes. Only elephant grass offers any protection from the effects of flooding near the river, as its roots help to stop soil being washed away. On hillside plots, though, these techniques offer little protection. The data in Table 4.2 show that 7 of the 15 farmers who used pits and trenches in 2009 found them only partially effective. Once full of mud, pits and trenches have to be emptied; otherwise they overflow the next time it rains. A glance at Figure 4.2 suggests that digging them out is a strenuous and even a dangerous task. Moreover, some villagers pointed out that they are potential death-traps for anyone who should happen to fall into them; small children and drunks were seen as especially at risk.

Social variation in coping measures

Some physical coping measures are not equally accessible to all farmers in the village, for various reasons. First, even a simple measure such as digging a drainage trench requires basic tools, which not all villagers possess. Lack of farming inputs was mentioned in several interviews (e.g. interview with Paul M.) and during PRA sessions both the men's groups identified the provision of tools as a priority for government support (Table 4.3). Even where tools are available, the physical labour involved in digging and emptying pits and trenches means that these measures cannot be practised by the elderly and infirm, who must pay someone else to do it for them if they can afford it. The strength, energy and time required are also seen as preventing women from undertaking these measures themselves. Men and women commonly expressed the view that women are too feeble to carry out any kind of heavy labour:

Catherine N: Extract from interview transcript

[Digging drainage channels] is hard work for a woman. They dig three or two and half feet down the ground, so being a woman I cannot manage.

Zebediah M: Extract from interview transcript

Men [dig trenches and pits] because women can only help with the planting of elephant grass. They can't dig to the depth recommended, because they are not strong.

In fact many of the village women are very muscular, and some women farmers are actively involved in agricultural coping measures. I do not take the discourse on women's weakness at face value, but I can understand that in a community where the women already do most of the farming work, as well as being responsible for domestic work and childcare, the notion of their feebleness may protect them from additional arduous labour by directing the responsibility for it to their husbands. The following were also mentioned as barriers that prevent, disincentivise or discourage women from digging and maintaining trenches and pits: time poverty linked to the gender division of labour; male household head's control of land-management; and

lack of practical know-how. I briefly discuss each of these in turn below, citing evidence from one interview in particular.

Catherine was a *de facto* female household head. Her husband had been living in a town on the Kenyan border for several years and had another wife there. Catherine said that they were not on good terms; he rarely visited the village and had not been supporting her and their children very well since his second marriage. This is by no means an unusual situation for female-headed households in Bubufu. Catherine repeatedly said that she had no time to spare for agricultural coping measures: ‘work limits me’. Both men and women often cited married women’s time poverty as a reason for their not getting involved in any kind of time-consuming work over and above the normal demands of farming, due to their responsibilities for childcare and cooking, feeding livestock and keeping the house and compound clean. This is particularly the case for female household heads, even though they generally derive a larger share of their income from farming than their male counterparts (Dolan, 2004). Being tied to the home also prevents many married women from learning about farming innovations such as rainwater collection pits. When I asked Catherine if she had any ideas about how she could protect her crops from runoff, she nodded towards neighbouring gardens:

Catherine N: extract from interview transcript

I know out there they have got a plan, but being always around the home, I haven’t any ideas myself. Maybe if I went out [sometimes]. In order to learn anything, somebody else has to tell you about it. Therefore I have no plans against calamity.

Lack of agricultural extension advice for poor farmers in the village, in particular women, is a related factor. When I asked Catherine if she would be interested in attending training on agricultural coping measures she said she would, although she doubted that her absent husband would allow her to go because of her responsibilities in the home. Another woman, Esther N., said during an interview that her husband decided what coping measures to use as he had the requisite know-how through his contact with the National Agricultural Advisory and Development Service

(NAADS), which I discuss below. During PRA sessions, married women in wealth ranks 1 and 2 called for training in how to prevent land slippages in their gardens.

Dolan (2004) and Tripp (2004) argue that women's lack of control over the land they farm is a barrier to sustainable farming practices in Uganda, and Tripp (2004:13) cites Uganda Participatory Poverty Assessment Programme assessment studies in eleven districts showing that this is a major concern in relation to poverty reduction. While they see the problem of one of decision-making control over land, Kagoda (2008), writing of the Mount Elgon area, focusses on married women's lack of a long-term stake in farms, arguing that it acts as a disincentive to sustainable farming.

These problems of; female household heads' lack of time, lack of access to knowledge, lack of control over land and lack of a long-term stake in it are well-recognised in the feminist political ecology literature as constraints on agriculture (e.g. Rocheleau *et al*, 1996). Since women do most of the farming in this community, as in many others in the region, there are clear implications regarding climate adaptation.

Before moving on to look at agricultural diversification I want to briefly discuss the use of 'rainmakers', individuals credited with the ability to control local rainfall, as a coping measure. Only one person, Sandra N., who was married to one of the wealthiest men in the village, mentioned using a rainmaker to try to stop destructive rainfall:

Sandra N: extract from interview transcript

We usually pay them US\$20,000 to 30,000, assuming we are two or three people ...we tried it one time when there was a lot of poverty, but we did not succeed, so we realised that it is God who gives rain and there is nothing we can do about it. We were about ten people who had planted greens and tomatoes; rain destroyed it all. So we have now given that up, although we did use to believe that someone could stop the rain and we could harvest whatever we wanted.

An elderly widow, Penelope K., said that it was widely believed in the village that the Orange mobile phone company had employed a rainmaker to keep the rainy season at bay until they finished building their new mast at the top of the ridge. Faith

in rainmakers' powers is probably more widespread than these infrequent references suggest. As with other traditional beliefs, I interpret the relative silence on the subject in the light of Goffmann's concept of 'performance' (1969). Confronted by a white person and educated Gibus from the regional capital, I think most people wanted to present themselves to us as 'modern' individuals rather than 'backward' traditionalists, so they refrained from talking about traditional beliefs such as in rainmakers.

I now turn to on-farm diversification as a response to destructive rainfall and declining agricultural productivity. Again, I analyse differences in access to the available options. I also consider the role of government bodies in supporting diversification.

4.5 On-farm diversification as adaptation

Attempts to diversify on-farm production in the village can be divided into two categories; eucalyptus cultivation and the search for new, profitable cash crops. Switching from food crops to eucalyptus is a widespread adaptation to runoff and flooding (Table 4.2), although it is motivated by other considerations too. For instance, several farmers interviewed in 2010 said that they had already planted eucalyptus on land vulnerable to runoff or floods. After the repeated failure of physical coping measures, Esther N. and her husband also considered switching to eucalyptus:

Esther N: summary from notes

They dug trenches and planted [elephant] grass because their garden is steep, so when there is a lot of rain it carves gulleys. Despite these measures when it rains a lot the rainwater still carries away the soil, so they are contemplating planting eucalyptus trees on that land.

Appendix 9 presents villagers' views on the various advantages and disadvantages of growing eucalyptus. With a pro-poor adaptation perspective, a major limitation is that the trees cannot be grown alongside food crops because they soak up any water in the soil. This means that growing eucalyptus is only available as an adaptation strategy for those with larger landholdings, because all the farmers in the village

want to grow some food crops for subsistence and sale. Looking beyond the more obvious advantages and disadvantages, the popularity of eucalyptus as a cash crop is tied to a wider trend: the monetization of food. In Chapter 7 I make the case that villagers' increasing reliance on bought food is undermining married women's intra-household bargaining position and hence their social status. By crowding out the production of subsistence food, growing eucalyptus may be an adaptation that is indirectly inimical to women's human security.

Many farmers in Bubufu are also keen to diversify in other ways, and gender is an important influence in their choices. Married women favour dry-season small-scale horticulture alongside watercourses, from which they earn a small income. It was clear from interviews that some women place considerable faith in these enterprises as a first step towards alleviating household poverty. I discuss some of the intra-household tensions around control of this income in Chapter 10. Dry-season horticulture is not immune to weather shocks, however; many people lost horticultural produce during the unseasonal floods of February 2010, which took them by surprise. On the whole, men are interested in acquiring improved varieties of existing crops such as cassava, and those in the higher wealth ranks also see new cash crops, particularly vanilla, as a possible way out of poverty. However, villagers have great difficulty in accessing the requisite planting material, and this is one of the forms of support they want from the government (Table 4.3)

The lack of good quality planting materials is only one instance of the sheer lack of resources that cripples agriculture in the village. Farmers find their farming efforts undermined by a formidable array of obstacles, as in this example:

Julia N. and Milton W: summary from interview transcripts

Julia and Milton farm four plots, two of which are alongside the Singye. Whenever the Singye floods it washes away part of those plots, which shrink in size every year as a result. Another of their plots is on a steep slope, and when there is heavy rainfall the soil there gets washed away. In the first season of 2009 they had poor harvests of maize and beans due to runoff, soil exhaustion and their inability to buy fertilizer. The second-season bean harvest was also poor because of heavy rain. As for groundnuts, they only

harvested two basins because they had bought the seeds in a shop: shop-bought seeds are handled a lot, and sometimes become contaminated with paraffin from the shopkeeper's hands. They did not harvest much cassava because Milton had to go to Mbale for the stems to plant, and they got bruised in the 'taxi' on the way back. On the other hand, the potatoes did well and the coffee harvest was good, which Milton attributes to regular weeding.

Julia said that their trenches were ineffective because they were too far apart; her husband had hired someone to do it but had not supervised him properly. She also explained that they had decided to plant eucalyptus trees on their land near the river after repeatedly losing food crops to flooding. The first few years they tried it they planted them during the rainy season, but every year the small saplings were washed away. After that they decided to plant them during the dry season and water them, which has been much more successful.

Julia and Milton went to considerable trouble and expense to make their farming a success, using improvisation and continual adjustments rather than any fixed indigenous knowledge system (Richards, 1993). They were, however, hemmed in by the day-to-day limitations of their milieu. The impacts of weather shocks and stresses should not be considered in isolation from these other problems. During the PRA sessions villagers were clear about the type of farming support they would like to see from the government to help them to overcome these limitations (Table 4.3).

PRA group	Priorities for support
Women in wealth ranks 1 & 2	Provision of seeds for horticulture Tree-planting projects Livestock projects Provision of agricultural inputs Micro-credit schemes
Women in wealth rank 3	Provision of seeds Livestock programmes
Men in wealth ranks 1 & 2	Provision of seeds, planting material and training to enable farmers to grow new crops and varieties, e.g. vanilla and Nigerian cassava Provision of farm implements, e.g. hoes, spades and pesticide sprayers Support with marketing of produce Improved tracks/feeder roads in upper village to facilitate transport of produce to markets
Men in wealth rank 3	Agricultural extension advice to control runoff Loans for purchase of tools and inputs Provision of seedlings for new crops, e.g. vanilla Provision of improved varieties e.g. plantains Provision of eucalyptus and coffee seedlings

Table 4.3: What farmers need in order to improve agricultural productivity

Given the fundamental difficulties that farmers struggle with and their own priorities for farming support, what assistance do they receive from agricultural extension services? I now consider the role of the National Agricultural Advisory and Development Service in helping poor farmers to improve their agricultural productivity and adapt to climatic challenges.

The National Agricultural Advisory and Development Service

In March 2010 President Museveni gave a speech at a political rally in Manafwa District. He told his audience that he wanted poverty to be eradicated by ‘the practice of modern agriculture’ based on improved varieties and breeds: ‘Mr. Museveni called on the people of Bugobero to emulate Mr. Sam Wakinya of Bududa who rears pigs, cows, and goats, grows bananas, coffee and carries out fish and bee farming that give him high income’. Referring to another farmer who had a twenty-acre plot, the President said he would urge the NAADS to meet the investment needs of such farmers (Office of the President, Uganda Media Centre, 2010).

This speech reveals NAADS's bias towards better-off farmers and why it fails poor farmers across Uganda. Impressive through the achievements of twenty-acre farmers may be, they provide little encouragement for the many farmers in Bubufu with less than a single acre. NAADS is basically an agricultural extension service which is an implementing mechanism for Uganda's Plan for the Modernization of Agriculture. But according to the Chairman of the lower village, Zebediah M., 'When NAADS started they told us it is the poor who would benefit, but it is those who are already well off that have benefited'. Mr. Eastwell B., the NAADS extension worker for the sub-county, said that although he did try to help poorer farmers who were not members of NAADS he did so 'on humanitarian grounds' rather than as part of his professional duties, because they fall outside the programme's target group.

While NAADS officers occasionally distribute free seedlings and even livestock to villagers in Bubufu, this is done through a few demonstration farmers, most of whom fall into the highest wealth category. I heard of a consignment of plantain suckers that had been given to one of these men for distribution to other farmers and was never seen again. As the man is a lineage elder as well as a big local landowner he is hard to challenge: this is an excellent example of how local political environments can distort NAADS' operations. As for women farmers, I only saw one (Margaret B.) attend the two NAADS meetings I observed. According to Margaret, NAADS officials are frustrated that their advice is not implemented because the men who attend the meetings do not pass on information to their wives, who actually do the farming. She told me that one NAADS official had begged men to send their wives to his demonstrations instead of attending themselves, but the situation had not changed. Women's exclusion from agricultural extension services in sub-Saharan Africa is well-documented in the relevant literature (e.g. Due and Gladwin, 1991; Doss, 2001). I highlight it here as an example of how local gender relations prevent women farmers from improving agricultural productivity and thus adapting to worsening environmental conditions including runoff, flooding and soil erosion.

Several researchers have drawn attention to NAADS's shortcomings in relation to poverty reduction (Bahigwa *et al.*, 2005; Hickey, 2005; James, 2010). Hickey (2005) argues that NAADS' targeting of better-off farmers is symptomatic of the government's general bias towards the economically active rather than the poorest

farmers, who are excluded from national poverty programmes. Researchers involved in the second Uganda Participatory Poverty Assessment Process (Ministry of Finance, Planning and Economic Development, 2002) called for NAADS performance targets to be changed so that officers could direct assistance to poor farmers, including women, while Ellis and Bahiigwa describe Uganda's delivery of local agricultural extension services as 'wholly wanting' (2003:1010). On a more positive note, NARO started an experimental farm in the village in 2010; and the donor-funded Territorial Approach to Climate Change project launched in 2010 aims to support the planting of a million trees in the Mount Elgon area (Integrated Regional Information Networks, 2010). It will be interesting to see whether the benefits of the programme percolate down to Bubufu's poorer villagers.

In this section I have considered agricultural diversification and the move to agroforestry with a climate adaptation perspective. Due to their lack of resources, villagers are severely limited in their ability to diversify their on-farm livelihood activities, and the popular activity of growing eucalyptus is not available to the functionally landless or villagers with very small plots. In general, poor farmers and women farmers receive minimal support for diversification from government agencies.

In the next section I consider sand and stone harvesting, a non-farm livelihood activity that turns soil erosion and even landslides to advantage but which again is limited to a certain section of the population.

4.6 Turning adversity to advantage (for a few): sand and stone harvesting

Some Bubufu villagers, mainly young men, have exploited runoff and erosion by collecting sand and stones from the bed of the Singye and selling them for building purposes. Albert N., in his early twenties and newly-married, told me that this innovation began after the torrential rains and landslides of 1997. Some of the landslides higher up the ridge blocked the course of the stream resulting in an increase of sediment and pebbles in the water lower down. Ever since then people in Bubufu have taken advantage of this when it rains heavily, as in early 2010:

Albert N: extract from interview transcript

Because of the heavy rainfall, people in Bubufu have been able to collect a lot of sand from the Singye. When people begin collecting sand from the Singye then you can tell that the rain up the ridge has been heavy and it has washed away the soil.

There is high demand for the sand and stones for public construction projects and house-building (interview with Ernest M.), and this is a good example of how, in some circumstances, people can turn an adverse climate impact into opportunity. Put crudely, the livelihood loss of farmers living higher up the slope has become a livelihood gain for some people lower down the valley. Sand is sold either by the basin or by the truck-load with the poorest collectors selling it on a piecemeal basis and so obtaining a lower price than people who can afford to accumulate large quantities before they sell it.⁹ In this way the benefits of the trade depend on existing wealth status.

Some villagers emphasised the physical effort involved in the work and the fact that only young men with little or no land have the time and energy to do it, although women and girls sometimes help to carry sand and stones up to the roadside for a small fee. This is how Albert N. explained the fact that women did not engage in the business:

Albert N: extract from interview transcript

The problem is about their backs bending for long; they are easily affected, thus trouble. The carrying of heavy loads is for men, and the main reason is women aren't used to it. They have never got into the habit and they have never seen any other women doing it. They have been lazy, and also they have no time to do that kind of thing, what with cooking, looking after the children and all the other things that may need their attention.

In a separate interview another man, Patrick N., focussed on women's domestic

⁹ Jennifer M. priced a basin of river sand at USh500-1500 depending on the level of demand and the amount. Ernest M. and Nelson M. priced larger amounts at USh10-15,000 for a small truck load and up to USh25,000 for a large truck-load.

duties as a barrier:

Patrick N: extract from interview transcript

Why women do not pick sand is because when the man goes to pick the sand the woman has to remain and keep the home.

Both Albert N. and Patrick N. were useful exponents of the local ideology surrounding the gender division of labour, as they had decided opinions on what married women should and should not do. Although their views may have been more extreme than those of some other men, I became very familiar with the type of comments they articulated. The themes of women's laziness, physical weakness and domestic duties tended to come up in any men's discussion of women's economic activity. I explore the contesting discourses of married men and women in Chapter 7. The point I want to make here is that this set of ideas militates against women benefiting from sand and stone harvesting at anything except a trivial level, although this activity is the only positive adaptation to destructive rainfall yet seen in the village.

As for Albert himself, harvesting sand is an important activity in his livelihood portfolio along with another livelihood activity popular with young men: making and selling bricks. Based on the seasons, he systematically divides his year between Bubufu and a town near the Kenyan border, where he does building work and has bought land. He stays in Bubufu during the rainy season because of the opportunity to collect sand. In the language of Thomas *et al* (2007), Albert takes advantage of both spatial and temporal variability. Yet, despite his foresight, energy and resourcefulness, Albert was a victim of the unexpected El Niño-related rains of early 2010, which destroyed four thousand of the bricks he had made, two thirds of his total output for that 'dry' season.

4.7 Summary

The evidence I have presented in this chapter shows that, in the words of my research question, climate threats are indeed a significant threat to human security in my study location. Farming on steep slopes and riverbanks, which is unavoidable due to land scarcity, intensifies the negative effects of heavy rain, illustrating the mutuality of

societies and their environments (Hilhorst, 2004). If meteorologists' projections of more frequent and destructive rainfall events in the Ugandan highlands (see Introduction) turn out to be accurate the results are likely to include even deeper food insecurity and income poverty.

I have emphasised how destructive rainfall damages agricultural output in combination with many other agricultural problems. While I have already mentioned some of these, such as the lack of farming inputs, not all have received attention in this chapter. In particular, the crop diseases banana *xanthomonas* wilt and cassava mosaic have seriously affected food security in the village in recent years, as in many parts of East Africa (Tripathi *et al*, 2009; FAO Newsroom, 2007). It is one of the mysteries of my fieldwork that they were not mentioned more often in interviews and discussions. I cannot explain this except by surmising that other threats may have eclipsed them or that farmers simply take them for granted and so did not see fit to mention them during interviews.

While there is some evidence of social variation in the priority that villagers give to destructive rainfall, it is very slight. The consensus that it is a major threat is not surprising given the covariate nature of the risk, its high probability and the extent of the destruction it can wreak. Physical coping measures offer only partial protection against destructive rainfall, so whether they actually qualify as 'coping' at all is a moot point. Perhaps 'alleviation measures' would be a better description. Given the range of basic constraints to farming, any technical climate coping and adaptation measures are likely to be ineffective on their own; they need to be part of a comprehensive strategy aimed at promoting sustainable agriculture for food security.

The fact that brick-making and horticultural activities were badly damaged by the unusual rains of February 2010 shows how adaptive individuals expose themselves to 'surprise' climate events, which are said to be characteristic of anthropogenic climate change (Forster *et al*, 2007), unless their chosen diversification activities are non-farm (Ellis, 2000; Goulden, 2006). There is considerable social variation regarding access to all coping and adaptive activities. Even simple actions like digging a trench or obtaining seeds of a new variety depend on cash, land, time and access to labour power, all of which are mediated by wealth, gender and life-stage and thus are beyond the reach of some villagers. The social and cultural patterns that

permeate agriculture in sub-Saharan Africa are well-recognised in other knowledge domains (Fairhead and Leach, 2005), but their implications for climate adaptation have yet to be fully absorbed.

As well as implementing practices that are unequivocally responses to weather shocks, such as digging trenches and cultivating eucalyptus, many villagers also engage in non-farm income opportunities. Mindful of Bryceson's (2002) strictures and in keeping with Thomas *et al* (2007) I am reluctant to frame such activities solely as response to climate threats, so I do not consider them here. I discuss some of the social tensions that can blight these activities in Chapter 10.

All the coping and adaptive strategies discussed in this chapter are planned and implemented at the individual and household levels. The tradition of individual landholdings which, according to Heald (1998), is absolutely crucial to Gisu masculine identity seems to militate against the collective climate adaptation solutions documented elsewhere (e.g. Thomas *et al*, 2007; Ensor and Berger, 2009b). It is interesting that Jenkins *et al* (2010) found that a group of Gisu elders seemed to 'look with a little envy' on a neighbouring ethnic group, the Acholi, because their communal approach to land management has facilitated sustainable land use.

Because current national policy goals marginalise poor farmers they are not conducive to pro-poor climate adaptation initiatives such as the South African community horticulture projects described by Thomas *et al* (2007). In general, Ugandan farmers do not see government agencies or officials as supportive (Ellis and Bahiigwa, 2003:1010) although in Bubufu the NARO initiative may be a ray of light in the gloom.

Several of the themes of this first chapter recur throughout the thesis. In the next chapter I discuss two recent landslide crises in the village and analyse how villagers responded to them.

Chapter 5: 'Landslides bring worrying'

5.1 Introduction

In 2009, Elijah N., an elderly man, described the destructive power of landslides and gave me an insight into the fear they instil:

Elijah N: extract from interview transcript

Landslides bring worrying. When [a landslide] happens, it kills people. It also destroys people's land hence causing them to lack land, and all the food crops that one has grown will be buried, and also if it finds a house it buries it with all the livestock.

In this chapter I analyse men and women's stories of how landslides affected them during the crises of November 1997 (Section 5.2) and March 2010 (Section 5.3). I concentrate on the social differentiation in their experiences and the influence of Gisu gender ideology on both short-term coping and longer-term social outcomes.

The underlying causes of landslides in Bugisu, as in other parts of the East African highlands, include high population density, the associated slope disturbance and deforestation, steeply sloping hillsides and geological factors (Ngecu *et al*, 2004; Knapen *et al*, 2006). Under these basic conditions landslides can be triggered by heavy rain or by slope excavation, for instance to create flat areas for house-building (Ngecu *et al*, 2004; Knapen *et al*, 2006). In this way landslides are the products of interactions between communities and their environment (Hilhorst, 2004). The landslide crises of 1997 and 2010 were both related to the El Niño Southern Oscillation. Judging from villagers' individual accounts and the high priority they gave to discussing landslides during the PRA sessions it is clear that landslides are indeed highly significant in their lives during the rainy season. Because of unusually heavy rainfall they were especially serious threats in those particular years.

5.2 ‘There was a year we got very worried’: 1997



Figure 5.1: Close-up of the 1997 landslide scarp

In Chapter 2 I included a photograph of a scarp in the upper village which marked the site of a fatal landslide in November 1997; Figure 5.1 presents a closer view. Cracks had appeared in the earth there some five years before, but during that month’s heavy rains they widened and multiplied:

Maurice S: summary from interview transcript

For four days people thought the land would break but nothing happened, so people stopped worrying. But on the fifth day in the night around 3 a.m. the land broke and people were killed. Five died, all from the same family, and only two bodies were recovered. The other three bodies have never been seen to this day.

Several villagers told me that they were connected to the victims by kinship or friendship. The non-recovery of some of the bodies seemed to deepen their sense of horror, and I discuss a possible reason for this below. During the same period smaller landslides, known as ‘mini-landslides’, occurred all over the upper slopes of the ridge, threatening humans and livestock, damaging or destroying houses and gardens and forcing families to flee from the upper village. About 60 people were killed in Mbale and neighbouring Kapchorwa districts. ‘That year we got very worried’, said Gregory N. Along with many other interviewees now living in the

lower village (e.g. Ezra K. and Margaret B.), he was one of those who had to evacuate their homes on the upper slopes.

If villagers judge that a landslide is about to happen near their house they may have time to dismantle them and carry the building materials downhill for reuse. Even then it will take time before the house can be rebuilt. If a garden is caught up in a landslide the effects are twofold. One is the loss of standing crops swept downhill or inundated by soil from above. Even more important, because the impact is more enduring, is the loss of cultivable land itself. Cuthbert J. said of 1997: ‘In the parts that were affected by the landslides the soils were carried away and whatever one plants in such soils cannot grow: this soil is not productive.’ Jennifer N. described such land as ‘a stony surface that cannot be cultivated’. Some people, such as John M., had to abandon landslide-afflicted gardens altogether: this heightened his vulnerability to later destructive rainfall events (Chapter 4).

According to Cuthbert W., the loss of land, damage to property and the expense of relocating in 1997 have led to long-standing hardship for many of those involved, including impacts on succeeding generations:

Cuthbert W: extract from interview transcript

Since the people who were affected by the landslides moved downhill, the level of education has gone down in most of the families. You find that a man struggling just to feed his children, let alone buy scholastic materials and paying school fees for them.

The results of the participatory wealth-ranking exercise (Appendix 3) confirmed that the 1997 landslides had caused lasting damage to material wellbeing in the village. A high proportion of households situated in the upper village were assigned to wealth rank 3, a legacy of the loss of property and land in 1997. In the words of government researchers working in the area, landslides ‘make people move into poverty’ (Ministry of Finance, Planning and Economic Development, 2002:24).

In early 2010 it seemed that a similar crisis was unfolding.

5.3 ‘The land here could break any time’: 2010

On 1st March 2010, after weeks of heavy rain associated with another El Niño event, an avalanche of mud and rock killed an estimated 300 people in Bududa district, just a few miles away from Bubufu (BBC News, 3rd March 2010). When Mr. Balungira visited Bubufu just after this disaster, he found that people were very worried indeed. While a sub-county directive issued on 28th February did not identify Bubufu as an area of particularly high risk there were unmistakable warning signs on the steeper slopes in the form of cracks in the earth and unusual flows of water. According to a national Ugandan newspaper, ‘gaping cracks that slither through gardens, compounds and under rock’ and ‘mini-landslides’ were affecting seven sub-counties in the region (Edyegu, 2010).

People still living on the upper slopes were at most risk, at least in the short-term. These were mainly poor people who had no other land on which to build their houses; a classic example of social vulnerability (Blaikie *et al*, 1994; Wisner *et al*, 2004). However, they included a man classed in the highest wealth rank. He had built a large house of permanent materials, and his wife said that this investment was a disincentive to moving even though ‘mini-landslides’ had occurred around it (interview with Clara N.)

The chairman of the upper village, Emmanuel W., was monitoring the general situation. In some houses, he said, such was the volume of water welling up through the floor that families had been forced to dig channels to let it flow out: ‘You find people eating while beside them water is flowing past.’ Figure 5.2 shows a house exposed to a landslide: water flowing from holes in the slope was seen as an especially bad sign. As for the majority of villagers who lived in the lower part of the village, many were worried about the hillside gardens on which they depended for their livelihoods. Memories of 1997 were revived, and the Bududa disaster brought home the potentially catastrophic consequences of landslides with renewed force.



Figure 5.2: A house threatened by a landslide

Mr. Balungira spoke to several people whose homes were endangered. The following brief accounts illustrate what the residents of the upper village were dealing with:

Reading the signs (summaries from Mr. Balungira's notes)

Jasmine N. said that ever since 1997 water had welled up through the floor at the start of the rainy season, but this year it had started as early as February: 'Sometimes it floods the whole house and we have to find a way of drawing it out'. She said that she was very worried because 'when you see the soil in the house becoming wet and looking like mud you get worried that any time the house can fall.'

Close by there were large cracks in the walls of the house belonging to Wilbert N. (Figure 5.3), and water was welling up through the floor there too. In itself, this was nothing new; he said it had happened every year season since 1998, but this year it had started earlier than usual because of the unseasonal rain. He had noticed that water was coming through the floor with greater force than previously and it was clear in colour, which, he said, meant that a landslide was imminent. Back in 1996 the very same signals had prompted him to leave his previous house higher up the ridge, and soon

afterwards a landslide had indeed struck. He had learned a lesson from this experience and was making plans to leave: ‘Now, when I see such signs, I cannot linger’.



Figure 5.3: A crack in the wall of Wilbert M.'s house

Although Wilbert was preparing to move, other villagers similarly exposed were hanging on. I now turn to the consideration of how affected householders responded to such risks, drawing on stories from 1997 as well as from what people told Mr. Balungira in March 2010.

5.4 Reacting to the landslide threat

In considering villagers' reactions to the threat of landslides, I start by describing how their first tactic is to remain in their homes and try to manage the situation. I then consider what happens if and when households eventually have no choice but to evacuate, concentrating on how the short- and longer-term outcomes of that decision are mediated by wealth and gender.

‘Standing firm’

What is striking about the stories in the previous section is that in March 2010, fearful villagers remained in landslide-threatened homes despite the discomfort, inconvenience and, above all, the risk. The cracks and flowing water that were pointed out to Mr. Balungira are genuine indicators that a landslide may be

imminent: for instance they are in keeping with an eye-witness account of what happened before one of the largest landslides of 1997 (Knapen *et al*, 2006:162). It seems, then, that for people such as Sheila and Jasmine the question was not *if* a landslide might affect them but *when* it would strike.

Monitoring well-known indicators year after year, householders seem to have become expert in a form of ongoing risk management. For instance, what Wilbert M. said about the force and colour of the water flowing through his house suggests that some people, at least, think they can judge the level of risk at any one time. The memories and judgement of older men also seem to be useful in predicting where a landslide might happen. One of the oldest villagers, Gregory N., said that his grandfather had warned him against living in a certain location in the upper village because of a landslide that had happened there in 1922.

So landslides in Bubufu involve features of both continuous stresses and one-off shocks. Up to a point they are stresses that can be managed, until something triggers them and they become shocks, although hardly in the sense of unexpected events. This speaks volumes about the degree of risk that villagers live with on a routine basis, and signals that sharp distinctions between disasters and everyday life may not be appropriate in Bubufu (Wisner *et al*, 2004). But while expert folk judgement may be critical to survival, landslides can and do wreak catastrophe. So what compels people to live in the shadow of risks like these?

For one thing, in the absence of government support for evacuation the risk of landslides is counterbalanced by the highly uncertain outcomes of leaving, as the next extract suggests:

Edwin W: extract from interview transcript

Even when someone knows that a landslide might happen there is nothing he can do. It might be the only land that he has and he might have grown his cassava there, and when he thinks of going somewhere else he is not sure he will be able to get food there. So he decides to stay, and it is God who decides whether the landslides will bury him or not.

Edwin expresses fatalism and focuses on food insecurity as a disincentive to moving away from a landslide-threatened area: this was also mentioned by other interviewees. Like Edwin, several other villagers also described feeling powerless in the face of the threat of a landslide. Sometimes they compared that with their self-perceived competence with regard to other, apparently less intractable problems.

At the same time, some men also used the phrase ‘standing firm’ or ‘remaining firm’, alluding to the strength of character that Gisu men associate with manhood, and it may be that this ideal of standing firm encourages and sustains male household heads to stay put in their homes. George M., for instance, put it this way:

George M: extract from interview transcript

There is nowhere we can run to. Other risks are not so worrying, because if one is alive and engaged in productive work one can find formidable solutions for them, unlike landslides. This is a very big problem because you can’t run away, you just remain firm.

Like George, several other people living in exposed locations also said that they had nowhere else to go. Some said they could only expect assistance from kin in situations of dire and immediate need:

Sheila N: extract from interview transcript

I cannot carry my family and take them to another person because that person will have to feed them, so we just have to remain here. However, if there was a landslide close by, perhaps some of my relatives would call me to stay with them so that I did not die. If you go to them for help just because you are worried, they might think that you want to move in with them [and are using the landslide threat as an excuse]. They may tell you ‘it is normal for water to come out of the house, so there is no need for you to run away’.

Jasmine N. and her husband had a similar story, but in their case the difficulties were compounded by the unusually large size of their household:

Jasmine N: my summary from Mr. Balungira’s interview notes

As well as their six children, Jasmine N. and her husband had her husband's sister, who had left her husband, and her two children living with them, making eleven people in the house. 'We have only decided to stay because we have nowhere we can run to' she said, and this was corroborated by her husband when he was interviewed later: 'We are worried because we might die like our friends in Bududa'. He explained that he only had one plot of land, and pointed out that the large size of the family militated against anyone offering them temporary refuge: 'The problem is that sometimes you can run away and the landslide does not happen and, given the small pieces of land that most of us have, you cannot burden someone else because you fear a landslide might happen. But when it actually happens someone might feel pity for you and help you'.

In these remarks there is a suggestion of pride and forbearance in 'you cannot burden someone else'. It reflects the Gisu ideal of self-reliance as well as the recognition that poverty severely constrains the assistance that can be given, so it would be unfair to impose on kin. There is a fear of being seen as a parasite and perhaps seeming cowardly or foolish if, in fact, a landslide does not occur after you have thrown yourself on a relative's mercy. On the other hand there is also some expectation that if a threat becomes acute, or in the aftermath of a disaster, kin will eventually step in to help. Even in such an extremity though, Sheila and Jasmine seem to express some doubt about this: 'perhaps some of my relatives would call me...so that I did not die' and 'someone might feel pity for you'.

Maurice S., who was also threatened by landslides in March 2010, explained his decision to hang on until the last minute by explaining what had happened to some villagers in 1997:

Maurice S: summary from transcript

People went and stayed with relatives, but later conflicts developed because someone cannot keep you for a month when you are not doing anything to support the household. That is why some people decided to come back to their original homes.

Wisner *et al* (2004) remark that, although assistance from kin can be a very important source of support, after disasters these norms often change very quickly (102). To some extent this is due to the covariate nature of risk from natural hazards (Dercon, 2005). In both November 1997 and February 2010, hillside communities all over the area were facing the same problems, including the natal villages of some Bubufu wives, limiting the number of potential safe havens available to a family menaced by cracks in the walls. In a context of shared risk and widespread material hardship, the Gisu discourse on self-reliance serves to legitimise the withholding of support from needy kin as well as having the practical effect of keeping them away from the door for as long as possible.

Self-reliance is a particularly strong cultural ideal for Gisu men, and I now turn to the effects of landslide crises on masculine identity, comparing male household heads' experiences with those of their wives. First I look at what happens in the short term if a family has to evacuate its home, then at the longer-term outcomes.

Evacuation: a gendered experience

When a family is forced to evacuate a house, the pain of sudden displacement affects the spouses in different ways, mediated by their gendered roles and responsibilities. This is true whether the cause is a landslide or some other natural hazard such as a storm. This is what Albert N., a young married man, had to say on the subject during the men's group discussion:

Albert N: extract from group discussion transcript

It affects the man so much when landslides happen. We say the man builds the house, the man buys the land where the house is built, and when you have food and it is destroyed it is the man's responsibility to provide more. The whole impact of the problem is pushed onto the man. When the house is damaged and breaks down the men are most affected, because they have to do anything possible to see that the house is put right, while the woman has an option of going back to her native home for refuge. For the men it is not easy to take refuge in somebody's home. So you do anything to see that your house is back in shape.

Gisu wives usually come from villages close by and keep up strong ties with their kin after marriage, and this is an important cultural characteristic in relation to displacement. After a crisis such as those caused by landslides, they can return to their natal village with relative ease (La Fontaine, 1962; Heald, 1998). Husbands are expected to look after themselves. Jasmine N., whom I have already cited, said that if there was a landslide close to the house she would take her children to stay with her mother: 'As for my husband I do not know where he will go. He is an adult and he will think of somewhere.' There is a Gisu taboo forbidding contact between a man and his wife's mother (La Fontaine, 1959:26), and I speculate that this may also prevent men from seeking refuge with their wife's kin. Although no-one explicitly mentioned mother-in-law avoidance during interviews, perhaps that was because it belongs to the *doxa*, 'that which is taken for granted' (Bourdieu, 1977:166) of Gisu culture. While wives have the option of taking refuge in their natal village, however, I do not accept Albert's implication that they escape their share of the pressure when landslides threaten. After all, Sheila and Jasmine's comments (above) suggest that married women cannot always count on a warm reception from their kin.

Another interesting feature of this extract is Albert's articulation of the notion that male household heads have exclusive control of and responsibility for their households. This is mirrored in married women's discourses. Married women often used the phrase 'my husband's house' to refer to the house where they themselves lived. If they do not regard their homes as 'theirs', it follows that if it is damaged or destroyed the onus of dealing with the crisis falls on their husbands. Older married women sometimes articulated conjugal dependence, as when Esther N. told me, 'I am like a child to [my husband], because it was he who brought me here'; this may be a discursive tactic to underline their husbands' responsibility for them (Jackson, 2007).

Albert was not the only man to stress the responsibility that is the normative corollary of a household head's exclusive control of his household. For instance Albert's comments prompted Ezra K., who was also participating in the discussion, to describe his own experience when a storm blew the roof off his house. His remarks apply to any situation in which a house has been badly damaged or destroyed:

Ezra K: extract from group discussion transcript

I want to speak from experience about the problems men face. Once I had my house roof blown off by the wind: we were lucky not to die. I wondered where I would take the family but I decided to stay in the same place until I built another house, because I felt I could not carry my family to another person's house. I thought I would be crushed, but I slowly overcame this problem.

Is Ezra's statement a genuine reflection on a time of intense personal stress or a skilful deployment of a masculine discourse designed to legitimise Gisu men's control of their households? It is probably a mixture of both. When I interviewed Ezra K.'s wife she talked of storm damage to her sweet potato mounds and did not mention the roof. My point is that even in the short term, experiences of disasters such as landslides are strongly differentiated according to gendered roles and responsibilities and the gender division of labour.

I now turn to longer-term experiences of displacement, starting with the resettlement and then analysing some of the gender dimensions of household fragmentation.

In the longer term: Resettlement

After finding temporary refuge the question is what to do next. In 1997, local government distributed food relief and other items to some displaced families, but no assistance was available to support relocation. In the main, what to do next depended on individual men's access to resources. In 1997, the better-off men who had had to abandon houses on the upper slopes, such as primary school teacher James L., were eventually able to buy land downhill and rebuild; several now live near the schools. But even where resources are available there are other problems to do with relocating outside one's own village. Table 5.1 contains a list of some of the issues that were mentioned during individual interviews and group discussions.

Economic\financial	Security	Social	Cultural
Cost of having to set up a new home Short-term food insecurity Risk of failing to establish new livelihoods Cost of having to buy food (if moved to town) Men migrating alone risk contracting HIV\AIDS Difficulties of buying land outside own lineage area	Being targeted for physical violence by members of the host community	For men migrating alone, risk of moving in with a new wife and forgetting the family in the village Turning to theft and being lynched (young people) Disputes with neighbours Accusations of witchcraft	Reluctance to eat unaccustomed staple food Difficulty adjusting to the new people and environment Anxiety about dying and being buried away from the village Language difficulties

Table 5.1: Risks and problems associated with resettling in a new area

One of the problems most often mentioned was that newcomers are often confronted by hostility from existing residents. For instance, according to Jessica W., she and her husband Noel M. had been subjected to violent attacks including arson since moving to Bubufu from a landslide-affected zone higher up the slopes: ‘We are new people in this area ... so maybe they are threatening us to see whether we are firm or whether we will leave. And some of them might say that this land is in their area and it ought to be theirs.’

Only one man talked about ancestral land in relation to relocating. I have already mentioned how, in March 2010, Wilbert M. noticed certain indications that a landslide was about to strike his house:

Wilbert M: summary from Mr. Balungira’s interview notes

To escape the threat of a landslide engulfing his house, Wilbert M. planned to move with his wife and children to the second of his two plots, from which he had been driven by a landslide in 1997. Although he agreed with Mr. Balungira that it was not an ideal solution, he claimed that very few people would be willing to move away from the upper village altogether, even if the government offered to relocate them:

‘Most people here say that they want to die on their father’s grave. People here believe in ritualistic things, for example when someone falls sick he wants to sacrifice a hen at the father’s grave so that he recovers. If he moved far away from the father’s grave he would not be able to perform these rituals. The ancestors might say you abandoned them because you wanted to save your own life, and they might decide to claim it. It is taboo for someone to sell land with a grave and go away; everyone in the community would condemn it. Although the weather can be bad, you cannot sell your land and go somewhere else if that land has a grave on it. There are two brothers in this village who sold the land where their father was buried and bought land in [a nearby village] instead. Their father died after being bewitched so they sold the land for fear of being bewitched as well. Each of [the brothers] lost two of their children and whatever they did, they could not succeed.’

Beliefs surrounding ancestors are a crucial aspect of African attitudes to land (Reynolds Whyte, 2005; Kagoda, 2008; Shipton, 2009). Wilbert M.’s comments suggest that they may be a barrier to relocation, even in situations of considerable physical risk. The risk from landslides is weighed against the risk of provoking ancestors’ wrath. Wilbert M. wanted to avoid antagonising his ancestors for reasons of rational self-interest, given his belief system. Kagoda, on the other hand, stresses tradition and symbolism: ‘Land stands for continuity of ownership since it is a burial ground where all clansmen are buried and consequently a central place for the spirits’ (2008:365). What Wilbert M. said about the necessity of performing rituals on graves may explain the significance that people attached to the non-recovery of bodies after the 1997 landslide.

Customary land tenure systems are said to tie people to farming because they do not give people secure ownership of their land and so prevent the development of a market for land (Ellis, 2006:395). In Bubufu, land tenure *is* secure, at least for men. Wilbert M. highlights the psychological force of values and beliefs that bind men to a locality even if their land is physically insecure. Such beliefs are a version of the affective ties to place that Adger *et al* (2009) argue may be barriers to climate adaptation. Because Gisu men inherit land from their fathers while their wives’

access to it is contingent on marriage (La Fontaine, 1979: Heald, 1998), men may well feel these bonds to ancestral land more strongly than women. I was not able to explore these beliefs and I have no way of knowing whether Wilbert M. was idiosyncratic or representative in his views about ancestors. However, as in the case of rainmakers (Chapter 4), I interpret the prevailing silence on these issues in the light of Goffmann's theory of performance (1969). Talking about ancestors is seen as not 'modern', and Wilbert M. himself might not have raised the topic had I been interviewing him, rather than Mr. Balungira.

In the longer-term: Household fragmentation

In 1997, if a married man with a house on the upper slopes could not afford to buy land in a safer area a common response was to break up the household, at least for a while, with the husband seeking work elsewhere and the wife and children going to her natal village:

Emmanuel W: summary from interview transcript

During the 1997 rains, Emmanuel W. told his wife to take their three youngest children to her natal village 'since things were not easy'. He went to Kenya and found casual farm labour there and the older children in the family were sent to stay with various relatives. After eight months in Kenya, he decided to return home: 'My life was not so good as I was worried, but I just made myself strong and began digging [farming], as it was my home and I had nowhere else to go.'

Out-migration, particularly of men, has long been a feature of life in Bugisu (Chapter 2), but male out-migration is usually regarded as a last resort (Heald 1998:94), due in part to the rooting of Gisu masculine identity in the control of lineage land. The 1997 landslides forced men like Emmanuel to turn their backs on this tangible and crucial aspect of their gendered identities, at least for a time. On the other hand, a District official told me that the men who leave the area immediately after a disaster to look for work have better access to food than their wives and children left at home.

In Emmanuel's case his family was only split up for a few months, but whereas he later returned to resettle in the village, Elizabeth N.'s husband, who also left the village in 1997, did not.

Elizabeth N: summary from interview transcripts and observation

Elizabeth lived in the upper part of the village, having moved there from another part of the ridge after a landslide had damaged her husband's land in 1997. After the landslide her husband went to Kampala to find work. He took another wife there and his visits to the village became rarer. When I spoke to Elizabeth she said that he had not visited her for over a year. Elizabeth was struggling to support herself and her children, due to the small amount of land she had to farm (about an acre) and the lack of financial support from her husband. She sent her oldest son to see him in Kampala to ask for his school fees, but her husband refused to help. The house where she lived with her six children was one of the most ramshackle in the village and her children were very shabbily dressed. She had dropped out of a rotating savings and credit association before her turn came round to get a pay-out as she could not keep up the monthly contributions.

Elizabeth's current problems cannot be wholly attributed to the disruption of 1997. However, the chain of events does suggest that by forcing her husband to look for work outside the village the landslide crisis underlies her poverty today. She personifies the creation of female-headed households 'dependent upon uncertain male remittances', one of the long-term gendered effects of disasters that Enarson identifies (1998:166).

Be that as it may, when I raised the matter of male migration during a women's group discussion several participants explained the advantages of the 'split household' pattern for wives and children. On the whole they centred on food security and being able to care for their children better in the village than in town. Although two women mentioned the risk of being abandoned in the village with the children, Teresa J. spoke of the security and relative independence it gave married women should their husbands take a second wife in town:

Teresa J: extract from women's group discussion

Men are sometimes unpredictable because when you get to town, instead of staying together with you and the children he can get other women and start mistreating you. That's when you start to think 'if I had stayed in the village on my own, even if my husband was having affairs I wouldn't be suffering'.

While abandoned wives and their children are often the poorest households in a community (Dolan, 2004), for the women concerned their situation may be preferable to an even more precarious life in town with an uncaring or abusive husband, far from their kin.

Before ending this chapter I want to comment briefly on the government's response to the landslide crisis of 2010, and in particular to the Bududa landslide.

5.5 'What do you expect?' Government blames the poor

When she was interviewed on the radio after the Bududa landslide Ms. Kabakumba Masiko, the Minister of Information and National Guidance, said 'We did not expect this disaster but it was bound to happen' (Ladu, 2010). For months the national newspapers had carried predictions by Ugandan meteorologists that there would be heavy rains, with unequivocal headlines such as: 'El-Nino rains begin, more areas to get landslides', with the Mbale region specifically mentioned (Tenywa, 2009). Yet when Mr. Balungira spoke to the village chairmen during his visit in 2010 there was no mention of any advance warning from the government and there were no government plans to support evacuation. At the sub-county office, Mr. Balungira was shown a letter from the parish chief to the District authorities, calling on them to 'take urgent action' to avoid 'an expected catastrophe' (Appendix 10). The despatch of this letter had been delayed for several days due to the absence of the parish chief, whose approval and signature was required before it could be sent off.

After the landslide in Bududa, President Museveni visited the scene dressed in battle fatigues and carrying an AK-47, a costume which provoked some mockery in the media (Lusima, 2010). This is what he had to say to the shocked and grieving population:

This place is called Nametsi, meaning the granary of water and this is what God intended. But look at it, you have destroyed all the trees on the slopes of the hills that hold the soils, you have cultivated and settled on the hills, what do you expect? Once you harass nature, it also harasses you (Mafabi, 2010a).

Although it may have been an especially insensitive example of the genre, President Museveni's words typified the elite discourse in Uganda which tends to blame the poor for their own misfortunes (Hickey, 2005).

A few days after the Bududa landslide, Ugandan newspapers also reported that three local government officers including the sub-county chief had been arrested after local people denounced them for stealing blankets intended for displaced people (Mafabi, 2010b).

Taken together these two stories indicate that, at the very least, poor people in my study area cannot expect much support from either national or local government representatives when climate-related disasters strike. In the case of the blanket thefts it is clear that local government agents themselves can embody a threat to poor people's human security, even during calamities. Governance that is inimical to poor people is an important contributory factor in their insecurity.

5.6 Summary

Based on the evidence here there can be little doubt that landslides have to be counted among the most damaging impacts of weather shocks in the village. Writing of the enduring appeal of land in African society, Berry cites an African woman telling a researcher that 'a piece of land never shrinks' (Mackenzie 1993, cited in Berry 2002:639). On the contrary, land in Bubufu often shrinks, and landslides contribute even more starkly than soil erosion to 'supply-induced' land scarcity (Homer-Dixon, 1999: 15). Given that land underpins both livelihoods and cultural life, what does this mean for human security? And, using responses to landslides as a proxy for responses to climate change, what are the implications for climate adaptive capacity?

From a human security approach it is possible to identify some of the socio-cultural dimensions of landslide crises. A lack of reliable support from either kin or government keeps villagers in highly-exposed locations until the last possible moment. I interpret the accompanying discourse around self-reliance as both a genuine incentive to ‘stand firm’ and a device to legitimise the lack of support from other community members. Focussing now on governance, at the local level disaster relief is subject to the degradations of elected officials, while at the highest level environmentalist rhetoric is used as a weapon against poor people. Landslide crises interact with Gisu cultural norms, values and intra-household gender relations to produce culturally-constructed, gender-specific stresses in addition to the material outcomes of food insecurity and poverty. Traditional beliefs about ancestral land and normative self-reliance may affect men more than women. On the other hand, the gender division of labour, better mobility and income-earning prospects for men and the male ownership of land combine to create vulnerable *de facto* female-headed households in the village. In Chapter 4 I drew attention to the barriers that *de facto* female household heads face in adapting to destructive rainfall; the potential for a vicious circle of climate vulnerability is clear.

Some of the content of both this and the previous chapter has covered ground already well-travelled by the rural development, food security or disasters literatures. Nevertheless, both chapters are necessary first steps towards answering my main research question and building up a picture of the interaction between threats, responses and generic adaptive capacity. In the next chapter I turn to a problem that may at first sight appear to be unrelated to weather risks; the cost of medical treatment. However, I argue that climate vulnerability and the costs of healthcare are closely linked.

Chapter 6: 'Sickness needs money': Corruption, healthcare charges and climate vulnerability

6.1 Introduction

We are always worried about sickness...because our income is low. (Milton W.)

In Chapters 4 and 5 I started to answer the first part of my research question by arguing that the impacts of destructive rainfall, in particular crop loss, soil erosion and landslides, are major contributors to human insecurity in the village in interaction with other problems. Yet although the likely impacts of destructive rainfall in the coming rainy season were causing apprehension and anxiety when I talked to villagers in 2009, they were overshadowed by fears of ill-health and its consequences. This is not surprising, as studies from other parts of Africa also show that ill-health generally looms large in people's perceptions of risks and stresses (e.g. Smith *et al*, 2000; Tschakert, 2007; Bunce *et al*, 2010). In the context of rural Tanzania, Cleaver remarks that the material impacts of ill-health are 'obvious but often understated' (2005:897).

In response to open-ended questioning, Bubufu adults mentioned health risks much more often than other kind of risk. For example 81 per cent of adults interviewed mentioned health problems as a threat to their human security compared to 59 per cent of adults who mentioned any type of weather risk. Also, if asked to identify their biggest worry adults identified illness and injury more than anything else. Finally, all four PRA-style discussion groups ranked ill-health among the top four threats. Villagers brought up the costs of healthcare and the abusive treatment they sometimes receive from government healthcare staff; these problems were clearly important elements of their anxieties. In this chapter, I investigate the corrupt and coercive behaviour of healthcare staff that, apart from the pain and debility of illness in itself, underlies villagers' fears about ill-health. I draw attention to some

implications for climate adaptive capacity. I also briefly consider the gendered nature of men and women's experiences of these problems.

The next section contains information on health indicators and healthcare provision in the study area in order to establish the context, after which I summarise evidence on corruption in the Ugandan health sector generally (section 6.3). In section 6.4 I provide evidence of the heavy financial burden villagers have to bear when they seek medical treatment due partly to corruption in the health service, and in section 6.5 I argue that expenditure on health can cause long-lasting climate vulnerability. I also examine gender differences in how these problems are experienced (section 6.6.) before concluding the chapter.

6.2 Overview of health status and local services

The Manafwa District Health Sector Strategic Plan II (MDHSSP II) 2005-2010 is the most recent document I have been able to obtain giving health indicators and information on health services in the District (Manafwa District Local Government Directorate of Health Services, 2005). It contains several targets with baseline figures derived from what used to be Mbale District health sub-districts, before Manafwa District was carved out of Mbale District in 2005. However the reliability of the data is doubtful: for instance, the under-5 mortality rate given in the plan, 49/1,000, looks like a gross underestimate compared to the World Health Organisation's national figure of 135/1,000. I use figures from the Plan only where they are not obviously at odds with national data, and even then with the caveat that they may be inaccurate.

Local health care provision

The MDHSSP II refers to 'significant' problems in staffing, equipping and supplying sub-county health centres, and K. sub-county is mentioned as being poorly served by health facilities compared to most other parts of the district (Manafwa District Local Government Directorate of Health Services, 2005:4). There is no parish-level health centre serving Bubufu, although according to the MDHSSP II all parishes should have one: people complained about this during group discussions. The sub-county health centre is situated in a village higher up the ridge, which can only be reached

from Bubufu on foot. Villagers estimate that it takes between 40 minutes and 2 hours to get there, depending on which part of the village one starts from and the condition of the walker. It is said to be poorly equipped and with untrained staff. In the district as a whole only 49 per cent of health posts were filled by appropriately qualified personnel in 2005 due to its difficult terrain, remoteness and endemic poverty, all of which deter qualified health workers from working in the area (Manawa District Local Government Directorate of Health Services, 2005). On the positive side, treatment at the sub-county health centre is free, which is why some residents use it despite these well-known problems: however, many villagers go to Bududa Hospital if they need a diagnosis or if an illness is serious. It is situated a few kilometres away and is accessible by shared taxi and *boda-boda*. It takes 40 minutes to walk there from the Growers' Society near the bottom of the village. According to villagers, waiting times and standards of care at the hospital are poor and the Manafwa District Health Sector Strategic Plan II alludes to severe shortcomings in facilities and staffing (Manawa District Local Government Directorate of Health Services, 2005:8).

The government health system is only one source of healthcare for villagers, the alternatives being a traditional healer, a diviner and private drug shops and clinics. Several villagers (e.g. John K. and Maggie B.) claimed during interviews that faith in diviners is fading: modern education, government sensitisation programmes and the spread of Pentecostalism were put forward as reasons for this trend. I was also told that a few 'uneducated' people in Bubufu consult Pentecostalist pastors when they are ill (interview with Maggie B.) Working among the Nyole people in another part of south-eastern Uganda, Reynolds Whyte found that while 'Western' biomedicine was popular, people in her study area often hedged their bets by trying both biomedicines and traditional sources of assistance, these being either a diviner or a herbal medicine practitioner (1997). As with other traditional beliefs, people in Bubufu tended not to talk about the use of traditional healers and diviners to me or my assistants, although one woman did:

Catherine N: extract from interview transcript

There are ...diseases that are uncertain. Some of the uncertain diseases are native diseases whereby people implant certain things like bones in children's stomachs. You have to go to a native doctor for those bones to be removed.

According to the Local Government Directorate of Health Services, a 'significant proportion' of the local population self-medicates, goes to private clinics or consults traditional healers (2005: 4). Self-medication is not unusual in Uganda, nor is it a recent phenomenon: Reynolds-Whyte cites a Ugandan Red Cross Survey of 1985 that found that 41 per cent of rural people seeking medical treatment went to a private clinic or drug shop rather than a government facility (1991:134). The health authorities encourage home medication for children by training parents in the use of basic drugs and supplies that people are advised to keep in the home. Private clinics and drug shops provide an attractive alternative to local government health facilities, which are characterised by long waiting times, poor service and lack of supplies. On the other hand these private providers are often staffed by people with very little training (Rutebemberwa *et al*, 2009a), and I heard stories of incompetent, ineffectual and sometimes life-threatening treatment from private providers. For instance, Josephine K. told me how a private clinic fitted her child with a saline drip, but fitted it incorrectly, so that the child became severely dehydrated (interview with Josephine K.)

Having sketched the provision of government health services and the other options available, I now discuss evidence of corrupt practices in the Ugandan health system which underlie much of the human insecurity that ill-health creates.

6.3 Corruption in government health facilities

It is no secret that Uganda's government health sector is riddled with corruption at all levels. This is in keeping with the general situation in Uganda, where the extent of embezzlement has been a cause of concern on the part of international donors (Biryabarema, 2010a). In 2005 the Global Fund to Fight AIDS, Tuberculosis, and Malaria suspended its grants in Uganda following the theft of funds by Ministry of Health officials. In 2009, some of these officials were being tried and the court

proceedings were headline news. More recently, the man in charge of one of Manafwa's health centres was investigated by police following the disappearance of X-ray machines, an ambulance, gas canisters and drugs (Were Tinka, 2010). Two specific forms of health staff corruption impact directly on people in Bubufu: the extortion of unofficial payments from service users and the stealing of drugs and supplies by health workers who then divert them to their own clinics and shops and direct patients to buy them there.

Despite the abolition of user fees in 2001, health service users throughout Uganda are expected to make substantial payments to staff at various stages of treatment (Transparency International 2006; Bazaka *et al*, 2010). After user fees were abolished in 2001, the incidence of catastrophic health expenditure among poor people in Uganda did not fall (Xu *et al*, 2006) and these authors speculate that this was due to patients having to buy drugs and medical supplies as well as making so-called 'informal payments'. Doctors and nurses often justify their demands by claiming that the government supply of drugs and equipment have run out, and patients are required to buy drugs and items such as saline drips, rubber gloves and disinfectant either directly from the health facility or from shops and private clinics (Ministry of Finance, Planning and Economic Development, 2002). Stories of health workers harassing and abusing patients who cannot pay enough to satisfy them are common (e.g. McPake *et al*, 1999:860). Such behaviour on the part of front-line staff is sometimes attributed in the literature to their poor pay and benefits. In a study of health workers in 18 health facilities in 9 districts, Hagopian *et al* (2009) found widespread dissatisfaction with pay and conditions: nurses, in particular, were unhappy with their compensation packages. According to a study in the Mount Elgon area, local health workers were demoralised by the abolition of user fees or 'cost-sharing' in 2001 (Ministry of Finance, Planning and Economic Development, 2002). Although I acknowledge these difficulties for health workers, what I focus on in this chapter is the way they are able to extract cash from people usually poorer than themselves, because of the highly unequal power relations between health staff and patients, and the part this predatory behaviour plays in rendering poor villagers vulnerable to shocks and stresses other than ill-health.

Poor people suffer disproportionately from health sector corruption, as they are less able than the better-off to pay bribes or turn to private healthcare providers (Transparency International, 2006). In Bunyole, not far from Bugisu, Reynolds Whyte (1997) found that the Nyole people in her study community worried about the costs involved in visiting government health facilities and often preferred to use private healthcare providers, as this removed the uncertainty of dealing with government health facilities and made them feel more in control (1997:211). Informal payments are a brake on progress towards government health targets. For instance, in Uganda as a whole, under-the-counter charges are associated with delays in seeking healthcare for children with fevers (Rutebemberwa *et al*, 2009b). This militates against the District health authorities' target of increasing from 30% to 80% the proportion of febrile children taken for professional care within the first 24 hours of their fever (Manafwa District Local Government Directorate of Health Services, 2005:15).

6.4 Paying the price of illness

During interviews conducted in 2009 and 2010 and during a women's group discussion, people brought up the difficulties they face paying the many charges levied in Bududa Hospital. They also complained about being directed to private clinics and shops to buy drugs and supplies said to be unavailable at the hospital. When describing their experiences at the hands of hospital staff, interviewees gave details of continual demands for payment for medicines, drips, plastic gloves and sheets, antiseptic and even major surgical procedures. People gave a range of prices for the same item and it was clear that bargaining with hospital staff could bring charges down: Table 6.1 contains information on prices charged.

Jessica W. highlighted how even small charges can deter health service utilisation. She explained that nurses even ask patients to pay for notebooks in which to keep their clinical records: 'You can therefore end up worried because you can want to go the hospital but you fail because you do not have 100 shillings'. Several other villagers also talked about being deterred or prevented from accessing healthcare services due to lack of cash, and it was clear that villagers' anxieties about income

poverty (Chapter 7) were to some extent worries about not being able to access healthcare (e.g. interviews with Milton W. and Rita N.).

Although many of the charges are quite small, villagers complained that they quickly accumulate, especially during a stay in the ward. As for the excuses health staff gave for making these charges, people were well aware of the true reason behind many so-called 'stock-outs' of drugs and supplies, as in these extracts:

Irene K: extract from interview transcript

I think this is what they call 'corruption' [note that she uses the English word] because even though a doctor gets a salary, he thinks it cannot solve all his problems, so he tries his best to squeeze the patients until he gets something from them.

Jennifer N: extract from interview transcript

The nurses ask for money although the government says they should continue treating you regardless... You feel it is not right, because this is a government hospital, and yet you have to pay. This hurts; you feel pressure because they won't even help us, the needy.

As I listened to people talk about these matters I realised that the charges, with their attendant pressure and the fear of ensuing impoverishment, often overshadow actual health problems themselves, at least in the case of adults. Serious illnesses, in particular when they affect children, are a different matter. In such cases anxiety about the illness itself is compounded by the pressure of having to pay.

Table 6.1 is based on a small number of Bubufu villagers who were interviewed by Mr. Balungira about their experiences of the government health system in April and May 2010. The table contains information on the health problems for which treatment was sought, where it was sought and the type and cost of the treatment received, as well as how the interviewees paid for it. I do not claim that it provides a representative picture, but it gives a snapshot of the types of ill-health affecting the inhabitants of Bubufu and the cost of accessing biomedical healthcare.

Name	Illness	Place of treatment	Type of treatment	Cost (USh)	Sources of cash
Sam K., wealth rank 3, for daughter	Malaria	Private clinic then Bududa Hospital	Drugs and drip, hospital stay	53,000	Distress sale of beans and cash saved from milk sales
George M., wealth rank 2, for himself	Malaria	Home treatment then Bududa Hospital	Anti-malarial drugs, 1 week in hospital plus drugs and drip	20,000	Borrowed from friend and subsequently repaid from crop sales
James L., wealth rank 1, for his grandson	Malaria	Home treatment with drugs from shop	Anti-malarial drugs	2,300	Pension
Ezra K., wealth rank 3, for his daughter	Malaria	Sub-county health centre		Free	-
Milton W., wealth rank 3, for wife and two children	Malaria followed by wife's miscarriage	Bududa Hospital	Anti-malarial drugs and drips	80,000 for children 70,000 for wife	Money gifts from friends/workmates in Kampala
Patrick N., wealth rank 3, for himself	Malaria	Bududa Hospital	Three days in hospital	70,000	Money saved from coffee sales
Grace B, <i>de facto</i> FHH, wealth rank 3, for daughter	Malaria	Bududa Hospital		20,000	Remittance from husband working in Kampala
Elizabeth N., <i>de facto</i> FHH, wealth rank 3, for herself	Gynaecological problems	Sub-county health centre, Bududa Hospital and private clinic in Mbale		44,000	Remittance from husband working in Kampala
Gertrude N., <i>de facto</i> FHH, wealth rank 1, for granddaughter	Malaria and chest infection	Bududa Hospital	Two weeks in hospital plus drugs and drip	20,000	Remittance from husband working in Mbale
Ida N., <i>de facto</i> FHH, wealth rank 3, for herself	Malaria	Bududa Hospital	Stay in hospital plus drugs and drip	30,000	Borrowed from her brother then worked for him for three weeks as repayment
Nyree M, living with husband, wealth rank 3, for herself	Malaria	Sub-county health centre, then referred to Bududa Hospital	Anti-malarial tablets; also prescribed a drip	Free	Asked husband for money for drip but he told her he had none

Table 6.1: Ill-health, treatment and medical payments May 2009-April 2010 (approximate) from a sub-sample of villagers

Among other things, the table shows frequent diagnoses of malaria, which in itself is one of the most commonly self-perceived risks in Bubufu. Malaria is the single most important cause of morbidity and mortality in Uganda, accounting for 25-40 per cent of outpatient visits to health facilities, 15-20 per cent of hospital admissions, and 9-14 per cent of all hospital deaths (United States Agency for International Development, 2009). In Manafwa District malaria accounts for the majority of children's deaths (Wakhongo, 2008); the malaria case-fatality incidence for under-5s in the area is around 4 per cent (Manafwa District Local Government Directorate of Health Services, 2005:6). Like the other biggest health threats that villagers perceive, cholera and accidental injury, malaria is associated with rainy seasons. There has been a marked rise in the incidence of malaria in the East African highlands since the 1980s (Hay and Simba, 2002). While there is debate about the cause of the increase, some scientists have indicated that rising temperatures associated with climate change are interacting with drug resistance to increase incidence (Artzy-Randrup *et al*, 2010).

The near-silence on HIV/AIDS during the interviews needs commenting on here. In 2008/9 the estimated national prevalence rate was 6.7 per cent (Ministry of Health, 2010), yet it was mentioned in passing by only one or two villagers, which seems puzzling. Other researchers in Bugisu have noted the same thing and attribute it to the sensitivity of the topic (Economic Policy Research Centre, 2001b). Jones, on the other hand, explains the low profile of HIV/AIDS among Ugandan villagers in Teso by pointing to the absence of local HIV/AIDS-related funding initiatives in the political economy of his study area (2009:17). As I did not come across any HIV/AIDS initiatives in my study location either, this is also a plausible explanation.

Bubufu farmers' incomes are seasonal, which contributes to the pressure of paying for medical treatment, but not only farmers complained about the possibility of falling ill when there was no cash available. For instance Milton W., a young man with two young children, earned cash on a seasonal basis as a builder. Yet he told me the risk that worried him most was illness, because 'you will need money to get cured'. He contrasted this with hunger, which he said could be dealt with more easily: in other words, in his experience it was easier to obtain food than cash. Rose N. said illness was her biggest worry:

Rose N: extract from interview transcript

Because you might have a sick child and find later that the child has become lame because of that illness. And because I don't have money to pay for treatment in such a case, so that the child can become whole again.

Such is the salience of medical payments as a perceived threat that several people defined poverty as the inability to pay for medical treatment. For instance, Elspeth B. said that of all things she feared income poverty the most, 'because with poverty, you might get ill and lack the money to go to hospital'. Causal links between poverty and ill-health also work the other way: during a wealth-ranking exercise in a nearby village, villagers defined the very poor as people who have to sell land to meet contingencies such as medical costs, after which the household slides into poverty (Economic Policy Research Centre, 2001a). I discuss how medical payments lead to heightened vulnerability to climate shocks in the next section.

6.5 Pathways from ill-health to vulnerability

There are well-trodden routes linking healthcare expenditure to heightened climate vulnerability as well as vulnerability to other shocks and stresses. Table 6.1 shows that Sam K. paid US\$53,000 for treatment when his baby son contracted malaria. I give more details of this story, which is a sad one, as an example of the connections:

Sam K: from interview notes

In August 2009, Sam K. and Rachel N.'s baby began suffering from malaria. They took him to a private clinic where they spent about US\$15,000, but after four days without improvement they were referred to Bududa Hospital. The reason they decided to take him to a clinic at first was because they thought it was not a serious case. Their journey to Bududa cost US\$7,000. In Bududa Hospital they paid US\$8,000 for drips to be put in the baby but there was still no improvement. They were then told that he needed a blood transfusion which would cost US\$5,000, so Sam hurried back to the village to sell some beans to raise the money for it. He sold 50 kilograms of beans. The transfusion did not work either, so then the doctors advised them to take the baby straight to Mulago Hospital in Kampala rather than to Mbale [the best

hospital for the region]. Sam did not have the money to take the baby to Kampala so he came back home again to try to sell their cow. Before he could do so, the baby died.

The accumulated costs of the baby's treatment were considerable, even though it was ineffective. While I do not have details of Sam and Rachel's cash incomes that year, the following information puts their expenditure in perspective. Sam K. owns about an acre of land and rents three other plots, while Rachel has a small plot given to her by her father. Rachel reported the total extent of their farm as 4 acres (Table 4.2, Chapter 4). According to Wilfred T., beans were selling at US\$1,000 per kilogram in August 2009. That means Sam would have been paid about US\$50,000 for the 50 kilograms he sold to finance the baby's treatment. If the crisis had occurred in June he would have only got half that, because at that time of year many people are keen to sell some of their newly-harvested beans and so the price is low. Those beans amounted to one third of the household's total bean harvest for 2009, which was 150 kilograms. The 50 kilograms Sam sold represented the household's entire harvest for the second season, because the second season's harvest was low that year due to heavy rainfall that flooded some of their land (see Table 4.2). Another way of judging the scale of the payments relative to household income is to compare them with the wages Sam and Rachel usually received US\$1,500 each for a day's casual farm labour. Between them they would have had to work for over 35 days to earn the US\$53,000 their baby's treatment cost them. So it is possible to see here how at the household level, crop loss due to destructive rainfall and health expenditure compound one another to create and deepen poverty and food insecurity, and thus vulnerability to succeeding shocks.

Even Noel M., a teacher, said he feared illness partly 'because every little bit of money that I get will be going towards meeting medical expenses'. The vast majority of villagers do not draw a regular wage, but they have various ways they can raise money to pay for treatment, as Table 6.1 shows. They may have saved the proceeds of coffee or milk sales, like Sam K. or Patrick N.; they may borrow from relatives or friends; or in the case of *de facto* female household heads, obtain money from absent husbands. I also heard of cases where people had to divert capital from their businesses. For instance, Wilfred T., Rose N.'s husband, told me that he had

been forced to sell the stock of his small shop in 2006 in order to pay for his wife's medical treatment. It was several years before he was able to get back into business buying and selling scrap metal, a business which required very little capital. Thus his healthcare payments interfered with his attempts to pursue a non-farm livelihood activity and so protect himself from some of the risks inherent in farming.

Where no cash is available and a loan cannot be obtained, assets have to be disposed of at short notice, the usual sequence being to sell produce first, then livestock, and as a last resort in serious cases, land. For instance, Julia N. said that illness leads to poverty 'because if a child is ill and you have grown your beans, you will have to sell them to pay for the child's treatment.' In order to pay for Irene K.'s Caesarean section and subsequent stay in hospital, her husband, the Sub-County Vice Chairman, had to first borrow money and then sell a cow to repay the loan. In Bugisu, as in other parts of sub-Saharan Africa, one of the reasons people invest in livestock is as self-insurance against such emergencies (Ashley and Nanyeenya, 2005). Cows in particular also serve as collateral for loans to cover emergencies (interview with Gregory N.).

'If you don't have a cow, you sell part of your land', said Irene K. The distress sale of land to pay for healthcare is probably the clearest link between health system corruption and climate vulnerability in the village. John M., no. 7 in Table 4.2, is a case in point. A middle-aged man living alone, he lost an entire season's bean crop when his 'very small' garden next to the Singye was flooded in 2009. Years before, he had been forced to sell his other plots in order to pay for medical treatment for himself. That sale of land heightened his subsequent agricultural exposure to the impact of destructive rainfall, so that in 2009 his distress sale of land was still affecting his well-being. Several other villagers also told me that they had been forced to sell land at one time or another to pay for medical treatment, including Nyree M., who sold a plot of land her father gave her in order to pay for her own medical treatment, and Jason K., who broke both legs in a boda-boda accident in Mbale. The distress sale of land is an important driver of the economic differentiation common in the area (Bird and Shinyekwa, 2005:104); a minority of men are able to accumulate land at the expense of others who slide into landlessness. According to Martin K., this process is happening in Bubufu too:

Martin K: from interview notes

In this community people do not want to help others, so when one is sick and he has no way of getting money what he does is to sell his land. Why people do not want to help others when they are sick is that they want them to reach the extent of selling their land so that they buy it.

I am not so much interested in economic differentiation here as in the way that distress land sales are a direct link between healthcare payments and climate vulnerability because they prevent farmers from spreading weather risks such as crop loss or mini-landslides.

I now turn to aspects of social differentiation in experiences of paying for healthcare. Although the scramble to pay for medical treatment came up as an important theme in interviews with men and women alike, their relations to household resources mean that they experience this pressure in different ways. In the next section I analyse the gender differences, focussing on the pressures that married men and women, including *de facto* female household heads, experience in relation to paying medical expenses.

6.6 Gendered pressure, gendered discourses

Although caring for sick family members is part of women's gendered social role, most people take the view that the final decision on what type of treatment to seek, as well as paying for it, was the responsibility of male household heads. As Agatha B. put it, husbands should make these decisions because 'they are the ones who look after the family', and in any case they control most of the household's cash income and assets. As in other aspects of decision-making, the degree of consultation between wives and husbands differs from household to household; there is no single template for intra-household gender relations, even in the same community (Francis, 2000).

Several male household heads portrayed themselves as anxious, harassed and weighed down by the responsibility for finding the money for treatment, as here:

Patrick M: extract from interview transcript

Like I am sitting here, they can call me and tell me that a child is ill, but when I left home the child was OK. They are things we are always anxious about, because they can happen at any time...When there is illness, I don't have enough income, and this can cause me to lose a person, just because I don't have money.

This resonates with other men's accounts of the pressure they endure when landslides or storms threaten their household (Chapters 4 and 5), and can be seen as belonging to the same discourse of masculine responsibility. While men dwelt on the theme of pressurised husbands and fathers, women expressed a different point of view. Several of the older women said that their husbands were reluctant to allow them to take sick children for medical treatment, even in cases of serious illness (e.g. interviews with Maggie B. and Bridget M.). Wakhongo (2008), too, found that male household heads were often slow to commit money to medical treatment for their wives and children.

The fact is that trying to get cash to pay for medical treatment places stress on both women and men, although their experiences are somewhat different. Because they are at home for most of the day, women are usually the first to notice that a child is ill. Even if the husband is living in the village rather than working elsewhere, men are often away from the home during the day, 'doing business', socialising and in some cases drinking. If a child's symptoms become serious while the husband is away from home, the mother has to get a message to the husband and persuade him to provide the necessary cash. Noel M., whose job as a teacher in another village means that he is rarely at home, volunteered that illness within a family tends to affect wives more than husbands:

Noel M: extract from interview transcript

In most cases men are not at home, so when a child falls sick...it is the woman who will have to find a way of treating the sick child before the man comes back.

Several of the cases listed in Table 6.1 concern *de facto* female household heads who paid for treatment with money obtained from their husbands, and several women talked about how difficult this could be. For instance, Catherine M., whose husband lives in a border town with another wife and rarely visits the village, told me that she often worried about paying for medical treatment: ‘You can get sick yourself, but your husband doesn’t bother to get you treated. And also a child can fall sick and the husband doesn’t bother to send assistance’. She said she had no other source of financial assistance in a crisis, as her natal village was quite far away. She was also concerned about the impact on the household’s food security and prosperity because of her inability to farm during illness:

Catherine M: extract from interview transcript

You may prepare a garden but then you fall sick and can’t sow or plant. Then you will have not fulfilled your dream, therefore calamity. You may get ill in the growing season when others are sowing, but you will be nursing yourself and will be too weak to do anything in the garden. Your children may also fall sick and you will have no time to go to the garden because you are nursing them. Later you will lack food, hence poverty. In this case there may be no way of one accumulating anything that can help you do away with poverty...when you’re ill, you can’t do anything in life.

De facto female household heads may be particularly exposed to the dynamic interconnection of healthcare payments, food insecurity, poverty and vulnerability with the destructive impact of rainfall because of their lack of access to cash and reliance on their own physical labour. The topic in the next section concerns all women of childbearing age, although few of them discussed it: I now consider how the behaviour of healthcare staff affects women’s experience of childbirth in the local hospital.

Giving birth in Bududa Hospital: money or mistreatment

During the individual interviews only two women raised the issue of paying for medical assistance during pregnancy and childbirth. When I subsequently raised this topic myself during a group discussion, however, my question unleashed many

complaints. Women described poor standards of care in the maternity ward of Bududa Hospital and how they endure demands for cash, threats and abuse during labour. It was clear that the experience of attending antenatal clinics or going to the local hospital to deliver could be humiliating, demoralising, disempowering and sometimes dangerous. Although very few women voiced these issues spontaneously, it is important to give their complaints an airing because the conditions and treatment they face damage their human security.

Only 18 per cent of births in the district take place in health facilities (Mafabi, 2007), and women's poor perceptions of giving birth in hospital militates against the MHSSP II target of increasing this to 50 per cent (Manafwa District Local Government Directorate of Health Services 2005:6). For instance, according to Wakhongo, poor standards of care and inadequate health facility coverage are among the factors that deter women from giving birth in government health facilities (2008:124). While I could not obtain District figures for maternal mortality, the national rate is an estimated 435 per 100,000 births based on the annual average for the years 2000-2009, although the World Health Organisation acknowledges that country-reported data are unreliable (World Health Organisation, 2010). According to the national Health Sector Strategic Plan III, perinatal and maternal conditions account for 20.4 per cent of the total disease burden in Uganda (Ministry of Health, 2010:11). In short, childbirth in Uganda carries very serious risks for mother and child.

The issue of unnecessary and expensive Caesarean sections came up during the women's group discussion and to a lesser extent in individual interviews. This operation can be a cause of long-term pain and debility, detracting from women's ability to farm (e.g. interviews with Esther N. and her husband's niece, Heather N.). According to Irene K., doctors persuade women to undergo unnecessary Caesarean sections in order to enrich themselves: 'As we have heard on the radio, this problem of operations is down to doctors...when they operate you have to pay a lot of money'. She said that the operation itself cost about US\$50,000, although other people gave the price as much higher and stressed that the cost of surgery is just the start of the expense involved: 'after that you keep on paying for other things until they discharge you.'

Women also described a regime of apparently general mistreatment in the ante-natal clinic and maternity ward of the General Hospital:

Theresa J: extract from group discussion

When you are due [to give birth] they still mistreat you, saying they need money in order to help you. When you say there is no money, they say ‘you are giving yourself to death, but if you want to give birth then it is all up to you’. There may be no gloves, toilet paper, and no polythene bag and yet you have no money, so the nurses leave you without help and you die. Or you give birth to a child who gets tetanus and it dies.

Lilian M: extract from group discussion

You may be ill from just one month after conception until you give birth. When you go to hospital the nurse may scold you, saying: ‘Why are you in that shape? Why did you leave yourself in that shape? You shouldn’t have got pregnant for you are too old.’ She may have been telling you this during the ante-natal checks but when it comes to giving birth she will ill-treat you to the maximum, knowing that the male doctors don’t care about women’s problems. They should be of help to us as nurses. And this can affect your childbearing.

As well as jeopardising lives and well-being, extortion, harassment and abuse also undermine women’s dignity, one of the core elements of human security (UN Commission on Human Security, 2003).

The low proportion of women who give birth in the hospital only partly explains why I heard few complaints about inadequate service and bad treatment during the individual interviews and PRA sessions with groups of women. When I questioned their initial silence, women gave the following reasons for it: that people only perceive a threat when it is imminent, so that women only mentioned childbirth risks to me if they were actually pregnant; women dwelt particularly on economic issues because they thought I might be able to ‘assist’ them; and finally, the assumption that our research interests excluded women’s reproductive health concerns.

Most of these explanations are plausible, and it is likely they all helped to banish reproductive health risks from the agenda. However, I want to concentrate on the suggestion that our research focus excluded women's gender-specific concerns. This seems odd, given that the open-ended interview style was designed to enable interviewees to raise any threat they wanted to discuss and that Uganda's maternal and infant mortality rates are among the highest in the world (World Health Organization, 2009). Although the PRA sessions were meant to focus on community-level risks, reproductive health risks need not have been excluded, since these problems affect all women of child-bearing age. I interpret the women's silence on reproductive health threats as an example of women as a 'muted group' whose specific interests and priorities are marginalised by the dominant masculine discourse (Ardener, 1975).

The childbirth experiences of Lydia M. were quite different from the harrowing stories I had heard about hospital births, which might seem paradoxical as she gave birth to both her children at the side of the road. On both occasions she had set out to give birth in the hospital, accompanied by a neighbour carrying a 'birth kit' (a pack of essential items such as a plastic sheet and plastic gloves). When she started to give birth en route her neighbour spread the sheet on the ground and used the gloves to help with the delivery. According to Lydia, everything had gone well and she seemed to find nothing remarkable about her birth experiences. Perverse though it may seem to an outsider, Lydia's relaxed attitude to childbirth was related to the fact that she had not reached the hospital in time: it meant she was spared the mistreatment other women endured there.

6.7 Summary

Across Uganda, healthcare payments cause financial catastrophe for poor people (Xu *et al*, 2006). The nub of my argument is that worries about health are often worries about expenditure: as Elizabeth N. told me, in Bubufu 'sickness needs money'. The need to pay for medical treatment in turn arises from coercive demands from local health staff, linked to the systematic stealing of medical supplies from the government's health system. So fears about ill-health are, at least in part, rooted in the abuse of the highly unequal power relations between healthcare staff and patients

in the local hospital, one of the most important local governance institutions in the area. My evidence indicates that married men and women tend to experience these pressures in different ways due to men's greater access to cash and their control of household resources.

The bland vocabulary of the medical social science literature, with its 'informal economic activities' (McPake *et al*, 1999), 'drug leakages' (Xu *et al*, 2006) and 'informal payments' (Bazaka *et al*, 2010) obscures considerable human suffering. Frontline health workers, like the people associated with other governance institutions, are social actors who sometimes play a distinctly negative role in poor villagers' lives. The corrupt and coercive behaviour of health workers in Uganda seems to have a surprisingly low profile in the wider development literature, given its significance as a driver of rural impoverishment and its salience in poor people's subjective experiences of insecurity. Why is this? Perhaps academics and development professionals are reluctant to criticise scarce, poorly-paid and hard-pressed health workers, or perhaps they see these problems as moral issues that do not belong to technical development discourses. Framing the problem as one of unequal power relations, I see the behaviour of health workers as one element in a bigger picture of conflicting interests and contestations. Through various pathways, having to pay for their healthcare heightens people's climate vulnerability by weakening their capacity to cope and adapt. Selling land to pay for healthcare is an obvious example. As well as the material impacts of the payments, poor people often endure humiliation and distress when they attend the general hospital, which is a human security issue too.

In the next chapter I continue the themes of gender differentiation and asymmetrical power relations. I explore some gender aspects of income poverty and food insecurity, which are the routine stresses that permeate the lives of many people in the village.

Chapter 7: Household-level food insecurity, income poverty and conjugality

7.1 Introduction

As in Chapter 6, in this chapter I also address the role of asymmetric power relations in creating and perpetuating climate vulnerability and human insecurity. In that chapter the arena was a key local governance institution and the mechanism driving the process was the levying of unofficial healthcare charges. Here, I turn to another arena in which asymmetric power relations are played out: the household. I analyse the socio-cultural dynamics of conjugality in relation to household-level food insecurity and poverty. I discuss the spouses' different perspectives on these problems, which are related to gendered structural positions and power relations within the household. I also point to the role of conjugal power relations in helping to create household-level food insecurity and poverty. Finally I argue that a long-term social trend may be underway whereby married women's household bargaining position and social status are deteriorating.¹⁰

I have already made some allusions to the severe and widespread poverty that characterises the village. Most, if not all, of the human security issues I analyse in this thesis converge in these problems, and villagers also prioritised hunger and poverty as both risks and stresses in their own right. Seventy-nine per cent of adult men and twenty-six per cent of adult women identified household food shortages as a threat; I explore possible reasons for this striking and, on the face of it rather puzzling, gender difference. Income poverty, on the other hand, was mentioned as a threat by roughly equal proportions of men and women; 35 per cent of women and

¹⁰ This chapter is very much a co-construction by the study participants and me as the researcher, by which I mean that my own positionality as a gender and development specialist has led me to frame the topic of food insecurity and income poverty in terms of conjugality. This does not mean that I see gender relations as the primary driver of food insecurity and income poverty in the village, only that I am interested in investigating how unequal gendered power relations can create or exacerbate these problems in specific households.

26 per cent of men. While people usually talked about food shortages and income poverty as if they were separate, I deal with them together in this chapter because in fact they now overlap. This is due to the monetisation of food, a trend that underlies the discussion in this chapter and which seems to be harming married women's social position.

I begin by analysing the changing relationship between food security and subsistence agriculture (section 7.2). In section 7.3 I focus on contrasting conjugal perspectives regarding food insecurity and poverty. In section 7.4, I consider the dynamics of conjugal power relations and household-level food insecurity and poverty. This leads to a discussion of divorce (section 7.5) in which I argue that women's attitude to leaving a marriage may have changed because their declining social status is linked to the monetisation of food. I show the relevance of this analysis to my research question.

7.2 The merging of income poverty and hunger

In this section I start by briefly discussing the seasonal nature of household food shortages. I go on to argue that the moral economy in Bubufu is changing as subsistence agriculture, although still crucial to household livelihood portfolios, diminishes in importance.

In Bubufu people used the word *intsala* (hunger) when talking to me and my assistant about household-level food shortages of varying depth and duration. At one end of the spectrum was the odd missed meal, while some individuals and households sometimes experienced a whole day without any food at all. More serious were longer periods of surviving on only one meal a day. Periods of eating posho or matoke with no relish other than bean leaves were mentioned quite frequently. Bean leaves are regarded as a very inferior relish as they are reputedly hard to digest. Although during my time in the village I saw many bunches of beans hanging up to dry in compounds, the use of household granaries to store millet and cassava has been discontinued. Among those old enough to remember them, the consensus was that the last granaries disappeared in Bubufu 15 or 20 years ago, although I heard that they were still in use in a few other villages. An elderly widow, Penelope K., remembered how in her youth, people used to store several bags of

maize after the harvest; ‘But nowadays everything is bought, and if you don’t have any money then you don’t get’.

The gap between finishing off food produced in the second season and harvesting produce from the first season is still called the ‘hungry month’, although for many people it now lasts longer than a month, due to a combination of land scarcity and poor agricultural productivity. Traditionally the hungry month fell in April: when I visited Ezra K, in late March, he told me that there would only be ‘three houses cooking’ in the whole village that day. But according to Patrick N., who gave his age as 29, the hungry season had spanned both April and May ever since he could remember:

Patrick N: extract from interview transcript

It is in June when [people] start getting the first beans and they begin eating their own food, but around April and May the situation in which they live is not usually good.

Periods of food insecurity are common in many communities in the area (Ministry of Finance, Planning and Economic Development, 2002; Wakhongo, 2008). Climate variability is a factor in determining the length of the hungry season, but some households are vulnerable to a shortage of food all year round, including those headed by elderly widows and widowers. The customs of allocating land to sons during a man’s lifetime on the one hand and stripping widows of their land and other assets on the other create food insecurity and poverty in old age. While some elderly people receive regular support from kin or neighbours, several sources indicate that support for the elderly in Bugisu is sometimes given grudgingly (Heald, 1998) and is always constrained by poverty (Ministry of Finance, Planning and Economic Development, 2002:2).

I now turn to the changing relationship between household food shortages and subsistence agriculture.

‘Eating from your pocket’: The need to buy food

Interviewees tended to name food shortages and income poverty as distinct threats. I interpret this as a throwback to the old days when food needs used to be met by subsistence farming: nowadays households must supplement their own production by buying food for at least part of year. In Teresa J.’s words, ‘We who live in the hills have to buy almost everything, just like in town’. Mr. Wellington D., the sub-county Vice-Chairman and a respected community member in Bubufu, said that there were only two or three households in the whole village that did not have to buy food on a regular basis and that most had to buy food for at least one of their two daily meals. Whitehead and Kabeer (2001) point out that the large multi-household compounds that characterise West African societies provide some protection against food insecurity. Conversely, the Gisu pattern of living in nuclear families may have the effect of heightening individual households’ exposure to sporadic food shortages.

A phrase I sometimes heard to describe this was ‘eating from your pocket’, and it was clear that it had negative connotations. Posho, in particular, has to be bought, because although it is a popular staple, no-one in Bubufu grows enough maize to be able to store it for future consumption. The fluctuating price causes problems for the villagers when prices are high.¹¹ The price changes are related both to local conditions, such as heavy rain and flooding which impede transport from Mbale, and broader factors, including demand for Ugandan maize flour from neighbouring Kenya. It is government policy to protect the price that large farmers receive for their maize, reflecting the national policy orientation towards promoting commercial agriculture (Biryabarema, 2010b).

When did people start to ‘eat from their pockets’? In Bubufu it seems to be quite a recent development. For instance, Alex W., who gave his age as 39, claimed that during his boyhood all the household food needs were met from subsistence agriculture. On the other hand, as far back as 1959 La Fontaine observed that the Gisu used their income from cash crops to buy food when their subsistence food harvests were poor. For the poorest income quartile of households in three Mbale

¹¹ The local price of posho has fluctuated sharply in recent years. For instance, in 2008 it rose from US\$ 400-500 shillings to US\$3,000 per kilogram within the space of a few months. In early 2009 the price per kilogram was US\$1100-1200, but by early 2010 it had fallen to US\$700.

District villages, subsistence consumption by value was found to represent only 33.4% of households' total income, falling steadily across the income quartiles to only 23.2% in the highest quartile (Ellis and Bahigwa, 2003:17).

Writing of another part of south-eastern Uganda, Bunyole, Whyte and Kyaddondo (2006:174) argue that the need to buy food is leading to a 'conceptual delinking' of food security and subsistence farming. In Bubufu, the goal of self-sufficiency in food survives as a cultural ideal rather than a realistic goal. This is reflected by contradictions in people's statements. While they tended to talk about food shortages and income poverty as if they were distinct threats, what they went on to say suggested that in fact they overlap:

Milton W: extract from interview transcript

Poverty has caused hunger because when you don't have money you won't survive hunger, and also we don't have enough [subsistence] food, because there has not been enough rain, so our cassava and sweet potatoes have not done well.

Belinda M: extract from interview transcript

These days, if you can't pull cash out of your pocket to buy posho, you go hungry.

Gerald K., the son of a widow, was struggling to find the fees to stay in secondary school. He was unique in identifying low rates of pay for casual labour as the cause of household food shortages and income poverty, rather than the land shortage or farming problems:

Gerald K: extract from interview transcript

What causes people not to have food is because people don't have good earnings to enable them to buy food or sugar. Here in the village you have to work before you can buy soap or paraffin, and to get such things you have a lot of sweating.

Gerald's comments suggest the existence of a rural 'proletarian' class, which is supported by Bird and Shinyekwa's comments on three villages in the area (2005:104). La Fontaine (1962) also observes that poor Gisu men with little land were forced to work as casual labourers for the better-off men in their communities. If there really is a proletarian class in Bubufu this it would mean that the link between subsistence agriculture and food security has been completely ruptured for some people. In both Belinda and Gerald's cases though, their need to engage in casual farm labour was bound up with their life-stage and it seemed to be a temporary situation for them. Belinda, an elderly widow, claimed that she received no support from her son, although some of his children are living with her. Gerald had not yet inherited any land; his mother and grandmother farmed the land he should eventually inherit. In other words, neither of these individuals seemed to be members of a permanent proletarian class. Many other people, both men and women, also did casual farming labour from time to time as a component of their livelihood portfolios. None of the interviewees in this study were completely landless, so I have no evidence that there is a proletarian class in the village. However, landlessness had driven many others out of the village to join the urban proletariat.

The experience of income poverty

While income poverty is a cause of household food shortages, conversely the need to buy food contributes to the income poverty that blights many Bubufu residents' lives. The only figures I can find on this are rather old. According to some studies, around 60 per cent of rural households' expenditure in Uganda goes on food (e.g. Okidi and Mugambe 2002:14, cited in Bird and Shinyekwa 2005; and Ugandan Ministry of Finance, Planning and Economic Development 2000, cited in Whyte and Kyaddondo 2005:180). I did not ask anyone to define income poverty, but it is possible to infer what it means in people's everyday lives from individual interviews and group discussions. Table 7.1 contains a list of the features of income poverty that people mentioned.

Lack of food or poor quality food.
Inability to pay for healthcare without selling land
Lack of basic farming implements, e.g. hoes and pangas
Lack of household necessities, e.g. paraffin for lamps, firewood, matches and salt
Physical discomfort while sleeping due to lack of mattresses and bedsteads
Poor housing; dilapidated, leaking roof (banana-fibre roof rather than tin roof, or old and leaking tin roof)
Inability to protect the household from landslides by relocating (people living on upper slopes)
Being cold and wet during the rainy season due to lack of suitable clothing
Going barefoot, which is especially undesirable during rainy seasons due to mud
Inability to accumulate productive assets such as land, livestock and start-up capital
Inability to protect against malaria due to lack of mosquito nets
Poor health due to poor diet and restricted access to medical care
Children's restricted access to education due to inability to pay school fees and primary and secondary schooling costs, e.g. exercise books, pens and school uniforms
Shabby and ragged clothes (mainly women)
Lack of basic furniture and house ware, e.g. chairs, mattresses, cups and plates (mainly married women)
Inability to pay bridewealth leading to delay in marriage or defilement charges (young unmarried men)
'Divorce' by wife due to material deprivation (male household heads)
Having to undertake high-risk work, specifically digging pit latrines (male household heads)

Table 7.1: What income poverty means in Bubufu

The list in this table contains a mixture of capabilities and functions of various types. The earlier items on the list refer to basic physical needs, while those lower down are what Sen (1993:31) calls 'more complex' functions. Some of these are gender-specific; I discuss this in relation to married women in section 7.3 and in relation to young unmarried men in Chapter 9.

As Table 7.1 indicates, an important feature of income poverty in Bubufu is that it prevents the accumulation of productive assets such as livestock and start-up capital for micro-enterprises, widely regarded by rural Africans as the building blocks of material prosperity (Ellis and Bahiigwa, 2003). In Bubufu, people sometimes talk about households 'developing' – using the English word – but having to buy food can prevent this incremental process. As Irene K. commented, 'even if you work hard, if you are buying food for both meals a day, you cannot develop'.

In the context of broad social policy debates, Sen (1993:41) argues the importance of influences other than income in individuals' capabilities. From the standpoint of a person living from day to day in Bubufu, on the other hand, where access to even basic social services need to be paid for, income is perceived as the key to capabilities. For instance, explaining why she worried more about poverty than about sickness, crop theft, food shortages or heavy rains, Maggie B. observed: 'When you have money, all those problems can be solved'. Accordingly the struggle to obtain cash through crop sales, waged employment, business activities, remittances or 'assistance' from relatives was a common topic, as other researchers in rural Uganda have also found (Reynolds Whyte, 1997; Whyte and Kyaddondo, 2006).

Next, I consider married men and women's perspectives on household food shortages and income poverty, and argue that intra-household gender relations strongly shape the experience of these problems.

7.3 'Women sit at home, men don't care': Contrasting conjugal perspectives

In this section I analyse Gisu gender ideology in relation to food insecurity and, to a much lesser extent, to income poverty, for two reasons. First, I show that married men and women's experiences of food insecurity and poverty are heavily influenced by their gendered positionality and their conjugal relationships. Second, I argue that the discourses through which gender ideology is articulated in themselves shape men and women's material experiences of these problems. I begin with the dominant ideology as articulated by married men, although, as I point out later in the chapter, not all men subscribe to this ideology.

Married men's point of view: 'Women look to their husbands'

Just as married men stressed their responsibility for coping with landslide threats (Chapter 5) and medical costs (Chapter 6), some depicted themselves as weighed down by the responsibility of provisioning the household and meeting financial needs such as school fees for children at secondary school:

Ezra K: extract from interview notes

April is the hungry month. Women look to their husbands to buy food. Every morning you have to get up and look for work. When you get back, you find your children crying [from hunger], and you start crying too.

Robert M: extract from men's group discussion

In looking for school fees you find the women don't care and wait for the men to do so, thereby men have to face the problem alone. You find the men have a bigger responsibility than the women.

Noel M: extract from interview notes

Hunger affects men more than women, because these days people mostly buy [food] and it is the man's responsibility to buy food.

These comments exemplify the typical masculine discourse on the gendered dimensions of food shortages and poverty; they are corroborated by a survey in a nearby village that found that men were responsible for buying maize flour (Economic Policy Research Centre, 2001a:23). My evidence is also in keeping with studies from other parts of Africa indicating that responsibility for providing food, which falls on women during 'normal' times, is generally transferred to men during periods of food insecurity (Jackson, 2007).

However, what Patrick N. said needs to be considered alongside his wife Ida's account of her own experience of food shortages. She told me that before leaving his second wife in Mbale and returning to the village Patrick had been sending very little money for the family upkeep, so that she and her children had been living on a very restricted diet from October to December 2009. Whether they are able to fulfil them or not, men's obligations for household provisioning may explain the apparent puzzle of why a much higher proportion of men (79 per cent) than women (26 per cent) identified food shortages as a threat to human security. My interpretation is that the need to buy food puts pressure on male household heads during the hungry season and whenever there is a household food shortage.

Closely linked to the notion of heavily-burdened male household heads is a stereotype of idle and unsupportive wives. Here is Noel, the teacher, again: ‘Most women just sit at home and wait for the man to provide, except those who are working or doing some business.’ Noel said that his wife Jessica was ‘just a farmer’, which seemed unfair as she had recently worked both as a part-time nursery school assistant and as petrol pump attendant in nearby Bududa. In fact she was the only woman I came across who had worked in waged employment other than casual farming work. Ezra K. used the job of digging pit latrines, which have to be sunk very deep, to contrast men’s strenuous and sometimes risky labour with women’s perceived inertia at home:

Ezra K: extract from group discussion transcript

Men face a high risk when digging a pit latrine and ...when you get to a depth of 20 metres (sic) the risks are so high that each day you survive is a bit of good luck. The wife many not know what you are going through, and will be expecting you in the evening as usual with the necessities, but instead she may hear you have had an accident.

As he ended this comment, other men in the discussion group laughed wryly. For me this emphasised the performance element of such group discussions, although I do not deny that men’s efforts to earn money do sometimes incur risks that their wives do not share. Another man reiterated Ezra’s point:

John K: extract from group discussion transcript

We have to dig pit latrines to get money to stop poverty in the home, but as we do it the problems we face are: we can lose our lives, we may be hurt, and much more.

During this discussion Ezra K. also invoked the ideal of the ‘patient wife’, that is, the wife who endures hardship quietly and supports her husband when times are hard. He was immediately backed up by Robert M., so I quote them both here. It was clear that in some men’s eyes Bubufu wives commonly fall short of the ideal of the patient wife, being far too quick to return to their natal villages when things go badly. In the second extract, below, Robert highlights how a ‘late start’ to the main growing season puts pressure on conjugal relations.

Ezra K: extract from group discussion transcript

Another thing that can befall the men is if you don't have a patient wife in a time of hunger, it normally mistreats us to the extent of not knowing what to do in order for the family to feed. So if you have a woman who is not patient you may be left with the children, an even worse problem.

Robert M: extract from group discussion transcript

To emphasise that, you may have a wife in the home but in this season there is a lot of hunger. If you don't have a patient wife she may go and leave you with the children. But if you are two heads you may help one another; a man will be out to look for money, while the wife is trying to make ends meet at home. Now in such a time our hope is in farming, and there is no other way apart from farming. When you grow crops like beans, maize and bananas you are hopeful that if the rains come early you will be able to get something to eat and all will be well, but you find that this has not happened. We therefore find life very hard, but the women will not be patient with us.

The ethnographic literature adds weight to these men's perceptions of conjugal vulnerability, with several writers commenting that Gisu wives tend to be more assertive than married women in many other African societies. For instance, according to Roscoe, Gisu women 'were not so docile as wives in other tribes, and unless a husband asserted himself vigorously, there was constant bickering' (Roscoe, 1924:35). Both Heald (1998) and La Fontaine (1959) argue that poor men in particular are highly dependent on their wives because they need their labour power and child-bearing potential to help them to achieve their gender-specific functionings as Gisu men. As Heald points out (1998), heading a prosperous household with many children is the main source of masculine prestige in Bugisu.

In terms of Sen's co-operative conflict model (1990), Gisu wives seem to have quite a strong breakdown position if their husbands fail to provide, thus enhancing their bargaining power within marriage. They usually come from villages close by, and this proximity to their natal villages enables them to maintain strong ties with their kin after marriage. My household survey shows that most of Bubufu's married women were from other villages in K. sub-county, neighbouring sub-counties or an

adjacent district. La Fontaine (1962) and Heald (1998) both comment on the ease with which Gisu women are able to divorce their husbands and return to their kin should things go wrong. When this happened, Heald claims, it was usually seen as the fault of the husband (1998:100). In addition, Gisu women generally have no problems in remarrying after a divorce. La Fontaine quotes a Gisu saying; ‘A woman can always find a husband but a man who cannot keep a wife is indeed unfortunate’ (1960:115). In section 7.5 I look at the reasons women give for leaving their marriages, but here I consider married women’s discourses about their husbands’ behaviour in relation to food insecurity.

‘Men don’t care – well, maybe just a few’

Whereas the men talked of unsupportive wives, the women spoke of selfish and irresponsible husbands. The phrase ‘Men don’t care – well, maybe just a few’ came from Teresa J. and encapsulates the dominant women’s discourse on food shortages and poverty. That discourse is also well-represented by Heather N., a young unmarried woman living with her aunt and uncle, during the same discussion:

Heather N: extract from group discussion transcript

According to my observation hunger affects women more, because when a man roams around he can meet a friend and he tells him ‘I’m feeling hungry. How much money do you have? Lend me something and I will repay you tomorrow’. When they give him he goes and eats. After a short while he can meet another friend and he asks him ‘I’m hungry. What have you been eating in that café, so that I can also eat?’ As for the wife, it could be that she has not eaten anything since she picked a few bean leaves; sometimes you can even lack salt. You might have a baby six to nine months old, who cannot eat bean leaves. You wonder what to feed the child, but there is nothing. You think of breastfeeding the child but you find that your chest is dry. When you try to ask the man he says ‘Do you want me to cut off my hands and sell them so that I can buy posho for you?’ Then he starts to abuse you; ‘I don’t know why I married an ignorant woman, this is the problem with marrying women who are not educated. Get the hoe and dig!’

Heather told me on another occasion that her uncle, Ezra K., who I have also quoted in this chapter, treated his wife well. So her story of husbands' selfish behaviour and marital strife may be based on hearsay and observations of village households other than her uncle's. It is supported by other women's stories and remarks collected during the fieldwork. Wakhongo heard similar stories from the children she interviewed. Some complained that their fathers ate outside the home, leaving them to go hungry, or that when they did come home they ate up most of the food (Wakhongo, 2008). One of the phrases that Heather used above, 'when a man roams around', suggests that men and women's mobility patterns are partly responsible for the gendered nature of food insecurity. These patterns are linked to the gendered division of labour. In an individual interview Irene K. argued that married women experience food shortages and poverty more sharply than their spouses because: 'They are the ones who sit at home and know the misery the family goes through, but the men are usually out'. A local government officer commented that, after landslides, male household heads who leave the village to seek work have better access to food than their wives and children who remain (Chapter 5).

While some married men in Bubufu undoubtedly take their food provisioning obligations very seriously, there are others who put their own interests and leisure first. For many in this latter group, drinking is their leisure pursuit of choice. Data on payment rates for casual farm labour reveal interesting differences related to gender and age. Women are usually paid a kilogram of posho together with oil and vegetables for sauce, or the cash equivalent of all these ingredients. In March 2010 this amounted to USh1,000; USh500 for a kilogram of posho and the rest for oil and vegetables. Tying women's pay rates to the price of food means they are subject to large fluctuations; for example in early 2009 the price of posho (USh1500 per kilogram) was three times higher than in March 2010. On the other hand, women are guaranteed a family meal in return for a day's work. Traditionally, men are paid with a two-litre can of local beer or the cash equivalent, which in 2011 was USh2,000.¹² In the context of waged farm labour it seems that women, rather than men, are defined as the household's food providers, which is at odds with my other

¹² Unfortunately I have no data on the price of local beer in 2010. The relative pricing of posho and local beer over time and the effects on men's payment preferences for casual labour, if any, would be an interesting research topic.

evidence on gendered roles in food provisioning; married women's casual farm labour seems to be regarded as a substitute for their subsistence farming role rather than as an income-earning opportunity. The gender dichotomy in payment preferences is not clear cut; although young men and older men (presumably those without young children) are paid in beer or its cash equivalent, some married men prefer to be paid in the cash equivalent of posho and sauce so that they can feed their children (Interviews with Fred W. and Milton W.).



Figure 7.1: Beer drinking party

Paying for farm labour with beer parties is an old custom in Bugisu (La Fontaine 1959:16) as in other parts of East Africa, although women did not use to take part in them (Heald, 1998:85). In Bubufu the custom seems to be undergoing a process of monetisation that is not yet complete. The change is connected to the commercialisation of drinking, which in turn has a strong bearing on the gender dimensions of food shortages and poverty. As I mentioned in Chapter 2, there are several bars in the village. Groups of men, and a few women, congregate in them from the morning onwards, drinking from shared pots of beer. People also hold private beer parties (Figure 7.1). More than once I saw drunken men staggering through the village or slumped in a stupor at home. Women in the discussion groups complained about their husbands spending money on drink, and other studies in Uganda have found men's drinking to be a causal factor in household poverty and

marital breakdown (Dolan, 2004; Bird and Shinyekwa, 2005). On the other hand; the evidence given above about payment rates for farm labour above suggests that not all husbands conform to the women's stereotype of the squandering drinker; heavy drinking is nothing new in the area (Purvis, 1909; Roscoe, 1924); and beer and spirit-making is an easy-entry, profitable livelihood activity for some women (see Figure 7.2).



Figure 7.2: Woman selling malt at the parish trading centre

Food insecurity may also lead in one way or another to domestic violence associated with husbands' drinking. Although participants in one of the women's discussions claimed that domestic violence was common, only one woman mentioned it in her individual interview, and in this case it was closely related to food shortages:

Rose N: extract from interview transcript

Your husband can leave you at home when you are feeling hungry because he has not left food. When he comes back and asks for food and you tell him he did not leave any food he can beat you...The other thing is he can get some money and he decides to go away and leaves you hungry. He could have other women outside, and when he comes back and you try to ask him for food he can beat you.

A neighbour told me that Rose's husband often beat her. According to Heald (1998:64), domestic violence is not condoned in Gisu society. Traditionally it is seen as an offence against the wife's father that infringes an important intergenerational relationship between male affines. In keeping with this, I heard that if neighbours hear a man beating his wife they often call out this warning to try to get him to stop: 'Why kill someone's daughter?' Whether condoned or not, Bird and Shinyekwa (2005:109) found that domestic violence was 'reportedly widespread' in the three villages they studied and was strongly associated with male alcohol consumption. It also featured in several of the marital breakdowns that I discuss later in this chapter.

So far I have concentrated on gendered positionality in relation to food insecurity. Experiences of income poverty are also gendered to some extent, as Table 7.1 shows. Owning a decent outfit, a few chairs and eating utensils are complex functionings that matter to married women rather than to their husbands. Often when I arrived in a compound to interview someone there would be flurries of activity as women dispatched children next door to borrow something for me to sit on. Elizabeth N. said that she had sold a third of her entire 2009 harvest of beans to get money for a set of chairs, as she had always had to borrow chairs from neighbours whenever she had visitors. Women's savings objectives are illustrative of their priorities; women members of the village's revolving savings groups often spend their payouts on a set of plates or cups. A male local government officer I interviewed sneered at this on the grounds that cups are not a productive investment. This misses the point. Teresa J. talked of asking her husband for money to buy new plates, and her embarrassment when such things are lacking:

Teresa J: extract from women's group discussion

You can tell him to give you some money so that you can buy plates in the house or something good. As you know for us women, when a visitor comes home it is you who gets embarrassed. You can get a plate to serve your visitor thinking that the plate is good, yet it is not good and you get embarrassed. So you might tell him to give you some money to buy something good in the house so that when a visitor comes you are not embarrassed and she can go back and say that your house has nice things. However your husband might not like that idea.

While men can meet their friends in bars or the trading centre, women are bound to the home. Although it may not be a productive expenditure in the short-term, buying chairs and plates means that women can entertain visitors with dignity. In material terms, it enables them to maintain social bonds and networks that, among other things, provide informal insurance (see Chapter 8).

In this section I have argued that spouses have different, gendered experiences of food insecurity and poverty. While I found women to be a muted social group in relation to some issues (e.g. reproductive health, as discussed in Chapter 6), ‘muted’ is not the word I would use to describe married women’s discourse on household provisioning. Perhaps the difference is that these matters have traditionally been seen as areas of legitimate contestation for wives, while concerns around their reproductive health have not. In the next section I make the case that the unequal power relations that imbue Gisu conjugality contribute to household-level food insecurity and poverty in some cases, as well as shaping gendered perspectives on them.

7.4 ‘You are not the man in this house’: Men’s disposal of food crops as a threat to food security

The local sale of food crops is a major and in some cases the main source of cash income for rural households in south-eastern Uganda (Whyte and Kyaddondo, 2006). In three Mbale District villages an average of 59 per cent of household income came from crops and livestock, and there has been a move away from the traditional cash crop, coffee, to the sale of food crops (McDonagh, 2005). This change is linked to the dismantling of marketing parastatals and the diminishing size of landholdings: in small gardens it makes more sense to grow food crops, which can be either eaten or sold, rather than coffee, which can only be sold (Economic Policy Research Centre, 2001a). On the demand side, land shortages, weather shocks and stresses and declining soil fertility have all combined to create a local market for food such as beans and maize. ‘Nowadays’, Ernest M. told me, ‘every crop is for sale’.

The monetization of food crops in the area seems to have begun about 20 to 30 years ago. Villagers in Bunabusu village, Bududa District, told researchers that the monetization of maize and beans started in the mid-1980s and that the sale of these

crops had become more important ‘by the day’ (Economic Policy Research Centre, 2001a:25). That timeframe matches Whyte and Kyaddondo’s (2006) observations in Bunyole. On the other hand, La Fontaine (1960:119) mentions Gisu men selling surplus food crops in the 1950s. The comments below suggest that the monetization process is still regarded as something new in Bubufu and illustrate men’s involvement in and attitudes to growing and selling food crops. The third statement, by Ernest M., illuminates the changing status of beans in particular.

Albert N: extract from interview transcript

The system changed when everything became commercial. Anything that was planted could be sold, so men began to plant anything there was a market for.

Gordon N: extract from interview transcript

Men never used to grow beans. They thought that beans were useless, because they were just for food and one would not sell them to get money. But these days crops like beans are being sold.

Ernest M: extract from interview transcript

It is coffee that men are usually interested in. However, these days men have also begun to make decisions regarding the sale of beans, which was not the case before. What has brought about this change is that people have found a market for beans, so they get money out of them. In the past, people just grew beans to eat at home, and when someone visited you the normal thing was to give them some beans as he was leaving; but these days no-one will give you free beans, because they can sell them.

The only food crop that men do not sell is sweet potatoes. As Irene K. remarked, ‘men do not grow sweet potatoes because no money comes out of them’. For some reason they are still regarded as a woman’s crop, reflecting the LADDER survey finding that 94.3% of sweet potatoes were consumed in the household (Ellis and Bahigwa, 2003:1005).

So what are the implications for household food security? There is an obvious positive side to the opportunities that this local market in food represents. For instance, Mary M. talked about people managing to pull themselves out of temporary poverty by selling beans. Roland J. highlighted the importance of income from the sale of food crops in a context of scarce non-farm livelihood options:

Roland J: extract from group discussion transcript

There is no other way of supporting ourselves apart from farming, because we look at planting, say beans and maize, as our work, and when these crops grow well then we can buy some soap, get something to eat and look after our children by buying them school exercise books.

However, married women complained about their husbands selling food crops the women had grown for domestic consumption and using the proceeds for their own leisure, jeopardising food security for other household members:

Heather N: extract from group discussion transcript

Sometimes when you grow the cassava and it's almost ready, [the husband] comes and says 'This cassava seems to have matured. Why don't we sell it and buy some posho?' It could be you have not eaten any of that cassava. After he takes it away to sell, you won't see him again.

Walter P., a male household head in his late 30s, was the only man I came across who challenged the prevailing gender ideology on this issue:

Walter P: summary from interview transcript

Walter prided himself on 'cooperating' with his wife, which he attributed to his mixing with educated people when he was young. But he said that this kind of conjugal relationship was rare in the village, and he was critical of how other Bubufu men treated their wives: 'It's not unusual to find a woman crying by the path because her husband has sold an animal without consulting her or because he has sold all the beans she helped to grow without telling her'. He linked such behaviour to men's drinking. The passion that Walter displayed when talking about the issue seemed to spring from his own

experience as a boy. He said that his father had sold food that his mother had grown without consulting her, denying her even a new dress from the proceeds. He spent some of it on school fees for one of Walter's older brothers. Walter, on the other hand, had to drop out of school at Senior Grade 1 due to lack of money for fees, and clearly he still resented this injustice.

Walter's difficult boyhood relationship with an unsupportive father seemed to underlie his identity as a dissenter regarding Gisu male supremacism, and his anecdote illustrates the intergenerational tension often found between Gisu fathers and sons (La Fontaine, 1959; Heald, 1998). When I asked if things had changed since his parents' generation he said that, if anything, marital relations tend to be worse now: because of men's drinking, wives have to do all the work and poverty is widespread.

Women's accounts of male household heads appropriating household resources for their own use are corroborated by evidence from several other studies in south-eastern Uganda (e.g. Ministry of Finance, Planning and Economic Development, 2002; Bird and Shinyekwa, 2005; Iversen *et al*, 2006; Whyte and Kyaddondo, 2006). In another study in Bugisu, Verschoor (2008) found that 62.8 per cent of crop sales were completely controlled by male household heads. Researchers working on the Second Participatory Poverty Assessment in the area found that men's exclusive control of food crops seriously undermined food security, and advocated that Village Chairmen should arbitrate in cases 'where household resources are being vandalised by men' (Ministry of Finance, Planning and Economic Development, 2002:26). Whyte and Kyaddondo (2006) argue that, in Bunyole, categories and rights regarding food crops are becoming confused and gendered spheres of authority regarding food are breaking down. Similar changes to the moral economy of food provisioning and conjugality seem to be occurring in Bubufu.

In households with severely asymmetric decision-making power it would be surprising not to find examples of what Jackson, paraphrasing Scott (1985), calls 'everyday forms of conjugal resistance' (2007:2). Both men and women told me how in households where conjugal relations were poor, wives sometimes pilfered crops under the control of the male household head, especially newly-harvested

coffee beans. Miranda M., whose absent husband, by all accounts, treated her harshly, had a very jaundiced view of conjugal relations in the village. She told me that wives rarely saw the money their husbands made from selling coffee, and ‘if the wife has some tea but no sugar, she might steal some of the coffee beans to buy sugar.’ Other people also spoke of women and children stealing a few coffee beans during harvesting and drying, giving this as the reason why some men insist on picking and drying the beans themselves.

While women and children taking a few coffee beans is regarded as a transgression of masculine rights, Gisu gender norms are used to legitimate husbands’ appropriation of household resources. Walter, whom I quote above, mentioned husbands selling livestock and food crops without consulting their wives. During one of the women’s group discussions I asked the participants which of them personally owned livestock. My query triggered several stories like this:

Myrtle S: extract from group discussion transcript

I agreed with my husband that I should bring my cow and rear it from his home. One day he came back from the bar and told me to give him my cow so he could sell it, and he would pay it back when he got his money which was tied up somewhere. I told him ‘Look, my children have nothing. We only have one piece of land and I brought that cow here for them, not for you’. He told me; ‘If that is so, remove your cow from my house. You are not the man in this home and I will not allow you to graze your cow in my garden.’

Although I heard several very similar stories from other married women, I should stress that there are also some households in the village where the husband is quite happy for his wife to have her own cow and even helps to collect fodder for the animal (e.g. Joan B.)

Gender norms as discursive tools

In many of the extracts I have presented in this chapter the male household heads who figure in them draw on Gisu gender ideology regarding the control of household resources; e.g. ‘You are not the man in this home’. Here is another example of the tactic in use, this time to justify the appropriation of food crops:

Ernest M: extract from interview transcript

The man may decide to sell matoke on his own, and when the woman tries to ask him why he sold it, he tells her: ‘Did you bring any matoke here with you?’

Explaining why women find it harder than men to raise capital for small businesses, Nelson M. said that married women cannot sell a cow ‘because it does not rightfully belong to her according to the rights of the family here’. Ezra K. added:

Ezra K: extract from group discussion transcript

Everything in the home is the man’s property, including the wife. She can only look after the property, but she does not have the authority to sell anything.

Other men in the group nodded and laughed, although there was a slight air of embarrassment, presumably due to my presence. Husbands legitimise their behaviour by invoking a fundamental tenet of Gisu gender ideology, namely the idea that married women are living in ‘their husbands’ homes’. Women seem to accept this idea, on the surface at least. For instance Esther N., the middle-aged wife of Ezra K., told me that her husband made all the decisions regarding investment and business matters, adding, ‘I am like a child to him, because it was he who brought me here.’ Women in another community told researchers: ‘The garden is his, so the crops are his and the money is his’ (Ministry of Finance, Planning and Economic Development, 2002:26). As I mentioned in Chapter 5, Jackson (2007:116) argues that ‘ideas of legitimate dependence’ can be useful discursive tools for married women: they may deploy them to nudge husbands into fulfilling their provisioning responsibilities.

‘Listening to each other’: Intra-household altruism and cooperation

The men’s and women’s stories presented above paint a grim picture of conjugal relations riven by conflicts of interests and the abuse of power and poisoned by mistrust. But as well as stories of marital discord, I also heard stories of households

where men's ultimate authority is tempered by consultation and cooperation with their wives.

The disposal of coffee beans serves as a gauge for the degree of cooperation and pooling within Bubufu households. Most male household heads jealously control their coffee bushes and the proceeds from the sale of the beans. 'Coffee is for men, because they are owners of the home' said Alice B., an elderly widow, reflecting a common view among older women as well as most men. According to Ernest M., if men allowed their wives to control the coffee income they would spend it all on cosmetics rather than on household needs, school fees and the like. But even though coffee is definitively a masculine cash crop, some wives were allowed to pick it and spend the money on household necessities (e.g. Ida N). Ezra K. even allowed his older children to pick and sell the coffee beans from his few bushes so that they could buy exercise books. When estimating their coffee harvests, people talked in terms of basins rather than sacks, so coffee might be a very small element of livelihoods in some cases.

Wives' involvement in decisions about the disposal of coffee beans and other resources ranges from merely being informed, as when a husband tells his wife he is going to sell something, to his asking his wife's permission before a sale. In between there is a middle ground of consultation, as illustrated in these summaries from interview transcripts and notes:'

Walter P., who was so critical of the way other men treated their wives, said that in his household he was the one who ultimately decided whether an animal should be sold, but that he usually tried to bring his wife round to his point of view before going ahead.

Patrick N.'s wife had a goat, which she had bought after selling beans. He had allowed her to do this, but he pointed out that this did not mean that she had a permanent right to the beans. The reason he had agreed to her suggestion was that he had realised that if his wife bought a goat it would be good for the whole family.

After making his remark about coffee profits and cosmetics, *Ernest M.* said that in the case of other crops most men at least inform their wives when they decide to sell something and in some cases also tell them what they intend to use the money for. He also talked about spouses deciding together about the sale of livestock.

De facto female household heads differed greatly from one household to another in the degree of agency they were able to exercise in farming matters, with some taking the lead in planting decisions (e.g. Gertrude N.) and others having to ask their husbands' permission to make even small changes (e.g. Catherine N.). So while the norm of men's exclusive control of resources is intact and powerful, in practice male household heads exercise their control in different ways, often making concessions to their wives, albeit within well-defined parameters. The idea of spouses 'listening to each other' (a phrase used by Agatha B.) has its own normative power in the community, especially among women, countering and modifying masculine unilateralism.

I have argued that the abuse of conjugal power relations, facilitated by the dominant gender ideology, produces or exacerbates household food shortages and poverty. I now return to the subject of divorce in Bubufu in relation to these issues.

7.5 Divorce: Impatient wives or mistreated wives?

Earlier in the chapter I presented men's perceptions that marital insecurity arises from wives' tendency to abandon their husbands whenever times are hard. I now present the alternative, distinctively women's discourse on divorce. My purpose is to compare contemporary divorce stories with evidence from past ethnography in order to argue that women's social status, and thus their human security, has been weakened by the declining importance of subsistence farming in livelihoods.

I came across several cases of women leaving their husbands; for instance I mentioned the case of Josephine K., who left her husband after he inflicted physical violence on her, in Chapter 5. Some divorces were said to be due to the husband starting a relationship with another woman. The majority however, featured husbands' failure to fulfil the material aspects of what Whitehead (1981) calls 'the

conjugal contract'. The examples that follow are based on interview transcripts and notes. In the first, I have added evidence drawn from other sources to underline the typicality of the story:

Summaries based on interview transcripts and notes

Dan W. and his wife divorced on 20th December 1995. He now lives alone except for two small grandsons. He said that his wife had left him because he could not afford to buy her a new outfit for Christmas due to a poor coffee harvest that year. As Lilian M. put it during a group discussion: 'You may get married and work hard with your husband...knowing that if things turn out well you'll be able to dress nicely and buy some land. If that doesn't happen you may find you can't stand it and that might make you leave the home'.

Alex W. and his wife Beatrice had eight children. She complained repeatedly to her parents that her husband was not providing for her and the children and was beating her. Eventually they came and took her back to her natal village. Beatrice's story highlights the strength of the tie between a wife and her kin.

When I met her in 2009, Teresa J. was an angry young woman. Harold B., her husband, had taken a second wife and had given her a cow that Teresa and he had acquired together. Although he had a shop in the local trading centre, he had reduced his financial support to Teresa and their two small children. After quarrels and domestic violence, Teresa had left her children with her parents-in-law and started work in a hotel in Mbale. Although her mother-in-law had tried to persuade her to return, she refused. In 2010 Harold himself followed her there, apparently to try to get her to come back. When his second wife heard this she smashed up and burned most of the furniture and bedding and went back to her natal village.

Taken together, these and other divorce stories I heard suggest that married women in Bubufu have relatively strong fallback positions. Some indicate that they can also deploy considerable bargaining power: witness the efforts made to get Teresa back to the marital home. But all the wives concerned in these cases had endured material hardship due to their husbands' lack of support, and several had suffered domestic

violence, before they left their husbands. As Teresa remarked: 'You do not go at will, but because you are mistreated.'

For married women, divorce is sometimes a response to household food insecurity. Not all women choose this strategy, though. I talked to women who were still in their marriage even in the absence of material support from husbands. For instance Sandra N., who I quoted earlier in connection with giving up petty trading on marriage, told me that her husband was not sending her money from Kampala. She showed me an exercise book where she kept a record of her many debts with local shopkeepers and friends. When I asked her why she stayed on, she replied: 'I'm just following the Bible, because it says a woman leaves her maiden home and goes to a man to become one with him. If I don't have the best of husbands, I can't help it'.

These stories challenge the prevailing masculine view on divorce in Bubufu, namely that divorces are caused by impatient wives. They also seem to be at odds with ethnographic accounts that emphasise the ease with which Gisu women leave their marriages (La Fontaine, 1959; Heald, 1998). While one might expect male and female villagers to have different points of view on marriage, the discrepancy with the ethnography is more puzzling. There are several possible explanations. First, Roscoe (1924) and La Fontaine (1959) compare Gisu women's position with that of women in other African societies, so their judgements are relative. Second, there is the possibility of either masculine bias on the ethnographers' part or feminine bias on mine. Heald's work (1998) in particular is concerned almost exclusively with the experiences of Gisu men, which she justifies on the basis that the Gisu 'tribal universe' is constructed around men (1998:146); women's experiences are marginalised. For my part, I have tried to present the statements of both men and women in an even-handed manner.

There is another possibility, namely that the balance of conjugal power has changed since La Fontaine and Heald conducted their studies due in part to declining subsistence food production, which in turn is driven by a combination of factors. My argument draws on Sen's cooperative conflict model of households (1990), which I have briefly alluded to already. Food self-sufficiency is an impossible dream nowadays due to land scarcity and declining agricultural productivity, the latter in turn partly due to destructive rainfall. Married women can no longer rely on

subsistence farming to provide them and their children with food security from day to day. Meanwhile, the monetisation of food undermines their perceived contribution to the household and thus their bargaining position: in some men's eyes, women 'just sit at home' and are 'just farmers'. Sen argues that wives' ability to earn cash outside the home is a critical variable in conjugal bargaining, in part because it can enhance their perceived contribution to the household (1990). However married women in Bubufu are constrained in their attempts to earn income, as I discuss in Chapter 10.

What of married women's fallback position (*ibid*), namely their ability to leave their marriages? I think this is weaker today than in the 1950s and 1970s when La Fontaine (1959) and Heald (1998) were working among the Gisu, due to today's widespread food insecurity and poverty. In Chapter 2 I pointed out that Bugisu is far less prosperous now than in the 1950s, for instance. A married woman who returns to her natal village nowadays may not be so easily accommodated with land as she would have been in the past. In short, the same trends, events and pressures (including land scarcity, constraints on farming, environmental degradation and the impacts of destructive rainfall) that impact on wives' bargaining position within the home also damage their fallback position. As well as detracting from married women's ability to provide for themselves and their children, another outcome is a decline in their status within the household.

7.6 Summary

Food shortages and income poverty are more closely interconnected than they used to be in the village due to the many pressures on subsistence farming and the need to buy food. The central problem, land scarcity, is compounded by the impacts of destructive rainfall and numerous other constraints on farming (Chapter 4). Married men and women's experiences of food insecurity and poverty are heavily influenced by Gisu conjugality. Norms regarding spouses' roles and responsibilities, control of resources, involvement in household decision-making, division of labour and mobility all mean that they experience hunger and poverty in different ways. But the gendered nature of their experience is not just a matter of different perspectives. Abuse of conjugal power relations, sustained by Gisu gender ideology and a

powerful hegemonic discourse ('the land is his and the crops are his'), actually contribute to food insecurity for less powerful household members. However, this does not happen in all households, the personalities and relationships of spouses being very important in this regard.

In this context of severe insecurity, many women in the village fight hard for their conjugal entitlement to food for themselves and their children. However, their intra-household bargaining positions have been weakened over time and the combined effects of land scarcity and destructive rainfall also play a part in this. Comparing women's subjective accounts of conjugality today with ethnographic evidence on divorce, I have suggested that married women's bargaining power within the household may be declining, in association with the monetisation of food. Since the impacts of destructive rainfall feed into the decline of subsistence farming in household livelihoods they are helping to skew conjugal power relations. This is a human security issue, because of both the negative material outcomes for women and their children and the undermining of women's dignity. What is happening now in Bubufu indicates that climate change could have serious social consequences for married women.

In the next chapter I investigate the pervasive issues of crop theft and physical insecurity, particularly men's, which are examples of the 'dark side' of community relations.

Chapter 8: Theft, violence and maladaptation

8.1 Introduction

Late one night in 2009, Ernest M. confronted a burglar eating his beans:

Ernest M: summary from interview notes

Around midnight on the morning of 9th April, a man broke into Ernest's outhouse kitchen. Ernest went out to find him eating some cooked beans he had been keeping overnight ready to sell in his bar the next day. The intruder hacked at him with a machete and Ernest sustained several superficial cuts, which he showed me the next day when I met him on the track. After a tussle the man ran away but was caught by neighbours responding to Ernest's shouts. One of them broke the thief's leg with a hoe. He was taken to the police station in a wheelbarrow, and the police later took him to hospital.

As I was listening to this story a young man who was passing by chipped in and told us that it was not the first time the man had been caught stealing. He said that that he was unmarried, about 30 years old and lived with his parents in Butoto. He was their only child but he had no land. He had already had most of his teeth knocked out in a previous beating administered because of his stealing. Another young man laughed at this and shouted excitedly; 'Why did they only break his leg? You should kill thieves, not just injure them'. This provoked laughter and agreement among the people clustered around.

I use this anecdote to introduce the topics of crime and villagers' responses to crime, which, I argue, may themselves threaten human security. Physical conflict can also arise from struggles between male kin over resources, especially land. I frame these tensions and conflicts as maladaptive responses to specific forms of human insecurity.

Crop theft is a major issue in the village, without any noticeable social variation. Fifty-eight per cent of adult men and thirty-nine per cent of adult women identified the theft of standing crops or livestock as a threat, and several of the men interviewed said that that theft was their biggest worry. The threat of physical violence worries more men than women. When asked about threats during interviews, 31 per cent of men brought up the threat of being physically attacked compared to only 9 per cent of women.

In the next section (8.2) I discuss crop theft and its relationship to household-level food security. In section 8.3 I discuss physical violence as a risk affecting men in the community. Then I consider a range of villagers' attitudes and responses to crop thieves and house robbers (section 8.4). In section 8.5 I document in some detail the innovation of tracker dogs as a means to catch crop thieves and how this novelty may lend itself to abuse. I synthesise my argument in section 8.6. Throughout the chapter, the evidence on which I base my analysis is one-sided because, unsurprisingly, no-one identified themselves as a thief during the fieldwork.

8.2 'It makes you lose hope in farming': Crop theft as a threat to food security

Crop theft is more frequent during the hungry season, so the timing of most of our interviews (many of which took place during April and May 2009) may have inflated its importance in villagers' minds. However there is no doubt that crop theft was indeed very common; 64 per cent of the people (18 out of 28) whom Mr. Balungira interviewed in 2010 said that food, (mainly maize, matoke and cassava), had been stolen from their gardens over the past year. Cassava is especially easy to steal because it can be uprooted quickly. As well as stealing food to eat or sell, people sometimes steal plantain suckers and foliage to feed to their cows. I also heard of items such as pangas or piles of bricks being stolen, corroborating Heald's statement that petty pilfering was endemic in her study area (1998:138). However, the theft of crops worries people more because of its impact on food security. The victims I heard about ranged from one of the village's largest landowners, who reportedly lost 16 bunches of plantain between February and March 2009, to some of the poorest households in the village such as those of Edith K. and Gregory N:

Edith K: summary from interview notes

When I interviewed Edith K., an elderly widow, in April 2009, she told me that a bunch of matoke had been stolen from her the night before. She had heard the thieves and raised the alarm from inside her house, but none of the neighbours had intervened, although male villagers have a legal duty to respond to such alarms.

Gregory N: summary from interview transcript

Gregory N. is 71 and in poor health. He has several dependants living with him. In 2009 he had matoke, cassava and potatoes stolen. He never caught the thief, except on one night when he heard someone trying to cut his matoke. When he got up and opened the door, the man ran away and left the matoke behind.

While such individual instances of crop theft may seem trivial, they are significant blows to the food security of people with small land-holdings. When she was interviewed in April 2009, Jessica W. had just had a lot of cassava stolen. She said that she worried about crop theft more than anything else, lamenting:

Jessica W: extract from interview transcript

I had sat comfortably knowing that even if other people were going to suffer from hunger, I was not going to, because I had my cassava. But in the end when they stole the cassava, it means I am also going to suffer from hunger like other people. It also makes you lose hope in farming. You don't feel like going back to dig because you think they will steal again like they did before.

Some people were targeted several times in the same growing season and lost a substantial portion of their harvest:

Julia N: extract from interview transcript

In 2009 we got 70 kilograms of maize. The harvest was good, and we should have got more, but thieves kept stealing it because we left it to dry in the garden before harvesting. Because the thieves were finishing the maize we

decided to harvest it before it had dried and dry it on the roof instead. If it had not been for the thieves we would have got about 150 kilograms.

Like Julia, farmers often respond to crop theft by immediately harvesting whatever was left, both to pre-empt further losses and to spite the thieves. For instance, this is what James L. did on seeing that thieves had stolen half of his cassava:

James L: extract from interview transcript

I got angry and dug up what remained, saying that they wouldn't take it all and leave me with nothing...I just removed it before it was ready because I did not want to make a loss.

Reacting to crop theft by digging up one's own crops before they are mature involves reduced harvests, lost investment and extra labour. Mary M. did the same thing when her own cassava was stolen. She also told me that that she had decided to switch from cassava to growing yams instead, which she saw as an adaptation to both heavy rainfall and crop theft:

Mary M: extract from interview transcript.

If it continues raining very heavily, then I might decide to grow a lot of yams. They can't be stolen because I can cut off the leaves so when a thief comes at night he won't be able to find them. If I had thought of cutting off the cassava stems down to the ground they would not have stolen my cassava.

Mary claimed that some people were thinking of switching from food crops to agroforestry, because 'there is no way a thief will cut down a tree without the owner hearing it fall', although one man (Samson N.) had had some trees stolen. If so, this is a strong indication of the seriousness with which crop theft threat was perceived.

Having one's cow stolen was another concern. This fear was articulated less often than anxiety about crop theft, presumably because not all households have a cow in the first place. It is overwhelmingly men who own cows, which explains why more men than women mentioned cattle theft as a risk. Women are much more likely to own hens, and accordingly a few women expressed concern about their chickens

being snatched. Although the loss of a hen may seem a small matter, a hen represents the first rung on the asset accumulation ladder by which villagers try to climb out of poverty.

I turn now to the topic of physical violence among men.

8.3 Men's fear of attack

Men rather than women prioritised violent assault as a perceived human security threat; I speculate on the reasons why women did not do so at the end of this section. Young unmarried men in particular were keenly aware of the risk of getting into disputes of various kinds: rows over land with their brothers and other male kin, arguments with neighbours over straying livestock or a dangerous flaring of drunken aggression. Out of nine young unmarried men who were asked directly about their perceived human security threats, six prioritized violent conflict. This is in keeping with Heald's analysis of murder cases in the 1960s, which finds that the majority of murder victims were men killed by other men. Purvis (1909) and La Fontaine (1959) define Gisu violence as violence among men. This pattern is at least partly due to the contested nature of kin relations among men in Bugisu, which can escalate into violence where land is concerned (La Fontaine, 1962; Heald, 1998). For instance, Martin K., a 20-year old man who was still at school, described how the capriciousness of a father could produce long-lasting friction among brothers:

Martin K: extract from interview notes

There are some fathers who give land to one of their sons, but after some time they change their mind and give it to another son and this causes the sons to fight each other and pull out pangas. These children also stop respecting their parents. They will develop grudges with them and quarrel with them all the time.

The potential for land allocation to generate conflict is also illustrated by the typical story below.

Patrick N: extract from interview notes

Patrick's brother had begun farming on his land without his permission. One day when Patrick was digging the brother also came with a hoe and began digging too. They quarrelled, and the brother tried to hit him with his hoe but Patrick managed to grab it off him. Then the brother went to the police and had Patrick arrested. The lineage elder explained to the police officers that it was a land issue that the elders could sort out. Patrick was released. The lineage elders sat and declared the land was officially his.

As well as disputes within the family, young men also perceive conflict with other men in general as a risk to their human security:

Peter M: extract from interview transcript

You may be talking to someone, joking, but all of a sudden you quarrel and abuse one another. I don't know [the causes of these quarrels]. You can be conversing well with that person, yet behind your back he speaks ill of you.

Peter may have been vulnerable to aggression because he had only lately arrived in the village and was regarded as an outsider. However it is not only perceived outsiders who are vulnerable. Other young men also felt they were at risk:

Conrad B: extract from interview transcript

You can be walking home and somebody beats you up...It mostly happens when one day you say something in all innocence, but on the other side it offends somebody. He can waylay you and hit you with a stone.

This problem of drunken brawls came up frequently in conversations with young men. An incident in August 2009, when a bar owner in the village killed his young cousin, Melvin J., after an evening of drinking, suggests that they were not exaggerating this risk. I give the outline of that story later in the chapter, but it is enough to say at this point that it conforms to the pattern observed by La Fontaine (1959) of drunken killings resulting from festering grievances rather than random acts of violence.

What about older men? Their concerns about violence were different from the young men's in that they arise from their control of, and responsibility for, household assets:

Ezra K: extract from interview notes

Ezra's main worry is theft and being murdered: he worries a lot about that. He has a cow with a bell, and at night he sometimes lies awake hearing the bell tinkling and imagining that thieves are making off with the cow. But he dare not go out to check because if there really are thieves out there they might kill him. A neighbour had a cow stolen, but the thieves had to leave it behind in the end because they could not move it. It was lucky the owner did not hear what was going on, because if he had he might have tackled them and been killed.

Robberies are associated with the period after the coffee harvest, which is the only time of the year when villagers have significant amounts of cash. During a men's discussion group participants described how robbers break into houses at night and target the man of the house for a beating because he is the one who knows where the money is hidden. I have already presented the story of Ernest M. and the bean thief. I also heard several accounts of break-ins, arson and beatings, sometimes motivated by long-standing grudges. For instance Emmanuel W. described how his wife was almost strangled one night by a naked, mud-smearing man who rose up from the undergrowth as she was crossing the Singye on her way back from a local shop. He interpreted it as a form of attack on himself and connected it to the shooting of the LC1 Secretary a few years before, a crime that apparently had never been resolved.

It is interesting that Emmanuel saw the murderous attack on his wife as a vicarious attack on himself. This brings me back to the topic of violence against women, and specifically the question of why it did not come up more often during interviews. In Chapter 7 I mentioned how married women's attempts to claim their conjugal entitlement to food for themselves and their children sometimes leads to domestic violence. I also heard a few accounts of sexual harassment and physical violence directed at young unmarried women. One young woman, Grace B., told me that she had been subjected to threats of rape from a married neighbour who had fled to

Kenya after she reported it to the police. The evidence from sub-Saharan Africa in general is that violence against women is a pervasive problem, so I assume that these stories were the tip of the iceberg. Understandable reticence, fear of the men concerned or an acceptance of violence against women as a fact of life: any or all of these may explain why the topic was not brought up in conversations with women. It may be symptomatic of the ‘mutedness’ of women as a social group (Ardener, 1975), which I discuss in Chapter 11.

I now return to crop theft, this time concentrating on villagers’ views of thieves and their collective reaction to the spate of crop thefts that was troubling the community in 2009.

8.4 Responses to theft and robbery: From pragmatism to violence

So far I have analysed crop theft as a threat to the victims’ food security. But there is another human security dimension to this problem, namely the treatment of thieves. One day, as I was sitting in a compound conducting an interview, I heard a hue and cry just above me on the hillside, followed by confused shouting. Later, I was told that what I had heard was a chicken-thief being chased and beaten. Historically the Gisu, like people in many other parts of Africa, have tended to beat anyone caught stealing or suspected to be a thief (La Fontaine, 1959; Heald, 1998). I heard some uncompromising opinions about how to deal with thieves as well as disturbing anecdotes of men in neighbouring villages who had been crippled or disfigured by the beatings they had received from lynch mobs. The comment of a bystander when I was listening to Ernest’s account of his attack is a case in point: ‘You should kill thieves, not just injure them’. Clearly, then, thieves and robbers take on a high risk when operating in Bubufu.

If a suspected thief is killed his family may respond, thus starting a feud. For instance, according to Martin K. villagers were so wound up about the intruder who attacked Ernest M. that another such incident might trigger a feud:

Martin K: extract from interview notes

People in the village are saying that the next thief they catch, they will just kill. This worries him because when they kill the thief, his family might

come and destroy houses and plantations belonging to people who had nothing to do with the killing. If this happens he is worried that there will be no peace in the community.

The potential for scapegoating is another consideration: in general, it is young men who tend to be blamed for thefts (Heald 1998:80). The next two stories illustrate this. The first concerns Peter M., whom I quoted above regarding the risk of getting involved in a quarrel. The second is about the violent death of Melvin J.

Peter M: summary from interview transcripts and notes

When first interviewed in 2009, 19-year-old Peter complained about mistreatment from his father, Joseph. Peter had recently moved into his father's household in the hope that he might do something for him. Joseph was one of the better-off men in the village. He had never married Peter's mother, had several children by various women, and his current wife seemed to have a vindictive attitude towards her step-son. Peter described a recent incident:

Cassava was uprooted in the garden and I was accused. My father tied me with ropes, claiming that I had stolen the cassava. One of my aunts said she saw me take it, but it was thieves who actually stole it and I denied it, and they even gave me the Bible to swear on, but they still believe that it was me. Whenever something goes missing or some small thing is done wrong they always accuse me, although they have never caught me. Maybe their hearts don't like me.

I come back to Peter M. in Chapter 9. The second, more ambiguous, story concerns an incident in late 2009. A trivial theft was said by some villagers to be the cause of manslaughter:

Summarised from Mr. Balungira's notes of interviews with Albert M. and Stephen K.

After an evening of drinking, Roger M., the owner of a bar in the village, attacked his young cousin Melvin, striking him on the head with a heavy

stick. Melvin walked away from the scene but was found dead near the river soon afterwards and Roger fled to Kenya. While no-one knew for sure what underlay the killing, some people said that it was because Roger suspected his cousin of stealing two ducks he had recently bought in Mbale. Other theories concerned putative family tensions. Melvin's mother was Roger's father's sister, and the two men had been brought up in the same household: the identity of Melvin's father was unknown. Other guesses involved sexual jealousy, as both men were interested in marrying the widow of one of Roger's brothers who was said that to have preferred Melvin.

Both Peter and Melvin were in disadvantageous positions with a tenuous claim on land or the means of an education. In Peter's case, this was because his father had never been married to his mother, and in Melvin's case, it was because the identity of his father was not known. Peter's case in particular reflects Heald's finding that accusations of theft are often used to justify the rejection of young men's claim on resources (1998:9).

Heald writes that at the time of her fieldwork in the 1960s the Gisu regarded thieves as 'irredeemable degenerates' (ibid:132) motivated by ill-will (ibid:6). Similarly, some Bubufu residents branded thieves as feckless, lazy and greedy for cash to spend on alcohol.

Jessica W: extract from interview transcript

There are people who only think about stealing other people's things. Like this period people don't have food. You can grow your food expecting to help yourself, but they come and steal because they don't have food themselves. Some people don't have land for farming, but there are others who do have gardens, but when they wake up in the morning they don't plan what to do.

Elijah R: extract from interview transcript

These days some people do not want to farm: they like roaming around and wait for other people to farm so they can just come and steal. In the past people were few and there was plenty of food, and someone could afford to leave his cassava or matoke in the garden for a long time. Also the sale of

food these days has increased crop theft because most of the youths who steal the food just sell it...Many youths these days are greedy for money and they steal people's food to sell for beer money.

These remarks about 'greedy youths' are echoed in a study set in a nearby sub-county where village elders complained about young landless men hanging around the village stealing and causing trouble (Jenkins *et al*, 2010). However views about crop thieves were diverse and often more nuanced than this. Several people attributed crop theft to thieves' food insecurity and landlessness:

Noel M: extract from interview notes

When people are many the land becomes small. There is not enough land for farming so this causes people to steal.

James L: extract from interview transcript

In April and May I think that hunger causes it. During these months people get worried about their matoke because the thieves steal such a lot. The thieves are from around here, and people know who they are.

In contrast to the talk of killing thieves quoted above, the actual behaviour of several people who succeeded in catching crop thieves was mild. In 2010, Mr. Balungira was told first-hand of three cases where thieves, in two cases close neighbours of the theft victims, were taken either to the police station or to the village chairman, who imposed cash fines. In all three cases, though, the theft victims dropped the charges as they realised they would never be able to extract a fine from the offenders due to their poverty. This case was typical:

Milton W: summary from interview notes

When Milton W. noticed some matoke was missing, he suspected a neighbour. The following day he trailed him to the market, where he thought the thief would try to sell it. When he caught him with the matoke the man confessed, but at the police station he persuaded Milton not to press charges on the grounds that he had no land to sell and so would not be able to pay the fine.

The following comment suggests that thieves may take advantage of people's unwillingness to press charges against their neighbours:

Wilfred T: summary from interview notes

The reason he decided to rent land in Bududa [a neighbouring district] was because when you rent land in a place where you are not known the people in that area can fear to steal your crops because they do not know your character. But in your own community someone can easily steal your crops, knowing that when you catch them they can plead with you for forgiveness.

Not everyone shared Wilfred's view: for instance Ezra K. decided it was safe to farm land in another village only after people in the district had come up with an effective solution to the crop theft problem, which I describe below.

8.5 Arrival of the tracker dogs: A collective response to crop theft

In the first half of 2009 the people of Bubufu seemed powerless to put a stop to crop theft, but the situation changed dramatically in December of that year, when the villagers banded together to put an end to it. While their success was astonishing, their ingenious solution had ambiguous implications for human security. Taking their cue from other local communities plagued by crop theft, they formed syndicates to hire the unofficial services of a police tracker dog. At first the hire charge was 120,000 shillings, but owing to high demand the price soon soared to 200,000 shillings. Each syndicate member contributed about US\$10,000, and if any of them had crops stolen the combined sum was used to hire the dog and its police handler. The outlay was recouped through fines levied on the thief. Several alleged thieves were apprehended in this way, and the effect was striking. When Mr. Balungira visited Bubufu in April 2010 he was told that crop theft had altogether ceased because would-be thieves were afraid of being caught. This comment was typical:

Paul M: summary from interview notes

In previous years you never saw a bunch of mature matoke here, but ever since they began bringing a police dog, thieves have stopped stealing it. These days people leave it to mature, because nobody can steal it.

The introduction of dogs was such an effective deterrent that the local price of matoke was said to have fallen sharply as there was so much more of it available (interview with John K.). Villagers also talked of an elderly widow in an adjacent village who was now able to make a little money selling her elephant grass for cow fodder, whereas in the past people had just stolen it. According to Mr. Balungira, James L.'s 'appeal to the government is to add more such dogs'.

The sniffer dog groups are an example of Gisu 'social ingenuity' (Homer-Dixon, 1999). Was their introduction a minor triumph for human security? Perhaps the best answer is 'yes and no'. While the protection of vulnerable people from thieves was clearly positive, the fines imposed were disproportionately high: for example US\$500,000 to 800,000 for stealing a bunch of matoke worth a mere US\$4,000. In several cases these high fines resulted in the alleged culprits being forced to sell productive assets. A man in his late 20s, Anthony H., had to sell his boda boda bicycle to pay a fine after the sniffer dog identified him as the person who had stolen his neighbour's matoke. The fact that he had a bicycle indicates that he was by no means one of the poorest members of the community. On the other hand, several of his brother's young children were living with him while their father worked in Kenya and he also had a young wife and child of his own, so his responsibilities were considerable. Ezra K. told Mr. Balungira that across the area 'many young men have lost their land, cows and other property to pay the fines and others have run away from their villages'.

The implications are disturbing when one reflects on the unreliability and possible falsification of scent evidence. The use of tracker dog evidence alone to convict alleged thieves has been challenged in English courts as well as by the English media (Marks, 2009). In the case of *R v Pieterston and Holloway* in 1995 the Court of Appeal established that tracker dog evidence could be accepted in a trial, but only in conjunction with evidence testifying to the dog's skills, training and experience (Jerrard, n.d.). The value of tracker dog 'evidence', then, is open to question.

There is a clear analogy between the way the tracker dogs are being used and traditional divination practices. Porter *et al* (1991) and Reynolds Whyte (1997) describe the role that diviners in rural areas of Kenya and Uganda respectively play in 'creating certainty' for the people who use them (Porter *et al*, 1991:182). In Bugisu

during the 1960s Heald observed witch-finding rituals being used to re-establish order during a period of anarchy and violence (Heald, 1998). Porter *et al* (1991:183) coin the term ‘facipulation’, which they define as a ‘subtle blend of facilitation and manipulation’, to describe diviners’ rituals. Perhaps tracker dog evidence is similarly being ‘facipulated’ today. The tracker dog groups are also in the tradition of the vigilante bands that Heald observed in the 1960s (Heald, 1998). She attributes the rapid rise of these organizations to the Gisu ideal of masculine autonomy and self-help, the acephalous nature of Gisu society and people’s lack of faith in the government’s ability to protect them following the state’s withdrawal from rural areas after independence. As with the tracker dog groups, the vigilantes forced many young unmarried men to flee their villages (1998:261).

In the 1960s many of the vigilante groups became involved in protection rackets, and something similar has happened with the tracker dog groups. Soon after their introduction moneylenders started offering to pay the joining fee for poorer villagers (joint interview with Ezra K. and Chapman W.). The condition was that in the event of their crops being stolen, they would hand over the case to the money-lender, in exchange for a small sum of money to cover their loss. In effect, this extended the groups’ protection to villagers previously too poor to join. It also created an incentive for false claims of theft. On being alerted to a case the money-lenders colluded with the police to track down the thief, splitting the fine between them. This connivance with the police distinguishes the tracker dog groups from the 1960s vigilante groups and contemporary community policing initiatives in Kenya (Heald, 2007), as in the latter cases communities took justice into their own hands in order to bypass ineffective and corrupt police services.

8.6 Summary

Theft, robbery and assault are enactments of the dynamic interconnections between community relations, food insecurity and poverty. They are part of a process whereby insecurity is redirected from one individual or group to another. The theft of other people’s food crops can be a way of coping with short periods of poverty (Fafchamps and Minten, 2006), and crop theft is common in other Gisu communities too (Ministry of Finance, Planning and Economic Development, 2002:20; Ashley

and Nanyeenya, 2005; Bird and Shinyekwa, 2005:104). As researchers working in the region noted: ‘One of the most glaring problems that seem to be coming from food insecurity is the other forms of insecurity that are also created’ (Ministry of Finance, Planning and Economic Development, 2002:20). Thus crop theft is a maladaptive response to food insecurity in Bugisu.

Worries about theft are also often mentioned in studies of rural communities in other parts of Africa (Quinn *et al*, 2003; Tschakert, 2007). The risk of crime deters people from investment and enterprise (Fafchamps, 2003), yet despite its significance for poor farmers, rural crime is generally under-researched in developing countries (Fafchamps and Moser, 2003:626). Based on the discussion in Chapter 6 and this chapter, a pattern is starting to emerge, namely that some of the major drivers of individual and household human security in Bubufu receive little attention in academic and development policy discourse. I speculate on the possible reasons for this in Chapter 11. At this stage, my point is that crop theft creates fundamental intracommunity tensions.

The sniffer dog groups represent a step change in villagers’ responses to crop theft, partly driven by certain individuals’ desire to make money from the problem. From one point of view they are a positive innovation as well as an impressive demonstration of Bubufu villagers’ collective ability to adapt to whatever threatens them. Insofar as they are a continuation of earlier forms of community policing (Heald, 1998), the groups articulate a distinctively Gisu idiom of response, illustrating how local cultural norms and values shape such adaptations (Ensor and Berger, 2009a). However, I have argued that the combination of swingeing fines and the misalliance of money lenders with corrupt police officers may in itself constitute a threat to young landless men, some of whom may be unfairly victimised. In this way crop theft and the literal hounding of young men can be seen as part of a cycle of generic, culturally-inflected maladaptation to deteriorating conditions.¹³ In the light of climate change, this has important implications.

¹³ The punishments given to crop thieves in Bubufu are lenient, however, compared to the fatal beatings of thieves documented in some other parts of East Africa (e.g. Fleisher, 2000).

In the next chapter I analyse a nexus of issues which, like the topics of this chapter, find young men at the centre of intra-community conflicts: marriage, brideprice demands and defilement charges.

Chapter 9: Three cows, two goats, a cock and three ropes: Brideprice and intergenerational struggles between men

9.1 Introduction

Up to now I have mainly discussed the risks, shocks and stresses that affect the majority of the population in Bubufu. This chapter is different. The nine young unmarried men who were interviewed individually did share other people's concerns about healthcare charges, destructive rainfall and landslides, food insecurity and poverty: however, rather than prioritising any of these issues they prioritised the obstacles they faced in reaching the 'achievement goals' (Sen, 1993) that their gender and life stage define for them, namely finding the wherewithal to marry and set up their own household. A closely-related issue about which they also complained was the imposition of so-called defilement charges. On the other side of the coin, several older men talked about the difficulties they faced in claiming their brideprice entitlements, or their efforts to pursue defilement charges.

The stories featured here are from individual men with complex social identities: their accounts are structurally situated and influenced for better or worse by their personal relationships, for instance with their wives and fathers. They afford particularistic insights into struggles over masculine entitlements and are part of a historical and wider geographic trend. I analyse them in terms of human security and try to draw out their implications for climate adaptive capacity. As in previous chapters, the insights of La Fontaine (1959) and Heald (1998) are invaluable, but I draw attention to the masculine bias of their studies. Before proceeding any further I need to explain two key terms: brideprice and defilement.

In line with my aim to approach issues through the subjectivities of the people involved, I use the term 'brideprice' because this is the Ugandan English translation of the Lugisu word *inghwe*. However, I accept Dalton's argument (1966) that the term 'bridewealth' may be more accurate, because it incorporates recognition that

marriage payments are not commercial transactions and have noneconomic aspects. Uganda's Penal Code Act defines defilement as a sexual act with a person less than 18 years old. It is distinct from rape, in that rape is defined as a non consensual or coercive sexual act, whereas defilement is not (Amnesty International, 2010). This is an important point: there is no evidence that any of the girls concerned in the defilement cases that I discuss here were unwilling sexual partners.

In Uganda as a whole only a small percentage of reported defilement cases go to court, because parents usually prefer to negotiate a compensation settlement. Out of 4,192 defilement cases reported to the police in Uganda between January and June 2009, only 5.89 per cent ended in a conviction (Amnesty International, 2010). In Manafwa District, defilement cases are often linked with the drinking and dancing that accompanies the biennial male circumcision ceremony (Manafwa District Community Based Services Department and District Planning Unit, 2007).

In section 9.2 I discuss some of the characteristics of Gisu brideprice and marriage, attempting in particular to trace how the brideprice institution has changed since the start of the 20th century, when it was first documented. Section 9.3 is taken up with examples and analysis concerning young men, while 9.4 looks at these issues from the points of view of older men. The article ends with a short conclusion (section 9.5) contextualising the individual experiences in the wider African picture.

9.2 Masculinity, marriage and brideprice in rural Bugisu

For young Gisu men, as for young men in many other parts of Africa, getting married is the vital step that takes them into social adulthood. The paradox is that in order to achieve masculine autonomy they need their wives' labour power and childbearing potential (La Fontaine, 1959; Heald, 1998). Fathers are expected to divide their land among their sons during their own lifetime, as a result of which they have very little land left for themselves in their old age (Ministry of Finance Planning and Economic Development, 2002:12). The distribution of land used to be closely associated with male circumcision, the distinctively Gisu initiation into masculine adulthood. Nowadays, however, the associations among circumcision, land allocation and social adulthood are not clear cut. The reasons include the rise in landlessness, the growth of education as an alternative livelihood strategy to farming and the understandable

tendency, given the widespread poverty and food insecurity, for some older men to hang on to their land as long as possible. If a married man dies, it is the custom for one of his brothers to take charge of the dead man's land until the sons are old enough to inherit it. As Heald (1998) stresses, this land inheritance system creates tensions between proximate generations of men in the same household and has the effect of creating impoverished men at two stages in the life cycle: youth and old age.

The ethnographic accounts of brideprice as an institution in Bugisu cover the period from just after the turn of the 20th century to the 1970s. This series of snapshots helps to trace how the institution has changed over that time and puts what is happening today into historical perspective. Gisu marriage was essentially a contract between the bride's father and the husband (La Fontaine, 1962:93). According to Purvis (1909), a young man wishing to take a wife would first make a 'down payment' of cattle to her father and then pay the rest in instalments linked to the birth of children. If a young woman became pregnant before she married, both she and the young man responsible were severely beaten by her father and others acting on his behalf. The father would also demand a payment of cattle, which Purvis describes as compensation for the reduction in the woman's 'marketable value'. Any woman who married before her father had received the bride price could expect his curse (1909:291). Purvis stresses the economic component of brideprice, but it was also an expression of what La Fontaine describes as the obligation of a young man to his wife's father and other male kin for having given him, in a wife, the means to establish his own household (1962:99).

By the 1950s, few families could afford to keep up the tradition of formal marriages with gifts, feasting and a preliminary brideprice payment and it was already confined to the wealthy elite (La Fontaine, 1962). A young man whose father was poor and who had no older sisters whose own marriage would bring brideprice into the household, was at a disadvantage. Both La Fontaine (1962) and Heald (1998) comment that the majority of couples made do with 'elopement': the couple simply went off together and set up a joint household, sometimes without informing the wife's father. He would then pursue the new husband for brideprice, which would usually be paid in instalments over several years. To some extent this liability on the

part of the new husband was offset by his expectations of land from his own father. According to Heald (1998:95), one of the incentives for eloping was that marriage strengthened a man's moral claim to part of his father's land.

Today it is generally accepted in the area that the correct brideprice is three cows, two goats, one cock and three ropes. As well as the brideprice itself, substantial cash payments are also expected by the bride's mother and aunts. The continued existence of brideprice as a social institution in today's context of environmental and economic pressures could be seen as an example of what Knighton (2007:466) describes as 'communal will' and agency in the face of adversity. But this glosses over the contested character of brideprice. Fewer than half of the 162 households surveyed at the start of my study owned a cow. This is not unusual in the area: in the 2001 survey researchers found that 63 per cent of households in three nearby villages owned no cattle at all (Ellis and Bahigwa, 2003). The implication is that the 'official' brideprice level may be more of a cultural ideal or a starting point for negotiations than a realistic expectation.

Women's perspectives on brideprice are marginalised in the Gisu ethnographic literature. Even today there is little research on young women's perceptions and experiences of brideprice, although recent studies both in Manafwa District (Wakhongo, 2008) and in other parts of Uganda (Kaye *et al*, 2005:301) associate brideprice with girls' early marriage. Researchers in some parts of the country also link brideprice to domestic violence (e.g. Wendo, 2004; Kaye *et al*, 2005). While I have no evidence one way or the other on the issue of domestic violence, some of the stories below are at odds with this association of girls' early marriage with brideprice.

Next, I explore men's diverse accounts of brideprice and defilement today. I divide them into two broad categories: stories told from the viewpoints of young men and those close to them and stories from the fathers of young women, who are on the other side of the disputes.

9.3 Young men's perspectives

Reynolds Whyte (2005:168) observes that in every Bunyole community there are 'marginal, miserable men without wives who are having trouble making a home'. This is a fate that young men are anxious to avoid, but many nowadays have to delay marriage due to lack of land and income poverty.

'I might die without marrying': Deferring marriage due to landlessness and poverty

In Bubufu today, as in the past, if a young couple elopes the woman's father expects brideprice compensation. If a young man has sexual relations with an unmarried girl without cohabiting with her the woman's father will try to negotiate a financial settlement. There seems to be a blurred line between a father's customary entitlement to brideprice compensation and the legal offence of defilement. Put another way, the ability to pursue a defilement charge under the Penal Code Act bolsters a father's ability to extract a fine. If an informal agreement on a cash settlement cannot be reached the father may involve the police.

In effect, the pursuit of defilement charges creates a 'Catch 22' situation for young men in the community. A married man in Bubufu remarked: 'There are boys who hurry to marry, because when they marry they are looked at as men, because they are now independent.' Yet far from hurrying, several young bachelors discussed the difficulty of accumulating sufficient assets to marry and the defilement charges they felt hanging over their heads in the meantime if they had sex with a young woman. Many young men face two basic problems in relation to getting married: their lack of land and their lack of cash or livestock to pay brideprice, as illustrated in the examples below:

Paul M: summary from interview transcript

Paul M. was 28 when he was first interviewed in March 2009, but rather than managing his own household and farm he was still landless and living in his maternal uncle's compound while the uncle was working in Kenya. The compound was situated between two small land slippages and was vulnerable to another. Although he had no-one in particular in mind, Paul said that his

biggest anxiety was about getting married: ‘If I don’t have enough money I might die without marrying’.

His father had died when he was a child and the land had passed into the care of the dead father’s brother until Paul was old enough to inherit it. According to Paul, his uncle sold the land and used the proceeds to finance his move to Kenya, but Paul hoped to resolve the ownership of the land when he returned. He said he planned to get a wife and build a house elsewhere in the next month or two, but he worried about not being able to pay the ‘fine’ if he set up house with a young woman. A year later he was still single and living in the same landslide-threatened compound, which he said was due to his lack of income.

My next example concerns a husband of several years evading and deferring brideprice compensation:

Wilfred T: summary from interview transcript

Wilfred T. had set up home with a woman despite his lack of land, managing to evade brideprice demands. Several years on and now with two children, he had decided to regularise his marriage. As is the custom, Wilfred had written to his wife’s parents to introduce himself formally to them as the man living with their daughter and had enclosed 100,000 Ugandan shillings. He had eloped with his wife Rose while she was still at school, and her father had had him arrested. In court Rose supported her husband: she lied by denying that she had been attending school when she married him. Wilfred said he had persuaded her to perjure herself this way by explaining that, if fined, he would have to sell the plot where their house stood and they would have nowhere to live. Because of her statement he was allowed to defer brideprice payment. He had recently started buying old pots and pans, going from door to door, and selling them to scrap metal dealers in town. The business was quite profitable, so he had decided that now was a good time to start settling his debt to Rose’s father.

I want to make three points about this story. First, Wilfred was paying his own brideprice rather than having recourse to his father. This is significant: Anderson (2007:171) argues that while brideprice payments in most African societies used to be transfers between lineages they are now transfers between generations, due to a general trend towards young men paying brideprice themselves. Secondly, Wilfred highlights the impact of brideprice on a young wife's material wellbeing, especially if her husband is poor. Third, the matter of whether or not Rose was attending school when she took up with Wilfred was seen as a key point in the case which I pick up again later.

I now turn to the contrasting stories of two young men, Harold B. and Peter M. Their fathers were two of the wealthiest men in the village, each having several acres of land, diverse sources of income and large houses built of permanent, rather than traditional, materials. But although they were similar in some respects there was a crucial difference in the young men's positions. Harold was the son of his father's current wife, while Peter was the product of a fleeting and casual union between his mother and Joseph. This fundamental inequality resulted in very different marriage experiences:

Harold B: summary from interview transcript

Harold B. had no land of his own, but was still farming a one-acre plot belonging to his father. He had a small shop in the local trading centre, and his father had bought him stock to start a secondhand clothes business in the market. A year before, Harold had taken a second wife, an unusual step for such a young man. He had enraged his first wife by taking a cow to pay the first instalment of brideprice to the new wife's father. He said he was not sure why his father had not yet given him his land inheritance, given his status as a married man with children, but thought his father was waiting to see if he would settle down with his second wife, whereupon he would formally hand over the land. Harold seems to have overreached himself in taking a second wife because his status as a polygamous husband was very short-lived. His first wife left their two children with his father and stepmother and went to Mbale, the region's capital, to work in a hotel. When he pursued her there, his

second wife smashed or burned most of the goods in their marital home and returned to her natal village.

Again, Harold used his own resources rather than his father's to pay brideprice, in this case despite his father's relative wealth. On the other hand, although Harold's venture into polygyny caused him trouble he could never have contemplated it without his father's support for his business. What he said about his father's tardiness in allocating him land also shows that land inheritance on marriage is contingent rather than automatic.

I introduced Peter M. in Chapter 8: he was the victim of what he said were false accusations by his step-mother and another female relative about stealing cassava. In this extract I continue the story:

Peter M: summary from interview transcript

Peter M. was in a desperate situation. The accusation of stealing was just one incident in a catalogue of disputes and beatings from his father, Joseph. Eventually his father's brothers intervened and advised him to take a wife. They thought that might put pressure on Joseph to help him. This did in fact happen: as well as paying brideprice, Joseph gave Peter a plot of land and even donated some sheets of corrugated iron so that he could build a house for himself and his young wife. But even after the marriage his father sometimes hit him, while his stepmother continually harassed his wife. One day she accused Peter's wife of not kneeling to greet her and in the ensuing row Joseph removed several of the corrugated iron sheets he had given for the roof, making the house uninhabitable. Peter returned to his mother's village and his wife to hers.

As an outsider to the village with weak claims on his father's wealth and a hostile stepmother, Peter was always going to be vulnerable to accusations of crop theft. But his marriage, far from being his salvation, was a means of humiliating him further and so became a travesty of the ideal of masculine independence.

These four stories show a diversity of marriage and brideprice experiences among young men of similar age living in the same small community, shaped partly by

differing structural positions and kin relationships. Paul's vulnerability stemmed from the early death of his father and his paternal uncle betraying his traditional obligations. While Wilfred seemed to have achieved considerable independence and was paying his own brideprice, Harold still relied on his father. Peter was cruelly disadvantaged by the lack of close relations between his father and mother, which among other things exposed him to his stepmother's animosity. But if getting married is a minefield, so is not getting married: below, I look at experiences of accusations of defilement.

'I might meet someone's daughter then I get a problem': Defilement charges

Now I look at four accounts of defilement charges from the perspectives of young unmarried men, a mother and a wife. One of the stories introduces the element of extortion, a common feature of such cases in the village.

Conrad B: summary from interview transcript

Although younger than either Paul M. or Wilfred T., Conrad B. was in a much stronger economic position than either. He was already a successful entrepreneur making his money from trading cassava, plantains, coffee and anything else people offered to him that he could sell on at a profit. He had bought two acres of land and some livestock with his business profits, which had made him wealthier than many older men in the village. He also rented another piece of land. Yet even he claimed that he could not marry because he lacked money. Asked about the risks he faced in daily life he talked about possible defilement charges: 'I might meet someone's daughter then I get a problem. You can befriend her and you get her pregnant, then you are arrested'. When interviewed again in 2010 Conrad was still unmarried, which he said was because he still did not have enough money. Although he did not mention it himself, a neighbour said he had made a young woman pregnant in 2009, sometime after our first conversation with him. The girl's father had started a defilement charge against him, but he had bribed the police officers who came to arrest him and they had allowed him to escape. He went to Kenya, only returning after his parents had settled the matter for him.

Conrad repeatedly used the phrase ‘someone’s daughter’, corroborating a point made by La Fontaine that in this context defilement is regarded as an infringement of a father’s brideprice entitlement rather than of that of the young woman herself (1959:35).

In the next case a young man (Martin D.) seems to have been entrapped in an attempt to extort money from his parents:

Dorcas K. and Martin D: summary from interview transcripts and notes

When Dorcas K. heard that her son had become involved with the stepdaughter of a sorcerer she and her husband were angry: ‘It upset his father, who said he would never pay his school fees again, because we knew the parents of the girl would fine us and we could not pay. When we asked Martin he denied having an affair with her: he said it was blackmail. It was a calamity, because it was around that time he failed to pass his Grade 6 at primary school for the third time, despite me struggling to buy all his school necessities.’

When the girl disappeared from the village her stepfather claimed that Martin had eloped with her and started threatening the family. Later Dorcas found out what had really happened. The young woman’s mother and teacher had connived to send her to join her biological father in Kenya because her stepfather had been sexually harassing her. Afterwards Dorcas and her husband persuaded Martin to ‘accept Jesus as his personal saviour’ and he buckled down to his schoolwork.

Martin himself claimed that, because of this experience, he had abjured sexual relationships. After his circumcision, friends had tried to persuade him to get a girlfriend, but he had told them that he would do it ‘when the right time came’. He hoped to get a girlfriend after he had finished his studies and obtained a job, because then he would be able to cater to her needs. Otherwise he might be tempted to steal in order to provide for her and that might anger his parents.

Martin's comment about providing for his girlfriend's material needs suggests that sexual relations outside as well as within marriage require a certain amount of cash on men's part. In another part of rural Uganda, Westaway (2008:47) found that some young women exploit young men's sexual interest in them to extract money and presents, a practice known as 'de-toothing'. Again, this indicates that young men are to some extent vulnerable to being exploited in their sexual relations.

If young unmarried men are vulnerable to defilement charges, married men are by no means immune either. The following story illustrates how cases can quickly escalate into violence once the police are involved:

Rachel P: summary from interview transcript

Interviewed in 2009, Rachel P. said that her biggest worry concerned a defilement charge against her husband, Sam K.. One night in 2008 police had arrived to arrest Sam for the alleged defilement of an 18-year-old girl who was pregnant. On opening the door and seeing the four armed men outside, he had run off into the darkness. The police had shot at him but missed. According to Rachel, the man who was really responsible had escaped to Kampala: 'The girl saw that life was difficult and her brothers were being very harsh to her. There was no one to take care of her, so she said that it was my husband who had impregnated her'. A year later she still found the incident disquieting and said that she was worried that the police might return to arrest Sam or to confiscate their cow as a fine.

In addition to the stories above I heard of several other cases where young men accused of defilement had been arrested or had fled across the border to Kenya to avoid the police.

People also talked of 'entrapment' cases in which unscrupulous individuals had tried to blackmail the parents of young men. In order to understand the next example the reader needs to know that it is the custom among the Gisu for adolescent boys to live in separate huts on the edge of their father's compound. This is what Ernest M. said had happened to his son Isaac:

Ernest M: summary from interview transcript

One night a ‘friend’ of Isaac’s brought a young woman to his hut on the pretext that she had run away from her parents and needed somewhere to sleep. After leaving them together he soon returned with police officers who arrested him for defilement. On finding out the next day that Isaac was being held at the police station, Ernest negotiated with the woman’s parents. ‘I managed to remove him. They wanted 700,000 shillings from me. The officer in charge pleaded with them to be fair to me and not turn this situation into business, because this same girl had earlier on caused someone else’s arrest in a similar case. They calmed down and we agreed on 500,000 shillings.’

The connections between defilement charges, extortion, landlessness and poverty are manifold. For instance, some older men have to sell land to pay brideprice on behalf of their sons, compounding their generational vulnerability (Ministry of Finance, Planning and Economic Development, 2002:24), and a District Community Development Officer attributed the large number of landless young men in the area to their fathers having sold land to pay defilement fines for them, which is an ironic twist of causality. Other people, including a parish chairman, talked of poverty-stricken families using their daughters to trap young men into paying defilement fines, while a local official described how schoolgirls are sometimes led into transactional sex when men offer to buy them food, after which their parents pursue defilement charges.

From Ernest’s negotiation of a defilement fine for his son’s transgression I now turn to the older male actors who are involved on the other side of brideprice and defilement disputes.

9.4 ‘Reporting’ to the father: Older men claiming their entitlements

While brideprice is imbued with cultural meaning, here I focus on the economic benefits for the recipients. Many elderly men in Bubufu experience a specifically Gisu gendered vulnerability after they have distributed land to their sons. I go into some detail about the situation of two older men to highlight the role that brideprice

might have played in their material wellbeing. Fred J. had brought a case for brideprice compensation in the local court:

Fred J: summary from interview transcript

Fred had less than an acre of land, having divided most of it among his seven sons. In 2006 he decided to take the husband of one of his daughters to court for failure to pay brideprice: the couple had been married for a long time and had three children. He had reminded his son-in-law several times, but despite his promises he had never paid him anything. When Fred took him to court, the court ruled that he should receive three cows, three goats and a cock, but so far the son in law had only paid one cow. Fred sold it and used some of the money to pay a granddaughter's school fees.

This story illustrates the disjuncture between entitlements and responsibilities that may affect older men in Bubufu: although Fred had given most of his land to his sons he still had responsibilities regarding his grandchildren. It is also clear that even after a court ruling his chances of getting the whole of the compensation he had been awarded were slim.

Gregory N. appeared to be waiting patiently for his daughter and her husband to establish themselves in jobs before pressing his brideprice demands:

Gregory N: summary from interview transcript

In his early 70s, Gregory N. was much older than Fred, but even at that advanced age he still had 7 dependants living with him although he had distributed about half of his land to his sons: 'Eating has become difficult because the price of maize flour, sugar, salt, paraffin and soap has gone up and I am not managing'. He had not received bridewealth for a daughter who had married two years earlier and given birth to a child, but he intended to call her husband to discuss it: 'I am giving him time to see what he will do. Both my daughter and son-in-law are teachers. He has finished his studies and now I am waiting for my daughter to finish hers, after which I will go and demand brideprice.'

Gregory's account illustrates how the brideprice custom is being modified in keeping with the spread of higher education, reflecting the modern reality that the best livelihood course both for young people and their parents is to try to gain qualifications and find paid work outside the area. Neither Fred nor Gregory had unmarried sons. If they had, they might also have talked about the need to obtain brideprice so that they could use the cattle to enable a son to marry in turn.

What of the fathers who pursue defilement charges in respect of their daughters? Rose N., the young wife who eloped and lied about it in court, told the following story, purportedly about her sister:

Rose N: extract from interview transcript

If you have a daughter who is at school and you have paid all the school fees and you hear that she is pregnant, you can feel very bad. You wonder why your child decided to become pregnant after you spent a lot of money on her, thinking that she would complete her studies. It has happened in my family. My father had just taken back to school one of my sisters who had given birth, but she immediately got pregnant again. Our father was bitter and cried to the teachers to pay back some of the fees he had paid for her.

This story conforms closely to Rose's own elopement, so it may be that she was really talking about herself rather than her sister. She tells it from the father's point of view: a father's anger at having 'wasted' his investment in a daughter's education is at the core of the anecdote. A remark made during a women's group discussion suggests that the custom of defilement fines is one of the factors that facilitates parents sending their daughters to secondary school in the first place:

Unknown speaker: extract from group discussion transcript

Our parents used to say that it was useless for a girl child to go to school because any time she could abandon school and get married. However in these times if the parents see that they are intelligent and willing to study – and also defilement fines can be imposed – they give all their children the chance to study.

For parents, the possibility of levying a fine for defilement seems to serve as insurance against two types of loss: first, 'lost' expenditure on school fees and second, the loss of 'assistance' that might have been obtained from an educated and employed daughter.¹⁴

In Uganda generally, young women and men resist the brideprice custom by eloping (Kaye *et al*, 2005:301). In Bubufu it is also a way for young women to defy their parents' wish that they should finish their education.

Soon after he negotiated the payoff to the people who entrapped his son Ernest M. found himself on the other side of a similar dispute when his 17-year-old daughter Erica eloped. She was supposed to be at boarding school in another part of the region, and on hearing that she had left and was living with a young man in a trading centre a few miles away Ernest threatened to have the man arrested and fined. The couple fled to Kampala before anything could be done. Ernest seems to have half expected this, because in an interview several months before Erica eloped he had had this to say about the wilfulness of daughters:

Ernest M: summary from interview transcript

You might think that she is at school, but someone tells you she is hanging around the trading centre. When she comes home she pretends she has just come from school. When she does this twice you can tell that she will not finish her studies. If you let her carry on like that she'll come home pregnant one day.

When asked whether or not parents ever pressured their daughters to leave school and marry, the reaction of the village chairman was typical: 'It is the girls themselves who refuse to study and decide to elope with men'. Purvis remarks of the Gisu: 'every man, woman and child claims to be independent' (1909:336); these stories and comments show young women exercising determined agency in defiance of their parents.

¹⁴ Mr. Balungira suggested that for some parents the possibility of claiming defilement fines is the chief motivation for sending their daughters to school. Although this is plausible, I have no evidence from Bubufu to support the idea.

9.5 Summary

Environmental and social processes, including weather shocks and stresses, interact with local gender norms to create masculine vulnerability in Bubufu. In Chapter 5 I discussed the masculine vulnerability that is a short-term outcome of disasters such as landslides, but there is a long-term trend under way too. Men's traditional entitlement to land is both figuratively and literally vanishing due to population growth, environmental degradation and the impacts of intense rainfall, notably landslides and erosion. Few alternative livelihood options are available to provide a material basis for marriage. In this harsh scenario young men struggle to acquire sufficient assets to marry and set up a household, simultaneously dodging defilement fines.

Further along the Gisu man's life course, older men still try to insist on their traditional entitlement to brideprice, despite or because of today's punishing environmental and economic conditions. This helps to sustain brideprice as a social and cultural institution, although from a rational outsider's point of view it is no longer in keeping with its material context and could be regarded as dysfunctional. Contemporary studies of brideprice suggest that similar struggles are going on in other locations. For instance, the payment of brideprice is declining in neighbouring Bunyole too, although 'expectations and demands for it remain' (Reynolds Whyte, 2005:155). Masquelier goes so far as to argue that because of brideprice, generation rather than class is now regarded as the salient axis of differentiation in Africa (2005:73). In Chapters 6 to 8 I highlighted how the abuse of privileged structural positions can interfere with other people's ability to survive and thrive in a context of adverse change. I see brideprice demands and defilement charges as intergenerational struggles between men that form part of this general pattern.

With regard to the custom of defilement charges, I have kept faith with my epistemological reliance on subjectivities by concentrating on young men's views. Indeed, I have had little choice in the matter due to the difficulties that dogged my attempts to talk to young women. Stepping back from young men's specific interests, though, defilement charges take on a different significance. Parents in the village now see putting their daughters through secondary school as a livelihood

strategy for the future. In this light, defilement settlements may be understood as a mechanism for protecting critical adaptive strategies.

Chapter 10: The duality of social relations

10.1 Introduction

In Chapters 4 to 9 I investigated risks, shocks and stresses, led by villagers' subjective priorities. This chapter is somewhat different, as it speaks directly to my research interest in the role of micro-level social relations in adaptive capacity. Like previous chapters, it is mainly based on data from interviews and group discussions, and I also draw on studies in the literature in my interpretation of the data.

Heald begins her well-known account of life in a Gisu community in the mid 1960s with a moving description of human insecurity (1998:1):

Every morning exposed the sadnesses and troubles of the night, bringing fresh news of illness, assault, threat, theft and murder.

Previous chapters indicate that Bubufu is also a community troubled by tension, conflict and crime. In Chapter 7 I analysed conjugal struggles over household provisioning. In Chapter 8, I looked at crop theft as both a cause and a symptom of household-level food insecurity, and argued that sniffer dog groups may be a maladaptation to insecurity. In Chapter 9 I investigated brideprice disputes and defilement charges in which the conflicting interests of different generations of men are pitted against one another. The stories I presented were selected from a much wider pool of available examples. In short, Bubufu is a community under strain. Judging by Heald's comment above this situation may have prevailed for decades.

So far, so bad. But of course, all this evidence regarding the 'dark side' of micro-level social relations came to the fore as a result of asking people about perceived threats: inevitably tensions and conflicts were highlighted rather than goodwill and harmony. But as well as pointing to contestation and conflict I have provided examples of social bonds and networks providing valuable support. For instance, my evidence shows that kin do provide some support for landslide-affected families

despite the prevalence of poverty (Chapter 5), and that some husbands take their household provisioning responsibilities seriously (Chapter 7). In this chapter I start out with the notion that social relations in the village are potentially ambiguous in relation to adaptive capacity in that they have the potential to both facilitate and constrain poor people's individual agency (Cleaver, 2005). I interrogate my evidence, seeking a clearer and more specific idea of how they influence adaptation choices and outcomes.

The chapter is divided into four parts. In section 10.2 I focus on social bonds and networks. In section 10.3, I consider conjugal struggles over wives' livelihood activities. In section 10.4 I discuss the power of envy and mistrust. That is followed by an account of villagers' attempts to make self-help groups work for them in section 10.5, and in section 10.6 I round off the chapter by drawing out some implications for climate adaptive capacity.

10.2 'These graves were my bank': Informal risk-sharing networks

Nerissa A. was a widow in her mid-60s. She lived alone apart from three grandchildren. Her husband and two sons had died, one of her sons having been murdered by a co-worker in Kampala who was reportedly jealous of the position of trust he had enjoyed with his employer, the manager of a security firm. When asked if she had anyone she could call on for financial assistance if she needed it, she pointed to three cement-sealed graves in front of her house, saying: 'These graves were my bank'. That phrase sums up both the reliance of many villagers in their kin and the precarious nature of such a support system.

The vast majority of villagers asked about possible sources of assistance in an emergency were able to give the names of kin, and sometimes of friends and neighbours, who had helped them out in the past or on whom they could call for help in a crisis. I begin with relations between parents and children, as the household is often identified as the primary risk-sharing social unit (e.g. Fafchamps, 2003). Many older parents said that they relied on their educated grown-up daughters and sons for help with school fees, investments such as in livestock, and during crises. Such help was usually given in the form of gifts and financial transfers rather than loans, and could make a big difference to villagers' quality of life in their later years. For

instance, Gregory N., who was looking after several grandchildren since one of his sons had died, compared his own situation unfavourably with that of Mr. S., the lineage elder whose house is shown in Chapter 2: ‘If for example you look at [Mr S.], he is older than me, but he is well off because the children have built him a house and they give him help’. However during the same interview he said that his grown-up daughter, a teacher, had promised to help him to stock a small shop that he wanted to start up as an income-generation activity.

Anticipation of such support in later life motivates villagers’ struggles to pay their children’s secondary school fees. Investing in children’s education is a sound forward-looking strategy for household security, and in Chapter 9 I argued that defilement charges are a way for parents to protect this investment in their daughters. During the interviews most people were explicit about their expectations of intergenerational reciprocity:

Gordon N: summary from interview notes

Between 1992 and 2008 Gordon N. worked in Kenya, doing farm labour. He eventually returned to the village because, as he explained, ‘what I earned I used to educate two of my sons, and now they are grown up and working. So I won’t go back [to Kenya], because now the older ones who are already working are helping me to educate the younger ones’. One of his older sons was working in security and the other was a local teacher who had helped him to get the job of watchman at the new secondary school.

Gordon described his work in Kenya in positive terms. The only problem he had encountered had been when he was imprisoned for seven days in 1998 after a young man, also a Gisu, whom he had recommended for a job subsequently stole from his employer. Despite this experience Gordon by no means regretted his time in Kenya: ‘I was able to educate my children, buy the land I occupy and pay the balance of the bridewealth.’ He said that he would not go back though: ‘My aim for going was the betterment of my children. And now they just have to buy me a cow for rearing, and I will sit at home.’

It is not just fathers who go to such trouble to get their children through secondary school:

Bridget M: summary from interview transcript and notes

Bridget, a widow in her 40s, left her two teenage children with her elderly mother, also a widow, and went alone to Kenya to find work. She had asked her husband's brother to pay her children's school fees, but he had been unable to help as he had twelve children of his own and some of them were planning to go to university, so would need financial support. She worked as a house girl in Kenya for several months before being caught up in the ethnic violence that following the disputed elections of 2008. She was lucky to escape being killed and returned home having been paid only half of the wages owing to her:

‘I decided to look for money so that my child could go on to Senior Four. As a woman you have to struggle so that you educate your children. For example, you can sell a goat and you might educate your child up to Senior Three with that, but then you find there are no other sources of support. That is when you decide: ‘Let me get someone to take me to Kenya so that my child does not just sit at home, because it could be bad luck and she might have a baby, even though I've spent money on her. It's better to educate her to a higher level, so that tomorrow she can be able to help me, because I'm a widow.’

What Bridget said about her motivation for the trip to Kenya reveals her determination to get at least one of her children through secondary school as a livelihood strategy for her own future. Her story also illustrates Dolan's (2004:654) point that Ugandan women often seek employment as a response to distress conditions; in Bridget's case widowhood and lack of support from affines. In general I found evidence of a strong norm of mutual support between parents and their children which is critical to parents' livelihood strategies.

I have also already touched on the close ties that married women retain with their kin, and I return to this subject now. In Chapter 7 I quoted Sandra N. complaining

about her absent husband's failure to provide for the household. She contrasted this with the help she got from her parents:

Sandra N: summary from interview transcript

When I realise there is too much poverty – ‘What will the children eat? Can I go and steal something?’ – What I do is to carry the children to my mother. She shares whatever food she has with her grandchildren; how could she chase them away? If I did not go there how would I have survived? I go there a lot. When I see the children just sitting here hungry, I take them to my mother in-law; she might wonder where I am going. I then run home and tell my mother that the children are hungry. My mother then calls my father and explains to him that my children are hungry and then he gives me money and food.

In some cases women in rural Africa cultivate kin relationships as a calculated response to economic recession and land pressure (Moore and Vaughan, 1994), but the ethnographic evidence (e.g. Heald 1998) suggests that Gisu women have always maintained strong relations with their kin. It is not clear, then, to what extent the assistance that Bubufu women get from their parents reflects a current crisis or historical continuity. Sandra claimed that she received no food or any other kind of help from her husband's parents, although they lived only a few yards away, and when I asked her if she could take the children to her husband in Kampala when times were hard in the village, she replied:

Sandra N: summary from interview transcript

Unless he calls me, I can't go to him. I don't know how he lives, eats and sleeps. I can't go where I'm not invited. But as for going home, it is just a matter of packing my things, carrying my children and we go, without any questions asked.

The contrast between Sandra's expectation of an unconditional welcome at her parents' house contrasts sharply with the emotional distance in her relationship with her husband.

The examples I have given so far are of generally supportive kin relations, and I could quote many other examples of parents, children and siblings helping one another, especially where a grown-up child or a sibling has managed to establish him- or herself outside the village. In other cases though, kin relations are permeated with hostility and resentment (Chapter 9). Even in the absence of outright contestation, assistance from kin cannot always be relied on. Sometimes villagers ascribed refusals of help to mutual poverty, sometimes to meanness, and others talked of a general breakdown in patterns of reciprocity:

Mary M: extract from interview transcript

It is just a few people who have kin who can help them. For the majority, their relatives are not capable of helping them. Someone may go to a relative to ask for help but when he reaches them he finds the relative with empty hands.

Anthony M: extract from interview transcript

I have well-off relatives, and I have asked them to lend me some money but they have not helped me. They are mean with their money and they think I will use it carelessly or refuse to pay back.

Older villagers' sense of a decline in reciprocity was articulated by Dorcas K., among others:

Dorcas K: summary of interview notes

Dorcas said that there was a lack of trust in the village so it was best to be independent and not rely on other people for assistance. In the past there was intergenerational reciprocity. If you helped someone you could expect their children to help you as adults. Now that has gone. If people give you a loan, they want it recorded in writing.

Following on from Dorcas' last point, a few other villagers also complained that assistance that used to come in the form of gifts now came, if at all, in the form of loans. Gregory N. said that lenders now expected you to have some form of collateral, and that was one reason why it was a good idea to have a cow: 'If you do

not have a cow, no-one will lend you money because they know you have nothing to sell in order to pay it back’.

Other studies have also highlighted the unreliability of social bonds and networks for poor people in rural East Africa. Goulden (2006:241) found that better-off and middle-income villagers were able to borrow from others rather than the poor. In Tanzania, Cleaver (2005:899) found that assistance given to the very poor tended to be ‘limited and stop-gap’. While both Gregory N. and Anthony M. complained of being refused ‘assistance’, perhaps this needs to be considered from the point of view of lenders as well as would-be borrowers. Gregory’s lineage uncle justified his refusal of a loan by pointing to the high proportion of village shops that fail due to bad credit. As I illustrate below, this is a frequent cause of small business collapse in Bubufu, so in this case the refusal to lend seems to have been based on hard-headed reality. Richard M., a shopkeeper in the village, complained of lending money that had not been repaid, saying that it had put pressure on his business. John K., one of a handful of villagers who received a salary (as a part-time teacher), was the subject of many requests for assistance. However, he said that he also had to look after his own children, those of his brothers ‘who were not doing well’ and his parents. As a result he had stopped running a shop from his house due to lack of capital to buy goods. I have already quoted his father Gordon’s expectation that John and his brother would buy a cow for him in return for the sacrifices Gordon had made to fund their education. Kinship can be a drain on the resources of salaried individuals like John (Ellis and Ade Freeman, 2005:4). Platteau (2009:681) cites studies from various parts of Africa showing economically successful individuals moving to towns and deliberately weakening their links with their home villages in order to evade expectations of support.

Given the unreliability of assistance and tension among kin, do affines represent an alternative source of support for a beleaguered villager? This is a significant question: Heald argues that for men, affinal relationships are more relaxed than kin relationships: whereas among men the latter are inherently competitive over land, in the case of affines there are no assets at stake (Heald, 1998:149). La Fontaine (1962) also stresses the importance of affinal relations to Gisu men. It may be that inability to pay timely and sufficient brideprice (Chapter 9) has poisoned what were

historically benign relations among male affines, because hardly any men named affines as a source of assistance. I have very little information on married women's relations with their affines, although Sandra claimed that she got no assistance from them even when their grandchildren were going hungry.

While kinship and lineage are often bases for informal risk-sharing networks among the poor in developing countries, friendship can also be important in this regard (Fafchamps, 2003:103). At this point I look beyond kinship to networks based on friendship and working together, often outside the village. Several men who had worked or studied outside the village mentioned receiving help at times of need from friends, fellow-students and workmates. Milton W., for instance, who often worked on building projects elsewhere, talked of his workmates having a whip-round to help pay a child's medical costs. Another villager, Jason K., was taken in for over a year by a friend in Mbale after being injured in a boda boda accident. According to his wife Agatha, Jason had struck up a friendship with the man after hiding him from the relatives of someone he had killed in a traffic accident. When Jackson himself was injured later this friend helped him in return. Such urban friendships and networks might have advantages over kin-based networks, first because they are not vitiated by the endemic poverty of the village and second because their members are not exposed to covariate risk such as the natural hazards that affect Bubufu.

On the other hand, urban and rural risk-sharing networks alike are exposed to the same high risk levels that characterise sub-Saharan Africa generally, as illustrated by the following story about Abner J., who in his desperate attempts to make a living received help from both kin and non-kin. His mother, Gloria C., gave the following account to Mr. Balungira when he visited Bubufu in 2010:

Abner J.'s story: based on notes from interview with his mother, Gloria C.

Abner ran a small 'hotel' but the business collapsed. He used to get wheat, cooking oil, sugar and other goods on credit from local shopkeepers, but as he did not pay them they stopped supplying him and he was unable to continue running the hotel. He had no land of his own but just shared a small plot with his mother. Life became hard for him, and in December 2009 he decided to

go to Mbale to look for work as a boda boda rider. His wife and their two children moved in with her mother.

In Mbale he met a man from [a trading centre near Bubufu] who gave him a bicycle on credit so that he could get started. They agreed that Abner would pay for it in daily instalments; after three months the bicycle would be his to keep. He brought the bicycle to Bubufu and put it overnight in someone's house. That night thieves broke into the house and stole it; they took nothing else. Abner agreed with the bicycle's owner that he would buy another one. He decided to visit his sister, who worked in Kenya as housemaid for an Indian family, so that he could find work and earn money to buy the second bicycle. He got to his sister's place, but a few days later her house caught fire and all her property was lost.

By May 2010, Abner wanted to come back from Kenya but had no money for transport. The man who had given him the bicycle had committed suicide a few weeks before after the sister with whom he was living in Mbale threw him out. So when he comes back from Kenya, he does not know whether this man's family will still sell him the bicycle or not.

Several points come across very strongly here: Abner's indefatigable efforts; the diversity of the social bonds upon which he was able to draw for help; the extreme precariousness of those sources; and the way his efforts were both aided and obstructed by micro-level social relations acting directly and indirectly on his own interests. Although Abner seems to have been unlucky in the number of calamities that intervened between him and earning a livelihood, stories of individual tenacity in the face of livelihood calamities are by no means unusual in Bubufu. His story illustrates Cleaver's remark (2005:895) that 'the chronically poor are severely frustrated in their capacity to exercise agency'. Some of the incidents that befell him show how fragile goodwill and assistance can be in a context of covariate poverty and high risk. Then there is the matter of the stolen bicycle: the fact that nothing else was taken indicates that the bicycle was the target, which in turn implicates someone that Abner knew, perhaps a neighbour or an acquaintance. I discussed the effects of

crime in Chapter 8. The theft of the bicycle is another example of how so-called ‘petty crime’ can seriously harm a poor person’s human security.

Social bonds and networks cannot always be relied on at times of need. Moreover, they may represent a drain on resources rather than a means of support. Support from kin, friends and workmates can be eroded by endemic poverty, the desire of more successful individuals to distance themselves from poor relatives and the high-risk environment that the Ugandan poor inhabit. Moreover, Gisu kinship ties have an inbuilt potential for conflict. I did not find evidence of the strong mutual support among affines that Heald (1998) noticed.

Next, I consider how conjugal relations affect married women’s livelihood activities.

10.3 ‘Men stop homes from developing’: Conjugal contestations over women’s livelihood activities

In Chapter 7 I discussed how husbands’ sale of food crops may threaten the food security of other household members. In this section I argue that prevailing gender norms constrain women’s efforts to accumulate livestock and engage in non-farm livelihood activities. ‘It is men who stop homes from developing’, Teresa J. said during a women’s group discussion.

During one of the women’s group discussions I asked the participants which of them personally owned livestock. Several said that they did, reflecting the fact that wealth ranks 1 and 2 were disproportionately represented in the group’s composition. However, my query triggered several stories like this one:

Sophia B: extract from group discussion transcript

My father gave me land, which land I later sold and bought a cow in the hope that it would help us solve our problems in the home. One day my husband said: ‘If you do not let me sell that cow then take it away and leave my house. When I sought my friends’ advice they said: ‘Let him sell the cow if he wants. Do not let the cow make you abandon your children’.

It was clear that husbands’ appropriation of their wives’ cows was a source of considerable resentment and unhappiness among married women. On the other hand

I should point out that there are households in the village where the husband is quite happy for his wife to rear livestock, for instance in Chapter 7 I quoted Joan B., whose husband helps to collect fodder for her cow.

I now turn to women's economic activities, which in this context often means the petty trading of fruit and vegetables. Although I have hardly any information on when women in the area began to pursue off-farm livelihood activities, this comment suggests that it may be a novel phenomenon in Bubufu:

Ernest M: extract from interview transcript

A while ago I was sitting here with a friend and some women passed with cassava they were selling. I said to my friend: 'Do you see how the world has changed? These days women are doing business too.' And you may find that as this woman was selling cassava, the man was just sitting around at home.

Not all husbands are supportive. Some object to their wives engaging in economic activity at all, while in other cases contestation arises over who controls the woman's income and the uses to which it is put. I illustrate these different points of disagreement with extracts from interviews with two particular women. The first is Sandra N., a young married woman who I have quoted elsewhere in this and other chapters. The second is a middle-aged married woman, Esther N., who has also featured before. This is Sandra N. explaining to me in 2009 why she did not undertake any off-farm livelihood activities:

Sandra N: extract from interview transcript

I used to deal in coffee and even beans ... if you have got a friend who is selling them you buy them and sell later at a profit. But now I cannot buy a hen and sell it later, nor the eggs. [My husband] would ask me 'Where are the eggs? What did you use the money for? So now you have the authority to sell things in this house? From today onwards it is you who will be buying things in the home!' When your husband decides that you will be the one to provide for the family, where are you going to get the money? It is for this reason that, even when you have eggs, you do not sell them.

Sandra refers to the notion that everything in the house belongs to the male household head even if the wife has acquired it, an idea that appeared in Chapter 7. She also explains her reluctance to engage in economic activity by the fact that her husband would use it as an excuse to transfer purchasing responsibilities to her, something other wives also complained about. It seems that wives' earning cash, however tiny the amount, may be viewed as a transgression of male authority and an abnegation of the women's own responsibilities as wives, thus justifying shifting the responsibility for provisioning from husband to wife.

In 2010, Mr. Balungira visited Sandra again. Her husband, who had been working elsewhere as a teaching assistant, had returned to the village and was now working in a primary school.

Sandra N: extract from interview notes

[Her husband's] teaching job has not contributed a lot to the welfare of the family as he is not on the payroll and only gets small allowances. Last September, he gave her US\$10,000 to support the family. She used it to buy greens for US\$3,000 and tomatoes for US\$6,000. She began selling them at the trading centre as a way of getting some money to buy food rather than looking to her husband for support all the time. However, she was discouraged because one day she came from the market with food, and as she was in the kitchen cooking her husband stole her money from her bag. When she asked him why, he claimed he would pay it back, but he never did. The husband continued with this habit of taking her money until all her capital was exhausted. When she asked for it back, he told her 'If you want to sell tomatoes, go and sell them at your parent's home'. So she decided to stop this business in March [2010]. While she regrets it, she would rather sit at home than work just so her husband can take her money.

After the earlier visit the point of contestation between Sandra and her husband had shifted. Now, rather than opposing Sandra's livelihood activities or punishing her for them, her husband was appropriating her income, which she regarded as stealing. In the dispute that followed he drew on the notions that wives are living in 'their husbands' homes' and that their independent petty trading transgresses their

husbands' entitlements ('go and sell them at your parents' home'). In principle wives accept men's power to veto their economic activities on the grounds that the household belongs to them (Chapter 7). 'If [your husband] permits you, then you start the business, but you cannot start on your own because you are in his home', as Zoe S. explained during a group discussion.

I now turn to Esther N.'s story. Her husband, Ezra K., was in some ways an altruistic household head, and I quoted her in Chapter 7 ('I am like a child to him'). In a subsequent interview conducted by Mr. Balungira, however, it turned out that she had never forgotten how Ezra had cheated her almost 30 years earlier:

Esther N: summary of interview notes

Esther's father gave her some money from the brideprice her husband Ezra had paid for her, and she bought a pig with it. After a while, Ezra persuaded her to sell the pig and buy a bag of coffee beans instead, telling her it would be more profitable. He offered to sell the coffee for her through the Coffee Growers' Cooperative Society. However she never saw the money, because he claimed first that there was a delay in payment, and then that there had been an error and that trying to claim the money from the Society would be more trouble than it was worth. On realising she had been cheated Esther resolved never to invest in livestock for the household again. She had stuck to that until 2010, when she received a cash gift from the parents of the young man who married her oldest daughter. She used some of it to buy a pig for her son: 'The husband can't sell it, because my son would oppose him'.

While both Sandra's husband and Ezra used covert means to obtain money from their wives, other husbands were quite blatant about it:

Sophia B: extract from group discussion transcript

There are two types of husband. One type comes in a humble way and says: 'I saw you coming back from the market. Have you got USh500 so I can go out [and drink]?' Then there is the kind who comes to you in a tough way and says: 'I want money'. When you give him USh1,000 he tells you: 'I'm going out, but make sure you buy food for the kids.' If you come home with, say,

US\$2,000, give him US\$1,000 and buy posho with the other 1,000, you're left with nothing.

The phrase 'in a tough way' suggests physical threats or actual violence. During this discussion I asked participants how men spent the money they got through selling household assets or appropriating their wives' earnings. The answer came back in a chorus of voices: 'Drinking, drinking!' I did not ask men directly about drinking in the village, so I only have the women's point of view to convey.

The next story is from Teresa J., who also featured in Chapter 7: she is the young married woman whose husband gave their cow to his second wife. What she said about trying to start a business provides several valuable insights into intrahousehold dynamics, so I quote her at length:

Teresa J: extracts from group discussion transcript

You might have some money, so you think of starting a business so you can buy salt for the house, and if your husband has not been able to buy soap that day, you can also buy soap. Your husband will give you permission to start up the business, but as time goes on someone tells him: 'Have you let your wife go to the market? You have left her for other men, she is just roaming around and she has left the children hungry at home. Can't you do the business yourself? Stop her, make her stay at home and cook for the children. If your wife gets money she will start to despise you'. Therefore even if your husband gives you permission at the start, he will later tell you to stop the business because his friends have told him that when a woman gets money she will despise him.

Later, when your husband comes back home drunk he tells you: 'Tomorrow I don't want to find you in the market or at the roadside selling tomatoes. What about those men you are befriending? You just roam around in the market. What kind of business are you doing? I do not even see how you have helped in this home'. Later, when you tell him 'I thought we had been helping each other in this house because when you do not have money I have

been buying the soap' he replies: 'They told me you have finished all the men in the market. I have stopped you'.

The other thing is that you can get some money and decide to buy a hen, a pig or a cow to keep in the home so that it can be of use to the family. Then a friend will tell your husband: 'Why do you allow a woman to rear animals in your home as if she is the man? All that livestock is yours. Do not allow her to own that livestock'.

Teresa's story illustrates several of the barriers that married women face in their efforts to earn a little cash. The first is their domestic responsibilities: 'He will tell you 'I brought you here to look after my children, not to do business"', another married woman, Ellen P., said that husbands' determination to maintain tight control of household resources and their fear of losing status also come across clearly. Teresa was the only woman to talk about gossip and suspicion of adultery as an obstacle to women's micro-enterprise. There are three possibilities: perhaps she actually was meeting new sexual partners during her trips to market; perhaps there was just gossip to that effect; or perhaps her husband fabricated the gossip story to justify forbidding her business activities. Lastly, Teresa depicts married men policing each others' wives, egging each other on to keep them in check. They seem to fear that if one wife is allowed to step out of line others will try to follow her example.

While many married women do casual farm labour for other people, I never heard of a husband objecting to that. As I explained in Chapter 7, married women are paid for this kind of work with food. In this way farming for other people becomes a direct substitute for women's own subsistence farming in keeping with the traditional gender *status quo*. Women earning cash, on the other hand, is seen as transgressing this arrangement. This is one possible explanation for why husbands oppose their wives' petty trading but not their farm labouring. Worries about their wives coming into contact with men in distant public places such as the big markets, as in Teresa's account, may be another.

These findings are broadly consistent with other studies in the Mount Elgon area, although there are some differences. For instance, Dolan (2004:647) found that the stigmatisation of women's mobility outside the home made it hard for them to undertake non-farm livelihood activities, corroborating Teresa's story. Male household heads in nearby Bududa District tend to appropriate all the cash earned from household land, which deters women from engaging in off-farm income generation (Kagoda, 2008:368). Wakhongo (2008) on the other hand, claims that women in her study area in Manafwa District do control the small amounts they earn from petty trading. Husbands tend to tighten control of household cash during periods of poverty and relax it when things are not so hard (Verschoor, 2008). While I was not in a position to chart changes in a single household over time, I did notice that wives of men classed in wealth ranks 1 and 2 (e.g. Julia N. and Mary M.) seemed to have more autonomy in the matter of non-farm economic activities than poorer women. In keeping with Verschoor's interpretation, this might be due to their husbands' relatively secure economic position compared to men in the lowest wealth rank: however, this was not something I had the opportunity to explore.

Like the married women in Eriksen *et al*'s (2005) study locations, wives in Bubufu strive for some degree of economic independence in a context of environmental change. In Bubufu, women's economic activities may be a social innovation ('Do you see how the world has changed?') in response to land scarcity and declining agricultural productivity. Husbands' opposition and their appropriation of women's income obstruct their wives' adaptive strategies, reflecting Thornton *et al*'s observation that gender relations may constrain the flexibility required for successful adaptation (2007:462). Nielsen and Reenberg (2010) also found that men are reluctant to allow their wives to earn income, which the authors characterise as a brake on adaptation to environmental and climatic change. Although she eschews a climate change narrative, Bryceson (2002) argues that intrahousehold relations are being transformed all over rural Africa, linked to declines in income from male-dominated cash crops and the increasing economic activity of wives and children. Intrahousehold relations, like other types of social relations, may be 'fragile, contested and constraining' (Cleaver, 2005: 898), and the stories here are snapshots of what may be a wide-ranging, long-term process. From disputes within households

I now move on to consider the potent force of envy and mistrust in the wider community.

10.4 ‘They find a way to harm you’: Envy and mistrust

There is a spectrum of antagonistic social relations in the village, comprising gossip, suspicion, fears of witchcraft practices and accusations of witchcraft, theft and robbery, false accusations of theft and defilement, extortion and crimes of physical violence. I have already discussed some of these problems as threats to human security in Chapters 8 and 9. In this section, I specifically consider how they affect people’s ability to cope with and adapt to environmental and economic change.

In interviews and discussions a picture was painted of a community pervaded by envy, ill-will and mistrust, as in this example:

Gregory N: extract from interview transcript

Here, people are dishonest and they like gossiping. If you talk with someone just as we are talking, he will go and tell someone else and again he comes back to you to tell you what the other person said. This is what is disturbing the people in this area.

Such an atmosphere has particular implications for enterprise. The Gisu see themselves as entrepreneurial people, (Jenkins *et al*, 2010) and many interviewees spoke of their desire to set up some kind of microbusiness. However, several villagers also identified envy as a deterrent, as in this rather startling statement from Edith K., a middle-aged widow:

Edith K: summary from interview notes

If she had any cash, she’d start buying and selling maize and tomatoes, or open a little shop. But in this village, women don’t like each other and they would attack her in her house because of envy. They would kill her, steal her property. A man in [a neighbouring village] had his shop attacked, was robbed and injured. People are worried that if you do well you might become richer than them. For instance, if someone has cows, a neighbour might see

him or her selling the milk and think to himself: ‘How come they have cows and I don’t?’

Rose N. attributed the robbery and stabbing of a woman friend in March 2009 to ‘envy’:

Rose N: extract from interview transcript

She was coming back from shopping. It was because they saw her with the things and wanted to take them. And because of that they hated her... if they know that you are better off than them, it becomes a cause of hatred. It is from that point that somebody starts not greeting you, as if they have heard something bad about you. They find a way to harm you.

Other villagers said that the fear of theft and robbery deterred them from investing in livestock or accumulating household assets, although they did not link property crimes to envy:

Milton W: extract from interview transcript

They had two pigs, but they were stolen last November. These days before someone thinks of buying a cow or pig he worries a lot because he could be throwing his money away, because thieves can easily steal this cow and pig.

Edwin W: extract from interview notes

With thieves, you can’t do anything developmental because you are worried that they will come and steal things.

Stories of witchcraft were much rarer than stories of theft, which I attribute to villagers’ self-presentation as ‘modern’ people (Goffmann, 1969) or to fear of antagonising the ‘witch’. However, in the next two extracts Jessica W. (the woman whose outhouses were burned down) and Dorcas K. both talk about envy as the motivation for witchcraft:

Jessica W: extract from interview transcript

Sometimes our neighbours are bad: they never want to see you prosper. You might have bought a cow or a hen and when this hen moves around they kill it. They know how to do it. You just see it changing... I had five hens and one day only three came back. I found the other two dead among my sweet potato plants.

Dorcas K: summary from interview notes

Dorcas said that there was a lack of trust in the village, and now it is best to be independent and not rely on anyone else for assistance. Envy and fear of witchcraft are rife. She has been lucky, because none of her children have died. Yet this very fact might expose her to jealousy.

The risk of being accused of witchcraft was also mentioned occasionally, for instance by Elijah N., an elderly man living alone, and in passing during a women's group discussion when a speaker mentioned such accusations as a reason for having to move to another area. A few miles down the road towards Bubulo, I also had the disturbing experience of seeing a 'witch' being escorted to the police station while a crowd of young people danced and cheered around her.

But while theft, witchcraft and envy were all mentioned as disincentives to economic activity, as far as businesses were concerned the risks of losing money through bad debt or cheating were higher. Earlier I quoted Gregory N., whose lineage uncle refused to lend him money to start a shop on the grounds that high levels of customer debt were bound to destroy the enterprise. Wilfred T. described how unpaid debts can lead to conflict as well as financial loss:

Wilfred T: extract from interview transcript

If you give credit, it is a problem for they may end up not paying you back, and later your business will fail, as you will be just giving out money...And when you ask them for the money they owe, they may start a quarrel. Also if people ask you for things on credit then take two months to pay, that will affect you, hence quarrels.

People who ran cafés also often encountered problems with customer credit, as Mr. Balungira explained:

The risk with opening a hotel is that you might think that you are going to make money, but you can end up losing. There are many people who tell you to give them food on credit and promise to pay tomorrow, but in most cases they do not pay, so you lack the money to buy food for the hotel the next day.

This happened to the Bubufu man who ran the cafe in the parish trading centre where I and my research team sometimes ate lunch. In his case, he was cheated by the contractors widening the feeder road.

To sum up this section, my evidence suggests that fear of envy, theft and bad debt discourages economic activity, asset accumulation, innovation and entrepreneurship in the village. This is in line with findings by Dercon (2008), Fafchamps and Minten (2009), and Kebede and Zizzo (2011). Dercon (2008) puts so-called ‘institutional issues’ like these at the very heart of his analysis of economic risk in sub-Saharan Africa. Envy is a powerful and widespread phenomenon. Scott remarks in passing on ‘the abrasive force of gossip and envy’ in a typical village (1976:5), Platteau writes of ‘the incriminatory and jealousy-ridden atmosphere that pervades many African villages’ (2009:681) and Heald uses similarly strong language to describe envy in her study location (1998). Homer-Dixon (1999:117) argues that levels of trust and reciprocity are crucial determinants of a society’s ‘ingenuity’ in dealing with threats, so the significance of envy in African rural lives carries important implications for the epistemic climate adaptation community, including the proponents of community-based adaptation (e.g. Ensor and Berger, 2009b).

Despite envy’s potential to turn a villager’s best endeavours sour, some are trying to alleviate their poverty by working together. In the next section I look at the phenomenon of self-help groups.

10.5 ‘You look for people who are trustworthy’: Associating for self-help

According to the Community Development Officer for the sub-county, there were 55 voluntary associations of one kind or another in the parish. The oldest and best-established is the *Sikhana* burial group, which helped to distribute relief items during the 1997 landslide crisis (Chapter 5). Some of the other groups seemed to be quite new: for instance I heard of one which had been founded only a few months before I arrived to start my fieldwork, two of whose twelve members had already dropped out. I now discuss some of the difficulties villagers faced in making such groups work for them, starting with an account of the Foundation for Credit and Community Assistance (FOCCAS), a non-governmental micro-credit organization that had a presence in the village for several years.

FOCCAS

FOCCAS ran several savings and credit groups in Bubufu between 1997 and 2004. It was based in Mbale, and although it was set up and run at first by US-based NGOs, it operated under entirely local management after 2002. Based on several interviews, I pieced together the following story:

Cuthbert J., Ernest M. and Mary M: summary from interview notes and transcripts

Thirty people joined the FOCCAS group, but the field officer obtained loans for thirty-six people by adding six ‘ghost members’ to the list. The villagers’ accounts of how this was done differed. One woman, Mary M., said that the field officer had persuaded the villagers to connive with her in exchange for a share of the fake loans. Other people maintained she had not told them about the fictitious members. Whatever the truth on that point, everyone concurred that she stole the members’ savings.

When the loans to the ghost members were not repaid, group members had their assets such as cows and even the tin sheets from their roofs confiscated. They lost their savings too, because FOCCAS rules stipulated that the whole group was liable for individual loan defaults. The field officer was eventually

arrested in Mbale, but people in Bubufu later heard that she was not tried, which they assumed was because she had bribed the police officers.

A participatory review of FOCCAS's operations carried out in around 2003 indicates that the problems of officials manipulating records, being 'slow to bank money', recording ghost borrowers and embezzling group funds were by no means exclusive to Bubufu (Imp-Act, 2004). In addition, LADDER researchers found that some FOCCAS members ran into difficulty because of the high interest rate (given as 12-15% per annum) and a repayment period which, at 16 weeks, was much too short. As a result some borrowers were forced to sell land and livestock to repay their loan (Economic Policy Research Centre 2001a). According to Dolan (2004:658), FOCCAS was more useful to better-off women than to the poorest. These same problems came up in Bubufu. For instance, Albert N. argued that one reason that borrowers had not been able to repay their loans on time was because FOCCAS' short repayment period did not allow for the fact that they had to extend credit to their customers, which the customers then took a long time to repay.

After the embezzlement case, FOCCAS offered to help the villagers to start afresh with a new group. Some people agreed, but only on condition that the group was managed by someone in their own community rather than an outsider. What happened next was a second betrayal:

Cuthbert J., Ernest M. and Mary M: summary from interview notes and transcripts

One of the sub-county councillors, Mrs. G., was appointed treasurer of a ROSCA, only to claim some time later that the group funds had been stolen from her in an Mbale taxi park as she was taking them to the bank. Members were suspicious, and when they heard that she had bought land and a cow in her natal village they were convinced that she had stolen the money herself. In Mary M.'s words, 'those who were strong' confronted her to demand their money back. While these people did get their money reimbursed, members who did not dare to challenge her lost all their money.

Perhaps the passage of time had softened the pain of that double blow, or perhaps only the people whose own fingers had been burnt took the earlier lessons to heart. Either way, I was surprised to hear some villagers express enthusiasm about the idea of micro-credit schemes returning to the village. For instance, three of the four groups who took part in PRA exercises identified micro-credit schemes as a way of helping them to overcome their poverty. In an individual interview Heather N., who was too young to have been involved in the FOCCAS incident herself, claimed that it was the involvement of outsiders, and subsequently the poor choice of a leader from the village, that had caused the problems with FOCCAS:

Heather N: extract from interview transcript

When you are forming a group, you look for people who are trustworthy...When you set up a new group you do not invite the same people who ate the money the first time, because they want you to contribute the money so that they can benefit. When you form another group you should be able to trust one another.

Only Irene K., wife of the sub-county Vice Chairman, was pessimistic about the idea of a new micro-credit scheme. She argued that few borrowers would be able to repay their loans because of the difficulty of running profitable local businesses in a community already saturated with shops and bars.

Whereas opinions about the usefulness of micro-credit schemes were mixed, several other types of voluntary association with the catch-all title of ‘friendship groups’ were already operating. It was difficult to be sure how many such groups existed as some villagers did not know the name of the group they belonged to, but I counted seven or eight. Table 10.1 provides an overview of these voluntary associations and their main functions, based on evidence from the household survey.

Type of group	Purpose	Functions and activities
Burial groups	To help members to give relatives a 'decent' burial	Members make regular contributions. When the relative of a member dies, members provide the shroud and food and water for the burial ceremony.
Gift circles	Enables members to save up for basic household goods and, in some cases, invest, for example in livestock. Some groups link people from different villages.	Members contribute between US\$10,000 and 15,000 depending on the group. Each member receives gifts in rotation, often household items such as cups and plates. Members are mostly women.
ROSCAs	Rotating Savings and Credit Associations enable members to make regular savings of small amounts and take out small loans	Each member makes a monthly payment of say US\$10,000 and receives a lump sum when their turn comes.
Farmers' groups	Improving farming and income-generation	Members learn new farming techniques, try new crop varieties and learn new off-farm skills for income generation, e.g. making charcoal. Collective ownership of livestock.
Youth groups	Supporting income generation among younger male villagers	'Youth' is deemed to include men of up to 30 and sometimes beyond. Emphasis on acquiring income-generating skills e.g. block-laying and generating income through, for instance, collective ownership of livestock. Members help each other with farming.

Table 10.1: Voluntary associations operating in Bubufu

Some of the self-help groups, notably the burial society, provided insurance directly to their members, while others did so indirectly by facilitating the development of social networks (Goldstein, 2005). While such groups are generally ineffective at providing informal insurance against covariate shocks, they may offer ways of dealing with idiosyncratic shocks such as a death in the family (Dercon, 2005:5). Cuthbert J., an office-holder in two groups, and sub-county Vice Chairman Dennis W. were both clear that as collective responses to poverty and human insecurity, women's friendship groups were a positive development in Bubufu:

Cuthbert J: extract from interview transcript

There have been a number of new groups and they have helped people to come together and cooperate when they have a problem. People in these groups advise each other on developmental issues, and when one of them gets

a problem they visit him and counsel him, and this has created unity among the people here.

Dennis W: summary of interview transcript

In the past there was nothing like women's groups, but these days women have come together and are helping each other to support their families. This change has come about because these days many homes are poor and the only way they can improve their lives is by supporting each other.

Both Cuthbert's and Gregory's comments present a scenario of villagers trying, perhaps slowly and painfully, to develop alternatives to individual responses to human insecurity. While both emphasised the community cohesion that such groups could foster, Gregory N. took a narrowly instrumental point of view, concentrating on ROSCAs' role of providing start-up capital for small businesses. Although he spoke of ROSCAs in rather disparaging terms and compared them unfavourably with groups in other areas, even he could see that their popularity signalled villagers' increasing willingness to overcome mutual distrust and cooperate with one another:

Gregory N: extract from interview transcript

The thing is that the people in these groups do not give each other much money, for instance US\$500,000. At most they give you US\$150,000 to buy a calf, whereas you need about US\$500,000 to ...to start a shop. My wife used to be in one of those groups and all she ever got was US\$50,000 to buy soap and a few things. I have heard that in [nearby sub-counties] people in such groups give each other a good amount of money, unlike the groups in this area...They trust each other, whereas in our area people never wish anything good for other people, and they think if they give you a lot of money you will prosper. They are not united, but they are gradually learning and they might change this attitude in future because they have begun copying what other people are doing.

Not everyone in the village had the chance to join a Gift Circle or ROSCA. One had to be invited, and villagers had learned from earlier failures of micro-credit

associations that members had to be selected carefully (interview with Ernest M.). The exclusion of poorer people, in particular poor women, has been highlighted as one of the weaknesses of micro-credit as a strategy for alleviating rural poverty (e.g. Cleaver, 2005). Cleaver (2005) notes that, in her study area in Tanzania, it was common for the poorest villagers to scrape together contributions for a few months initially before dropping out, and I found examples of this in Bubufu too, such as Elizabeth N., a *de facto* female household head with an unsupportive husband. Another example was Ernest M: a combination of healthcare expenses and paying off his son's defilement case meant he was struggling to pay his contributions to his ROSCA, and so would not be able to take out a loan.

Some women also talked of being forbidden by husbands to participate in ROSCAs on the grounds that it impinged on the husband's position as household head:

Teresa J: extract from group discussion

As women we are requesting government to give us some seeds or cows so that we can rear them and share the calves and develop. But...government may give us these things as a group and when there comes a time for a meeting and you attend, your husband will ask you 'You attended as who? Are you the only member? Never attend again'. The man will therefore stop you, yet you never know, some of your friends in the group could have given you money to start up a business.

Dorcas K. gave several reasons for not joining a self-help group including inability to pay the contributions, time poverty and gossip:

Dorcas K: extract from interview transcript

She does not belong to any group because they request membership and registration fees which she cannot afford, and she would rather use the money to buy exercise books for her children. Also the members in this group are a mixture of 'Born Agains' and others, hence there is a lot of gossip and this has discouraged her. The other thing is that she is a busy person and fears that if she joins these groups and is appointed to the executive council it would increase the number of commitments she has.

Wakhongo (2008) also found that some husbands forbade their wives to get involved in community activities such as ROSCAs and that many other women could not get involved due to ‘multiple gender roles that consume most of their time’ (118).

The reason most commonly put forward for leaving a group, or for not joining one in the first place, was the perceived corruption of leaders. This problem came up several times during the initial household survey. Besides the FOCCAS groups at least one other group had disbanded due to the disappearance of funds. For instance the treasurer of one of the ROSCAs had died and the money the group had amassed was never seen again. In a separate case, several people had been duped into paying fees to outsiders claiming to represent NGOs. The sub-county Community Development Officer confirmed that professional confidence tricksters had operated in the area in the past, passing themselves off as NGO officials. The fact that a few children in the village did receive limited and sporadic assistance from Compassion International, a Christian faith-based charity that works through child sponsorship, made it easier for them to fool people in this way.

In the Ugandan region of Teso, Jones (2009) found that any ‘development’ in his study village tended to happen without government involvement. Bubufu’s self-help groups are a good illustration of a community’s own efforts to ameliorate poverty, and an anecdote from Albert N. highlights the importance of autonomy. The groups are encouraged to register with the sub-county administration so that officials can channel support through them during crises such as that in early 2010, but Albert N. recounted how registration had stultified a youth group he used to belong to:

Albert N: extract from interview transcript

The group was doing well, until we registered with the government. They promised us assistance, so the members stopped doing the different activities and waited for government help, which never arrived.

It is important to balance examples of failures and dishonesty by stressing that some self-help groups in the village appeared to function well. Nevertheless, given the problems that have occurred it seems surprising that so many people in Bubufu were eager to join voluntary associations, especially as financial contributions are involved. Things seem to have changed since the late 1990s, when residents of

Mbale District (which at that time included Manafwa District) scored dismally low on voluntarism and working together to solve community problems (Widner and Mundt, 1998). If there indeed has been a change in attitude towards voluntary associations, one of the other findings of Widner and Mundt's (ibid) survey may provide a clue as to why. Of the eight Ugandan districts surveyed, Mbale District also had the lowest proportion of respondents expressing high levels of optimism about their future well-being. In other words, the willingness of Bubufu villagers to put time and money into a gift circle or a ROSCA despite the risks and difficulties, may well be a product of their dire poverty, lack of support from government agencies and their recognition of the inadequacy of individual solutions. As Dennis W. said of women's self-help groups, 'the only way they can improve their lives is by supporting each other.'

10.6 Summary

In this chapter I have considered different aspects of micro-level social relations and what they might mean for climate adaptive capacity. The dark side of social relations has been prominent, but I have no wish to understate their positive aspects. Like Heald (1998), I found examples of good will and mutual assistance among kin, affines and neighbours. Heald uses the term 'pervasive dialectic' (1998:7) to describe the duality she observed between trust and good will and their opposites, mistrust, envy and malice. This is still a good way to describe social relations in Bubufu today; they are a matter of both light and shade; they may provide security and they may also threaten. Social bonds and networks, while often providing support, cannot always be relied on at times of need and may become a source of trouble. As for conjugal relations, while in some households spouses work together in others husbands see their wives' livelihood activities as a challenge to their own authority. Here, I see the dominant gender ideology as 'sticky' and dysfunctional, lagging behind economic and environmental changes because some of the power-holders concerned see social change as inimical to their own structural positions. Moving outside the household, the envy, mistrust and the social friction they engender are pervasive and destructive features of rural life in sub-Saharan Africa. It behoves climate change researchers, especially those interested in communal adaptation solutions, to pay more attention to these problems. As environmental

scarcity often generates social friction (Homer-Dixon, 1999) they are by no means marginal issues.

In Chapters 4 to 10 I have taken my cue from villagers' subjective accounts of the risks, stresses and problems that affect them and how they deal with these. My interest has been in the nature of human insecurity in the community and what it means for climate adaptive capacity. The thesis' table of contents may at first sight suggest that the chapters cover disparate issues that do not belong to the climate change discourse. On the contrary, they are closely and dynamically interlinked and are critical to analyses of climate adaptivity. In the next and final chapter I synthesise my overall argument, comment briefly on human security as an investigative framework for my study and discuss some of the methodological problems I faced.

Chapter 11: Conclusion

11.1 Introduction

In this thesis I have addressed the following research question: How important are climate threats (and by analogy, climate change) to human security in a rural African context of multiple risks, shocks and stresses, and what do the sociocultural aspects of current threats and responses imply for climate adaptive capacity? I have done this through the study of a community affected by land scarcity and environmental degradation which is thus very exposed and sensitive to the impacts of destructive rainfall. My research methods were based on interviews, group discussions and observation, and I have drawn on the literature, including ethnography, as a secondary source to help me to interpret the resulting data. My analysis is structured around the concepts of human security and climate adaptive capacity. I operationalised the concept of human security as the threats – to individuals themselves, their families and their community – of which study participants are aware. I investigated their responses to these threats for the insights they provided into their generic adaptive capacity, with adaptation to future climate change in mind. In this final chapter I review what has been achieved, drawing together the threads of my argument to define my distinctive contribution to scholarship on climate adaptation in development contexts. I also comment on some of the strengths and weaknesses of my methodology.

In section 11.2 I start to answer both the first and second parts of my main question by drawing out the implications of my findings regarding destructive rainfall and landslides, and how people try to cope with and adapt to these. In Section 11.3 I pay particular attention to agency and the role of local government. Section 11.4 is oriented towards the first part of the question; I argue that micro-level, day-to-day social conflicts are important drivers of human insecurity and comment on why this tends to be overlooked in development and climate change academic discourses. In

section 11.5 I conceptualise human insecurity as a cycle incorporating culturally-inflected maladaptive responses, and restate the causalities and interconnections that I have discussed in previous chapters; this section addresses the second part of my question. In section 11.6 I comment on my framing and methodology. Finally, I encapsulate my contribution to scholarship on climate change in development contexts (section 11.7).

11.2 Coping with and adapting to destructive rainfall: sociocultural dimensions

It is clear from Chapters 4 and 5 that the impacts of destructive rainfall, among which I include landslides, are regarded as very serious threats by the majority of people in my case study village. Broadly speaking, my findings are in line with those of Thomas *et al* (2007:318), who conclude from their study that concerns about the effects of climate change on rural African communities are ‘justified’. The effects of destructive rainfall on food security in Bugisu have already been noted (Economic Policy Research Centre, 2001a-c), so my findings in this regard are not original. On the other hand, I have come across no East African climate change studies that focus on destructive rainfall in highland regions as I have done here; it is more common to document the problem of drought. Disaggregating the impacts of destructive rainfall on hillside communities (Chapter 4) helps to build understanding of the possible context-specific consequences of climate change, which are especially significant in the light of meteorological projections for East Africa (see Introduction).

I have drawn attention to the ineffectiveness of efforts to control run-off and crop loss, and to how access to coping and adaptation measures is patterned by conjugal power relations as well as wealth status. My evidence also indicates that *de facto* female household heads in particular are isolated from agricultural extension activities and social learning that might support agricultural adaptation. Given women’s responsibility for producing food in SSA, these gender issues have long been identified as problems for farming efficiency as well as gender equity. With a climate change perspective they take on additional significance because they show how effective agricultural adaptation can only occur if women farmers are fully

involved. Traditional conjugal norms tend to work against wives' off-farm and non-farm adaptations, too, not least because some male household heads see them as threatening their own position. Some aspects of Gisu gender ideology, such as the notion that the man owns the household and everything in it, can be characterised as counter-adaptive in relation to climate change.

Local non-farm livelihood activities such as keeping shop and petty trading are generic adaptations to changing environmental, climatic and economic conditions. However they are inaccessible to the poorest members of the community, and the same gender barriers that apply to agricultural and off-farm adaptation also apply to these non-farm livelihood activities. In addition they are individualistic and competitive, with a tendency to 'beggar thy neighbour' when too many people take them up. Would-be micro-entrepreneurs also have to contend with envy and mistrust, which both inhibit and undermine local non-farm adaptation (Chapter 10). In short, these forms of adaptation suffer from some of the negative outcomes of Gisu individualism. However, I have also drawn attention to how the norm of self-reliance associated with Gisu individualism, especially for men, may impel and support coping and adaptation.

Turning to the landslides that destructive rainfall can trigger, their effects on physical and food security are well documented in the disaster literature. My analysis contributes insights into the way cultural norms shape gendered vulnerability, for instance through pressures on male household heads and the Gisu pattern of wives maintaining links with their natal villages. Traditional beliefs about ancestral graves may or may not be significant in coping and adaptation in relation to climate-related disasters such as landslides: this is an area that cries out for further research building on recent work that looks at attachment to place as an influence on adaptation (e.g. Adger *et al*, 2011).

Adaptation has to be culturally imaginable as well as practicable. Weighing up the evidence in Chapters 4 and 5, adaptation may represent as much of a cultural challenge for the Gisu of Mount Elgon as for the Fulbe in Nielsen and Reenberg's Burkina Faso study (2010) which I cited in Chapter 1. While certain features of Gisu culture may be unique, in other ways – for instance in the matter of conjugal norms – it resembles many other traditional cultures in East Africa. My insights into the

complex and ambiguous influences of Gisu culture on climate adaptation are useful both because they draw attention to this underemphasised aspect of adaptation and because they may be applicable to other traditional societies in the region that are similarly exposed to climate threats and environmental degradation. In this way my analysis engages with cutting-edge debates on this topic (e.g. Cannon, 2008; Heyd and Brooks, 2009).

11.3 Agency and governance

My evidence has shown over and over again that many people are competent and tenacious in their efforts to adapt to deteriorating environmental conditions and more particularly, destructive rainfall and landslides. Yet the El Niño event in 1997/1998 has left a legacy of enduring human insecurity with affected villagers ill-equipped to deal with the El Niño event of 2009/2010, so what is happening illustrates Homer-Dixon's argument that the ability to cope with and adapt to environmental change is damaged by the very crises for which it is required (1999:26). Thomas and Twyman (2005:116) criticise accounts of climate change that portray poor people as passive victims rather than active protagonists in their own stories, and my evidence also challenges such stereotypes by showing that extreme vulnerability can go hand in hand with vigorous agency. It supports researchers who argue that much of the technical climate adaptation literature is complacent and unrealistic, obscuring extremely harsh realities (Orlove, 2009; Cannon and Muller-Mahn, 2010; Pelling, 2011). For instance, many people in Bubufu lack even the most basic resources, such as farm implements or seeds.

Governance is a critical factor in individual adaptive capacity in my study area. In its broadest sense, governance concerns the entirety of political and economic institutions, rules and relationships in a society (Leftwich, 1993). However I want to focus here on local government and how Ugandan national government policies and orientations play out at the local level. Jones (2009) makes a strong argument that the Ugandan state has in effect withdrawn from many rural areas, due to the national government's reliance on donor funding and the consequent tendency for local government personnel to identify themselves with the regional capitals, where they have indirect access to such funding. The sub-county chief in my study area was

often absent (Chapter 2), an observation which tends to support Jones' characterisation of the Ugandan state as 'withdrawn' (2009:63). On the other hand, the road-widening project, NARO's activities and, above all, the new secondary school suggest that the state was more engaged in Bubufu than in the community analysed by Jones. In particular, as an important official space for special events and celebrations, the new school represented stronger links to government institutions and actors (Chapter 2).

It cannot be said, then, that the state was absent from Bubufu. Rather, the point I want to make is that there was a tendency for government interventions to systematically bypass or even victimise poor people in the community. The NAADS programme's intentional targeting of better-off farmers, which reflected national development policy, is an example of deliberately marginalising poor people (Chapter 4). The encroachment of the newly-widened road on farms and compounds, without any compensation, is an example of an authoritarianism that makes victims of poor people (Chapter 4). I would also cite President Museveni's scolding about 'harassing nature', delivered to the bereaved community after the Bududa landslide, as a vivid illustration of how Ugandan national government at the highest levels is antipathetic to poor people (Chapter 5). With an adaptive capacity perspective, such hostility on the part of governance actors is likely to be very damaging.

Having discussed some aspects of adaptive capacity in relation to destructive rainfall, I move on now to look at to other proximate sources of human insecurity.

11.4 The fear of others: social conflicts as elements of human insecurity

Apart from the impacts of destructive rainfall and landslides, many of the other threats that emerged as villagers' priorities arise from conflicts of interest among differently-placed social actors and the ensuing tensions, contestations and conflicts. Heald (1998:132) writes of 'the insecurity that comes from the fear of others', and this type of insecurity appears frequently in my evidence. Under this heading I include coercive unofficial healthcare charges (Chapter 6); male household heads'

appropriation of household resources for personal use (Chapter 7);¹⁵ crime (Chapter 8), and struggles around brideprice and defilement charges (Chapter 9). These are not large-scale violent conflicts but everyday tensions and contestations, although they do sometimes erupt into violence. They are concomitants of scarcity, and in some cases they are also manifestations of unequal power relations.

Given that my study location is an extreme case of a community exposed to climatic and environmental change, the salience of socially-constructed threats like these is a striking and significant finding. It throws doubt on the adequacy of strictly technical climate adaptation discourses, a point I pursue in section 11.4. I have already remarked on the relative neglect of some of these issues in studies of rural development and climate change adaptation alike. In the context of development economics, Platteau and Abraham identify ‘a widespread tendency to downplay the community imperfections that plague many rural societies’ (2002:104), which they link to the promotion of participatory approaches to development (Platteau and Abraham, 2002). Cleaver (2005), on the other hand, links the understatement to the ‘social capital’ discourse. Participatory approaches to development, as well as the idea of social capital, incorporate community cohesion as a normative goal, so the divisive forces of envy and mistrust do not sit well in these narratives. I also speculate that social tensions and the abuse of power at the micro-level may have low profiles in development scholarship because of a sense that such problems are not amenable to external interventions.

11.5 Human insecurity as a maladaptive cycle

My analysis depicts human insecurity as a vicious cycle of deteriorating conditions and maladaptive responses, many of which are mutually reinforcing. While not the most important factor in the cycle, destructive rainfall feeds into it, helping to create food insecurity and poverty. Other researchers use terms like ‘messy’ (Boko *et al*, 2007:440) and ‘entangled crises’ (Casale *et al*, 2010:166) to capture the complexity and irreducibility of these interactions.

¹⁵ I have acknowledged the co-constructive element of Chapter 7; it was my decision to privilege the gender dynamics of household food insecurity and poverty in that chapter.

The effects of destructive rainfall are dangerous partly because they are compounded by environmental degradation. The proximate effects are; damaging run-off, soil erosion and landslides. Environmental degradation is linked to land scarcity and rapid population growth; Uganda has one of the highest population growth rates in the world (United Nations Department of Economic and Social Affairs, Population Division, 2011a). This needs to be framed as a governance issue, because Uganda's population increase is due in part to decisions made at the highest level of government. For instance, Wakabi (2006) attributes it to deliberate policy on the part of President Museveni, based on his belief that a larger national population would expand markets and stimulate economic growth. On another level, it is a gender equity issue, because Uganda has one of the highest rates of unmet family planning need in the world at 40.6 per cent (United Nations Department of Economic and Social Affairs, Population Division, 2011b).

As I have argued in 11.3, the people of Bubufu also have to contend with a hostile institutional environment. This means the community does not enjoy the governance conditions that might enable it to escape from its vicious cycle of human insecurity. In this it can be contrasted with Machakos in Kenya (Tiffen *et al*, 1994). Rather than inevitably leading to environmental degradation and food insecurity, the evidence from this region indicates that rapid population growth can in fact promote sustainable environmental management and lead to higher *per capita* incomes. However the authors repeatedly point out that the Machakos success story depended on government policies and actions that supported agricultural intensification and put in place institutional and infrastructural frameworks that enabled farmers to access markets and sources of knowledge; it is a very different story from Bubufu's.

Acute land scarcity means that married women cannot produce enough subsistence food. I have drawn on Sen's cooperative conflict model of the household to argue that this diminishes their perceived contribution to the household (Chapter 6). I have also made the case that land scarcity has weakened women's breakdown position in marriage by making it harder for them to leave their husbands and make a living back in their natal villages. Traditional gender norms that prevent married women from bolstering their bargaining position by earning money outside the home are yet

another factor in the decline of women's intrahousehold status, according to my analysis. I see this decline as central to the human insecurity cycle.

Crime, false accusations, envy and mistrust can be seen as maladaptive responses to insecurity, in the sense that rather than alleviate the problems outlined above they exacerbate them for some, shifting insecurity around from one individual or household to another. Distress sales of land to pay unofficial healthcare charges show how the abuse of power relations, in this case inside a governance institution, can increase poor people's vulnerability to climate shocks and stresses. In some cases even collective culturally-inflected strategies designed to protect human security are transformed into human security threats in themselves. I have argued that this happened when money-lenders and corrupt policemen started to exploit the sniffer dog groups for personal gain (Chapter 8); the deliberate entrapment of young men with defilement charges is another case in point (Chapter 9).

I commented above on the lack of attention to these problems in development discourses. From a climate change perspective the downplaying of social antagonism and micro-level power relations is especially unhelpful, as social friction often accompanies environmental crises (Homer-Dixon, 1999). Far from being trivial or marginal issues, I see micro-level social tensions and struggles as critical to adaptive capacity and my analysis challenges the tendency of some environmental and climate change researchers to relegate cultural and social issues to 'context' (e.g. O'Brien *et al*, 2009:24).

One of the advantages of viewing human insecurity as an integrated whole, rather than as a conglomeration of separate issues, is that it facilitates the identification of indirect strategies for reducing climate vulnerability. For example, my evidence indicates that addressing the problem of health sector corruption would be very effective for reducing climate vulnerability in many poor rural communities in Africa. Indirect strategies such as this can be thought of as policy 'pivot points' (Southern Africa Vulnerability Initiative, 2004). Such a policy would also qualify as a 'no-regrets' response to climate change: in other words it would deliver a synergy between development objectives and climate adaptation (Schipper and Pelling, 2006; Heltberg *et al*, 2009). More fundamentally, given that rapid population growth is a major driver of human insecurity in the area, improving access to family planning

services is a development imperative that would also help to reduce climate vulnerability. Again, this would count as a ‘no regrets’ strategy.

11.6 Reflections on framework and methodology

Did my use of human security as an investigative framework facilitate any theoretical insights? Its holism enabled me to consider diverse and superficially unrelated issues together and brought their interconnections into clear view. It also allowed me to take into account social dynamics and change related to material threats such as disasters and food insecurity. The emphases on social identity (Truong *et al.*, 2006) and social relations (Truong *et al.*, 2006; Tadjbakhsh and Chenoy, 2007:109; Gasper, 2010) has facilitated a gender-sensitive analysis of discourses as well as of the structural positions of spouses, helping me to investigate gender issues such as pressures on masculinity on the one hand and the decline in women’s household bargaining power in the other. Treating social relations as a referent of human security also brought the maladaptive behaviour of certain social actors to centre stage rather than excluding these dynamics from my analysis. I do not claim, however, that only a human security framework can embrace any of these aspects of change. In general I see the holism of the concept, rather than any of its specific constituents, as its main strength; it is more than the sum of its parts.

Individual subjectivities, or in Gasper’s words, people’s ‘felt insecurities’ (2010:17), are a necessary starting point for an enquiry into human security, but they are an insufficient epistemic basis for such an enquiry by themselves. In order to explain what I mean by this, I introduce the metaphor of journeys through threat landscapes.

Journeys through threat landscapes: A metaphor

Perhaps because of the way threat inheres in Bubufu’s topography, I find that the image of individuals moving through their own ‘threat landscapes’ is a useful way to think about difference and change in human security. A landscape is a stretch of terrain seen from a single point of view, a construct rather than a realistic depiction, so it is subjective (Hirsch, 1995:2). Suppose each feature in a landscape represents a specific threat. In a small community such as my study location, many villagers’ landscapes would be similar in the general lie of the land but there would be some

differences in both their physical features and the prominence of those features relative to one another. Landscapes would also be peopled with human figures, some of them forbidding. For one individual the threat from destructive rainfall might loom very large, whereas for another that same threat might be absent or dwarfed by something or someone else. Physical landscapes are subject to change, and threat landscapes also change as individuals travel through them in time, sometimes colliding with other figures intent on their own journeys.

This metaphor might strike some people as fanciful, but it has helped me to think through two problems that arise from a reliance on subjectivities as the sources of evidence. The first problem is that, by definition, threat landscapes have limited horizons. Macro- and even meso-level causal factors, as well as historical events and trends, tend to be hidden beyond horizons because most individuals perceive only proximate, contemporaneous and micro-level outcomes (Wisner *et al*, 2004:7). This may have been why the historical trend of rapid population growth was so underrepresented in discussions and interviews, for instance. Climate change is an example of a global trend with geographically remote origins that lie beyond the ken of my study participants; no-one had heard of anthropogenic climate change or that increased rainfall was projected for the region. Horizons, then, represent the cognitive limitations of individual threat landscapes.

Moreover, some very serious dangers may not figure in threat landscapes even though they are indeed proximate, contemporaneous, and have clear micro-level outcomes. This type of invisible threat may lie hidden underground because it is associated with doxa (Bourdieu, 1977). In my study location one such apparently buried threat is maternal mortality and morbidity, which did not appear in women villagers' priorities although objectively these risks are very high in Uganda. I explain this omission with reference to Ardener's theory of 'muted groups' (1975) which I have touched on in previous chapters. According to this theory women may find it impossible to even formulate, let alone articulate, their gender-specific interests if the dominant masculine discourse does not accommodate them. In my study location, HIV/AIDS seems to be another 'buried threat'; I briefly speculated on the reasons for this in Chapter Six.

Despite the limitations of threat landscapes there is no doubt in my mind that individual subjectivities have to be the basis of enquiries into human security. However the usefulness of subjective accounts lies in providing an initial ‘sketch map’ of the main threats affecting a population and how these are socially differentiated. Ideally this evidence can then be built on through more systematic study using in-depth qualitative research and complementary methods such as quantitative surveys.

11.7 Final remarks

What have I achieved? My findings on climate impacts, coping and adaptation are applicable to many other locations in the East African highlands. I have made a case that micro-level sociocultural dynamics are critical to climate adaptation in traditional African societies and I have drawn attention to how these dynamics may produce climate maladaptation, helping to move on a debate that is as yet underdeveloped. The concept of climate maladaptation is relatively new, and as far as I am aware this is the first time it has been applied to micro-level social relations. I have also explicitly linked this kind of climate maladaptation to power relations, an appreciation of which is often missing in the climate change literature. These insights could be used as starting points for research in other traditional African communities, and as sub-Saharan Africa is likely to be disproportionately affected by the impact of climate change (Boko *et al*, 2007) there is a clear need for such research. Lastly, I have operationalised the idea of human security in micro-level field research concerning climate change, which is innovative, and offered some reflections on this experience. I hope this will pave the way for other researchers to conduct micro-level climate change adaptation research using a human security framework.

My primary message is that climate adaptation scholarship would benefit from treating sociocultural dynamics as an integral part of the climate change problem rather than as an aspect of its context. While acknowledging the limitations of my study, I put these ideas forward as original contributions to research on climate change adaptation in development contexts.

Appendices

Appendix 1: Article on climate change from Uganda's *Daily Monitor*, Wednesday March 18th 2009

M₂ Notebook

18 | Wednesday, March 18, 2009 | DAILY MONITOR

*News bits

Doctors still learning from pig brain disorder

It started with tingling in the fingers and toes, followed by weakness in the legs. "It wasn't a normal neurologic illness," said Dr Aaron DeVries, an epidemiologist with the Minnesota Department of Health who helped lead the state's investigation of a mysterious condition that sickened 18 workers at a Southern Minnesota pork processing plant.

Debris near space station was bigger than reported

The piece of orbital space junk that forced three astronauts to briefly evacuate the International Space Station last Thursday was bigger than originally reported, Nasa officials said.

The object, identified as a piece of rocket engine that flew in 1993, was about five inches in diameter, not 0.35 inches.

Daily dose of peanuts may ward off allergy in children

Some children may be freed of their peanut allergies if they eat a tiny crumb of peanut every day for weeks, U.S. doctors reported last Sunday.

Although the treatment was too dangerous to try on children with the most severe and life-threatening peanut allergies, the findings offer a ray to hope to some people with the allergy, which is at best inconvenient and at worst deadly.

Reuters

Correction

In our research story "Tough challenges await tests for malaria in children" which was published last Wednesday, we mistakenly left out the fact that the study was a joint venture between the Malaria Consortium and the COMDIS partnership.

And while the Rapid Diagnostic Tests—especially those that turn out positive in children—have challenges, RTDs are none-the-less excellent at detecting those without malaria for all age groups.

With a negative predictive value of 98 per cent, it means that all patients with negative results do not need to take any antimalarial drugs because they do not have the disease.



Climate change is responsible for the floods which are affecting some parts of the country. FILE PHOTO

Climatic changes finally reach home

Research from Uganda's organisations

KAKAIRE A. KIRUNDA

Climatic changes are happening in Uganda, according to *Turning up the Heat: Climate Change and Poverty in Uganda*, a recent report by the charity Oxfam GB in Uganda.

"On the one hand there is more erratic rainfall in the March to June rainy season, bringing drought and reductions in crop yields and plant varieties," the report reads. "On the other hand the rainfall, especially in the later rains towards the end of the year, is reported as coming in more intense and destructive downpours, bringing floods, landslides and soil erosion."

With such changes already in place when global average temperatures have not even exceeded a one degree centigrade rise above pre-industrial levels, the report warns that as temperatures rise further, risks will be magnified.

So what does the future hold? The report has some forecasts for the country. Experts believe that future climate change will likely have the biggest impact on the later short rains.

"During October to December there will likely be a big increase in the frequency of heavy rainfall, with the number of significantly wetter years rising considerably as a result; indeed, as many as one year in five may well be much wetter than is currently the norm," according to the report.

"Indeed, a wetter climate is likely for the whole

country, including the arid and semi-arid regions. Farmers believe rainfall is already becoming more intense, and the particularly heavy rains of late 2007 across northern and central Uganda may be a foretaste of this future climate regime."

However, the report authors say for the long rains from March to June, the modeled effects of human-induced climate change seem much weaker and less predictable.

"So warming may not alter the current pattern, which is of more erratic rainfall effectively making the growing period shorter."

Therefore future generations may see a switch away from the current pattern of two rainy seasons across much of the country towards a new pattern, of a much more pronounced rainy season (with heavier rains) later in the year, with the rest of the year hotter and drier than at present.

The report further notes that if Uganda becomes wetter, "Floods will become more likely, a product not only of higher rainfall and run-off but also of land use changes such as the draining of swamps, and in cities, blocked drains."

Foreseen is that rainfall changes may begin to become noticeable within about 12 years from now but could become particularly big from mid-century. Meanwhile, temperatures will increase and this will become particularly noticeable within the next 10 years. All seasons are likely to become warm to extremely warm, the report concludes.

Readers, if you have any information on research from an organisation, please email akakaire@monitor.co.ug

*Weird Science

Scientists plan to drive the icy northwest passage

Scientists preparing for the exploration of Mars are planning history's first car drive through the fabled Northwest Passage, a trip they said on Friday will provide data on global warming and more potential impact on other planets.

The trip using a modified armoured Humvee vehicle will provide comprehensive data about the thickness of winter ice in the waterway through Canada's High Arctic, said Pascal Lee, chairman of the Mars Institute and leader of the expedition.

The scientists also hope to learn more about what happens to the microbes left behind by humans as they explore remote areas, amid concerns from some scientists about the detriment impact of such journeys in space.

"It's not just about protecting men from Mars. It's also about protecting Mars from men," Lee said in an interview.

Long sought as a faster route between the Atlantic and Pacific oceans, the Northwest Passage was first traversed by ship in 1906 by Norwegian explorer Roald Amundsen, a trip that took three years to complete.

Failed attempts to travel the passage include that of Sir John Franklin, who with his crew of 129 died in 1845 after becoming stuck in the ice.

The last known attempt, in 1906, was made by the first time a road vehicle has driven the length of the passage, the researchers told a Vancouver news conference.

Global warming opened a window

Environmental scientists warn that global warming has been melting summer ice in the Northwest Passage, and a channel was opened though it briefly in 2007 and 2008, the first time that has happened in modern memory.

Scientists now estimate the ice thickness using satellites, so the land journey will improve the information they have and provide a base of data against which changes can be judged, Lee said.

The melting has destroyed much of the old ice that would have been too jagged to travel over even a decade ago, but if it continues for another decade it may not be thick enough to travel on at all.

"We're taking advantage of a window of opportunity," Lee said.

The scientists will still be watching out for a gas that are too thin for the 12,000 pound (5,400 kg) vehicle to drive over, and will be accompanied by two snowmobiles in case of an accident.

The drive is expected to take two to four weeks to make, and the scientists hope to start in early April although they can wait late as mid-May if needed.

The Mars Institute is already active in the region, using a facility on Devon Island in Canada's High Arctic to test vehicles that might eventually be used to explore the surface of Mars or the moon.

Reuters



Appendix 2: Research questions about the study context

Questions	What information do I need?	How can I obtain the information?
Sampling frame and households: What is the physical extent of the sampling frame? How are households generally defined? How many households are there in the study location? What variations in household type are to be found in the study area? What are the main ways in which households in the location differ from one another (apart from by wealth)?	Boundaries of the two LC1s Do local people define households as co-residential or extended units? Number of households Types of household (e.g. male-headed, female-headed, adults living alone)	Transect walk with key informants e.g. LC1 chairmen Household survey Ethnographic literature
What are the characteristics of local gender relations?	Sociocultural norms regarding: intra-household decision-making; control of income streams within households; the gendered division of labour; access to resources and physical mobility	Ethnographic literature Recent studies\survey Interviews with key informants, e.g. Community Development Officer Observation Semi-structured interviews Focus group discussions
How do women and men in this locality make and safeguard their livings?	What is the range of livelihood activities available to men and to women? Which types of work can men and women do and not do?	Semi-structured interviews Focus group discussions Secondary literature Key informant interviews with village chairmen and local government officials Transect walks and observation
What is the farm production system?	Crops grown, and by whom Livestock Balance between subsistence and crops/vegetables grown for sale Seasonal crop choices	Transect walks and observation Secondary data Key informant interviews with District and Sub-county Natural Resources Officers and Community Development Officers Semi-structured interviews
What type of weather shocks and stresses have affected the study location in recent years, and what have their impacts been?	Instances of drought, destructive rainfall, or other weather shocks and stresses, and their impacts	Key informant interview with District Natural Resources Officers Semi-structured interviews Secondary data: Meteorological studies; National Adaptation Programmes of Action; NGO reports
What climatic trends do meteorologists predict for this area?	Recent climate scenarios for East Africa	Meteorological literature

Appendix Table A2: Research questions about the study context

Appendix 3: Details of fieldwork methods

1. Personnel and training

Mr Balungira conducted semi-structured interviews with men while I interviewed women, working with a female assistant who translated from English into Lugisu and back. I employed several other assistants: two people to translate and transcribe interviews; several villagers who acted as ‘fixers’, for instance arranging interviews for us; and a local woman who helped us to conduct the household enumeration survey. I soon realised that the local assistants attracted resentment and malicious gossip from some of the other villagers because of the payments I gave them. This was an early lesson in the corrosive power of envy in the community (Chapter 8).

After two half-days spent training the assistants in a classroom situation I conducted several pilot semi-structured interviews in Bubufu with the assistants observing and translating. My assistants then conducted some interviews themselves with me observing, and then I gave them feedback. We then carried out ten pilot interviews together before starting the main phase of individual interviews.

2. Observation

Observation was a valuable technique during all phases of the fieldwork. For instance, it enabled me to see for myself the effects of heavy rain and some of the coping measures that people were using.

3. Key informant interviews

Two district and two sub-county officials and the two village chairmen were interviewed at the start of the main fieldwork phase to collect general information about trends, issues and events affecting the community. These interviews oriented me to local government discourses. In addition, a total of 29 villagers – 9 women and 11 men – were interviewed with the same aim. These were mainly older men and women, but I included some younger people as key informants in order to make sure that their viewpoint was represented. These interviews also served to introduce myself and my research to the community, although I was careful not to reveal my particular interest in weather shocks and stresses.

4. Household enumeration survey

The household enumeration survey took three weeks; training was provided to the team beforehand. The aim was to establish a sampling frame. Each separate household was counted and information on household members, the marital status of the household head, size of land-holdings, livestock ownership and livelihood activities was also collected.

5. Participatory rural analysis techniques

I used participatory rural analysis (PRA) techniques at two stages. First, a participatory wealth-ranking exercise was conducted. Separate groups of three men and four women ranked all the households in the village into wealth categories according to their own criteria. Both groups did this very quickly and confidently, the women dividing households into five categories and the men four. Because of the small numbers in the ‘better-off’ categories I then asked both groups to collapse these five categories into three, which they again accomplished very quickly, combining the top two and then combining the bottom two together.

While there was a high degree of consensus between the men and women’s wealth rankings, I found on comparing them that 22 households had been assigned to different ranks. These disagreements were resolved at a third short meeting with one woman and one man who had both participated in the first stage. It turned out that most of the discrepancies were due to the women not knowing as much as the men about male household heads’ assets, although in three cases the disparities were due to mistaking the household in question for another one. The end result was a composite of the men’s and women’s wealth ranking in three categories. The following table shows the criteria used in the ranking exercise and the numbers of households falling into each category; traces of the original five categories can still be seen in the definitions.

Wealth category	Definition	Number of households
1	Salaried government workers (all teachers). Men who own 'a lot' of land and cows and have their adult children working for them. Businessmen and farmers who sell a lot of food crops, and perhaps also buy and sell coffee.	13
2	Farmers who often sell produce at the market and so have some cash, but who have less land than farmers in wealth rank 1.	38
3	Farmers who mostly have to rent land and/or do casual farm labour for other people. May have a small plot on which their house is built. They have a few coffee stems, some plantain trees and cassava, but all on a small scale. People who lost their land to landslides in 1997, including the young unmarried men in these landless households. Elderly people, including widows and widowers, whose sons may have gone to Kenya to work and do not send remittances. Despite their age, some do seasonal casual farm labour for other people.	111
TOTAL		162

Appendix Table A3: Table of wealth ranks

As well as using PRA for the wealth ranking, towards the end of the fieldwork I held four group discussions where I used two basic PRA techniques, brainstorming and ranking to investigate perceived threats. The four groups were organised as follows: women from wealth ranks 1 and 2; women from wealth rank 3; men from wealth ranks 1 and 2; men from wealth rank 3. Each group contained 10-12 individuals. I also asked participants of these groups to identify and prioritise the type of government interventions that would help them to deal with these threats, although I stressed that I had no influence over the government in the matter. In general PRA is useful for obtaining consensual views on a topic, and these methods complemented the semi-structured interviews and the focus group discussions. None of the people taking part in these exercises were interviewed individually, and one of my objectives was to increase the number of villagers who took part in the study. The participants were all married adults.

6. Semi-structured interviews

Individual interviews were essential, given that I wanted to explore social variation. They also allowed participants to discuss sensitive issues that they might have been reluctant to air in a group situation, and it meant that the views of shy, less dominant personalities were not drowned out.

Using a semi-structured format had two important advantages over a questionnaire. As well as focusing on specific topics, interviewers could allow new issues to emerge; it also facilitated exploration and probing. It was more appropriate to my research aims than a completely unstructured interview format because the checklist of topics enabled some comparability among interviewees (Bryman 2008:462).

After a few minutes of introduction and after providing basic information about themselves the interviewees were asked to give their views on ‘the bad things that could happen to you as a person, to people of your home or in this area’. Questioning was open-ended in order not to bias interviewees towards talking about weather shocks and stresses; my assistant and I did not mention weather shocks and stresses unless the interviewee did so first. Interviewees were then asked about how they might protect themselves from the threats they had identified. See Appendix 4 for the semi-structured interview guidelines.

7. Group discussions

Group discussions are useful for eliciting normative discourse and can be viewed as group ‘performances’ (Alasuutari *et al*, 2008). I used them to explore, among other things, local discourses on gender relations, in particular around threats that had already emerged as priorities in the semi-structured interviews. Two discussions were held with a group of nine women and one was held with a group of seven men. Except for one young woman, none of them had taken part in the semi-structured interviews, although some had been interviewed as key informants. The participants were selected because they had been cooperative, confident and articulate in previous encounters. These group discussions turned out to be one of my best sources of data, in my view because of these qualities on the part of the participants.

Appendix 4: Guide for semi-structured interviews

1. Introduction

Introduce the interview topics and ask if interviewee has any questions or concerns.

General discussion, e.g. of livelihoods within the household, number and ages of children etc.

2. Threat perceptions

Introduce topic of risk. Ask interviewee to talk about what risks they confront in their own lives, and risks that they perceive as threatening other household members.

Use this Lugisu translation:

'Bibindu bibi binyala bya byakhukwaho iwe ngo umundu, oba khubandu be mungo mwowo oba mu shitsinsa shi?' [What bad things that could happen to you as a person, to people of your home or in this area?]

Accept current stresses or other problems. Try to identify the priority risks for this person, and the reasons behind their priorities.

Which of the threats mentioned worries the interviewee most? Why?

3. Responses

What action can the interviewee take against the various threats s/he mentioned?

Discuss responses mentioned. If any obvious responses are not mentioned, probe why not. Encourage interviewees to talk about the reasons for their answers.

Appendix 5: Sample segments and numbers of people in each

Sampling categories	Number of people in category
<i>De jure</i> female household heads	4
<i>De facto</i> female household heads	6
Wife with husband in wealth rank 1	3
Wife with husband in wealth rank 2	4
Wife with husband in wealth rank 3	6
Young unmarried women in wealth rank 1	3
Young unmarried women in wealth rank 2	0
Young unmarried women in wealth rank 3	3
Sub-total females	29
MALES	
Previously-married men living alone	4
Married man in wealth rank 1	3
Married man in wealth rank 2	5
Married man in wealth rank 3	8
Young unmarried men (fathers in wealth rank 1)	1
Young unmarried men (fathers in wealth rank 2)	4
Young unmarried men (fathers in wealth rank 3)	4
Sub-total males	29
Total	58

Appendix Table A5: Sample segments and numbers of people in each

Appendix 6: Initial semi-structured interview sample showing household relationships linking interviewees

Pseudonym	Spouse	Son or male kin aged 18+	Daughter or female kin aged 18+
Wealth Rank 1 Households			
Gertrude N			
James L.	Lorna K.		Esther B.
	Clara N.	Peter M.	Harriet W.
Samson N			
Maggie B.			Elsbeth B.
Noel M.	Jessica W.		
Wealth Rank 2 Households			
Richard M	Jennifer N		
Emmanuel W.		Abner W.	
Milton W.	Julia N.		
Benjamin F.	Josephine K.		
	Dorcas K.	Martin K.	
Catherine N. (<i>de facto</i> FHH)			
Sandra N. (<i>de facto</i> FHH)			
		Ben M.	
		Richard W.	
		Steven W.	
Wealth Rank 3 Households			
Harold B.			
Sam K.	Rachel N.		
Ezra K.	Esther N.		Heather N. (Ezra K.'s niece)
Anthony M.	Lydia M.		
Gregory N.			
Patrick M.	Ida N.		
Agnes M.	Jason K		
Cuthbert W.	Nyree M		
Anthony M.	Lydia M.		
Elizabeth N. (<i>de facto</i> FHH)			
		Conrad B.	
		Samwiri W.	
		Joshua W.	
Wilfred T.	Rose N.		
Men living alone			
John M			
Elijah N.			
Fred W.			
Paul M.			
Widows			
Alice B.			Grace N. (Granddaughter)
Belinda M			
Florence K.			
Penelope K.	Bridget M. (Daughter of Penelope K. and mother of Gerald K.)	Gerald K.	Caroline K.

Appendix Table A6: Initial semi-structured interview sample showing household relationships linking interviewees

Appendix 7: Drawing of a typical Gisu household by a Mbale sign-maker



Appendix 8: Comments on data in Table 4.2 (Chapter 4)

For the sake of consistency, harvest information is restricted to beans and maize, as not all farmers gave information for other crops such as matoke, horticultural produce or coffee. However, I have included information in the table on weather-related damage to other crops, as this information was available from all the farmers interviewed. Where harvest estimates of other crops were given they tended to be small: groundnut and coffee bean harvests were usually estimated in terms of the number of basins they filled rather than in 100-kilogram bags, for instance.

The reported estimates of both acreage and harvests need to be read critically, due both to their vagueness in some cases and to the fact that some or all of them may be deliberate underestimates. Writing of her fieldwork experience during the 1960s, La Fontaine generalises that the Gisu did not allow either their landholdings or their harvests to be measured (1962:97). With regard to Table 4.2 I find it hard to believe that Samson N., (Number 22) with his 8 acres, harvested only 100 kilograms of beans, the same amount as Catherine N. (Number 23) with her 1-acre plot. Samson had one of the largest landholdings in Bubufu, but I was told by participants in the wealth-ranking exercise that he was a ‘miser’ (the English word was used) who kept himself to himself and disguised the extent of his wealth, for instance by habitually dressing in tattered clothes. I have kept him in the table because his comments on crop loss from rain and the measures he took to control it have the ring of truth, and he would have nothing to gain by distorting that information. Samson aside, other people may have underreported landholdings and harvests from a wish to represent themselves as deserving recipients of assistance. For instance, when I talked to Sandra N. (no. 15 in the table) in 2009 I noticed a tendency to exaggerate the difficulty of her circumstances, so when she told Joshua the following year that she had only harvested 12 kilograms of beans the first season she may have deliberately understated the amount. Nevertheless, even after allowances are made for underestimation, some of the harvests seem very low indeed, for instance a meagre 16 kilograms for John M. (no. 7).

On the other hand, the estimates of acreage given in 2010 are generally higher than those given during the initial household survey. That may be because Mr. Balungira

enquired about rented and borrowed land as well as land owned. It might also indicate increased trust following our presence in the village for several months in 2009. Another way of cross-checking is to compare what wives and husbands said when interviewed separately, and in all cases shown in the table the estimates of garden size given by husbands and wives concur. Also they broadly reflect the severe land shortage that characterises the area (Ellis and Bahigwa, 2003), which I highlighted as an ongoing stressor in Chapter 3.

The table shows some widely differing harvests, even where the exposure of the land to weather shocks and stresses might be expected to be similar. For instance, Patrick N. said he usually got a better bean harvest in the second season because his gardens were on steep slopes and ‘the sun had warmed the soil’. What Gregory N. said was completely at odds with this; he said he could not grow beans on his upper slope garden at all because of too much sunlight. In this case the difference may be due to micro-climatic factors arising from orientation, or it might reflect different attitudes to risk on the part of these two farmers. Such inconsistencies might also arise from non-weather-related constraints to productivity.

Appendix 9: Perceived advantages and disadvantages of eucalyptus cultivation

Advantages
Resilient in run-off and floods
Fast-growing: can be sold within six years
Ready local market for timber, for use as firewood and as building material; useful cash-crop
Provides firewood for own use
The trees soak up excess water on flooded land
The trees act as wind-breaks, protecting property and crops
The trees are harder to steal than food crops (see Chapter 8)
Disadvantages
Cannot be grown next to food crops as they soak up water in the soil
Cost of seedlings prohibitive for some farmers
Impractical on small landholdings because they take up space needed for food crops
Can cause storm-damage to buildings if planted too close

Appendix Table A9: Perceived advantages and disadvantages of eucalyptus cultivation

Appendix 10: Copy of letter from parish chief to sub-county chief on landslide risk (copied by Mr. Balungira)

Office of the parish chief, [name removed]

28/2/2010.

The Sub county chief, [name removed] Sub County.

Dear Sir,

REF: Report about the expected landslide in the parishes of [names removed]

This is to furnish the above report to your office concerning the expected above catastrophe. The situation might become disastrous on the lives and properties of the residents in case the soils were washed down and the villages to be affected would be [names removed]. The purpose of this report therefore is to draw your urgent action as there is already evidence on the ground to mention; cracks and 3 and ½ metres of soil have been pushed downhill(submerged).

Prepared by:

[name removed], Parish chief.

List of references

- Adger, W. N. (2010) Climate change, human well-being and insecurity. *New Political Economy*, 15(2): 275-292.
- , S. Agrawala, M.M.Q. Mirza, C. Conde, K. O'Brien, J. Pulhin, R. Pulwarty, B. Smit and K. Takahashi (2007) Assessment of adaptation practices, options, constraints and capacity. Climate change 2007: impacts, adaptation and vulnerability. *In*: M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden and C. E. Hanson (eds) *Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge UK, Cambridge University Press: 717-743.
- , S. Dessai, M. Goulden, M. Hulme, I. Lorenzoni, D.R. Nelson, L.O. Naess, J. Wolf and A. Wreford (2009) Are there social limits to adaptation to climate change? *Climatic Change*, 93(3): 335-354.
- , J. Barnett, F.S. Chapin and H. Ellemor (2011) This must be the place: under-representation of identity and meaning in climate change decision-making. *Global Environmental Politics*, 11(2): 1-25.
- Agrawal, A. and N. Perrin (2008) *Climate adaptation, local institutions and rural livelihoods*. *International Forestry Resources and Institutions Working Paper*, W08I-6. International Forestry Resources and Institutions Program, University of Michigan.
- Ajakaiye, O. and S. Dercon (2008) Human security and development in Africa: an overview. *Journal of African Economies*, 17 (AERC Supplement 2), ii3-ii6.
- Alasuutari, P., L. Bickman and J. Brannen (2008) *The Sage handbook of social research methods*. Los Angeles and London, Sage Publications.
- Alberini, A., A. Chiabai and L. Muehlenbachs (2006) Using expert judgment to assess adaptive capacity to climate change: evidence from a conjoint choice survey. *Global Environmental Change-Human and Policy Dimensions*, 16(2): 123-144.
- Alkire, S. (2003) *A conceptual framework for human security*. Working Paper. CRISE. Department of International Development, University of Oxford.

- Amnesty International (2010) *'I can't afford justice': violence against women in Uganda continues unchecked and unpunished*. London, Amnesty International.
- Anderson, S. (2007) The economics of dowry and brideprice. *Journal of Economic Perspectives*, 21(4): 151-174.
- Ardener, S. (1975) Introduction. In: S. Ardener (ed) *Perceiving women*. London, Malaby Press: vii-xxiii.
- Artzy-Randrup, Y., D. Alonso and M. Pascual (2010) Transmission intensity and drug resistance in malaria population dynamics: implications for climate change. *Public Library of Science One*, 5(10)
- Ashley, S. and W. Nanyeenya (2005) More than income: pro-poor livestock development policy in Uganda. In: F. Ellis and H. Ade Freeman (eds) *Rural livelihoods and poverty reduction policies*. London and New York, Routledge: 235-255.
- Bahiigwa, G., D. Rigby and P. Woodhouse (2005) Right target, wrong mechanism? Agricultural modernisation and poverty reduction in Uganda. *World Development*, 33(3): 481-496.
- Barnett, J. and S. O'Neill (2010) Maladaptation. *Global Environmental Change*, 20: 211-213.
- Bazaka, R. K., B. Criel and P. van der Stuyft (2010) Community health insurance amidst abolition of user fees in Uganda: the view from policy makers and health service managers. *British Medical Council Health Services Research*, 10.
- BBC News (2010) Hundreds feared dead after Uganda landslides. March 3rd, 2010. Available from: <http://news.bbc.co.uk/1/hi/world/africa/8546548.stm>. [Accessed 10th March 2010].
- Berry, S. (2002) Debating the land question in Africa. *Comparative Studies in Society and History*, 44(4): 638-668.
- Bird, K. and I. Shinyekwa (2005) Chronic poverty in rural Uganda: harsh realities and constrained choices. In: F. Ellis and H. Ade Freeman (eds) *Rural livelihoods and poverty reduction policies*. London, Routledge: 99-115.
- Biryabarema, E. (2010a) Donors may cut aid to Uganda in corruption protest. *Daily Monitor* May 6th 2010. Available from: <http://af.reuters.com/article/topNews/idAFJOE6230KQ20100304> [Accessed 10th July 2010].

- (2010b) Uganda bumper maize harvest depresses prices. *African Agriculture*, February 28th 2010. Available from: <http://www.africanagricultureblog.com/2010/02/y-elias-biryabarema-kampala-feb-24.htm> [Accessed 3rd March, 2010].
- Blaikie, P., T. Cannon, I. Davis and B. Wisner (1994) *At Risk: natural hazards, people's vulnerability, and disasters*. London, Routledge.
- Blumenfeld-Jones, D. (2009) Fidelity as a criterion for practicing and evaluating narrative enquiry. In: B. Harrison (ed) *Life story research volume IV*. London and Los Angeles, SAGE Publications: 423-437.
- Boko, N. I., A. Niang, C. Nyong, A. Vogel, M. Githeko, M. Medany, B. Osman-Elasha, R. Tabo and P. Yanda (2007) Africa. Climate Change 2007: Impacts, Adaptation and Vulnerability. In: M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden and C. E. Hanson (eds) *Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge UK, Cambridge University Press: 433-467.
- Bourdieu, P. (1977) *Outline of a theory of practice*. Cambridge UK, Cambridge University Press.
- Brooks, N., N. Grist and K. Brown (2009) Development futures in the context of climate change: challenging the present and learning from the past. *Development Policy Review*, 27(6): 741-765.
- Bryan, E., T. T. Deressa, G.A. Gbetibouo and C. Ringler (2009) Adaptation to climate change in Ethiopia and South Africa: options and constraints. *Environmental Science & Policy*, 12(4): 413-426.
- Bryceson, D. F. (2002) The scramble in Africa: reorienting rural livelihoods. *World Development*, 30(5): 725-739.
- and L. Bank (2001) End of an era: Africa's development policy parallax. *Journal of Contemporary African Studies*, 19(1): 5 - 23.
- Bryman, A. (2008) *Social research methods*. Oxford, Oxford University Press.
- Bunce, M., K. Brown and S. Rosendo (2010) Policy misfits, climate change and cross-scale vulnerability in coastal Africa: how development projects undermine resilience. *Environmental Science and Policy*, 13: 485-497.
- Burch, S. and J. Robinson (2007) A framework for explaining the links between capacity and action in response to global climate change. *Climate Policy*, 7: 304-316.

- Cannon, T. (2008). Vulnerability, 'innocent' disasters and the imperative of cultural understanding. *Disaster Prevention and Management*, 17(3): 350-357.
- Cannon, T. and D. Muller-Mahn (2010) Vulnerability, resilience and development discourses in context of climate change. *Natural Hazards*, 55: 621-635.
- Carr, E. R. (2008) Between structure and agency: Livelihoods and adaptation in Ghana's Central Region. *Global Environmental Change*, 18(4): 689-699.
- Casale, M., S. Drimle, T. Quinlan and G. Ziervogel (2010) Understanding vulnerability in southern Africa: comparative findings using a multiple stressor approach in South Africa and Malawi. *Regional Environmental Change*, 10: 157-168.
- Chant, S. (2007) Dangerous equations? How female-headed households became the poorest of the poor: causes, consequences and cautions. *In: A. Cornwall, E. Harrison and A. Whitehead (eds) Feminisms in development: contradictions, contestations and challenges*. London and New York, Zed Books: 35-47.
- (2005) The inequality of social capital and the reproduction of chronic poverty. *World Development*, 33(6): 893-906.
- Community-Based Services Department and District Planning Unit, Manafwa District (2007) *Five year district orphans and other vulnerable children's strategic plan, 2007/2008-2011/2012*.
- Conway, D. (2011) *Adapting climate research for development in Africa*. Wiley *Interdisciplinary Reviews: Climate Change*, 2:3 428-450.
- Cooper, P. J. M., J. Dimes, K. P. C. Rao, B. Shapiro, B. Shiferaw and S. Twomlow (2008) Coping better with current climatic variability in the rain-fed farming systems of sub-Saharan Africa: An essential first step in adapting to future climate change? *Agriculture, Ecosystems & Environment*, 126(1-2): 24-35.
- Corbett, J. (1988) Famine and household coping strategies. *World Development*, 16(9): 1099-1112.
- Dalton, G. (1966) 'Bridewealth' vs. 'brideprice'. *American Anthropologist*, 68(3): 732-738.
- Demetriades, J. and E. Esplen (2008) The gender dimensions of poverty and climate change adaptation. *IDS Bulletin*, 39(4).
- Dercon, S. (2005) Risk, insurance and poverty: a review. *In: S. Dercon (ed) Insurance against poverty*. Oxford, Oxford University Press: 9-37.
- (2008) Fate and fear: risk and its consequences in Africa. *Journal of African Economies*, 17 (AERC Supplement 2): ii97-ii127.

- Deressa, T. T., R. M. Hassan, C. Ringler, T. Alemu and M. Yesuf (2009) Determinants of farmers' choice of adaptation methods to climate change in the Nile Basin of Ethiopia. *Global Environmental Change*, 19(2): 248-255.
- Dolan, C. (2004) 'I sell my labour now': gender and livelihood diversification in Uganda. *Canadian Journal of Development Studies*, 25(4), 643-662.
- Doss, C. R. (2001) Designing agricultural technology for African women farmers: lessons from 25 years of experience. *World Development* 29(12), 2075-2092.
- Due, J. M. and C. H. Gladwin (1991) Impacts of *structural adjustment programs on African women farmers and female-headed households*. *American Journal of Agricultural Economics*, 73(5): 1431-1439.
- Ebi K.L., R.S. Kovats and B. Menne (2006) An approach for assessing human health vulnerability and public health interventions to adapt to climate change. *Environmental Health Perspectives*, 114(12), 1930-1934.
- Economic Policy Research Centre (2001a) *LADDER village report No. 3: Bunabuso village*. Kampala. Economic Policy Research Centre. Available from: http://www.uea.ac.uk/polopoly_fs/1.1007!vr3.pdf [Accessed 12th December 2008].
- (2001b) *LADDER Village Report Number 1: Bukhasusa Village*. Kampala. Economic Policy Research Centre. Available from: http://www.uea.ac.uk/polopoly_fs/1.1007!vr1.pdf [Accessed 12th December 2008].
- (2001c) *LADDER Village Report No. 2: Buwopuwa Village*. Kampala. Economic Policy Research Centre. Available from: http://www.uea.ac.uk/polopoly_fs/1.1007!vr2.pdf [Accessed 12th December 2008].
- Edyegu, D. (2010) 300 Manafwa families flee imminent landslides. *New Vision*, Friday March 19th 2010. Available from: <http://allafrica.com/stories/201003220170.html>. [Accessed 22nd March 2010].
- Ellis, F. (2000) *Rural livelihoods and diversity in developing countries*. Oxford, Oxford University Press.
- Ellis, F. (2006) Agrarian change and rising vulnerability in rural sub-Saharan Africa. *New Political Economy*, 11(3): 387-397.
- and G. Bahiigwa (2003) Livelihoods and rural poverty reduction in Uganda. *World Development*, 31(6): 997-1013.
- and H. Ade Freeman (2005) *Rural livelihoods and poverty reduction policies*. London, Routledge.

- Enarson, E. (1998) Through women's eyes: a gendered research agenda for disaster social science. *Disasters*, 22(2): 157-173.
- Ensor, J. and R. Berger (2009a) Community-based adaptation and culture in theory and practice. In: W. N. Adger and I. Lorenzoni, (eds) *Adapting to climate change: thresholds, values, governance*. Cambridge and New York, Cambridge University Press: 227-239.
- (2009b) *Understanding climate change adaptation: lessons from community-based approaches*. Rugby, Practical Action Publishing.
- Eriksen, S. H., K. Brown and P.M. Kelly (2005) The dynamics of vulnerability: locating coping strategies in Kenya and Tanzania. *Geographical Journal*, 171: 287-305.
- Fafchamps, M. (2003) *Rural poverty, risk and development*. Cheltenham, Edward Elgar.
- and C. Moser (2003) Crime, isolation and law enforcement. *Journal of African Economies*, 12(4): 625-671.
- and B. Minten (2006) Crime, transitory poverty, and isolation: evidence from Madagascar. *Economic Development and Cultural Change*, 54(3): 579-603.
- (2009) Insecurity and welfare: evidence from county data. *Journal of Development Studies*, 45(6): 831 - 863.
- Fairhead, J. and M. Leach (2005) The centrality of the social in African farming. *IDS Bulletin*, 36:2: 86-90.
- Few, R. (2007) Health and climatic hazards: framing social research on vulnerability, response and adaptation. *Global Environmental Change: Human and Policy Dimensions*, 17(2): 281-295.
- Fleisher, M. (2000) Sungusungu: state-sponsored vigilante groups among the Kuria of Tanzania. *Africa*, 70: 209-227.
- Flyvbjerg, B. (2001) *Making social science matter: why social inquiry fails and how it can succeed again*. Cambridge, Cambridge University Press.
- Folbre, N. (1986) Hearts and spades: paradigms of household economics. *World Development*, 14:2: 245-255.
- Folke, C., T. Hahn, P. Olsson and J. Norberg (2005) Adaptive governance of social-ecological systems. *Annual Review of Environment and Resources*. 30: 441-473.

- Food and Agriculture Organization Newsroom (2007), October 27th, 2007
Combating cassava mosaic: global plant genetics policy and research unite with emergency operations against lethal crop disease. Available from: www.fao.org/newsroom/en/field/2007/1000693/index.html [Accessed 4th March 2010].
- Forster, P., V. Ramaswamy, P. Artaxo, T. Berntsen, R. Betts, D.W. Fahey, J. Haywood, J. Lean, D.C. Lowe, G. Myhre, J. Nganga, R. Prinn, G. Raga, M. Schulz and R. Van Dorland (2007) Changes in atmospheric constituents and in radiative forcing. *In: Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Avery, M. Tignor and H.L. Miller (eds) Climate change 2007: the physical science basis. Contribution of working group I to the fourth assessment report of the Intergovernmental Panel on Climate Change.* Cambridge and New York, Cambridge University Press.
- Francis, E. (2000) *Making a living: changing livelihoods in rural Africa.* London and New York, Routledge.
- Füssel, H. M. and R.J.T. Klein, (2006) Climate change vulnerability assessments: an evolution of conceptual thinking. *Climatic Change*, 75:3 301-329.
- Gaspar, D. (2010) Climate change and the language of human security. Working Paper No. 505. The Hague, International Institute of Social Studies.
- Getachew, G., D. Tolossa and G. Gebru (2008) Risk perception and coping strategies among the Karrayu pastoralists of Upper Awash Valley, Central Ethiopia. *Nomadic Peoples*, 12(1) 93-107.
- Goffmann, E. (1969) *Presentation of the self in everyday life.* London, Allen Lane and Penguin Press.
- Goldstein, M. (2005). Is a friend in need a friend indeed? *In: S. Dercon (ed) Insurance against poverty.* Oxford, Oxford University Press.
- Gomm, R. (2008) *Social research methodology: a critical introduction.* Basingstoke, Palgrave Macmillan.
- Goulden, M. (2006) Livelihood diversification, social capital and resilience to climate variability amongst natural resource dependent societies in Uganda. Unpublished PhD thesis, University of East Anglia.
- , L. O. Naess, K. Vincent and W. N. Adger (2009) Accessing diversification, networks and traditional resource management as adaptations to climate extremes. *In: Adger, W.N., I. Lorenzoni, K.L. O'Brien (eds) Adapting to climate change: thresholds, values, governance.* Cambridge, Cambridge University Press.

- Grothmann, T. and A. Patt (2005) Adaptive capacity and human cognition: the process of individual adaptation to climate change. *Global Environmental Change: Human and Policy Dimensions*, 15(3): 199-213.
- Gustafson, P. (1998) Gender differences in risk perception: theoretical and methodological perspectives. *Risk Analysis*, 18(6): 805-811.
- Hagopian, A., A. Zuyderduin, N. Kyobutungi and F. Yumkella (2009) Job satisfaction and morale in the Ugandan health workforce. *Health Affairs*, 28(5): W863-W875.
- Harding, S. (1987) *Feminism and methodology*. Bloomington, Indiana University Press.
- Hassan, R. (2010) The double challenge of adapting to climate change while accelerating development in sub-Saharan Africa. *Environment and Development Economics*, 15: 661-685.
- Hay, S. I. and M. Simba (2002) Defining and detecting malaria epidemics in the highlands of western Kenya. *Emerging Infectious Diseases*, 8: 555–562.
- Heald, S. (1998) *Controlling anger: the anthropology of Gisu violence*. London, James Currey.
- (2007) Controlling crime and corruption from below: Sungusungu in Kenya. *International Relations*, 212: 183-199.
- Heltberg, R., P.B. Siegel and S.L. Jorgensen (2009) Addressing human vulnerability to climate change: toward a ‘no-regrets’ approach. *Global Environmental Change*, 19: 89–99.
- Hepworth, N. (2010) *Climate change vulnerability and adaptation preparedness in Uganda*. Nairobi, Heinrich Böll Foundation.
- Heyd, T. and N. Brooks (2009) Exploring cultural dimensions of adaptation. In: Adger W.N., I. Lorenzoni and K.L. O’Brien (eds) (2009) *Adapting to climate change: thresholds, values, governance*. Cambridge and New York, Cambridge University Press.
- Hickey, S. (2005) The politics of staying poor: exploring the political space for poverty reduction in Uganda. *World Development*, 33(3): 995-1009.
- Hilhorst, D. (2004) Complexity and diversity: unlocking social domains of disaster response. In: G. Bankoff, G. Frerks and D. Hilhorst (eds) *Mapping vulnerability: disasters, development and people*. London, Earthscan: 52-66.

- Hirsch, E. (1995) Introduction. In: Hirsch E. and M. O'Hanlon (eds) *The anthropology of landscape: perspectives on place and space*. Oxford, Clarendon Press: 1-30.
- Hobley, C. W. (1902) *Eastern Uganda, an ethnological survey*. London, Anthropological Institute of Great Britain and Ireland.
- Homer-Dixon, T. F. (1999) *Environment, scarcity, and violence*. Princeton and Oxford, Princeton University Press.
- Imp-Act (2004) FOCCAS Uganda: Summary Sheet, FOCCAS. Available from: www.unr.edu/cla/documents/Johnson-Makoba.pdf. [Accessed 29th July, 2010].
- Integrated Regional Information Networks (IRIN) (2010) Uganda: one million trees for Mt Elgon region. *IRIN news and analysis*, November 3 2010. Available from: www.irinnews.org/report.aspx?ReportId=90956 [Accessed 14th December, 2010].
- Iversen, V., C. Jackson, Kebede, B., Munro and A. Verschoor (2006) *What's love got to do with it? An experimental test of household models in East Uganda*. School of Development Studies, University of East Anglia and Department of Economics, Royal Holloway College, University of London.
- Jackson, C. (2007) Resolving risk? Marriage and creative conjugality. *Development and Change*, 38(1): 107–129
- James, P. S. (2010) Using farmers' preferences to assess development policy: a case study of Uganda. *Development Policy Review*, 28(3): 359-378.
- Jenkins, D., C. Gateri and A. Nakayenza (2010) *The territorial approach to climate change in the Mbale region of Uganda*. London, Royal Institution of Chartered Surveyors. Available from: http://www.rics.org/site/scripts/download_info.aspx?fileID=8090&categoryID=555 [Accessed 19th February 2011].
- Jerrard, R. (n.d.) Police dogs cannot be cross-examined! *Internet Law Book Reviews*. Available from: <http://www.rjerrard.co.uk/law/cases/piet.htm> [Accessed 3rd June 2010].
- Jones, B. (2009) *Beyond the state in rural Uganda*. Edinburgh, Edinburgh University Press.
- Kabeer, N. (1999) *The conditions and consequences of choice: reflections on the measurement of women's empowerment*. United Nations Research Institute for Social Development. UNRISD Discussion Paper No. 108, August 1999.

- Kagoda, A. M. (2008) The effect of land tenure system on women's knowledge-based and resource management in Manjiya County, Uganda. *Educational Research and Review*, 3(12): 365-369.
- Kaye, D. K., F. Mirembe, A. M. Ekstrom, G. Bantebya Kyomuhendo and A. Johansson (2005) Implications of bride price on domestic violence and reproductive health in Wakiso District, Uganda. *African Health Sciences*, 5(4): 300-303.
- Kebede B. and D.J. Zizzo (2011) *Envy and agricultural innovation: an experimental case study from Ethiopia*. Working Paper. Centre for Behavioural and Experimental Social Science, University of East Anglia and Centre for the Study of African Economies, University of Oxford.
- Kelly, P.M. and W.N. Adger (2000) Theory and practice in assessing vulnerability to climate change and facilitating adaptation. *Climatic Change*, 47(4): 325-352.
- Kirunda, K. (2009) Climatic changes finally reach home. *Daily Monitor*, March 18, 2009. Kampala.
- Knapen, A., M., M.G. Kitutu, J. Poesen, W. Breugelmans, J. Deckers and A. Muwanga (2006) Landslides in a densely populated county at the footslopes of Mount Elgon (Uganda): characteristics and causal factors. *Geomorphology*, 73: 149-165.
- Knighton, B. (2007) Globalizing trends or identities through time? The longue durée in Karamojong ethnography. *Journal of Eastern African Studies*, 1(3): 466 - 483.
- La Fontaine, J. (1959) *The Gisu of Uganda*. London, International African Institute.
- (1960) Homicide and suicide among the Gisu. In: P. Bohannon (ed) *African homicide and suicide*. Princeton, New Jersey and London, Princeton University Press, Oxford University Press: 94-129.
- (1962) Gisu marriage and affinal relations. In: M. Fortes (ed) *Marriage in tribal societies*. Cambridge, Cambridge University Press: 88-120.
- (1979) Land and the political community in Bugisu. In: W. A. Shack and P. S. Cohen (eds) *Politics in leadership: a comparative perspective*. Oxford, Clarendon Press: 95-114.
- Ladu, I. M. (2010) Bududa: How effective has govt response been? *Daily Monitor*, March 14th, 2010. Available from: <http://ntv.co.ke/Magazines/-/689844/878914/-/n7aqg3/-/index.html> [Accessed 20th March, 2010].

- Leftwich, A. (1993) Governance, democracy and development in the third world. *Third World Quarterly*, 14(3): 605-24.
- Leichenko, R. M. and K. O'Brien (2005) *Double exposure: global environmental change in an era of globalization*. Oxford, Oxford University Press.
- Lemos M.C., E. Boyd, E. L. Tompkins, H. Osbahr and D. Liverman (2007) Developing adaptation and adapting development. *Ecology and Society*, 12(2): 26.
- Lusima, O. (2010) Why Museveni slung an AK-47 in Bududa instead of a shovel. *The Independent*, March 22nd, 2010. Available from: <http://www.independent.co.ug/index.php/component/content/article/106-myblog/2633-why-museveni-slung-an-ak-47-in-bududa-instead-of-a-shovel> [Accessed 5th April 2010].
- Mafabi, D. (2007) 82 per cent deliver at home: report. *Daily Monitor*, February 26th, 2007. Available from: <http://allafrica.com/stories/200702260944.html> [Accessed 19th November 2010].
- (2010a) Picking up the pieces. *Daily Monitor*, March 19, 2010. Available from: <http://www.monitor.co.ug/News/Insight/-/688338/879244/-/format/xhtml/-/q3laugz/-/> [Accessed 30th March 2010].
- (2010b) Bududa officials held for stealing relief items. *Daily Monitor*, March 8, 2010. Available from: <http://www.monitor.co.ug/News/National/-/688334/875164/-/format/xhtml/-/kbfif8z/-/index.html> [Accessed 30th March 2010].
- Magrath, J. (2008) *Turning up the heat: climate change and poverty in Uganda*. Oxford, Oxfam GB. Available from: http://www.oxfam.org.uk/resources/policy/climate_change/downloads/ugandan_climate_change.pdf. [Accessed 26th May 2009].
- Malone, E. and S. Rayner (2001) Role of the research standpoint in integrating global-scale and local-scale research. *Climate Research*, 19: 173-178.
- Manafwa District Local Government Directorate of Health Services (2005) District health sector strategic plan II, Manafwa District 2005/ 06 - 2009/2010.
- Marks, A. (2009) Why reliance on sniffer dog evidence may throw us off the scent in trials, May 12, 2009. Available from: <http://www.guardian.co.uk/uk/2009/may/12/sniffer-dogs-trial-evidence-research> [Accessed 3rd June 2010].

- Masquelier, A. (2005) The scorpion's sting: youth, marriage and the struggle for social maturity in Niger. *Journal of the Royal Anthropological Institute*, 11: 59-83.
- McCarthy, J.J., O.F. Canziani, N.A. Leary, D.J. Dokken and K.S. White (2001) Climate change 2001: impacts, adaptation and vulnerability. Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, Cambridge University Press.
- McDonagh, J. (2005) Crop-based farming systems and diverse livelihoods in Uganda. In: F. Ellis and H. Ade Freeman (eds) *Rural livelihoods and poverty reduction policies*. London, Routledge: 215-234.
- McHugh, M. J. (2005) Multi-model trends in East African rainfall associated with increased CO₂. *Geophysical Research Letters*, 32.
- McLaughlin, P. and T. Dietz (2008) Structure, agency and environment: toward an integrated perspective on vulnerability. *Global Environmental Change*, 18(1): 99-111.
- McPake, B., D. Asimwe, F. Mwesigye, M. Ofumbi, L. Ortenblad, L. Streefland and A. Pieter Turinde (1999) Informal economic activities of public health workers in Uganda: implications for quality and accessibility of care. *Social Science & Medicine*, 49(7): 849-865.
- Ministry of Finance, Planning and Economic Development (2000) Learning from the poor: Uganda participatory poverty assessment report. Kampala, Republic of Uganda. Available from: <http://www.finance.go.ug/docs/PPA1%20National%20Report.pdf> [Accessed 3rd August 2009].
- (2002) Second participatory poverty assessment report, Mbale District. Kampala, Participatory Poverty Assessment Process.
- Ministry of Health (2010) Health Sector Strategic Plan III, 2010/11-2014/15. Government of Uganda. Available from: www.health.go.ug/docs/HSSP_III_2010.pdf [Accessed 4th October 2010].
- Moore, H. L. (1994) *A passion for difference: essays in anthropology and gender*. Cambridge, Polity Press.
- and M. Vaughan (1994) *Cutting down trees: gender, nutrition and agricultural change in the Northern Province of Zambia, 1890-1990*. Portsmouth, New Hampshire and London, Heinemann, Currey.

- Morton, J. F. (2007) The impact of climate change on smallholder and subsistence agriculture. *Proceedings of the National Academy of Sciences of the United States of America*, 104(50): 19680-19685.
- Moser, S. (2009) Whether our levers are long enough and the fulcrum strong? Exploring the soft underbelly of adaptation decisions. In: Adger, W. N., I. Lorenzoni, K.L. O'Brien (eds) *Adapting to climate change: thresholds, values, governance*. Cambridge and New York, Cambridge University Press: 313-334.
- Nalugo, M. and S. Naturinda (2010) Bududa landslide survivors reject relocation to new home. *Daily Monitor*, April 24 2010. Available from: <http://allafrica.com/stories/201004260888.html> [Accessed 4th May 2010].
- Newell, P. (2004) Climate change and development: a tale of two crises. *IDS Bulletin*, 35(3): 120-126.
- Ngecu, W. M., C. M. Nyamai and G. Erima (2004) The extent and significance of mass movements in Eastern Africa: case studies of some major landslides in Uganda and Kenya. *Environmental Geology*, 46: 1123-1133.
- Nielsen, J. O. and A. Reenberg (2010) Cultural barriers to climate change adaptation: a case study from Northern Burkina Faso. *Global Environmental Change*, 20: 142-152.
- O'Brien, K. (2006) Are we missing the point? Global environmental change as an issue of human security. *Global Environmental Change*, 16: 1-3.
- O'Brien, K., R. Leichenko, U. Kelkar, H. Venema, G. Aandahl, H. Tompkins, A. Javed, S. Bhadwal, S. Barg, L. Nygaard and J. West, J. (2004) Mapping vulnerability to multiple stressors: climate change and globalization in India. *Global Environmental Change-Human and Policy Dimensions*, 14(4): 303-313.
- O'Brien, K., T. Quinlan and G. Ziervogel (2009) Vulnerability interventions in the context of multiple stressors: lessons from the Southern Africa Vulnerability Initiative. *Environmental Science & Policy*, 12(1): 23-32.
- Office of the President, Uganda Media Centre (2010) President visits Bugobero constituency. Available from: <http://www.mediacentre.go.ug/details.php?catId=4&item=148> [Accessed 6th July 2010].
- O'Laughlin, B. (2007) A bigger piece of a very small pie: intrahousehold resource allocation and poverty reduction in Africa. *Development and Change*, 38(1): 21- 44.

- Orlove, B. (2009) The past, the present and some possible futures of adaptation. *In: W. N. Adger, I. Lorenzoni and K. L. O'Brien (eds) Adapting to climate change: thresholds, values, governance.* Cambridge, Cambridge University Press: 131-163.
- Paris, R. (2001) Human security: paradigm shift or hot air? *International Security*, 26(2): 87-102.
- Parry, M. L., O.F. Canziani, J.P. Palutikof and Co-authors (2007). Climate change 2007: impacts, adaptation and vulnerability. *In: M.L. Parry, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds). Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.* Cambridge, Cambridge University Press, 23-78.
- Pelling, M. (2011) *Adaptation to climate change: from resilience to transformation.* London and New York, Routledge.
- and C. High (2005) Understanding adaptation: What can social capital offer assessments of adaptive capacity? *Global Environmental Change-Human and Policy Dimensions*, 15(4), 308-319.
- Peters, P. (2004). Inequality and social conflict over land in Africa. *Journal of Agrarian Change*, 4(3): 269-314.
- Platteau, J.-P. (2009) Institutional obstacles to African economic development: state, ethnicity, and custom. *Journal of Economic Behaviour and Organization*, 71: 669-689.
- and A. Abraham (2002) Participatory development in the presence of endogenous community imperfections. *Journal of Development Studies*, 39(2): 104-136.
- Polkinghorne, D.E. (2009) Validity issues in narrative research. *In: B. Harrison (ed) Life story research volume IV.* London and Los Angeles, SAGE Publications: 438-452
- Porter, D., B. Allen and G. Thompson (1991) *Development in practice: paved with good intentions.* London and New York, Routledge.
- Purvis, J. B. (1909) *Through Uganda to Mount Elgon.* London, T. Fisher Unwin.
- Quinn, C. H., M. Huby, H. Kiwasila and J.C. Lovett (2003) Local perceptions of risk to livelihood in semi-arid Tanzania. *Journal of Environmental Management*, 68(2): 111-119.

- Quisumbing, A. R. and J. A. Maluccio, (2003) Resources at marriage and intrahousehold allocation: evidence from Bangladesh, Ethiopia, Indonesia, and South Africa. *Oxford Bulletin of Economics and Statistics*, 65(3): 283-327.
- Reid, P. and C. Vogel (2006) Living and responding to multiple stressors in South Africa: glimpses from KwaZulu-Natal. *Global Environmental Change: Human and Policy Dimensions*, 16(2): 195-206.
- Renn, O. (1992) Concepts of risk: a classification. In: S. Krimsky and D. Golding (eds) *Social theories of risk*. Westport and London, Praeger.
- Republic of Uganda (2007) *Climate change: Uganda national adaptation programmes of action*. Available from: <http://unfccc.int/resource/docs/napa/uga01.pdf> [Accessed 19th September 2008].
- Reynolds-Whyte, S. (1991) Medicines and self-help: the privatization of health care in eastern Uganda. In: H. B. Hansen and M. Twaddle (eds) *Changing Uganda: dilemmas of structural adjustment and revolutionary change*. London, James Currey: 130-147.
- (1997) *Questioning misfortune: the pragmatics of uncertainty in Eastern Uganda*. Cambridge, Cambridge University Press.
- (2005) Going home? Belonging and burial in the era of AIDS. *Africa*, 75(2): 154-172.
- Richards, P. (1993) Cultivation: knowledge or performance? In: M. Hobart (ed). *An anthropological critique of development: the growth of ignorance*. London, Routledge: 61-78.
- Rocheleau, D., B. Thomas-Slayter and E. Wangari (eds) (1996) *Feminist political ecology: global issues and local experiences*. London, Routledge.
- Roncoli, C. (2006) Ethnographic and participatory approaches to research on farmers' responses to climate predictions. *Climate Research*, 33(1): 81-99.
- , K. Ingram and P. Kirshen (2001) The costs and risks of coping with drought: livelihood impacts and farmers' responses in Burkina Faso. *Climate Research*, 19: 119-132.
- Roscoe, J. (1924) *The Bagesu and other tribes of the Uganda protectorate: the third part of the report of the Mackie ethnological expedition to Central Africa*. Cambridge, Cambridge University Press.
- Rutebemberwa, E., X. Nsabagasani, G. Pariyo, G. Tomson, S. Peterson and K. Kallander (2009a) Use of drugs, perceived drug efficacy and preferred

- providers for febrile children: implications for home management of fever. *Malaria Journal*, 8(1): 131.
- Rutebemberwa, E., K. Kallander, G. Tomson, S. Peterson and G. Pariyo (2009b) Determinants of delay in care-seeking for febrile children in eastern Uganda. *Tropical Medicine and International Health*, 14(4): 472-479.
- Sabates-Wheeler, R., T. Mitchell and F. Ellis (2008) Avoiding repetition: time for CBA to engage with the livelihoods literature? *IDS Bulletin*, 39(4): 53-58.
- Schipper, L. and M. Pelling (2006) Disaster risk, climate change and international development: scope for, and challenges to, integration. *Disasters*, 30(1): 19-38.
- Scott, J. C. (1976) *The moral economy of the peasant: rebellion and subsistence in South East Asia*. New Haven and London, Yale University Press.
- (1985) *Weapons of the weak: everyday forms of peasant resistance*. New Haven and London, Yale University Press.
- Sen, A. (1990) Gender and cooperative conflict. In: I. Tinker (ed) *Persistent inequalities*. New York, Oxford University Press: 123-149.
- (1993) Capability and well-being. In: M. C. Nussbaum and A. Sen (eds) *The quality of life*. Oxford, Oxford University Press: 30-53.
- Shipton, P. (2009) *Mortgaging the ancestors: ideologies of attachment in Africa*. New Haven and London, Yale University Press.
- Slovic, P. (1999) Trust, emotion, sex, politics, and science: Surveying the risk-assessment battlefield. *Risk Analysis*, 19(4): 689 -701.
- Smit, B. and O. Pilifosova (2001) Adaptation to climate change in the context of sustainable development and equity. In: McCarthy, J.J., O.F. Canziani, N.A. Leary, D.J. Dokken, K.S. White (eds) *Impacts, adaptation and vulnerability: contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change*. Intergovernmental Panel on Climate Change. Cambridge, Cambridge University Press. 879-912.
- Smit, B. and J. Wandel (2006) Adaptation, adaptive capacity and vulnerability. *Global Environmental Change-Human and Policy Dimensions*, 16(3): 282-292.
- Smith, K., C. B. Barrett and P.W. Box (2000) Participatory risk mapping for targeting research and assistance: with an example from East African pastoralists. *World Development*, 28(11): 1945-1959.
- Southern Africa Vulnerability Initiative (2004) Assessing vulnerability to multiple stressors in Southern Africa: A Preliminary SAVI Framework. Cape Town.

- Available from:
www.gechs.org/savi/workshop/cape_town/frameworkpaper.doc [Accessed 20th September 2008].
- Stern, N. H. (2007) *The economics of climate change: the Stern review*. Cambridge, Cambridge University Press.
- Tadjbakhsh, S. and A.M. Chenoy (2007) *Human security: concepts and implications*. Abingdon, Routledge.
- Tanner, T. and T. Mitchell (2008a) Introduction: building the case for pro-poor adaptation. *IDS Bulletin*, 39(4): 1-5.
- (2008b) Entrenchment or enhancement: could climate change adaptation help to reduce chronic poverty? *IDS Bulletin*, 39(4): 6-15.
- Tenywa, G. (2009) El Nino rains begin, more areas to get landslides. *The New Vision*, October 6th, 2009. Available from:
<http://allafrica.com/stories/200910060142.html> [Accessed 8th April 2010].
- (2010) More disasters to hit Uganda. *Sunday Vision*, March 13th, 2010. Available from: <http://allafrica.com/stories/201004290485.html> [Accessed 8th April 2010].
- Thomas, D. S. G. and C. Twyman (2005) Equity and justice in climate change adaptation amongst natural-resource-dependent societies. *Global Environmental Change-Human and Policy Dimensions*, 15(2): 115-124.
- H. Osbahr, C. Twyman, N. Adger and B. Hewitson (2005) *Adaptive: adaptations to climate change amongst natural resource-dependant societies in the developing world: across the Southern African climate gradient*. Technical Report 35. Tyndall Centre for Climate Change Research.
- C. Twyman, H. Osbahr and B. Hewitson (2007) Adaptation to climate change and variability: farmer responses to intra-seasonal precipitation trends in South Africa. *Climatic Change*, 83(3): 301-322.
- Thornton, P.K., R. B. Boone, K. A. Galvin, S.B. Burn Silver, M.M. Waithaka, J. Kuyiah, S. Karanja, E. González-Estrada and M. Herrero (2007) Coping strategies in livestock-dependent households in East and southern Africa: a synthesis of four case studies. *Human Ecology*, 35: 461–476.
- Tiffen, M., M. Mortimore and F. Gichuki (1994) *More people, less erosion: environmental recovery in Kenya*. Chichester, John Wiley and Sons.
- Transparency International (2006) *Global corruption report 2006: corruption and health*. Available from:

http://www.transparency.org/publications/gcr/gcr_2006. [Accessed 14th February 2010].

- Tripathi, L., M. Mwangi, S. Abele, V. Aritua, W.K. Tushemereirwe and R. Bandyopadhyay (2009) Xanthomonas wilt: a threat to banana production in east and central Africa. *Plant Disease*, 93(5): 440-451.
- Tripp, A. M. (2004) Women's movements, customary law, and land rights in Africa: the case of Uganda. *African Studies Quarterly*, 7(4). Available from: <http://web.africa.ufl.edu/asq/v7/v7i4a1.htm> [Accessed 4th July 2010].
- Truong, T.-D., S. Wieringa and A. Chhachhi (2006) *Engendering human security: feminist perspectives*. London and New York, Zed Books.
- Tschakert, P. (2007) Views from the vulnerable: understanding climatic and other stressors in the Sahel. *Global Environmental Change-Human and Policy Dimensions*, 17(3-4): 381-396.
- United Nations Commission on Human Security (2003) *Human security now*. New York, United Nations.
- United Nations Department of Economic and Social Affairs, Population Division (2011a) *World population prospects: 2010 revision*. Available from: http://esa.un.org/unpd/wpp/Sorting-Tables/tab-sorting_population.htm [Accessed 12th March 2011].
- (2011b) *World contraceptive use 2010* (POP/DB/CP/Rev2010) Available from: <http://www.un.org/esa/population/publications/wcu2010/Main.html> [Accessed 2nd April 2011].
- United Nations Development Programme (2010) *The real wealth of nations: pathways to human development*. Available from: hdr.undp.org/en/reports/global/hdr2010/ [Accessed 1st May 2011].
- United Nations Education, Science and Cultural Organization (2010) *The 2010 Education for All Monitoring Report: Reaching the Marginalized*. Available from: <http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/efareport/reports/2010-marginalization/> [Accessed 3rd January 2011].
- United Nations Population Fund and Population Reference Bureau (2010) *Country profiles for population and reproductive health: policy developments and indicators 2009/2010*. Available from: www.prb.org/Articles/2010/unfpacountryprofiles.aspx [Accessed 2nd January 2011].

- United States Agency for International Development (USAID) (2008) *Uganda's Manafwa District contraceptive logistics system assessment and action plan: covering the last mile to ensure availability*. USAID Deliver Project. Available from: deliver.jsi.com/portal/page/.../81DC1EBB0935E952E04010AC6D2B0282 [Accessed 28th July 2010].
- (2009) *Malaria operational plan for FY 2010*, DRAFT, President's malaria initiative, Uganda. www.fightingmalaria.gov/countries/.../fy10/uganda_mop-fy10.pdf [Accessed 22nd January 2011].
- Vaughan, M. (1987) *The story of an African famine: gender and famine in twentieth-century Malawi*. Cambridge, Cambridge University Press.
- Verschoor, A. (2008) Gender relations and female labour supply in East Uganda. In: S. Horrell, H. Johnson and P. Mosley (eds) *Work, female empowerment and economic development*. London, Routledge: 141-170.
- Vincent, K. (2007) Uncertainty in adaptive capacity and the importance of scale. *Global Environmental Change - Human and Policy Dimensions*, 17(1), 12-24.
- Wakabi, W. (2006) Population growth continues to drive up poverty in Uganda. *Lancet* 367(9510): 558-558.
- Wakhongo, J. B. (2008) *Gender relations and fulfillment of child rights in Manafwa District – Uganda*. Unpublished PhD thesis, St. Clements University, British West Indies.
- Washington, R., M. Harrison, D. Conway, E. Black, A. Challinor, D. Grimes, R. Jones, A. Morse, G. Kay and M. Todd (2006) African climate change: taking the shorter route. *Bulletin of the American Meteorological Society*, 87(10), 1355-1366.
- Wendo, C. (2004) African women denounce bride price: campaigners claim payment for wives damages sexual health and contributes to AIDS spread. *The Lancet*, 363(9410), 716-716.
- Were Tinka, E. (2010) Health service delivery monitoring unit to clean Uganda health sector. *Ultimate Media*, Wednesday 10th March. Available from: http://www.uganda-news.net/2010_03_10_archive.html [Accessed 5th April 2010].
- Westaway, E. (2008) Growing up in rural Uganda: children negotiating lives and livelihoods. Unpublished PhD thesis, University of East Anglia.

- Westerhoff, L. and B. Smit (2009) The rains are disappointing us: dynamic vulnerability and adaptation to multiple stressors in the Afram Plains, Ghana. *Mitigation and Adaptation Strategies for Global Change*, 14(4), 317-337.
- Whitehead, A. (1981) 'I'm hungry, mum': the politics of domestic budgeting. In: K. Young, K. C. Wolkowitz and R. McCullagh (eds) *Of marriage and the market*. London, CSE Books.
- Whitehead, A. and N. Kabeer (2001) *Living with uncertainty: gender, livelihoods and pro-poor growth in rural sub-Saharan Africa*. Working Paper 134. IDS Working Papers, Institute of Development Studies, University of Sussex, United Kingdom.
- Whyte, M. A. and D. Kyaddondo (2006) 'We are not eating our own food here': food security and the cash economy in Eastern Uganda. *Land Degradation & Development*, 17: 173-182.
- Widner, J. and A. Mundt (1998) Researching social capital in Africa. *Africa*, 68(1): 2-24.
- Wisner, B., P. Blaikie, T. Cannon and I. Davis (2004) *At risk: natural hazards, people's vulnerability and disasters*. London and New York, Routledge.
- World Bank (2010) *World Development Report 2010: Development and Climate Change*. New York, World Bank.
- World Health Organization (2009) *World Health Statistics 2009*. Geneva. Available from: <http://www.who.int/whosis/whostat/2009/en/> [Accessed 23rd May 2011].
- World Health Organization (2010) *World health statistics 2010*. Geneva. Available from: <http://www.who.int/whosis/whostat/2010/en/> [Accessed 23rd May 2011].
- Xu, K., D. B. Evans, P. Kadama, J. Nabyonga, P. Ogwang Ogwal and A. M. Aguilar (2006) The elimination of user fees in Uganda: impact on utilization and catastrophic health expenditures. *Social Science & Medicine*, 62: 866-876.
- Yamin, F., T. Mitchell and T. Tanner (2005) Linking climate adaptation: a research agenda. *IDS Bulletin*, 36(4): 126-131.
- Yohe, G. and R. S. J. Tol (2002) Indicators for social and economic coping capacity: moving toward a working definition of adaptive capacity. *Global Environmental Change*, 12(1): 25-40.
- Yohe, G.W., R.D. Lasco, Q.K. Ahmad, N.W. Arnell, S.J. Cohen, C. Hope, A.C. Janetos and R.T. Perez (2007) Perspectives on climate change and sustainability. In: M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds) *Climate change 2007: impacts, adaptation and*

vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, Cambridge University Press, 811-841.

Ziervogel G., S. Bharwani and T.E. Downing (2006) Adapting to climate variability: pumpkins, people and policy. *Natural Resources Forum*, 30. 294-305.