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LAND USE RIGHTS, LAND GOVERNANCE INSTITUTIONS, AND TENURE SECURITY INDICATORS IN A PASTORAL COMMUNITY: EVIDENCE FROM A BASELINE STUDY IN THE AFAR REGION, ETHIOPIA

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Abstract

Historically, the Afar region of Ethiopia has been populated by pastoralist communities, but their migratory and herding patterns may be threatened by commercial interests or conflicts with other ethnic groups. This paper presents exploratory baseline findings from an impact evaluation of USAID's ongoing Land Administration to Nurture Development (LAND, 2013–2018) project in the Afar region of Ethiopia. Drawing on survey and qualitative data, this paper provides a detailed description of the customary governance systems in the study area, as well as evaluating strengths and weakness of those systems to navigate pressures (both internal and external) on communities' tenure security. In addition, the paper explores community member perceptions of specific outside actors that potentially threaten their tenure security, whether the government, private sector investors, and other ethnic groups. The paper also explores what tenure security means in practice for pastoral communities in terms of land access, documentation, reallocation, and conflict. Some of the results challenge recent findings about the scale and impact of threats on pastoral communities. Preliminary findings suggest lack of access to land, external threats, and weak community governance may be not as problematic as shown by other studies reliant on a smaller, less representative sample size.

Key Words

Pastoralism and Agro-pastoralism, Communal Land Tenure, Group Land Rights, Land Use Change, Conflict

Introduction

Historically, the Afar region of Ethiopia has been populated by pastoralist communities who depend on the rainy seasons that flood perennial and seasonal rivers and create large expanses of flooded basins and pastures. These areas are also of particular interest to the government and private investors for their irrigation potential, and recent studies cite growing fears among pastoralists of the threat of land expropriation by the government, since their migratory and herding patterns may coincide or intersect with land likely to be expropriated for commercial purposes (Hundie 2006, 2010; Cotula et al. 2009). To date, several thousand hectares of riverine grazing lands in the Afar region have been converted to irrigated agriculture by government and private commercial interests, including Ethiopian and foreign companies (Behnke et al. 2013; Fratkin 2014; Keeley et al. 2014). However, lands have not just been lost to agribusiness development, as the creation of the Awash National Park and expansion of protected areas in vital flood plains has also diminished the amount of land available for herding, especially critical dry season grazing areas (Oba, 2009). Scholars have warned that increasing pressures may continue to reduce the land available for local rangeland users (Beyene 2012).

Inter-ethnic conflict is another contextual factor that is key to understanding changing land use patterns and livelihood challenges among Afar pastoralists. Such conflict occurs for a number of reasons, including settled groups seeking additional land to farm and competition with other pastoralists for access to pasture and water resources, especially during times of scarcity. This endemic inter-ethnic conflict in the region and the aforementioned interest in rangeland by the government and investors, as well as other pressures—such as accelerating transition from pastoral to farming livelihoods, increasing human population, the proliferation of invasive shrub species, and increasing frequency of extreme weather events due to climate change—raise concerns that in the coming years pastoralist communities will curtail distance traveled for pasture and water due to access restrictions or anxiety about the security (Hundie 2010; Reda 214).

To address these challenges to pastoral livelihoods in Afar, development programs are being designed and implemented with the objective of improving rangeland security and governance. However, development efforts in Afar are occurring in an environment lacking comprehensive data on pastoralist practices and well-being. Scholarship on Afar remains limited and empirical data on land use rights is difficult to collect in the region. To help fill this evidence gap, this

paper presents exploratory baseline findings from an impact evaluation (IE) of USAID's Land Administration to Nurture Development (LAND) project[1] in the Afar region of Ethiopia.

Drawing on survey and qualitative data, this paper will first present the customary governance context in the study area, and then evaluate perceived strengths and weakness of customary land governance systems to navigate tenure security pressures. The paper will also explore perceptions of specific outside actors that potentially threaten tenure security: the government, private sector investors, and other ethnic groups. The primary data from this study will allow us to better understand the health of the pastoral land use systems in this region and the prevalence and severity of land access challenges, which may be less pervasive than previously suggested by studies reliant on smaller sample sizes. For instance, a recent study based on qualitative interviews of pastoralists in Afar found that customary governance systems "have been considerably diminished and traditional livelihood practices threatened" (Schmidt & Pearson, 2015). Further, the study argued that increasing land privatization is undermining traditional institutions and pushing pastoralists into more sedentary agriculture. Our preliminary baseline findings suggest this transition to permanent settlement and agricultural cultivation may not *yet* be happening on a wide scale across the Afar region. However, the data do indicate changing dynamics as some communities interact with investors and the government asserts more of a role in land and resource governance.

The paper is structured as follows: the Study Context section provides background and theoretical framing around customary land governance in Afar pastoral communities and pressures on land availability and tenure security in the region. The Methods section details the data collection and sampling methods and our analysis strategy. The Results section describes our quantitative and qualitative results. The Conclusion situates our findings within the context

1 The ongoing USAID/Ethiopia Land Administration to Nurture Development (LAND, 2013–2018) project is designed to improve the security of land use rights of pastoralist communities through a focused community land use rights formalization process in order to: increase opportunities for community-approved investment and development and reduce expropriations that contravene good practices. The LAND project proposes a locally appropriate model to work with customary pastoral communities to increase land and resource tenure security, as well as with regional governments to develop policies and regulations that allow communal land use rights to be recognized and certified. The LAND project in Ethiopia is designed to build upon the work completed by the Pastoral Livelihoods Initiative I (PLI I) and the Pastoral Livelihoods Initiative II (PLI II) projects, and the recently-awarded Pastoralist Areas Resilience Improvement and Market Expansion (PRIME) Project. It is implemented by Tetra Tech in the Afar, Oromia, and Somali Regional States. This impact evaluation (IE) is focused solely on LAND Project activities in Afar. Another IE of the LAND Project activities in Oromia is also being implemented separately. For more information, visit www.land-links.org/project/land-administration-to-nurture-development-ethiopia/.

of existing work, highlights new contributions, and discusses program implementation and policy implications.

Study Context

Customary land governance in the Afar region

The basic social structure of Afar is shown in Figure 1. The clan, *kedo*, is the broad basis for a grazing unit. Members of single, and sometimes multiple, clans form cooperative settlements called *gantas*. The coming together of sometimes multiple clans into cooperative gantas is driven by water and other resource scarcity, particularly during dry seasons. Such flexible governance arrangements that are responsive to a variable environment are found among other pastoral communities that face similar resource constraints (Tari & Pattison, 2014). In contrast, more sedentary customary communities tend to have fixed, nested community identities.

The pastoralist system generally is split into two different areas of grazing based on wet and dry seasons. Although the gantas gather in both dry and wet seasons, the composition of the ganta is usually not the same in the different seasons. Water sources and pastures are limited during the dry season, and resource use among pastoralists is carefully restricted. Most pastoralists move their herds to *kelo*—dry season grazing areas along the river valleys. *Kelo* areas are perceived to be owned by the clans, and only clan members have rights to use them or to allow other clans to use them (USAID 2016a). As such, ganta boundaries are more defined and the extent of their control of land is clearer during the dry season, when clan members and their herds are based in their riverine lands.

During the wet season, herds are usually moved to elevated *alta* areas to avoid floods and mosquitos. Those elevated areas, including mountains, border neighboring ethnic groups and can be susceptible to conflict (Rettberg 2010). In contrast to the dry season settlement, the ganta during wet seasons has no defined territory based on clan affiliation, since they often settle with other clans or close to one another for security reasons (USAID 2016a). This spatial uncertainty for gantas during the wet season is a challenge for the application of standard good practices for formal recognition of customary communities. Those practices often presuppose more fixed community boundaries.[2]

2 Indeed, even for sedentary communities their boundaries shift over time. For instance, Zambia's maps of chiefdoms dating from the mid-Twentieth Century are widely regarded as outdated, failing to capture the significant shifts of boundaries and movements of people over time.

Rangelands are managed in Afar through a customary land governance system. There is no single leader of the ganta. Rather, there are respected elders who act jointly as heads. The clan head, *kedo abba*, is the lead decision-maker when it comes to land uses and use rights, including decisions about allocating land to outsiders. However, it is the clan elders, *daar-idolla*, who are able to give access to their clan's lands by giving other clans a secondary *isso* right. *Isso* means translates to English as "lease" and can be subject to a variety of conditions (e.g. prohibiting cutting of certain tree species). The *isso* right is over a defined grazing area for a defined period of time (Flintan et al. 2008). Sometimes clan members hold *waamo* rights to use, exclude, and/or alienate lands or resources, and they are able to hold lands and exclude other clan members from those lands (Hundie and Padmanabhan, 2008). The youth leader, or *fiema abba*, is responsible for enforcing rules and regulations, and this customary leader works closely with other customary leaders, such as clan and sub-clan (lineage) leaders, respected elders and respected women leaders, to enforce their decisions and sanction violators. Additionally, within the ganta, there are chosen *duwa abbas* who manage migrations to wet season areas, thus controlling wet season mobility and its timing (USAID 2016a).

In the past, land investments were negotiated directly with these clans that occupied the land, and thus clan leaders were aware of, and able to mitigate, any potential issues. The clans also received the benefits and/or payments of the investments directly. However, there are indications that investments are increasingly pursued through regional and national government channels removing clan participation from the process (Keely et al., 2014).

Land pressure and tenure security in the Afar region

Reliable access to rangeland is vital for pastoral livelihoods. There is mounting evidence that it is increasingly difficult for Afari pastoralists to access their traditional rangelands, forcing them to seek other, often less suitable, areas or to settle into agro-pastoralism or fully agricultural livelihoods. Land pressure is believed to be increasing due to multiple factors, all of which can exacerbate each other, including national government land use policy, commercial interest in rangeland, and increasing competition over a diminishing quantity and quality of available land and water resources. This section outlines each of these land pressures through a review of recent academic studies and policy reports.

Customary pastoral land in Afar is subject to competing land uses. On the one hand, the national government advocates for land to be sectioned off for smallholder agriculture—to promote sedentarisation of citizens—or to encourage industrial agriculture or other commercial investments. On the other hand, it is important for open lands to remain available to pastoralists for access by grazing animals. The Ethiopian government has long seen pastoralism as a failing livelihood and a roadblock to the country's overall economic development, growth, and prosperity (Abdulahi, 2004, Getachew, 2001). Compounded by increasing instances of drought and famine, pastoralism has been viewed in recent history as failing to provide people with secure food and income sources, and thus the government encouraged conversion to arguably more stable livelihoods based around agricultural cultivation (Fratkin, 2014).

In particular, the fertile land of the Awash valley is often seen as under-utilized due to the transient nature of pastoralism, even though those fertile lands are vital for the success and adaptability of pastoralism in an otherwise arid and drought-ridden region (Hundie & Padmanabhan, 2008; Fratkin, 2014). Since the 1960s, land has been appropriated along the Awash river by state-run programs for irrigated cotton and sugar plantations and dam construction for hydro-electric power. This has restricted pastoralist access to rangelands and diverted the natural river-flow to vital floodplains that serve as livestock grazing areas (Behnke & Kerven, 2013). Some studies have argued that reliable land and water point access for pastoralists has been reduced by government policies that encourage growth in agricultural settlement, including large scale plantations or irrigated agriculture, whether by foreign or domestic actors or even local smallholders (Lavers, 2012; Tsegaye et al., 2013; Keely et al., 2014).

Recently, these appropriations have included resettlement and compensation programs for pastoral communities in exchange for giving up access to their traditional lands (Keely et al., 2014).[3] In particular, the Federal Democratic Republic of Ethiopia Growth and Transformation Plan (GTP) (2010) explains that pastoral development will focus on water access activities, but that in "areas convenient to irrigation development, resettlement of pastoralists on voluntary basis [sic] will be another task to be undertaken." Explicitly, the GTP notes larger plans to

3 The Ethiopian government maintains that this resettlement is voluntary, but this claim has been challenged by rights-based groups, such as the Human Rights Watch (Keely et al., 2014).

extend this 'proven approach' into the Afar region and elsewhere. Keely et al.'s 2014 study of large-scale land deals[4] found that over 60 million Birr (US$ 3.3 million) had been spent to resettle households. In Tsegay et al.'s 2013 study,[5] the majority of respondents (54%) involved in farming were given their crop land from cleared communal land.[6] The remaining 46% of respondents involved in farming inherited previously cleared crop land from their parents.

Large-scale land deals restrict mobility of pastoralists to access traditional rangeland and can significantly degrade the quality of available land and water (Cotula et al., 2009; Fratkin, 2014; Schmidt & Pearson, 2015; Hundie & Padamanabhan, 2008; Reda, 2014; Cotula, et al., 2009). The local population can see few benefits to this investment, as these plantations often employ outside migrants instead of local, less-educated Afari peoples (AHRO, 2007, 2012, as cited in Fratkin. 2014).

Due to several 'push' factors, such as the national government's policies and climate variability, many pastoralists are moving away from pastoral livelihoods and towards agriculture or off-farm employment (Beyene, 2012). Beyene's study (2012)[7] of three different ethnic groups in Afar found that while herding livestock consisted of the majority of household's economic activities, 72% had diversified their livelihoods to include farming, wage labor, and trading, with farming being the most common secondary income activity (71% of respondents).

This increased incidence of small-scale farming and sedentarisation, whether by encouragement of national government policies or a desire to seek alternative livelihood security, can place physical barriers, such as fencing around land plots, between pastoralists and viable rangelands (Schmidt & Pearson, 2015; Abule, Snyman, & Smit, 2005; Tsegay, Vedeld, & Moe, 2013; Beyene, 2012; Fratkin, 2014; Reid, Thornton, & Kruska, 2004). Schmidt & Peters' study (2015)[8] found that, despite instruction in policy documents that new settlement sites should be on

4 Note that Keely et al. (2014) is a qualitative study based on a small sample size. It consists of a desk-study and approximately 50 key informant interviews and a limited number of case studies. The key informant interviews were primarily conducted with government officials or persons from companies investing in land.

5 Tsegay et al. (2013) was a study which consisted of household interviews with only 223 households within Aba'ala, a district in northern Afar.

6 Some of the converted land was given to households by clan leaders (15% of respondents), but more had been given by local administration (39% of respondents). It is unclear from the paper whether these respondents were migrants from another area or local pastoralists converting to different lifestyles.

7 The quantitative data for this report were derived from a survey of 596 households, with supplementary qualitative data from KIIs and FGDs from nine kebeles.

8 Schmidt & Peters conducted a study in Afar, interviewing only 139 different respondents, some multiple times, in group interviews and discussions.

unoccupied land, in Afar there are sites which were built directly on rangeland, which will further restrict pastoral movement with the growth of settlement populations and conversion of the pasture to farms.

All of these pressures are thought to worsen inter-ethnic competition for land and water resources as pastoralists seek new grazing areas outside of their traditional rangelands (Hundie, 2010; Abule et al., 2005; Schmidt & Pearson, 2015). This is exacerbated by changing weather patterns that create inconsistent water-flow patterns in riverine areas and decrease predictability of wet and dry seasons and thus decrease availability of rangelands (Schmidt & Pearson, 2015; Abule, Snyman, & Smit, 2005). As a result, instances of inter-ethnic conflicts are reported between the Afar people and Issa Somali or Oromo pastoralist clans or settled communities (Reda, 2014). Due to the harsh natural environment, there is a strong history of inter-ethnic cooperation over the use of grazing areas and water. However, conflicts arise when one group is perceived to have intruded upon a territory that belongs to another, either without sufficiently consulting the other group or encroaching by force despite being denied permission. Perceived encroachment by outside ethnic groups fuels inter-ethnic conflicts and insecurity of more remote rangelands (Hundie, 2010; Schmidt & Pearson, 2015). Abule et al.'s 2005 study[9] found that conflict over resources has been a commonplace occurrence for the past 30 years, but over 60% of Oromo respondents and nearly 80% of Afar respondents reported that the intensity of conflicts increased in the three to four years prior to the study.

These pressures on land access due to demand for farmland, investor interest, and security concerns are hypothesized to increase feelings of tenure insecurity in Afar pastoralists regarding their rangelands and lead to adaptive behaviors such as constraining distances migrated with livestock and perhaps even voluntary resettlement. In turn, intensified attention by the Ethiopian government and investors is thought to destabilize traditional methods of land governance. However, much of the research on these phenomena in Afar relies upon highly localized qualitative studies. The data for this paper comes from an impact evaluation (IE) of USAID's Land Administration to Nurture Development (LAND) program in Afar, Ethiopia that is focused on improving pastoral livelihoods. This is the first large-scale survey of tenure security we are

9 Abule et al., (2005) conducted a study which consisted of interviews with 55 Afar households and 90 Oromo households.

aware of in the Afar region. The data encompasses six *woredas*[10] in the Afar region, and presents an exciting opportunity to systematically consider these governance and tenure security questions.

Methods

This paper draws on five primary sources of baseline data from the LAND Afar IE that was collected from March to May 2016. These sources are:

- Population-based household survey (N=2,987);
- Close-ended survey interview with one leader of each study community, or ganta (N=263);
- Open-ended focus group discussions (N=132) with women, youth, and agro-pastoralists;
- Open-ended key informant interviews with several customary leaders[11] at the clan level, and with local government leaders (N=128); and
- Open-ended participatory mapping exercise with small groups of herders and scouts[12] (N=50).

The LAND Afar IE is designed as a quasi-experimental Difference-in-Difference (DD) study that compares two LAND treatment sites in Chifra and Amibara woredas to matched control areas in the Afar region.[13] As noted above, baseline data was collected in the first half of 2016; a second round of data collection is tentatively scheduled for early 2019. The IE data collection instruments are designed to measure the impacts of LAND's activities to strengthen communal land use rights in pastoral and agro-pastoral areas and facilitate market linkages and economic growth. We are particularly interested in impacts of these activities on livelihoods, resilience, tenure security, and conflict. This paper draws upon this rich source of baseline data to explore related findings surrounding land governance and tenure security in the study area.

10 Regions of Ethiopia are divided into administrative woredas, or districts. There are 29 woredas in the Afar region, and nationally there are about 770 urban and rural woredas in Ethiopia.

11 These leaders include: *duwa abba* (customary leader responsible for decisions about seasonal herd movements and grazing), *kedo abba* (clan leader), *dahla* (*gulub*) *abba* (sub-clan leader), *fiema abba* (responsible for rule enforcement), and *daar-idolla* (customary elders).

12 In Afar, teams of scouts are sent out to areas to observe the state of the rangelands, effects of rainfall, and the suitability for grazing.

13 Amibara was matched to Gewane woreda in the Namalefane Ke Baaadu Pastoral livelihood zone, as defined by the Household Economy Analytical (HEA) framework, and given the small number of communities in Gewane, Delucha was added as a second control woreda for Amibara. Chifra was matched with Telalak and Dewe woredas in the Aramiss Ke Adaar Pastoral livelihood zone. A livelihood zone is an area within which people share geography, patterns of access to food (they grow the same crops or keep the same types of livestock), and have the same access to markets. These three factors by and large determine the economic operations of households within a particular livelihood zone, and they also determine shared vulnerability to hazards such as drought, insecurity, or market dislocation. For more information, see: http://www.heawebsite.org/baseline-assessments.

Within the six study woredas in the Afar region, gantas were selected for inclusion using two different methods. In the Amibara, Gewane, and Telalak woredas, due to the small number of gantas in dry season settlements, all gantas were included in the sample in order to achieve the study's power objectives. In Chifra, Dewe, and Delucha, gantas were sampled from within the respective woreda using Probability Proportionate to Size (PPS) sampling. In each study ganta, the ten household survey respondents were chosen using a Python script to randomly select from a list of all household heads collected by the survey supervisors. Table 1 presents the sample size by woreda, the percent of household survey respondents by woreda, and the percent of leader survey respondents by woreda.

Respondents across all woredas are similar to each other ethnically, culturally, and socioeconomically. Nearly all household and wives survey respondents are ethnically Afar (96%, N=2561 of households) and Muslim (99%, N=2637 of households). Literacy rates are low across the sample. Only 13% of household heads can read a newspaper in any language (N=356) or write a short letter (N=353). Just 14% (N=366) of household heads have ever attended school or any other type of educational facility. Just over half of respondents (57%, N=1501) describe their household as fully settled, with no household members moving during the year. Forty percent (N=1053) of households describe their households as partially settled—some household members move during the year, while others remain in the ganta. Only 4% (N=99) of households are fully nomadic, meaning all household members move during the year to herd livestock in wet and dry season grazing areas. The primary economic activity of the majority of household members is herding livestock (60%, N=1578), followed by salaried employment (7%, N=199), domestic work (7%, N=197), and farming (7%, N=184). Households earn an average of 8,525 ETB[14] (sd=9,625) and a median of 5,500 ETB[15] annually from all activities of all members, including livestock sales, employment, petty trade, and remittances. Key sample characteristics are summarized in Table 2.

This paper presents a descriptive analysis of key indicators of governance practices, satisfaction with leaders, tenure security perceptions, and instances of tenure security threats, such as lost access to land and conflicts. Where appropriate, this analysis includes statistical tests for

14 Approximately $384 at 22 ETB to 1 USD

15 Approximately $250 at 22 ETB to 1 USD

significant differences between groups. As such, this paper provides valuable information about the overall prevalence of many events of interest to scholars and policymakers, such as changing patterns in access to rangeland, investor activity, and inter-ethnic conflict in much of the Afar region. This data makes it possible to add nuance to much of the pre-existing work on land and livelihood challenges in the region.

Results

Despite Some Pressures, Customary Governance Systems Remain Primarily Responsible for Rule Making and Enforcement

Initial findings show that, despite increasing pressures on pastoral communities, the customary governance systems continue to be primarily responsible for setting and enforcing rules about land management and resolving conflicts. This section also explores the circumstances in which customary leaders collaborate with government officials, for government officials appear to have increasing purview over areas traditionally overseen by customary authorities.

Rules

The survey of ganta leaders asked whether different types of rules exist within their ganta; for each rule that exists, the ganta leaders were then asked a series of related questions. This data indicates that the customary land governance structures have retained their importance for rule setting and enforcement in gantas where rules exist (see table 3). Findings show that customary officials, primarily the *kedo abba* and *fiema abba*, are overwhelmingly responsible for making and enforcing all types of land management rules. The most common rule type governs the cutting of trees, and exists in just over a third of gantas (35%, N=80). All other types of rules, including the opening and closing of pastures, access to water points, and rules about dry stock and the order of drawing water exist in approximately a fifth of gantas. However, 56% (N=148) of gantas have no formal rules in place about land management. Given that traditional leaders overwhelmingly make rules around land use and access, those gantas without generally acknowledged rules likely depend on more ad hoc, case-by-case rule making by traditional leaders.[16]

16 The presence or absence of rules is also correlated with the settlement status, though in the opposite direction as expected. Rules appear to be more important for fully and partially settled gantas, where 47% of gantas have land rules, as opposed to nomadic gantas, which uniformly lack these land rules.

In all cases except tree cutting and order of watering, the *kedo abba* is reported as the primary rule-maker by almost or more than 60% of ganta leaders, as shown in table 4. The *kedo abba* is also identified as the primary rule enforcing body in every case. The *fiema abba* is the second most important actor for making and enforcing rules across all topics.

However, while these rule mechanisms appear largely effective, they are rarely truly representative. The community as a whole rarely makes rules together, but it is slightly more common for community members to have a part in enforcing them. Ganta members are most likely to be involved in rules about regulation or restriction of opening pasture in grazing areas in both the wet and dry seasons, either making these rules (Wet Season: 5%, N=2; Dry Season: 4%, N=2) or enforcing the rules (Wet Season: 12%, N=5; Dry Season: 8%, N=4). Despite the infrequency of community participation in these activities, ganta leaders report high levels of monitoring and enforcement for all rules (see Table 5). Ganta leaders report that offenders are caught and punished 'always' or 'most of the time' in at least 70% of communities with rules across all rule categories. Rules that regulate or restrict access to water points are most likely to be enforced (85%, N=33), and rules that regulate or restrict the opening of wet season pasture in grazing areas are the least likely to be enforced (69%, N=29). Ganta leaders also report that community members have high levels of compliance with all land management rules, and 'nearly everyone' or 'most members of the ganta' follow the rules in at least 83% of communities across all rule types. The rules with the highest rate of compliance are regulations or restrictions on opening dry season pasture in a grazing area (96%, N=46), and the rules with the lowest—but still very high—rate of compliance are rules about the opening of wet season pastures (83%, N=35).

However, a discrepancy exists between what the ganta leaders would like others to think happens when a violation occurs—that 70% of violators are punished—and what is the perception from household heads—only 29% of violators are punished (N=929). One interpretation is that ganta leaders aim to appear fair in distributing justice evenly and there are no exceptions on the basis of political connections, status, or other biases. However, in reality, there may be exceptions made to individual violators, which is reflected in the responses of household heads.[17]

17 Personal communication with Dr. Peter Little.

For hypothetical cases of rule-breaking, customary leaders are most likely to punish the rule breaker in 65% (N=1670) of cases, most often the *daar-idolla* (34%, N=1058) or the *fiema abba* (18%, N=583). In contrast, only 6% of respondents indicated that government officials would be most likely to punish the rule breaker, most often a *kebele*[18] official (N=150).[19] People caught breaking rules about water use, such as taking water out of turn, are punished at similar rates as people caught breaking rules about grazing land (30%, N=951), and are equally likely to be punished by customary leaders (56%), primarily the *daar-idolla* (34%, N=1064) and the *fiema abba* (19%, N=613).

Women in Amibara detail the process followed to punish those who violate rules over land use:

> "R: He who violates a traditional rule is punished by letting him offer cattle or goats which are slaughtered. There is a group called *daar-idolla* and they are led by district elders. The punishment is exercised by the *daar-idolla* and the advice is given by district elders.
>
> I: Are the wealthy and poor people punished in the same way?
>
> R: Yes, they are punished in the same way. Even if they have [only] a single goat. And if someone's wrongdoing is huge, the magnitude of the punishment equates it. If the wrongdoer has nothing, he is tied up and beaten."

Government officials at the kebele, woreda, regional, or national level play a secondary role. According to the results of the survey of ganta leaders, they are most involved in rules regulating or restricting the cutting of trees (45%, N=37), and least involved in rules about dry stock (7%, N=3). *Kebele* officials appear to be the most involved of the government actors, though they are the primary rule maker or rule enforcer in less than 15% of gantas across any type of rule.

Satisfaction with Leadership

Households are also generally satisfied with methods and processes used by customary leaders to protect their grazing lands and water, and believe their leaders act fairly and inclusively (see table 6). Overall, households are satisfied with how customary leaders perform their grazing land management duties (67%, N=1998) and their water management duties (69%, N=2064). The

18 Woredas in Ethiopia are divided into administrative wards, or kebeles, which are also referred to as "Pastoralist Associations" (PAs) in this area.

19 Twenty-three percent of respondents (N=731) said they 'don't know' who would be most likely to punish the rule breaker, indicating either that they do not have a rule or it is not often enforced.

majority of household heads believe that customary leaders are inclusive and transparent in their decision making, and that the decisions about customary land and water access are fair. Over two-thirds of household heads 'agree' or 'strongly agree' that the decision-making process of customary leaders regarding grazing land (67%, N=2011) and water use (69%, N=2047) and access is fair and transparent. Household heads are also satisfied with the rules that govern their household's grazing land and water use. Over two-thirds of household heads (69%, N=2051) believe the rules that govern their households' grazing areas are fair. Rules about household water use are viewed even more favorably. Nearly three-quarters of household heads believe the rules that govern their household's water use are fair (74%, N=2213).

Overlapping Customary and Formal Regimes

However, rising interest of the government and private investors in the area has sparked a trend towards formalization of land systems, with significant implications for customary land governance. There exists an uneven landscape of customary versus government responsibility for some duties, such as land allocation, rangeland maintenance, and adjudicating disputes with outside groups. Women in Telalak describe the changing system of governance in their woredas: "Before we were traditionalists and ignorant of the government systems. Governance is newly arrived to our area". Women in Amibara also describe changes in the role of the government. When asked about the changing influence of their clan leader, women in Amibara explained, "His power is less now since the government law is introduced, since we are governed by his power… less. Because the educated mind and the uneducated mind is not the same." Similarly, a customary leader in Dewe also describes the increasing role of the formal government and says, "Nowadays most of Afar people do not decide without government."

However, ganta leaders generally still believe in the primacy of traditional authorities in overseeing land affairs in and around the ganta, but the formal government is beginning to also fill this role. When asked about who is the most important leader responsible for making rules about what ganta members can and cannot do on their land, leaders who do not indicate that the *kedo abba* is the primary decision maker mostly identify kebele government officials as the primary decision makers (Kedo Abba 67%, N=174; kebele officials 12%, N=31).

Ganta leaders were asked to rank customary leaders, government officials, elites, and various community sub-groups on a 'ladder of power' ranging from 1 to 10 for overall influence on

decision-making regarding customary land use and management within the ganta. According to the scale, the people at the top (10) of the ladder make lots of important decisions and the people at bottom (1) of the ladder do not have any say.[20] Leaders indicated that government officials have less decision-making power than traditional authorities but more than women or youth for both decisions about land within the ganta and decisions about grazing lands used by the ganta. These data are presented in Table 7.

Farmland Allocation

The herding lifestyle predominates the study area, but a sizable minority of households engage in at least some agricultural cultivation activity, as shown in Figure 2. Thirty-three percent (N=1039) of households cultivate or own farmland, and the percentage rises to 38% (N=594) in Amibara and its control woredas. The mean size of farmland plots is 1.56 ha (SD=3.91 ha).

Most ganta leaders report that local households and outside actors acquire land for farms in the ganta through negotiation with traditional authorities (66%, N=161). This method is more common than formalized mechanisms such as use of rental markets (14%, N=36) or conversion to leasehold titles (12%, N=32). Similarly, when asked about how land is given to members of their ganta, women in Amibara detail the role of their *daar-idolla* customary elders in land allocation, "They ask permission to get land from our male elders and the group we call *daar-idolla*. The land is Afar and it is under the rule of the group of elders. It is divided among people according to their law."

Contrary to responses from ganta leaders that land is typically acquired from traditional authorities, there is in fact no dominant way that households report acquiring their farmland. While a quarter of plots were allocated from elders (25%, N=292), 28% (N=333) were allocated by the government, and another 19% (N=214) of plots were inherited. Households were required to seek authorization to access the land in 39% of cases (N=444), typically from the clan leader (59%, N=261), the ganta leader (40%, N=179), woreda officials (42%, N=185), or a combination of the three. Most leaders (81%, N=213) deny that the ways that people gain access to land for farming has changed, but those who do report change most often describe the content of this shift as increased involvement of government officials (50%, N=24). The pastoral communities are

20 The highest ranked official by households and leaders is the clan leader, or *kedo abba*. The *daar-idolla*, or the elders' council, is ranked as the second most important decision maker. All other customary leaders are closely clustered together. The sub-groups that were ranked the least important by all three types of survey respondents are women at the bottom, followed by youth, followed by the ganta as a whole.

under some stress and changing in response. These are not necessarily radical stressors or adaptations, but rather gradual and thus perhaps not readily detected by the community members and traditional leaders living through these changes. Yet, if these trends continue, in the future pastoral communities will be living under a noticeably different land governance system.

Rangeland Maintenance

No particularly active actor in rangeland maintenance and investment stands out in the qualitative or quantitative data. Participatory mapping respondents describe the government as engaging in a variety of activities in the past, including constructing water sources, implementing agricultural projects and a fencing program. However, these government projects have encountered difficulties. Both the agricultural project and the fencing program are now defunct, the former due to environmental difficulties and the latter because the program led to conflict between users of the grazing area. Additionally, few households (7%, N=120) made some sort of labor contribution to their wet season grazing area, and even fewer households (2%, N=21) contributed any type of labor on their dry season grazing area.

There is some evidence of dissatisfaction with this current arrangement and nostalgia for the past traditional governance system. When asked about changes in leadership satisfaction, women in Telalak noted:

> "We think those who rule in the past leadership were good. If you ask why? Because in the past Afar people were not introduced to the system of [formal] government, and they were using their livestock. Now, there is no one who helps poor people. There is no one who buys a cloth for the poor. When there was no government we were sharing our livestock. If you had no goat, somebody could give you. In the past our [traditional] leaders were looking after their people like orphans. But today's authority holders and leadership… do not care"

External Conflict Resolution

While minor and local conflicts are commonly resolved by customary leaders, more serious conflicts between clans are solved by the government. A youth in Chifra notes: "If the conflict is external, that conflict will be alleviated by regional government. If it is an internal conflict, we ourselves solve the problem."

Indeed, 61% (N=45) of resolved regional boundary conflicts[21] were resolved through government officials[22] – usually multiple levels of officials, including kebele, woreda, and officials outside of the kebele and the woreda – and nearly all households (86%, N=65) were satisfied with the resolution of their regional boundary conflict. These findings on the prevalence and resolution practices of boundary disputes align generally with findings from other pastoral areas of Ethiopia (USAID 2016).

From the ganta leader survey, leaders were more likely to believe that the process of resolution in inter-ethnic disputes would 'bring about a lasting peace' when government officials or the formal court system was involved in the dispute resolution process (p=0.095).[23] This relationship is not found when government officials are involved in the resolution of inter-clan disputes, which lends credence to the observation by qualitative respondents that formal structures are most helpful during the dispute resolution process when transaction costs are higher and the conflict involves multiple ethnic groups who may struggle to bridge language or other cultural barriers by themselves.

Further evidence on the resolution of the conflict experienced in Amibara with Somali pastoralists reveals the primary role of the formal government in the resolution of such conflicts. Comments made throughout FGDs with groups in Amibara such as, "There was a disagreement between us and the Somali people, now the government brought us peace," and, "The government made us reconcile with the Somalis saying '*you are all Ethiopian nationals*'" reveal the important role of the government in the resolution of this particular conflict.

Pastoral Communities Generally Feel Their Land Use Rights are Secure

With respect to the second study objective, to explore perceptions of specific outside actors that potentially threaten tenure security, survey respondents generally feel their land use rights are secure. This section also explores the content of that tenure security in practice, such as specific examples or descriptions of land access, documentation, reallocation, and conflict. Results show

21 About three quarters of household heads that reported experiencing a boundary conflict (73%, N=71) report that the regional boundary conflict has been resolved.

22 Leaders of other ethnic groups resolved an additional 33% (N=25) of regional boundary conflicts.

23 This question was asked using a 6-point Likert-type scale of likelihood where 1=Impossible/would never happen and 6=Happening right now. For inter-ethnic disputes, the mean perceived likelihood that resolution methods would bring about a lasting peace is 3.5 (sd=1.5) when the government is not involved in resolution and 4.3 (sd=0.9) when the government is involved in the resolution process.

that specific examples of lost access to resources—due to reallocation, investment, or conflict—are even less common than general anxiety about the potential threat of expropriation.

Perceptions of Tenure Security

While this data does indicate the presence of some anxiety about the government's and investors' activities on rangelands, low perceived tenure insecurity and especially specific instances of lost access to land are comparatively rare. Conflicts are reported more commonly, however, and a sizable number of communities report investor presence, though negative results due to investor activity are rare.

Less than a tenth of household heads believe their wet or dry season grazing areas are likely to be encroached upon by any actor, including customary leaders, investors, or members of outside clans. The greatest perceived threat to tenure security comes instead from investors and the national government; as shown in Table 8 below, approximately 30% (Wet Season, N=1430; Dry Season, N=849) of households feel that the government or investors *could* take any part of their grazing area without negotiation and fair compensation. However, more than 80% (Wet Season, 82%, N=1659; Dry Season 83%, N=999) of households 'agree' or 'strongly agree' that the boundaries of their grazing lands are clear and respected.

Households' strong sense of tenure security also applies to their access to water points. As shown in Table 9, over 70% (Wet Season, 77%, N=1557; Dry Season, 81%, N=979) of households 'agree' or 'strongly agree' that their rights to access water points are clear and respected by local government, regional government, and investors. Similar to attitudes about tenure security of grazing areas, investors are seen as the greatest threat to water point access of the three actors, but the proportion of households who perceive this threat is small.

Ganta leaders were asked a similar series of questions about the likelihood of encroachment by the same actors on customary grazing land used by their ganta, both one to three years from now and four or more years into the future. Similar to the household survey respondents, across all time periods and actors the majority of ganta leaders report that it was 'impossible' for their customary land to be encroached upon. However, ganta leaders believe the greatest threat to tenure security comes not from investors, as in the household survey, but from government. Still, less than a quarter of leaders (21%, N=55) believe it likely that in the next three years the local government will lease out or give away land used by the ganta for investment purposes, though

slightly more believe that the national government will do so (28%, N=73). Figure 3 maps the location of gantas where leaders believe that it is likely that the national government will give away land used by their ganta for investment purposes. These findings on perceptions of tenure security suggest that some awareness of government and investor activity exists in the area, but the level of concern about the threat that these actors pose to rangeland access is lower than expected.

In comparison, ganta leaders report water point tenure as less secure than grazing area tenure, especially when considering national government actors. Just under half of all ganta leader respondents agree that the regional government respects their ganta's access rights to dry season water points (47%, N=124), and 63% (N=166) of ganta leaders believe the local government respects their rights to dry season water points. It appears that the ganta leaders, as the primary interlocutors with the government, may be more aware of tenure security threats and issues than the general public.

There is also the same anxiety present in the participatory mapping exercise data about government expropriation of grazing areas for investment purposes as was found in the quantitative surveys. Respondents in the ganta who expressed this concern explain, "Nowadays, the government is building factories in our land, so that is why [we have fear of the government taking our land by in the next 5 years]."

Restrictions to Grazing Area Access

Restrictions on gantas' ability to access wet and dry season grazing areas are incredibly rare. This finding is contrary to the expected high prevalence of mobility restrictions for pastoralists. Of the 263 ganta leaders, only eight (3%) reported that their gantas had lost access to any grazing areas, wet or dry season. In total, 12 grazing areas across the eight gantas were lost, and in all 12 instances of lost access, the entire ganta, not specific persons or groups, lost access to the grazing area.

Households report losing access to grazing areas at an even lower rate than their leaders. Less than 1% of households report lost access to either wet (N=16) or dry (N=18) season grazing areas. This discrepancy between the household and leader data suggests that either households are unaware of the new restrictions and perhaps not following the rules, or that ganta leaders may

be exaggerating the extent of lost grazing land in an attempt to secure additional assistance from USAID or the Ethiopian government.

Understanding the key force driving the loss of grazing area access is difficult because the event is so rare, and when it does occur, the reason for the loss appears to vary. However, the reasons cited for loss of access are consistent with expected drivers. In the wet season, household survey respondents report losing access to grazing areas due to conflict or insecurity (44%, N=7), restrictions from clan elders (38%, N=6), restrictions from government officials (31%, N=5), and restrictions by a private company or investor (31%, N=5). In the dry season, household-reported restrictions due to conflict (72%, N=13) and from clan elders are more common (67%, N 12), but restrictions from government officials (44%, N=8) and from a private company or infrastructure project (50%, N 9) have about the same prevalence. The most common reasons cited by ganta leaders for loss of access to a grazing area in either season are investor activity (50%, N=6; WS 40% N=4), the development of infrastructure (DS 33%, N=4; WS 40% N=4), and lack of water available at the area (DS 25%, N=3; WS 30%, N=3).

Contrary to what is often found in other grazing areas, including in Ethiopia (USAID 2016), the growth of agriculture in the study area does not appear to come at the expense of household access to grazing land or water. Only 5% (N=137) of households report any areas used for grazing or water access being reallocated as farmland, and of those households, just 38% (N=52) report the reallocation affecting their household's grazing or water use patterns. However, in the rare instances when loss of access to a grazing area does occur, the expansion of farmland is a prominent explanation by household survey respondents (Wet Season 50%, N=8; Dry Season 72%, N=13).

According to ganta leaders, where restrictions on grazing area access were introduced by customary leaders, most of those restrictions were enacted by the *kedo* or *gulub abba* (66%, N=8) or by the *fiema abba* (25%, N=3). Customary leaders are most likely to impose restrictions due to lack of water (66%, N=2) or infrastructure development (66%, N=3). Restrictions that originate from regional or national government are exclusively due to investor activity (100%, N=5).

Losing access to eight of the 12 grazing areas led to negative effects for members of the ganta, according to ganta leaders. The most common impact of the loss is households in the ganta had

to graze their animals in another area, particularly forest area (75%, N=6) or an area outside of the clan's land (63%, N=5). Similarly, from the household survey, of the very small number of cases of lost access reported, only 36% (N=5) of these households have been negatively impacted by these restrictions to their wet season grazing areas, and even fewer households report negative impacts from losing access to dry season grazing areas (<1%, N=4).[24] Thus, as with the data on tenure security threats, there is a marked discrepancy between ganta leaders' views on the negative impacts of lost access, compared to household reporting. Ganta leaders, perhaps for reasons similar to the tenure security threats, are more likely to report negative impacts than households.

Investors

Investors—largely cotton and sugar farming operations—do have a discernable presence in the study area, but only a tenth of household heads identifying an outside investor in their area believe that an investor's presence had negative impacts on their community.

Sixteen percent (N=479) of household heads and 10% (N=26) of ganta leaders report an investor presence in their kebele. Among respondents reporting the presence of an investor, the highest percentage report cotton farming (68%, N=334, of household heads; 77%, N=20, of ganta leaders) as the primary investor activity, followed by sugar farming (30%, N=147, of households; 35%, N=9, of ganta leaders). Investor presence is significantly more common in Amibara and its control sites (Amibara: 31%, N=488; Chifra: <1%, N=6), most likely influenced by that area's stronger road network and better infrastructure, as well as their better access to the Awash river for irrigation.

While the presence of investors is higher in Amibara and its controls, Chifra and its control woredas report a higher level of conflict with investors. Figure 4[25] highlights kebeles where households report that investors are currently operating, as well as the location of gantas where community leaders report disputes with investors in the past 12 months. One explanation for this

24 Sixteen percent (N=180) of households have some type of document for their farmland, such as a tax certificate. However, this low level of formal documentation does not translate into widespread anxiety about encroachment by any actor on farmland. The most likely actor to encroach on their farmland is the national government according to households, but this is only assessed as 'likely' or 'very likely' by seven percent of household survey respondents with farmland (N=74).

25 There is not perfect alignment between reported presence of investor and reported investor conflict in this map for two possible reasons. One possible explanation is different time periods: the surveys ask about *current* investor presence vs investor disputes *within the past 12 months*. Another possible explanation could be inconsistency between the two survey data sources. One question - "Are there any investors/ companies operating in your kebele?" – is from the household survey, while the other question - "In the past year, how many disagreements has your ganta experienced with outside investors or companies?" - is from the community leader survey.

finding may be a longer timeframe of investor involvement and more established investor-community relations in Amibara, as opposed to the more recent investor involvement in Chifra.[26] Another possible factor is that there is greater incidence of community benefits from investors in Amibara. The sample size of respondents in the Chifra area reporting an investor in this dataset is too small to be able to discern the role of investor benefits in avoiding investor conflict. This question would benefit from additional research to better understand how these investor-community relations developed in Amibara over time and how these groups managed disputes.

Investors do not universally engage with communities before or during their presence in a community, but consultation and negotiations are not uncommon. A slight majority of household heads reporting that an outside investor was present in the ganta (56%, N=267), report that investors held meetings with their community, though these meetings were only held with the community as a whole in 17% (N=46) of cases, suggesting room for LAND to improve the consultation process. The remaining meetings were held with community leaders (46%, N=126) or clan leaders (34%, N=94). Households are nearly equally divided about the transparency of the negotiation process with investors—just under half (49%, N=236) believe the process is 'very transparent' or 'somewhat transparent', while the others disagree (51%, N=243).

Investor Impacts

Transparent or not, investors are often perceived to have a positive impact on the communities where they work, as shown in Table 10. Two-thirds (65%, N=310) of household heads reporting the presence of outside investors think that investors have brought benefits to their community. Asked to identify the nature of the benefits, these household heads noted salaried jobs (64%, N=208) and causal labor (54%, N=176) were the leading benefits. Infrastructure investments in the host communities, such as improved roads, health clinics, or schools, are rare or nonexistent. Again, ganta leaders in areas with outside investors paint an even more optimistic picture, and unanimously believe that investors have brought benefits to their community (100%, N=26), primarily salaried jobs (88%, N=23) and money transfers (31%, N=8). Based on field communications, it is not unusual for community leaders to receive gifts, donations, and other

26 Personal communication with Dr. Peter Little.

gestures that are not shared with the community as a whole from investors seeking permission to work in an area, which may explain the additional enthusiasm by ganta leaders.[27]

Only 11% of household heads identifying an outside investor in their area (N=52) believe that investor presence had negative impacts on their community (Table 11). Most commonly stated impacts are losing access to land for grazing (69%, N=41) and for farming (25%, N=15), and losing access to water for livestock (29%, N=17). Only three ganta leaders report any negative impacts from investors, and in all three cases (100%) investors have caused gantas to lose land for agricultural purposes. Investors are rarely seen as a threat to tenure security, and households and ganta leaders believe that the likelihood of investor encroachment on their grazing areas or ganta lands is very low.

Fifty-eight percent (N=286) of household heads reporting there was an outside investor in their ganta believe investors have changed their community for the better. Ganta leaders feel even more positively about the presence of investors. Most ganta leaders (85%, N=22) in gantas where there is an outside investor report that conditions in their community have improved since the investor(s) entered the community, and no leaders believe conditions have gotten worse.

Conflict

Household heads were asked about their household's personal experience with involvement in conflicts between individual actors, including other individuals in the ganta and outsiders. Only six percent (N=198) of household heads report experiencing any type of conflict over the past year. Then, ganta leaders were asked about conflicts that the ganta as a whole has experienced with outside actors such as other gantas, other clans, other ethnic groups, government officials, and outside investors or companies. Just over one quarter of ganta leaders have themselves experienced or know of a conflict between their ganta (28%, N=71) and one of these outside actors. Contrary to expectations, leaders are most likely to report one or more village level conflicts involving other gantas (17%, N=44), followed by other clans (15%, N=37) and other ethnic groups (11%, N=27). Conflicts between the ganta and government officials (3%, N=8) and the ganta and investors (3%, N=8) are both rare. Only a small minority of village leaders believe that conflicts with government officials (13%, N=1) and other clans (10%, N=4) are

27 Personal communication with BDS-CDR.

increasing, and most leaders who have experienced a dispute with these outside actors believe that the number of such disputes has stayed the same or is decreasing.

The most common type of conflict households experience is by far conflicts over regional boundaries (3%, N=98), followed by conflicts over woreda or kebele boundaries (1%, N=31). The most common conflict topics reported by leaders are land allocation (15%, N=38), followed by boundaries (15%, N=37) and grazing livestock (13%, N=33). Disputes about fencing are rare (5%, N=12), and disputes about water are nonexistent (N=0). The most common conflict types for all respondents are listed in Table 12.

Just under half (48%, N=47) of the boundary conflicts take place between members of different (non-Afar) ethnic groups. For example, qualitative data obtained from Chifra and Telalak provides evidence of conflict experienced with the Oromo—a non-Afar ethnic group—through quotes such as, “We and the Oromo fight over land, water, and grazing.” One participatory mapping respondent in Delucha details such a conflict with Oromo, “There are conflicts between Afar and Oromo’s [on] areas where enough pasture is available... Oromo will not allow us to use pasturing land. Most of the time; they kill us, they cut-off the legs of our camel, they also beat our children and women, they steal our goats…. But we have no choice and we will stay with them." Previous conflict with the Somali people was also mentioned frequently throughout qualitative data obtained from Amibara and Delucha. A participant of a women’s FGD said, “There are those who quarrel over land, animals all this included in traditional law. Before five years [ago] there was disagreement between us and the Somal [stet] people. Now the government brought us [peace]…the government has made us to reconcile with Somal.”

An additional 21% (N=21) of regional boundary conflicts take place between households of the same clan. Seventy-one percent (N=70) of regional boundary disputes have resulted in violence, and 65% (N=64) have led to destruction of property of the loss of livestock. Figure 5 shows the total number of disputes about grazing areas by ganta, and suggests that disputes about grazing areas are more prevalent in Chifra and its controls than in Amibara and its controls.

Conclusion[28]

Results from this baseline survey in Afar confirm prior reports that the involvement in everyday land matters by all levels of the Ethiopian government appears to be increasing and that this shift may be producing greater variation by community in how land allocation and management is undertaken. Some scholars have warned that as dynamics between traditional and formal authorities shift, no one user group or authority believes themselves to be primarily responsible for land quality management and these activities can lag as a result (Schmidt & Pearson, 2015). This concern appears borne out in this baseline data, as it is rare for the community, traditional authorities, or the government to regularly participate in rangeland maintenance. This situation could contribute to a decrease in the quality of rangeland.

However, this increased government involvement does have an association with more positive perceived outcomes of the conflict resolution process. Overall, conflict data show that methods of conflict resolution are very much dependent on the type and severity of conflict, which is a finding consistent with previous work (USAID 2016).

Instances of lost access to grazing areas due to fencing of farmland or investor activity are far less common than some literature suggests. There are several possible explanations for this finding, including that investors do not make use of much of the land that is officially leased to them, that the pervasive issues with water access in the region limit the viability of transition from pastoral to farming livelihoods at a scale that would negatively impact pastoralists, or that the population density is so small and the amount of viable rangeland is so large that land competition is rendered unnecessary. Investors are present at a higher rate than expropriation is reported, and both household and leader respondents report more benefits than negative outcomes stemming from their presence.

These findings may lead one to conclude that threats to pastoral community governance systems and resultant tenure insecurity are not problems in Afar and thus business as usual may proceed. Such a view may be mistaken. Land and resource tenure systems are dynamic, requiring policy and programs to constantly aim at a moving target. Our study indicates that the current situation in the study area is characterized by high levels of perceived tenure security and relatively low

[28] As a note, our data are not representative of the full Afar region, and our areas of focus may be different from other studies cited in this paper. As with those studies, there are limitations to the assumptions that can be made about the Afar region as a whole.

threats and conflicts with investors and government. However, the data also suggest that several profound shifts are currently underway in the study areas, including sedentarization, governance formalization, and evolving investor activities. In the absence of thoughtful and equally flexible policies, any one of these trends could lead to increased conflicts and threats to pastoral communities, which in turn would increase tenure insecurity.

Work to strengthen pastoral communities' use rights is best undertaken *before* widespread encroachments occur rather than after the fact, as is more often the case. Across Sub-Saharan Africa land acquisitions by domestic and international investors have occurred on a large-scale well before, or simultaneous with, ad hoc or systematic attempts to formalize customary land holdings (German, Schoneveld, & Mwangi, 2013). This created considerable conflicting land use and complicated reform efforts. Strengthening community land tenure in advance of these encroachments could empower communities to deal directly with investors and secure benefits. In this case, the findings indicating anxiety about government encroachment on rangelands – even if they have not been borne out thus far – and about the lack of transparency in prior negotiations with investors signal that that the LAND Afar governance interventions could lead to important increases in pastoralist confidence, awareness, and organization in anticipated negotiations with the government and investors.

Once investments and encroachments occur, unwinding these competing land uses is virtually impossible. Indeed, as the Ethiopian Government undertakes national land use planning there is widespread realization that attempting to undo past mistakes would likely cause more problems than it solves; better to look forward. The Liberian Government adopted a similar approach in its Land Rights Policy, expressly stating that the policy would not apply retroactively to previously executed concession contracts. Afar thus presents an opportunity to get ahead of these issues and ensure that pastoral communities are able to deal directly with investors such that their land is not considered unused and available for investments poorly suited to the ecological constraints of the area (Ibid).

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Tables

Table 1. Sample size by woreda

Woreda	Treatment	% (N)—HH	% (N)—Leader
Amibara	Treatment	21% (648)	22% (57)
Gewane	Control	15% (483)	15% (39)
Delucha	Control	13% (419)	11% (30)
Chifra	Treatment	28% (880)	28% (74)
Telalak	Control	14% (430)	16% (42)
Dewe	Control	9% (297)	8% (21)
TOTAL		3,157	263

Table 2. Key household survey sample characteristics

Average household head age	41
Percent of household heads that can read	14% (422)
Percent of household heads that can write	13% (415)
Mean household income (ETB)	7,897 SD(9,731)
Median household income (ETB)	5,100
Percent of household fully settled	56% (1783)
Percent of household partially settled	39% (1222)
Percent of household fully nomadic	5% (149)
Percent of household whose primary livelihood activity is herding livestock	64% (1968)

Table 3: Presence of land rules, as reported by ganta leaders

Rules that regulate or restrict closing of wet season pasture in grazing areas	16% (42)
Rules that regulate or restrict closing of wet season pasture in grazing areas	18% (44)
Rules that regulate or restrict opening of dry season pastures in grazing areas	18% (48)
Rules that regulate or restrict closing of dry season pastures in grazing areas	18% (43)
Rules that regulate or restrict dry stock allowed in different grazing areas than wet stock	18% (40)
Rules that regulate or restrict cutting down of certain trees in dry season grazing areas	38% (80)
Rules that regulate or restrict access to water points in grazing areas	18% (37)
Rules that regulate or restrict watering order in grazing areas	20% (42)

Table 4. Percentage of ganta leaders which report* kedo abba *as primary rule-maker for each rule type[29]

Rule	**% (N)**
Opening of wet season pastures	68% (28)
Closing of wet season pastures	67% (30)
Opening of dry season pastures	60% (29)
Closing of dry season pastures	60% (26)
Dry stock allowed in different areas than wet stock	63% (25)
Cutting down of certain trees in dry season grazing areas	40% (32)
Access to water points	58% (21)
Order of watering	48% (20)

Table 5. Percentage of ganta leaders who say offenders are caught and punished

Rule	**% (N)**
Opening of wet season pastures	69% (29)
Closing of wet season pastures	73% (33)
Opening of dry season pastures	81% (39)
Closing of dry season pastures	79% (34)
Dry stock allowed in different areas than wet stock	78% (31)
Cutting down of certain trees in dry season grazing areas	76% (61)
Access to water points	85% (33)
Order of watering	82% (36)

Table 6. Household satisfaction with customary governance

Land rules are fair	2 SD(0.62)
Water rules are fair	2.03 SD(0.7)
Land rules are enforced	3.88 SD(1.45)
Water rules are enforced	3.85 SD(1.47)
Satisfied with leaders' performance of land duties	2.09 SD(0.99)
Satisfied with leaders' performance of water duties	2.05 SD(1)
Leaders consult community about land protection	2.39 SD(1.04)
Leaders work hard to protect land	2.39 SD(1.04)
Leaders work hard to protect water	2.39 SD(1.02)
Water decisions are fair	2.3 SD(0.93)
Leaders help marginalized populations	2.45 SD(1.07)
Land decisions are transparent	2.33 SD(0.96)
Water decisions are transparent	2.36 SD(0.95)
Farmland allocation is fair	2.42 SD(0.99)

29 This question was only asked of ganta leaders who reported that there was such a rule in effect in their ganta.

Table 7. Ladder of power, as reported by leaders

Clan leader (kedo abba)	9.23 SD(1.31)
Daar-idolla (elder leader)	7.62 SD(1.99)
Sub-clan leader (gulub abba)	7.01 SD(1.98)
Duwa abba (migration leader)	6.83 SD(1.91)
Fiema abba (rules/regulations)	6.96 SD(2.25)
Ganta members as a group	5.89 SD(2.49)
Youth	5.04 SD(2.18)
Government officials	5.72 SD(3.23)
Pastoralists	4.94 SD(2.58)
Agropastoralists	4.15 SD(2.45)
Farmers	3.98 SD(2.31)
Women	3.01 SD(2.29)
Elites	2.12 SD(1.81)

Table 8. Household and wives perceptions of grazing area security

	Boundaries are clear and respected	**Government cannot take any part of the grazing area without negotiation and fair compensation**	**Investors cannot take any part of the grazing area land without negotiation and fair compensation**
Household			
Wet season grazing area	82% (1659)	70% (1430)	68% (1381)
Dry season grazing area	83% (999)	70% (849)	68% (821)
Leader			
Wet season grazing area	N/A	N/A	N/A
Dry season grazing area	65% (171)	50% (132)	67% (177)

Table 9. Respondent's perceptions of water point security

	Right to access water points are clear and respected by local government	**Right to access water points are clear and respected by regional government**	**Investors cannot take away any water points without negotiation and compensation**
Household			
Wet season grazing area	77% (1557)	72% (1460)	68% (1374)
Dry season grazing area	81% (979)	76% (916)	68% (825)
Leader			
Wet season grazing area	N/A	N/A	N/A
Dry season grazing area	63% (166)	47% (124)	67% (175)

Table 10. Positive investor impacts

Benefit	Household (N= 326)	Leader (N=26)
Salaried jobs	64% (208)	88% (23)
Casual labor	55% (176)	0% (0)
Health clinic	2% (8)	12% (3)
New secondary school	0% (0)	0% (0)
New/repaired road	1% (3)	4% (1)
New/repaired bridges	<1% (1)	4% (1)
Training	0% (0)	15% (4)
Money transfers	15% (49)	31% (8)
New water pump	4% (13)	N/A
Electrification	2% (7)	0% (0)
Agricultural inputs	3% (10)	N/A
Livestock inputs	12% (38)	N/A

Table 11. Negative investor impacts

Negative impact	Household (N=53)	Leader (N=3)
Lost land for grazing	69% (41)	0% (0)
Lost access to water for livestock	29% (17)	N/A
Lost access to drinking water	10% (6)	N/A
Lost land for farming	25% (15)	100% (3)
Lost sacred land	22% (13)	0% (0)
Lost houses	3% (2)	33% (1)
Lost building material	5% (3)	0% (0)
Fuel wood harder to collect	7% (4)	33% (1)
Medicinal plants destroyed	7% (4)	0% (0)
Water sources polluted	3% (2)	33% (1)

Table 12. Prevalence of conflict by respondent[30]

	Involved in any conflict	Most common conflict type	Second-most common conflict type	Third-most common conflict type
Household	6% (198)	Regional boundaries (3%, 98)	Woreda or kebele boundaries (1%, 31)	Loss of access to watering points (1%, 25)
Leader	26% (67)	Land allocation (15%, 37)	Boundaries (15%, 37)	Grazing livestock (13%, 33)

30 Households, wives, and leaders were all asked about the prevalence of different types of conflicts.

Figures

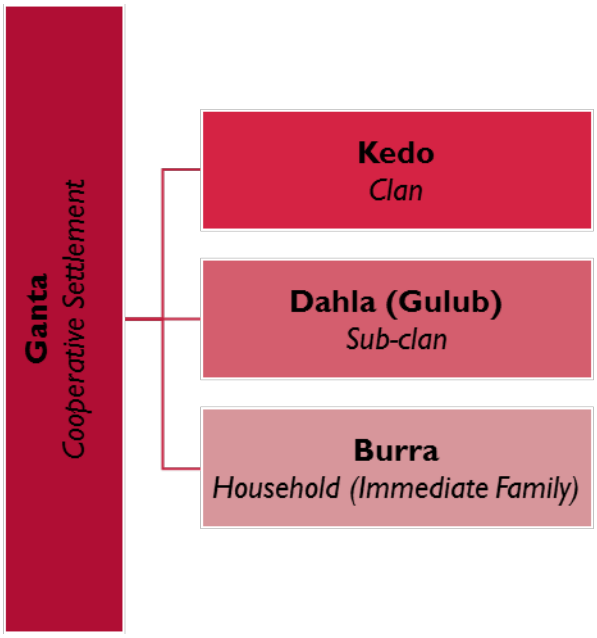

Figure1. Social organization of Afar people

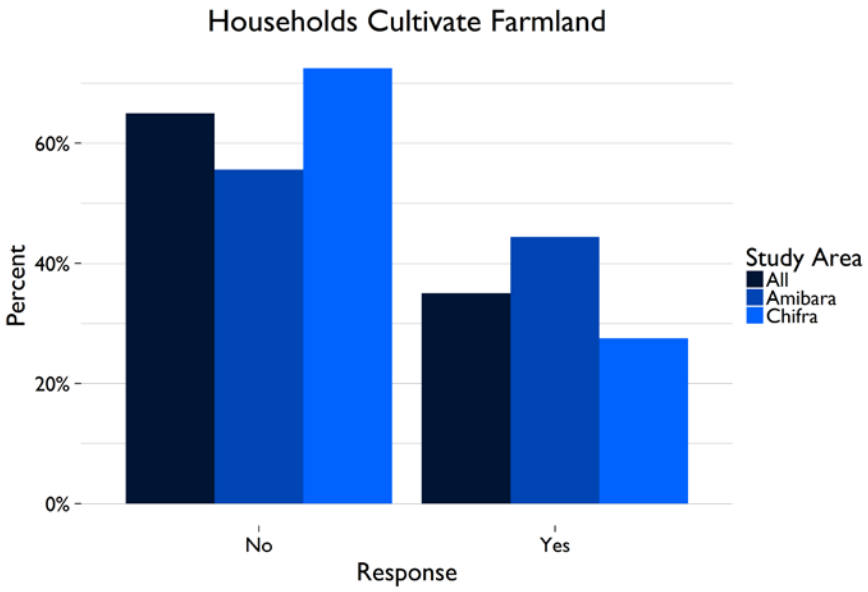

Figure 2. Agricultural activity by study area

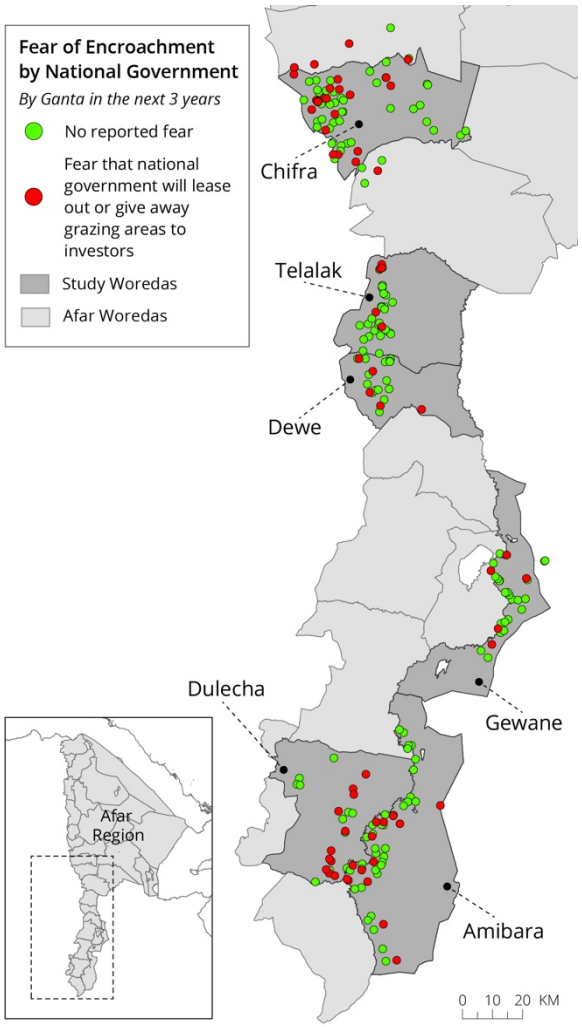

Figure 3. Location of gantas where leaders believe encroachment by national government for investment purposes is likely

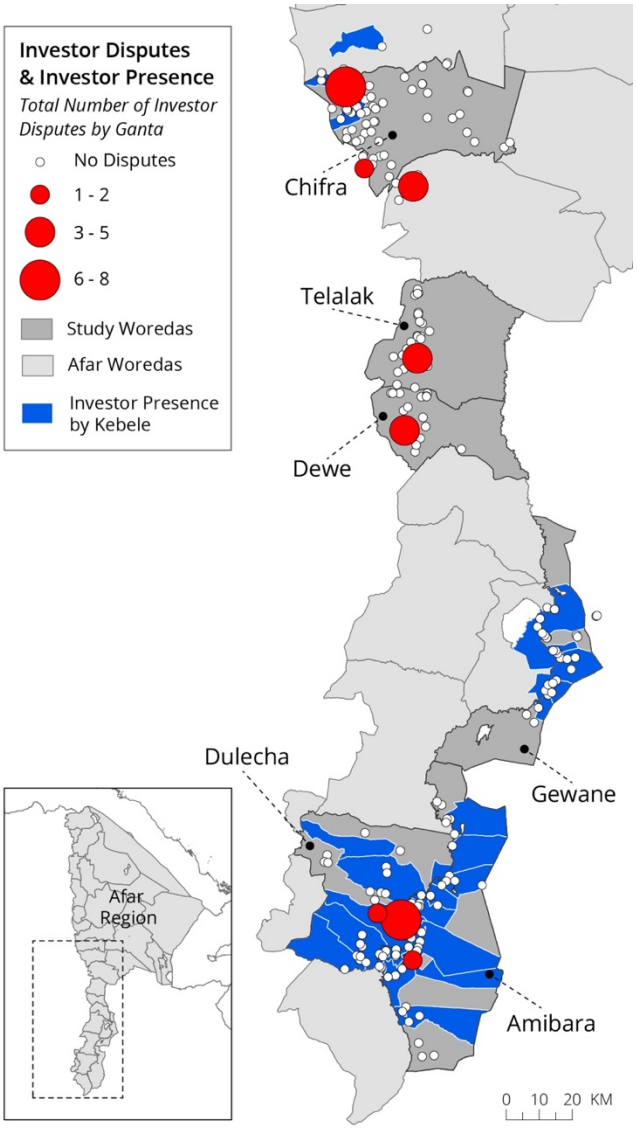

Figure 4. Map of investor presence

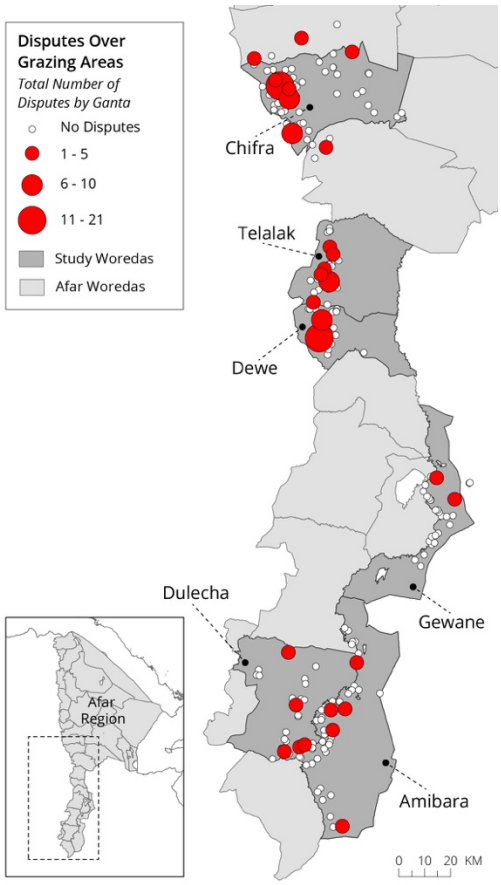

Figure 5. Total number of disputes about grazing areas by ganta