

Gendered impacts of large-scale land acquisitions in Western Ethiopia

By

Forests and Livelihoods: Assessment, Research and Engagement (FLARE)

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Abstract: This study presents the results of a comparative assessment of the effects of four cases of land transactions in western Ethiopia in the states of Oromia and Benishangul-Gumuz. The study contributes to the larger body of research on large-scale land transactions. It does so through a particular focus on how these transactions are affecting women and women's livelihoods in comparison to those of men. We find little to no consultation with local residents prior to the occurrence of transactions, whether the source of investment was domestic or foreign. We identify four consistent outcomes across the studied cases: (1) They reduced available land and parcel sizes for agricultural households; (2) They reduced available grazing area, livestock holdings, milk consumption/sale, and availability of other livestock products; (3) They prompted outmigration and increased labor requirements from women who came to manage both their normal domestic chores but also had to take address new tasks outside the home; (4) Finally, they reduced available forest area and forest products such as firewood and non-timber goods, again increasing the labor burden of women. Preliminary evidence of changes in nutrition and diets point to an important avenue for future research.

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1.0 Introduction

The scale and pace of ongoing large-scale land transactions (LSLTs) are historically unprecedented. New financial investments in 45-200 million hectares of land – the exact extent remains a matter of discussion - across the globe but primarily in the lower-income world have occurred in the last decade (Anseeuw et al., 2013; Deininger and Byerlee, 2011). Both scholarly writings and media reports employ terms such as land grabs, enclosures, and land rush to describe LSLTs- evoking not only their pace but also the contested nature and the historical struggles over land that populations in many countries are experiencing (Borras et al. 2011).

Critics of land transactions argue that in most cases, governments and those acquiring land do not recognize the presence and interests of local populations affected by the new arrangements. In many cases, land transactions have led to displacement of households (Feldman and Geisler, 2012), declines in incomes and nutrition (D’Odorico and Rulli, 2013; Shete and Rutten, 2015), and social upheaval and violence (Grajales, 2011). Local reactions to large scale changes in land tenure, coupled with preexisting grievances, have prompted blockades, protests, site invasions, sabotage, and regime change, not to mention reputational and financial damages to investors and their countries (Al Jazeera, 2015; Burnod et al., 2013).

Although there are many studies of the potential and actual impacts of land transactions on local populations, the differences in outcomes as they affect diverse community subgroups remain to be documented and analyzed. In most countries, gender, ethnicity, age, status, wealth, kinship, and group-membership differences have had enormous influence on both formal and informal ownership of land and resources. These differences continue to structure access to land, and the distribution of benefits from different land uses. There is also a direct connection between variations in land ownership and political power and capacity: ownership of land in agricultural societies endows owners with greater power and capacity. Variations related to land ownership are consequential for the gendered relationships within households as well. Such historically segmented relations of power and privilege produce complex, nested tenure rights that intersect across groups and within households.

In particular, as a large number of scholars have shown, land and tree ownership and access are deeply gendered (Rocheleau and Edmunds, 1997). Men vs. women’s knowledge, ownership, and utilization of natural resources differ substantially, even if not always reflected in formal property rights to land (Carney and Watts 1990; Agarwal 1994; Rocheleau 1991; FAO 2005, 2011; Mwangi et al. 2011; Shanley et al. 2012; Asfaw et al. 2013).

As such, when large-scale changes in land tenure arrangements occur rapidly, as is the case with recent land transactions, their gendered effects need attention in order to discern a clearer understanding of their differentiated impacts on intra-household wellbeing. Existing research provides strong reasons to believe that such transactions are likely also to reduce women’s land and resource access and tenure security, and have adverse effects on women’s livelihoods and households’ well-being (Chung 2016). Available studies from a small number of countries report that land transactions have led to increases in the labour burden of women, reduced women’s incomes and contributed to their exclusion from spaces of consultation and decision making (see e.g. Chu 2011; Daley 2011; Behrman, Meinzen-Dick and

Quisumbing 2011; Chung 2016). Even where governments and investors recognize the need to consult local communities and households – all too rare an occurrence – they seldom engage women explicitly in discussions of free, prior, informed consent, or questions over compensation from loss of access to land.

Our study focuses on four land-transaction sites in Ethiopia in an effort to examine three key areas of impacts on women; (1) the extent to which transaction agreements and implementation explicitly represented and recognized women's interests and rights in land; (2) effects of transactions on women's livelihoods; and (3) women's rights to land and resources, labor contributions, and incomes. In addition to analyzing and assessing the outcomes in the four case study sites, we situate our case study findings by comparing them with outcomes in two additional sites where impacts of transaction related tenure changes were fewer and more limited.

Ethiopia is particularly well suited for a study concerning gendered impacts of land transactions. It has witnessed among the largest number of such transactions among sub-Saharan African countries (Anseeuw et al., 2013; Oakland Institute, 2011). Government decision makers, keen to improve agricultural output and productivity, have sought to attract both domestic and international investments, especially in the somewhat lower population density regions of Benishangul-Gumuz (BG) and Gambella in the west and south of the country. Similar trends are apparent in Oromia, Ethiopia's more centrally located, largest regional state (Crewett and Korf, 2008). The Ethiopian state's control of land rights for much of Ethiopia's modern history endows it with a unique capacity to enter into agreements over large areas, and enables changes in control over vast swathes of land. Research on recent LSLTs in Ethiopia indicates many of the negative outcomes for local communities as described in other parts of Africa and the world (Lavers 2012). Households and farming are present in many transacted areas in Ethiopia (Messerli et al., 2014; Oakland Institute, 2011). In less populated areas of BG, uncertain land tenures (Baumgartner et al., 2015) is associated with a higher likelihood of displacement of livelihoods and households. This makes a study of the gendered impacts of transactions all the more relevant and urgent.

Our research examines in particular the gendered impacts of changes in formal and informal private/individual and collective/community tenures associated with LSLTs, where LSLTs have physically and/or economically displaced many villagers in Western Ethiopia. In our four community case studies, we examine the narratives of villagers, both men and women, and additionally draw upon interviews with state officials.

To assess the effects of transactions more carefully, we contrast the four cases of agricultural investments with changes in a community in the same region that did not witness an LSLT in its vicinity. Specifically, the study aims to answer the following questions:

- How are women's land and forest tenure rights in individual and collective tenure systems affected by LSLTs?
- What are the gendered impacts of LSLTs through different stages of LSLT project implementation?
- Are women defending their private and collective land rights, and if so how?
- How are women mitigating negative LSLT impacts?

This report is organized in the following sections. Section 2 introduces the Ethiopian context. We follow this with an outline of methods used for collecting data for our case studies, and a brief description of the case studies and LSLTs in their vicinity. We then synthesize the results across the cases, with a

particular focus on the gendered impacts of the LSLTs across the case studies. The final section provides an overall summary of findings, and discusses broader implications of this study. More detailed descriptions of the case studies are included in the Appendix.

2.0 Background to the Ethiopian context and gendered land relations

Over the past 40 years, Ethiopia has witnessed three major political systems, each with distinct socio-economic development policies. These are the Imperial Regime before 1974; the Derg socialist Regime between 1974 and 1991; and the Federal regime after 1991. During the Imperial period, there was a strong political drive for agricultural expansion that sought to transform the country from an agrarian to an industrial economy. The Imperial regime's agricultural modernization policy eventually failed to meet the envisaged target of economic transformation (Clapham, 1988), mainly because of its overemphasis on commercial agriculture run by a few landlords, and its neglect of the majority of smallholders engaged in production of subsistence and non-cash crops. The socialist regime abolished landlordism and prioritized state and collective farms at the expense of smallholder individual farmers and actively discouraged private initiatives. Large-scale state farms in many parts of Ethiopia (including western Ethiopia) were a means to increase agricultural production substantially through economies of scale, as was attempted in other socialist and communist regimes.

The federal government, since the very beginning, sought a different economic development path. It adopted an Agricultural Development Led Industrialization (ADLI) strategy in 1994. The main goal of the strategy was to achieve accelerated economic development, particularly in the agricultural sector, and to make the sector a springboard for the development of other domains of economic activity. The current government continues these goals by following two paths that may appear to be contradictory. The first path is by improving the subsistence farming system by enhancing its productivity through provision of better and efficient extension services, improved technologies and practices, and promoting tenure security to encourage smallholder investments on land. The second path is through promoting large-scale land investments using both domestic and foreign capital (Dessalegn, 2011). The government anticipated that large-scale commercial agriculture would enhance foreign trade (export), create job opportunities, introduce new technologies and practices, develop basic services and infrastructures, and provide inputs and raw materials to other sectors.

To encourage large-scale commercial agriculture and attract private investment, the government of Ethiopia is providing competitive incentives, and creating favorable legal and institutional frameworks. Consequently, large number of foreign investors, mainly from the Middle East, Western Europe, and South Asia, are entering into agreements that provide large tracts of land to them. Rights to substantial land areas have enabled large-scale commercial farming in different regions of the country (Keeley et. al. 2014; Dessalegn, 2011). The government plans put particular emphasis on the production of industrial crops such as cotton, sugar, rubber, palm oil and others that can be exported or provide raw materials for domestic industries.

According to the Ethiopian Constitution (1995), land belongs to the state. However, Ethiopian farmers have important rights stated in special provisions in the constitution. These include the right to earn a living from farming- entitling them to land without charge (FDRE Const. art. 40(3), (4)), and that pastoralists have the right to free land for grazing and cultivation (Article 40 (5)). This universal access to rural land can bring unexpected challenges: for instance, it can be enforced through administrative reallocation, which may or may not take into account local needs and aspirations (Deininger et al. 2007). Revisions in 2005 to the Federal Rural Land Administration and Use Proclamation (No. 456/2005/1997) officially ended forced land redistribution, permitting it under limited circumstances, and conferred

greater rights to smallholders such as the right to property produced on land, land succession and land renting (Abza 2011). The four regional states subsequently revised their land laws to reflect federal changes, albeit interpreting the legislation in somewhat different ways (see Girma and Giovarelli 2013). In Amhara and Oromia regional states, the rights of landholders were broadened further (Abza 2011; Girma and Giovarelli 2013). The incumbent government prioritized smallholder producers as a cornerstone of economic development for the first ten years in office. Despite the ostensible strengthening of smallholder land rights in the country, over time, smallholder subsistence producers have been perceived as inefficient and sources of poor agricultural development. Gradually, the government has resorted to large-scale agriculture, justifying its choice mainly as a way to fulfill the critical shortage of capital resource in the country by attracting capital inputs through foreign direct investment (FDI).

Although land tenure remains precarious for the majority of smallholders in the country, women have long faced additional mechanisms of property exclusion, despite the existence of statutory provisions recognizing women's equal rights to land. The 1995 Constitution formally enshrined equal tenure rights for women and men. Article 35(7) states that: "Women have the right to acquire, administer, control, use and transfer property. In particular, they have equal rights with men with respect to use, transfer, administration and control of land. They shall also enjoy equal treatment in the inheritance of property". In 2003, joint certifications for agricultural holdings were introduced, naming both husband and wife. This progressive change was designed to replace land registration procedures that named only the 'head of household' - a traditionally male role. Yet, women's tenure insecurity persists (Dokken 2015; Lavers 2015). Some studies have found new land registration procedures to be an empowering policy shift. But they also point out that implementation is erratic and the traditional patriarchal relations with respect to land are not easily overcome (Girma and Giovarelli 2013; Lavers 2015). Conflicting and unclear legislation regarding inheritance in contexts of polygamy, which persists in some regions despite its being outlawed in federal law, also compounds tenure struggles for women. Problems are visible for instance in discrepancies between the Civil Code (1960) (concerning laws of inheritance) and the Constitution, in terms of recognizing the legitimacy of marriages conducted under various systems (e.g. religious, cultural) (Flintan et al. 2008), and in differing regional practices regarding how subsequent wives may or may not be named on land certificates (Girma and Giovarelli 2013).

Gendered differences in the knowledge, ownership, and utilization of natural resources are well documented in Ethiopia. Men tend to be the decision makers of livestock production and overall management including animal and meat sale, while women tend to manage feeding, cleaning, care of children and animals, and the production and processing of dairy products (milk, butter, cheese) (Yisehak 2008). Women tend to have greater control over small numbers of smaller animals (e.g. chickens, goats, and sheep) and importantly, over the income generated from small animals and the sale of dairy products (Waithanji et al. 2013; Flintan et al. 2008; Yisehak 2008; Frank 1999). However, women's participation in income generating activities is broadly restricted by cultural and religious norms that oblige them to seek permission from male household members and/or that restrain their physical mobility (not least due to their excessive share of domestic responsibilities, binding them to the home) (CARE 2016; Ridgewell and Flintan 2007).

In crop production, women tend to do more of the tasks associated with weeding, harvesting of certain crops, threshing, and storing (Frank 1999). Women almost exclusively manage the household garden, and supply meals to those working in the fields. Some estimate that rural Ethiopian women work between thirteen and seventeen hours a day- sometimes more than twice the amount of work done by men (Frank 1999). In addition to their agricultural responsibilities, domestic activities (firewood and

water collection, food preparation, child rearing) remain largely the domain of women (Ridgewell and Flintan 2007).

Of course, gendered distinctions of labor blur somewhat in the context of female-headed households. Still, research comparing female/male-headed households found different land management choices and lower agricultural productivity on agricultural land owned by female-headed households, stemming from gendered access to tools and technologies, services and other inputs, which tend to be more favorable to males (Tiruneh et al. 2001; Pender and Gebremedhin 2006).

Clearly, women have particular relations with natural resources and at the same time, face exceptional constraints in their access to and control over such resources. It is in this context of already existing unequal rights for men and women, and their higher labor burden that our study undertakes an in-depth qualitative investigation of the gendered outcomes of LSLTs in Ethiopia.

3.0 Methods

The spatial focus of our research is Western Oromia and Eastern BG, two regions that have seen high levels of land transactions since the late 1990s. Fieldwork was conducted in two rounds of visits to sites in July and August 2016. After interviewing key informants during site visits in 12 villages in the area, we selected four case study communities (Loko, Mada Jalala, JarsoWama, and Belo Jiganfoy) in three woredas (districts) and two regional states.

Figure 1: Location of study and control sites

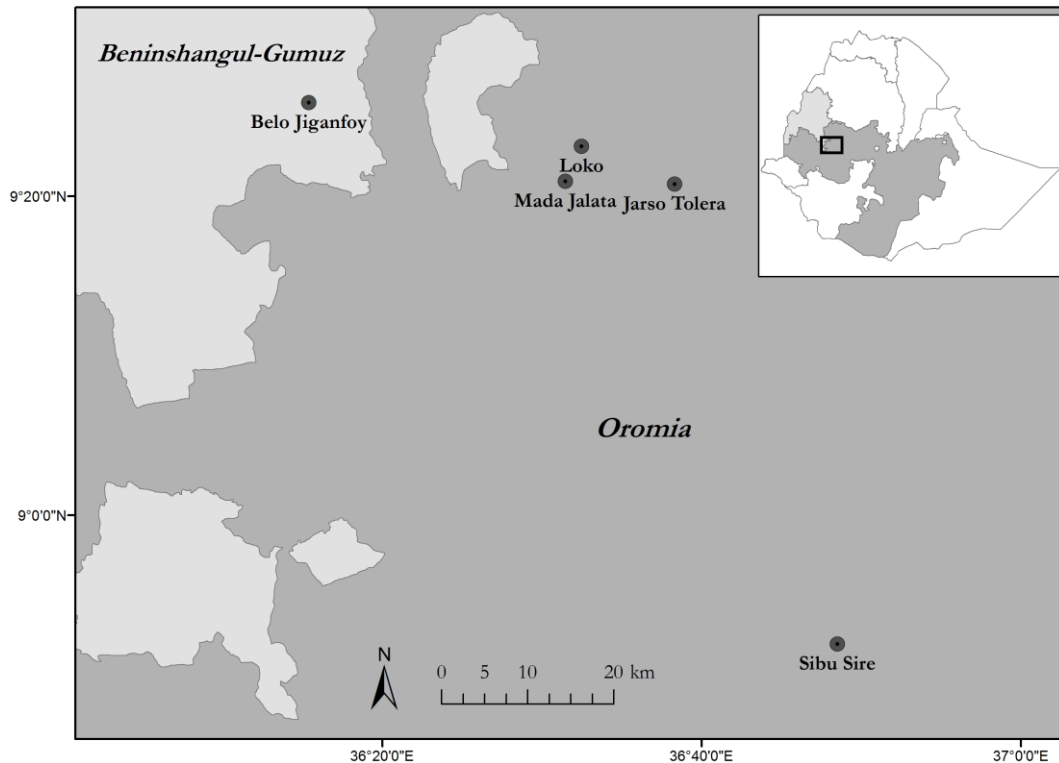


Figure 1 provides the location of the selected sites (see also table 1 below for basic information on the focus group and other information sources for the cases). Our goal was to select sites where there was some variation in the intensity and mechanization of farming practices on the transacted lands, new encroachment into nearby forests, and level and type of local conflict resulting from the LSLTs. We also selected two quasi-control sites: Jarso Tolera, where no LSLTs had occurred; and part of Jarso Wama, where a subgroup of residents lived further away from the commercial land investment, and were less affected or unaffected by the land transaction. Both control sites have similar ethnic composition as the other cases in Oromia¹ – predominantly Oromo, with more recent arrivals of Tigray and Amahara. We used information from these two sites to compare outcomes that occurred in the affected areas.

To launch our research, we contacted the relevant government offices at different administrative tiers ranging from Regional, Zonal, Woreda, and Kebele (the smallest unit of local government) levels before beginning our fieldwork, as required for all field research in Ethiopia. These officials put us in touch with the local development and agricultural officers who had personal and professional ties to the selected villages. The development officers put us in touch with village leaders and helped us to contact people for the focus group discussions.² They also served as key informants for the study because of their substantial knowledge regarding local agriculture, natural resources, the LSLTs themselves, and ensuing impacts.

For each case study, we conducted separate focus group discussions with men, women and youth from 18-30 years old (see Table 1). No youth focus group discussion was held in Mada Jalala. In Belo

¹ This contrasts with the predominantly Gumuz composition of the Belo Jiganfoy case.

² We acknowledge that having the government-employed officers and community leaders select focus group participants may have introduced bias in our sample. However, it was difficult to avoid this sampling method given local culture and the short time frame that prevented more extended field presence.

and Sibu Sire, youth groups were divided by gender (one with four young men, the other with four young women). Otherwise, all focus groups consisted of eight participants. We organized discussions with focus groups to represent a variety of participants groups along several different axes: employment with the investor, different locations within the Kebele in relation to the transacted areas, different ethnicities if applicable, and wealth status. For the women’s groups, we also ensured the inclusion of a mix of female household heads and non-household heads.

Focus groups discussions began with a participatory mapping exercise where participants drew main physical features of their Kebele, including the boundaries of the transacted lands in relation to their villages and their fields. The mapping was used as a tool to initiate the discussion about land tenure, land use and decision-making, food production and food consumption before and after the transactions, and the process and impacts of the transactions. Focus group discussions lasted between 1-2.5 hours.

Besides the focus group discussions, we carried out key informant interviews with 12 informants from the case study areas and one control site. The interviewees included agricultural development experts, village level development agents, agricultural investors (including foreign investors in the case of Raj agro industry in Sibu Sire and Guto Gida), and village leaders. Each interview took between one and two hours and focused on tracing the process and evolution of the LSLTs in the area and their implementation, understanding changes in natural resource use and availability, and agricultural practices and livelihood strategies before and after land transactions.

Following the focus groups and key informant interviews, we carried out a pilot survey with 29 participants from the study areas (see Table 1). The survey instrument (see appendix 1) created for a larger project on livelihood and ecological impacts of LSLTs, was modified with relevant information gathered during the focus group discussion to maximize its relevance to the current project. Survey questions relevant to the study at hand included questions on tenure and land ownership, food security, agricultural and livestock practices, income and assets, forest access and use, and participation in village meetings, as well as changes in all these variables before and after the LSLT in question. Each survey lasted between 1-2 hours.

We administered the pilot survey to 19 respondents in affected communities and 10 respondents from the “control” communities. The comparison of these two groups of responses provides some additional insight in how the effects of land transactions unfolded. Some of the data from the individual household interviews reinforce information provided by focus group participants and key informants. Other data is in some tension with the findings from focus group conversations. It is also important to keep in mind that the number of respondents in both groups is small and there were differences among the two groups of respondents before the transactions occurred. Jarso Tolera, our control community, appears to be a poorer Kebele than those surrounding it. Its households also have lower levels of literacy – realities that became clear only after completion of data collection. Similarly, some of the households in the “unaffected” Jarso Wama control group also suffered from the loss of grazing land that was contracted with investors as part of the transaction in that Kebele – pointing to more extensive spatial effects of transactions than we initially anticipated. The comparison of the two sets of responses, thus, provides some additional insights for exploration in future research. We should not view the results as being definitive in terms of pointing to the differential outcomes of the land transactions.

Table 1: Summary of fieldwork based data sources

Region and Woreda	Kebele	Focus groups	Key informants	Pilot survey: Women	Pilot surveys: Men
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Guto Gida, Oromia	Loko	3	1	1	2
Guto Gida Oromia	Mada Jalala	2	3	2	1
Guto Gida, Oromia (Control)	Jarso Tolera	3	1	2	3
Sibu Sire, Oromia	Jarso Wama	3	4	5	8
Sibu Sire, Oromia (Control)	Jarso Wama	2		2	3
Belo Giganfoy, BG	Belo Jiganfoy	4	3	-	-
TOTAL		17	12	12	17

3.1 The cases

Tables 2 and 3 below present some of the key characteristics of the case study communities. Land use prior to the agricultural investment-focused transactions is indicated in table 2.

Table 2: Land use characteristics of case study sites

Case	Zone/Woreda	Kebele	Elevation (m)	Nearby tree coverage	Farming history	Land use before transaction
1	E.Wolleg/GutoGida	MadaJalala		Moderate (~20%)	Moderate (~45 years)	State farm and communal grazing
2	E.Wolleg /GutoGida	Loko	1431	Moderate (~20%)	Moderate (since the Socialist regime, ~40 years)	State farm and communal grazing
3	E.Wollega/Sibu Sire	JarsoWama	1457	Moderate (~25%)	Long (over a century)	State farm and communal grazing
4	Kamashi Zone/Belo Jeganfoy	Belo Jeganfoy	1420	Moderate (~20%)	Short (~20 years)	Forests with sparse settlements, some state farm

Table 3 provides basic demographic information from the 2007 census. Mada Jalala, Loko, and Jarso Wama Kebeles represent the typical land transaction cases in the East Wollega Zone of Oromia. In these cases, land tenure changed from state owned and managed farms during the socialist (Derg) regime that ended in 1991 to private investor ownership (beginning in early-2000s).

Table 3: Census summary characteristics

Sites with land transactions					Control site
BELO JIGANIFOY	LOKO	MADA JALALA/ KENAF	JARSO WAMA	JARSO TOLERA	

<i>Household average within each Kebele</i>					
No. of households	53	80	94	74	76
Average size of households	6.9	6.3	5.6	6.7	4.7
% of male in a household	52	50	52	49	20
% with disabilities	5.6	2.5	7.4	8.1	7.9
Average age of household members	21	21	21	22	22
<i>Individual average within each Kebele</i>					
% literate	35 (N=23)	56 (N=94)	39 (N=71)	49 (N=57)	25 (N=48)
% engaged in productive activities	100 (N=19)	75 (N=77)	77 (N=57)	42 (N=48)	63 (N=40)
Highest grade completed (years)	3 (N=9)	3.9 (N=48)	4.2 (N=22)	4.2 (N=26)	4.4 (N=12)

During the gap years, those who had worked on the state farms in Oromia (local inhabitants and those newly settled in the area to work as laborers on the state farms) were able to cultivate the land by themselves. Part of the state farm found use as communal grazing land. Beginning in the early 2000s, however, the erstwhile state farmlands began to be contracted out to private investors. After concluding agreements with investors, the government informed smallholders that they must give up the cropped fields and grazing areas that they were using.

Land transactions generally present a different historical path in Beninshangul-Gumuz (BG). In contrast to the cases in Oromia where conversion from state farm is the dominant pattern, clearance of forested/bush land for farming is more typical in BG. However, for the case we selected which are close to Oromia, the history of land use is also that of a state farm being abandoned for some time, and subsequently passing into private hands for agricultural purposes. The overall investment in the site expanded beyond the land area that was the state farm, and the new areas saw deforestation and agricultural conversion.

With the exception of Jarso Wama, where there was only one transaction, the other cases all experienced multiple LSLTs within their Kebele boundaries (Table 4).

Table 4: Characteristics of the major land transactions in the four case studies

Kebele	Investment name ³	Year Est.	Contract Area (Ha)	Cultivated area (Ha)	Main crops	Contract Agreement	Actual practice
Mada-Jalala	Olana Gobena agricultural development	2001	424	260	Maize, soybeans, sesame rice	Selected seed, mechanized agricultural practice	Traditional farming, sharecropping, no community development or technology transfer
Loko	Raj agro-industry Mango farm ⁴	2000	829	628	Mango	Mango farm and juice factory	Mango farm with irrigation, use of pesticide and fertilizer, juice factory to be established, no community

³Except in case 3 (Sibu Sire/JarsoWama) more than one investors exist in the study area. We highlight in this table the ones with highest impact according to our informants.

⁴ First established by Sat carter Hawas Agri Plc. in 2000, later transferred to Green Focus and finally transferred to Raj agro-industry

							development, high resentment
Jarso-Wama	Raj agro industry Plc.	2008	3,500	2,700	Sugar cane	Sugarcane farm and sugar factory since 2014; outgrower scheme	Sugarcane, maize, sorghum, chickpea, soya bean, pepper, and vegetables. No significant community development. No outgrower scheme yet.
Belo Jegan-foy	Ras Dashen Agro-industry	2000	895	550	Maize, soybeans peanut	Selected seed and mechanized agri-practice	Traditional crops, semi-mechanization. Poor management

The pattern was similar across the cases: In the early 2000s, the government contracted to investors the land it considered marginal or unoccupied (smallholder presence and use for crops and grazing was not taken into account). The goal was to increase agricultural production. Consultations did not occur with any of the local communities, we learned. Rather, they were asked to stop their agricultural activities after the investors and the government completed the agreement. The land they had occupied for agriculture was still considered government land, even after the fall of the Derg regime and the state farmlands falling into disuse. Meanwhile, as Table 4 indicates, investors did not make use of all the land that was allocated to them (see implemented vs contracted area), and most continued to farm similar crops that had been previously farmed by smallholders, with modest technological input (see ‘current practice’).

In the affected sites, many households reported major changes to their livelihoods and daily life. Household plot sizes shrunk while agriculture and grazing lands diminished. Diets changed from reduced crop variety and fewer livestock. Jobs that were promised on the transacted lands were for the most part fewer and less permanent than expected, and advantaged certain ethnic groups over others. In most of our focus group and key informant discussions, participants could point to few benefits or livelihood improvements following the land transactions. These impacts and more are further explored in the next section, with a focus on how these impacts have been felt both similarly and differently by men and women in the affected communities.

4. Results: Gendered impacts of LSLTs

4.1 Land tenure changes

In all the studied cases, following the LSLTs, the results point to universal challenges to land claims and tenure, but seemingly equitable land redistribution procedures in terms of gender. However, promised compensation for lands, when such promises were made, has not materialized in any of the cases for either male or female-headed households.

Local communities had lost both private lands held by individual households (mostly for cultivating crops) and communal lands held by communities for communal grazing purposes. For the villagers who were relocated, all impacted groups complained of substantial decreases in the size of their private parcels (from 4-6 ha to 0.75-1 ha in the new location, depending on the case). In most cases, communal grazing lands were lost completely after the agricultural investment agreements were completed.

There did not seem to be much differentiation in terms of women's and men's land tenure rights being affected by LSLTs. In all the cases, women had similar baseline formal land tenure rights as men, following provisions in the 1995 Constitutions (see Section 2.0). Surveys and focus groups showed that joint (husband and wife) ownership of land was common, that female-headed households had the same land rights as male-headed households, and that almost all respondents had statutory land ownership. In terms of tenure security, our survey showed that the impacted groups more often said that they are more likely to have their land taken away from them, and men were slightly more likely than women to believe that someone could take their land from them (Figure A1 and Table A1). This is an important finding because a large body of work on tenure security points to the lower likelihood of productivity-enhancing agricultural investments when landholders perceive tenure security to be low (Barrows and Roth 1990, Deininger and Jin 2006, Goldstein and Udry 2008).

Because all households displaced by the investment were assigned new land – although not the same amount as they had cultivated prior to the transaction – through a lottery system⁵, female-headed households did not appear to be at a particular disadvantage. Agreement to use the lottery system for land allocation is agreed upon at the village level. The relative equality in land allocation occurred despite the fact that women were less likely to be present in land allocation meetings, generally held among village leadership, which is male dominated, as federal and regional land proclamations clearly state and require equality in land allocation for men and women⁶. The pilot survey also showed that women were less likely than men to participate in village meetings (the average scores for men and women were 2.63 and 1.91 respectively, on a scale of 0 to 4 with 0 equaling “never” and 4 signifying “nearly always when they take place”). To explain women's relatively lower participation scores, respondents referred to women's relatively higher time constraints. As mentioned, domestic duties fall largely on women, effectively removing them from public fora. Of course, women's generally low political participation in Ethiopia as their greater share of domestic tasks stems from the interplay of numerous economic, religious, social and cultural causal factors⁷ (Kassa 2015).

In the context of land inheritance traditions, a complication does arise when considering the increasing land shortage, which is caused by population growth within the local territory and exacerbated by new investments. Traditionally both male and female children inherit land. But owing to scarcity, some families are prioritizing bequeathing land to male children, with the expectation that female children will marry into land. It is common for female children to marry someone outside the village and share the land of their husband's family. The cultural expectation is for the male child to own land to marry and establish family. This cultural expectation and norm also then means that boy children are the formal owners of land.

⁵ A lottery system of land allocation is a traditional practice exercised in many parts of the country especially in western Ethiopia. It is a system used to fairly distribute land of variable quality (in terms of fertility, access to irrigation, slope, etc). The system inadvertently served to promote gender equality in land distribution.

⁶ For example, Article 5(1c) of the 2005 land proclamation states that women who want to engage in agriculture have equal right to get and use rural land.

⁷In some places in Kenya and Ghana, women are not considered to be legitimate farmers (Dzodzi and Yaro 2014; waGithinji et al. 2014); this can be the basis by which they are excluded from relevant community discussions.

We did not find any manipulation of the land lottery system in the studied cases. But women's weaker negotiating position in the communities and their relative absence in meetings is not represented in the above finding. Finally, inheritance in the context of reduced parcel sizes for women *may* disadvantage women in the future, as they are less likely to inherit land in their name from their families.

4.2 Gendered impacts from LSLT implementation

Our second research question asks, 'What are the gendered impacts of LSLTs through different stages of LSLT project implementation?' As the research unfolded, it became clear that respondents blurred the impacts over the years, recounting experiences and impacts from the start of the tenure changes through the years that followed, making it difficult to describe particular stages of impacts associated with LSLTs. We have thus reported on impacts grouped by themes, noting that these occurred throughout the years following the LSLT. The six principle impacts on women across the case studies are listed in Table 5, below. These have been organized around key themes that emerged, namely implications on: i) physical health, ii) psychological health, and iii) material wellbeing. This section closes with a comparison to the control groups.

4.2.1 Physical health implications

Firstly, women seem to bear particular physical health implications as a result of the LSLTs. This is a result of declines in *food diversity and quantity*, negatively affecting women's health and energy levels, as well as maternal health. In all affected cases, average household land holdings have decreased post investment, resulting in less land available for cultivating crops and for grazing livestock. Focus groups and surveys indicated that the variety of crops they used to grow has decreased as well. Impacted communities have a wider variety of crops that they used to grow pre-transaction that they no longer grow (Figure A2 and Table A2). Loss of livestock was particularly acute amongst all impacted groups; given that most LSLTs had resulted in the loss of communal grazing land, most families households were forced to greatly reduce the number of livestock they raised, keeping a small number that could graze on portions of their parcels. This reduced the availability of meat and milk products in a family's diet.

Both men and women stated that women are more burdened by the subsequent decrease in food availability, as it is their responsibility to provide food for the household. Respondents explained that women will often eat less, or skip meals altogether, to provide food for men and children during a food shortage. The pilot surveys reinforce this finding, as women consistently scored higher on the food insecurity index than men, in both control and affected groups (Table A3). Women also complained of a lower quality of food now as well because of a decline in the variety of crops grown for consumption, and one focus group of women complained about resulting diseases from protein-deficiency in their village's women due to the lack of meat and milk products.

These results seem to reiterate a larger cultural norm in the country. Preferential and sequential feeding is already common in rural households whereby the males eat first and the women eat the leftovers (Hoddinott et al., 2014), and girls are generally advised to eat less to maintain a certain form and to tie their stomach with Mekenet, a tight traditional belt (Lenjiso et al. 2016). The women in the focus groups believed the lower quantity and quality of food has affected their health and energy levels. A couple of women in one focus group described a decrease in their own strength, including difficulties in childbirth and breastfeeding, which they attributed to this change in diet. One commented, "*before investment, in terms of livestock, we were good. As grazing land decreases livestock number decreases.*

As a woman, we got better food [in the past], so we had healthy and strong children. But now, most of the time we get meat once in a year, on a holiday.”

Negative physical impacts are also attributed to the added *labor of working investor land*. Given the decrease in land size and food availability, both men and women are compelled to work as daily laborers on investors' lands to make extra income to buy food they cannot grow themselves. Yet, this does not diminish the cultural expectations of women to fulfill most domestic chores such as collecting firewood, preparing food, cleaning, caring for children, etc. A few women in the focus groups expressed concern with their declining health owing to the higher workload and a higher incidence of illness. Women also noted that due to their household obligations, they are not able to work as labourers for as many hours as men, and thus make much less on the investor's land, but that due to the shortage of land, they feel more vulnerable and compelled to engage in new kinds of labour such as petty trade. This is particularly difficult on female-headed households, who have the principal responsibility for working most of the day as causal labor, doing small business for additional income, on top of working on their own agricultural fields and taking care of the household. One female household head said: *“Even you can look at our faces, we don't look good physically. If you take just this group, all of us have more than 5 children and some of us don't have cows. If a woman works the whole day for the investor, she will make 45 birr. So, tell me what can this money buy? School? Clothes? Food? Especially for household head woman, this is difficult. Even there are times we sleep only for 2 hours a day because the income we get from daily labor will never be enough. So I need to engage myself in many activities like small trade or something else.”*

Women's labor demands have also increased as a result of the significant forest loss in the last decade and a half due to the investments and the ensuing resettlements, as well as general population growth. Beyond a general loss of availability of forest products for the household, this has particularly burdened women, as firewood is still the main cooking fuel and its collection is customarily the responsibility of women. *More hours spent on firewood collection* featured prominently in the discussions with women. Greater scarcity of firewood has forced women to travel an additional 5km to 10km for each collection trip. One participant in Mada Jalala described a range of problems associated with longer time spent gathering firewood: back pain from increased amounts carried per trip, greater time spent working in the sun, increased likelihood of encounters with wild animals, and sexual harassment. These trips are particularly arduous during the rainy season when drier material is less available. Women had also been the primary collectors of traditional medicines and other non-timber forest products, which they are no longer able to do. This result reiterates what studies of similar development-induced displacement found in terms of outcomes on women, including in India (Mehta 2009).

4.2.2 Mental health implications

Particular psychological health implications also seem to be borne by women. There were numerous descriptions of increased stress and tension as a result of much of the above. For instance, women disclosed how *difficult it was not to have food to give their children*. *“Children ask their mother to give them food not their father, so when we don't get anything to give them, it's very stressful. Even if men know the problem, as they don't hear the baby's cry, it's, somehow, better for them.”* Women in Loko expressed increased stress in their lives as a result of the decline in nearby forests, *worrying about having gathered enough fuel* to last through the wet season. The lack of available land for youth to inherit, and the lack of employment opportunities, has prompted men and especially young men, to leave their communities in search of employment. Both men and women noted that women are suffering from

lack of help because their husbands have to go to town for work, leaving women to prepare land for cultivation and to assume other tasks for which men are traditionally responsible. Outmigration of males has *broken up families and the daily routines of work and community*, creating tension and sorrow. Women now raise the smaller children alone, adding to their daily labor burden, and suffer significant personal distress of separation, struggling to accept the fact that their children migrate away in search of jobs. Female-headed households are particularly affected as the older male children leave home in search work, resulting in a loss of a principal household resource and an undue psychological hardship. Focus group participants in Jarso Wama said that, as parents, the investment made them feel “*alone*”, that if they had enough land to give their children their homes would not be so empty. In similar ways, Mehta (2009) also highlights the exceptional psychological trauma experienced by women in relation to development-induced displacement in India and their particular roles in the household and community. While the departure of men may have affected decision-making at the household level, it did not seem to have affected village-level leadership and decision-making.

4.2.3. Material implications

As a result of the LSLTs, women have endured disproportionate material harms. Firstly, they have suffered a *loss of income*. Across all cases, it was identified that the loss of grazing land affected women more than men. While men are in charge of sale of livestock, milk and milk products are the domain of women. Preparation for consumption and marketing of those products are traditionally women’s tasks. The loss or decline of these products has caused them to lose their material and symbolic power. This has resulted in reduced income for women, which they had previously spent on buying food for the family and on other household needs. This outcome of LSLTs on women has also been documented in other parts of the country (see Daley 2011). Dairy products are the domain of women in much of the region, though as Brockington (2001: 310-11) pointed out in Tanzania, such control is “continually negotiated and contested” rather than assured. Still, the loss of control over dairy products and NTFPs and the income their sale generates will presumably also have important symbolic significance for women. Income is a critical negotiating tool in private and public spheres, and women’s options for such income generation are typically fewer than for males. Material relations with certain products also contribute to identity, which when destabilized can also contribute to psychological trauma. Recent research in Brazil demonstrated that LSLTs have contributed not only to the dispossessing of women’s access certain products, but also to their socio-ecological knowledges (Porro and 2014).

Though women are engaging in daily labor to supplement household income (and this does not necessarily compensate their loss of more personal forms of income such as generated by the sale of dairy products), they are typically *paid less and work in less favorable conditions as compared to men*. In two of the cases, female youth are engaged as daily laborers, but they generally receive lower wages than male youth due to the nature of the tasks they are assigned that are less physically demanding, labor-intensive, or require longer travel times. They also earn less because they have more household tasks than their male counterparts and thus have less time to work on paid jobs. Few female youth are able to save, as much of their income is devoted to household expenses.

Meanwhile, male youth earn a sufficient income to permit savings. In fact, young men in Loko have formed a ‘youth’ association to save money. Yet young women are unintentionally excluded, because they cannot supply the minimum contribution. In Jarso Wama, male youth had more employment opportunities with the investor. The payment system seems to disadvantage women as well in Jarso Wama. Based on individual contracts, should the worker be unable to finish what is assigned for the day, they will only receive a small portion of their wages, sometimes as low as 4 birr instead of a full

day’s payment of 16 birr. Thus women, who often cannot remain for the entire day due to household and family obligations, are often unable to complete what is assigned and are thus discouraged from working as daily labour. In Jarso Wama, all focus groups said that the youth, particularly female youth, are the most affected by the LSLTs. A study on the outcomes of development-induced displacement in China also revealed that men’s higher literacy and mobility in multiple ways allowed them to take greater advantage of new employment opportunities, as compared to women (Tan et al. 2005).

In one case, Mada Jalala, however, the increased hours of work on transacted land was viewed as a benefit to women, as adult women have been employed to a greater extent than adult men on the investor’s land. According to our informants, roughly 60% of those hired for seasonal farm work, e.g. during harvest season, are women. This is because traditionally male-dominated agricultural activities such as plowing are now being carried out in a semi-mechanized way on the transacted lands, reducing the demand for the labor of men. As described above, many men have also migrated in search of work. In contrast, activities such as weeding, are still being carried out manually on the new farms, leading to higher levels of wage labor availability for women. Among women, it is younger adults who have more time to work relatively longer hours on investors’ farm due to their having fewer responsibilities at home. Men and women both expressed a low preference for wage employment on the transacted farms, citing unmet expectations⁸ for better, more secure, job opportunities. But participants in this Kebele saw the presence of farms as allowing women, especially those who are younger, to find work without leaving the home. Indeed, for most women, it would be difficult to travel alone to cities or nearby town to find work, as many women in rural areas are often illiterate and less empowered to travel to cities and navigate new lifestyles there. In this one case, according to our informants, there is little difference in how young women and men are treated on investor farms in terms of wage rate as long as the amount of work accomplished is the same. They accomplish their daily or hourly work amount in terms of rows completed (levels of work to be accomplished are decided prior to wage employment by farm foremen and supervisors). However, the handful of locals that were recruited to more permanent positions were male.

4.2.4 Comparison with control

Both control groups saw a decrease in grazing land for livestock, with similar negative effects on women. Jarso Tolera also experienced decreased parcel size due to population growth, but were producing more crops from this land, particularly for having started to plant maize (because of disappearance of forest which meant that monkeys wouldn’t eat the maize). They spoke of deforestation because of population growth, but did not specifically mention firewood collection as a burden. For the control group of men from Jarso Wama, who live far away from the transaction site, some but not all reported loss of communal grazing land (from investment). They also indicated that the average parcel sizes were increasing as farmland was increasing (likely with concomitant forest loss, but this was not mentioned), increased crop production, and increased food intake - albeit of less variety - due to new agricultural technologies that the government had been introducing to them. Thus gendered impacts related to food security may be lessened, if discounting the reduction in cattle.

	Impacted communities	Non/less-impacted
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⁸ We did not come across any specific agreements between investors and the local communities – these agreements are commonly signed at the federal or state level. Expectations are largely based on the rhetoric heard from the government and investors on creating new job opportunities, introduction of new technologies, developing social services, etc.

				communities (quasi-controls)		
	Oromia			BG	Oromia	
	MadaJalala (GutoGida)	Loko (GutoGida)	JarsoWama (Sibu Sire)	BechBech (Belo Jiganfoy)	JarsoTolera (GutoGida)	Sub-group in JarsoWama (Sibu Sire)
Impacts on women						
Decreased communal grazing land resulting in decreased livestock, decreased milk and milk products (a woman's domain)	●	●	●	●	●	●
Outmigration by mostly males (young and old) creating extra burden on women left behind, physically and emotionally	●	●	●		●	
Loss of land requiring women to work on investor's land or elsewhere, in addition to responsibilities at home, resulting in longer work hours in a day		●		●		
Decreased forests in the area causing women to go further for firewood collection, taking time and increasing several risks	●	●	●	● (and other forest products)		
Daily labour offered on investor's land discriminates or disadvantages women	Daily labour seen as an advantage for women	●	●			
Decreased parcel size (private land) causes increased food insecurity, felt most by women who prioritize feeding their family	●	●	●	Decreased parcel size but planting more variety because of development programs	Decreased parcel size but increased production	Opposite trend (increased parcel size, production, and food intake)

Table 5: Hidden impacts of LSLTs on women. The six impacts that were most often reported by focus group participants (both male and female) and key informants. ● indicates that the topic had been discussed at length in the focus groups as being particularly burdensome on women.

4.3 Defense, resistance and mitigation

The final two research questions were, 'Are women defending land rights, and if so how?', and 'How are women mitigating negative LSLT impacts?' Defense of rights invokes consideration of both soft and hard mechanisms people can employ to resist but also mitigate, or adapt to, changing circumstances. As such, and as became apparent in the process of conducting the research, there is some overlap across

these two questions. Here, we first discuss acts of resistance by villagers in general, and then look at the question of whether women have resisted and how they have coped.

The extent of resistance and opposition varied across the cases. In Mada Jalala, many villagers understood that the land technically belonged to the government anyways, and did not believe that their self-claimed informal rights superseded this, so they did little to resist the process. In Loko, initial opposition to the process led to villagers being imprisoned; eventually they were able to negotiate additional financial compensation for their lost lands and resources to rebuild their homes before agreeing to leave the LSLT land (although the compensation is yet to materialize a decade later). In Jarso Wama, there has been substantial conflict between the investor and the nearby villagers, with men being imprisoned for contesting the investor's actions to block farmers' access to water for irrigation, and others performing acts of vandalism (burning sugarcane) to show their dissatisfaction with the investor. In Belo Jiganfoy, investors sued some local farmers who refused to leave the land; villagers formed a committee to formally resist the process, but this resulted in several members being imprisoned by local officials. Boundary disputes between farmers and investors continue in this site. Across cases, there was a general feeling that the government was not on the side of the farmers in complaints against the investor, and that they had no one to turn to protect their rights.

The focus group discussions did not reveal what could be called significant or outright acts of resistance by women. Only what could be considered as 'micro-acts' of resistance were described in limited circumstances. Namely, to cope with fuel shortages, women in Jarso Wama said they on occasion stole sugarcane straw from investor lands, with no recourse. Meanwhile in Loko, women are coping with fuel shortages by collecting and storing crop residue (stalks of sorghum and maize) for the wet season.

Aside from the presence of agricultural extension officers that were helping farmers increase production in at least one site, no particular safety nets or support mechanisms were described. On the contrary, it was often reiterated that no one, and no organizations, were helping them to cope with the new situation. New approaches to adapt, such as through the use of social networks or external institutions, were also absent. We should acknowledge, however, that the methods employed for this research are limited in their ability to uncover non-formal or hidden institutions. A longer term, more ethnographically field research oriented approach is likely necessary to investigate more subtle acts of resistance and adaptation.

5.0 Implications and relevance at a global scale

Although it is difficult to use a small set of case studies from a single country to generate large scale generalizations, our comparative examination of cases with controls and the preceding discussion points towards a few issues that are important to keep in mind for future work on gender and large scale land transactions. Some of the concerns underscored in this study have been raised in other examinations of tenure changes and land transactions, and the effects of such transactions on women and their interests. This is only to be expected given the overriding importance of land to livelihoods and the role of women in household reliance on land in agrarian societies.

Perhaps the first and most obvious implication to draw from the field research concerns two methodological points. We selected case sites with a view not to predispose the findings towards a definite outcome through case selection itself. We sought to accomplish this by selecting cases after reviewing a substantial number of cases rather than individual cases that had been in the news.

Secondly, we selected cases by focusing on the characteristics of the transactions in terms of variations in transaction characteristics, crop types, and source of investment capital rather than selecting study sites based on negative outcomes. In addition, we sought to identify “control” cases similar to the study sites where no tenure change or land transaction had occurred so as to be able to assess how changes in transaction sites compare to similar sites without transactions. This approach stands in some contrast to most existing studies of land transactions (often termed land acquisitions and land grabs). The two above features mean that our study was less predisposed to identify negative outcomes as the result of a given large-scale land transactions. Instead, we can point to the gender-related findings of our study as being characteristic of other similar kinds of transactions.

Despite these precaution to not predispose our study towards negative findings from land transactions, we find that four types of effects occurred in all cases of land transactions. (1) They reduced available land and parcel sizes for agricultural households. (2) They reduced available grazing area, livestock holdings, milk consumption/sale, and availability of other livestock products. (3) They prompted outmigration and increased labor requirements of women who had to manage both their normal levels of domestic tasks but also take on new tasks outside the home; and they reduced the availability of forest products such as firewood and non-timber goods, again increasing the labor burden of women. Although some studies have highlighted technological spillovers from land transactions, leading to crop improved output in fields of farmers near transactions, this outcome was not visible in any of the four transactions sites we examined. Some of the negative outcomes above also occurred in settlements where there had been no transactions, but to a lesser extent, and we believe these identified changes are consistent with expectations in an agrarian political economy with low inputs and where tenure changes permit new capital investments.

An additional outcome for which we only identified suggestive evidence and that deserves further investigation concerns the larger nutritional impacts of land transactions. Loss of land and of opportunities to cultivate land they own has occurred in all the land transactions cases we examined. This loss of land co-occurred with new wage labor opportunities on the lands where new investments took place. Wages from working on the investors’ lands, increased the case incomes of households allowing them to shift from a primarily agricultural-production based household diet towards a diet where a significant part of the food they are eating is purchased in the market. To the extent that the agricultural production to market-purchase shift in diets is accompanied by household members eating less diverse, more processed, and less protein rich foods, these less overt, more slow-paced impacts of land transactions are also contributing to the rise in the epidemic of non-communicable diseases in emerging economies that has been the subject of substantial recent research.

6.0 Conclusion

As is true for many other countries that have witnessed large scale recent changes in land tenure, the narrative in which transacted lands are classified as ‘marginal’ or “unproductive” is actively deployed in Ethiopia as well. Such classifications provide a basis for facilitating transactions (Lavers 2012). Marginal or idle lands have been recommended by international experts (e.g. Gallagher 2008) as target spaces for large-scale cultivation. Yet, such decisions are rarely based on a thorough understanding of how land is used by local residents. Land that appears idle to outsiders is often used in different ways, at different times, for a variety of purposes, such as communal grazing and transhumance, shifting cultivation, hunting-gathering, recreation and cultural activities, and/or left as reserve areas for future community needs (Chung 2016).

It is certainly evident that land investments in this part of Ethiopia are exacerbating an already precarious land situation where resettlement programs and demographic changes were making access to land difficult for many households. The investments are accelerating processes of deforestation in the few areas where forests still existed in the last two decades, compounding problems with land shortage and ensuing food insecurity and outmigration.

Villagers in all affected cases have suffered losses of both private and communal lands, affecting food production and consumption, and food-related income. Loss of communal grazing lands has affected women in particular, as women are in charge of production, processing, and selling of milk and milk products derived from livestock, affecting not only their income and ability to pay for household expenses, but also their and their family's protein intake. Wages from daily labor on the investor's land have not been sufficient to make up for this. If anything, it has mostly served to overwork women, who feel obliged to add daily laboring on the investor's land to their long list of daily activities around the home and family plots, to make up for their inability to grow more food on their own land. While forests in some cases had already disappeared prior to the investments, in other cases the investments had expanded into remaining forests, or had displaced people forcing them to move into the forests. For women, this has mostly meant travelling farther to fetch firewood, or even resorting to theft of crop residue from the investor to meet their cooking fuel needs. This, in addition to not being able to produce enough food to feed their family, has caused women in these cases great stress. The prospects for young women in these villages is particularly grim - less likely to inherit any of the limited land their parents might have to give, less likely to secure a permanent position or even a well-paying labouring position, or be able to migrate easily for employment.

Villagers in the studied sites had few avenues of formal recourse against investors. They were unable to preserve their informal uses and rights in land as well. There were no consultations, merely top-down decisions justified by the fact that the land formally belonged to the government regardless of informal tenures and uses, and that communal grazing land was seen as unused or unproductive land by the government. There is also little opportunity for organized resistance, as complaints are quickly quelled with prison sentences, and higher level government officials are quick to side with the investors. This occurred despite local administrators' attempts to push the investors to deliver their promised development services. Indeed, we did not hear any narratives of women resisting the changes in any fundamental or obvious way; only stories of adapting to the new situation by working more and eating less, increased stress, and increased social burden. At least part of the explanation of the limited resistance from women is visible in the current political context in Ethiopia where political protests are not permitted while a state of national emergency persists, and which has recently been extended.

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Appendix 1 - Individual case study descriptions and results of pilot survey

The following describes in more detail the stories and impacts of the individual case studies, as ascertained from focus group and key informant discussions. The final section is a summary of the pilot surveys undertaken with both impacted and control groups.

1.0 The case studies

1.1 Guto Gida (Oromia)

This farm cluster (including Mada Jalala and Loko Kebeles) represents the typical land transaction cases in the East Wollega Zone of Oromia, where land tenure changed from previous state farms during the socialist regime that ended in 1991 (the Derg regime), to private investors (beginning in early-2000s). During the gap years in between, those who worked on the state farms (local inhabitants and those who had settled in the area to work as labourers on the state farms) were left to cultivate the land by themselves, and much of that land was used as communal grazing land. Since the early 2000s, these lands were contracted to private investors. When the land was transferred to investors, the government informed the smallholders that they must give up their crop fields and grazing area on the area of the former state farm.

1.1.1 Mada Jalala, Guto Gida

There are about 430 households in this Kebele.

During the same time when the investors came to the Kebele, part of the community land was allocated to new settlers, who came from eastern Ethiopia through the government resettlement program in 2003. The new settlers were given 2 ha/household compared to 0.75/household allocated to the original settlers. This unequal treatment made the local community more disappointed with the government decision to transfer more lands to investors

There was no negotiation with the villagers at the time of the land transaction or re-settlement program. A top-down decision was made; villagers were only informed when eviction notices were distributed. When some raised concerns with the Kebele leaders, they were assured that new lands would eventually be provided, but this never happened. There was no formal opposition to the land transactions; the few farmers who argued with officials were sent to prison. Others believed that the land belonged to the government anyways, and that they didn't have rights to the land in the first place.

There was no compensation for farming lands and livelihoods lost.

Transacted land Wage labor is the typical approach for how the farms are being operated. In certain cases, the investors do share cropping with smallholders, with the tenants getting a third of the harvest. This kind of share cropping is illegal according to the contract arrangement between investors and the government. Tractors are used sometimes, but the level of mechanization is still very limited, because labor is very cheap. The investors use tractors and fertilizers, but continue to rely on rain-fed irrigation.

Impacts There was less tension between smallholders and investors than the other cases. However, the villagers still showed significant dissatisfaction. The farmers felt that after giving up these lands, they could barely make a living. During our interviews, the villagers constantly mentioned that their subsistence livelihoods were merely 'from hand to mouth,' and there was no surplus- the small amount of land was not sufficient to feed their families. Before the arrival of investment to the area, the local farmers cultivated different crops for subsistence and the market, mostly growing the food that they consumed. Common food crops cultivated by local farmers pre-investment included sorghum, maize, haricot bean, and sesame. Now they cultivate mainly maize, and plant groundnut and sesame as rotation crops, and purchase much of their food, especially pulses due to land shortage. Currently, the farmers tend to sell agricultural products that are common and plentiful in the area, with low returns; in contrast, food purchases are expensive, as much of the food bought is not grown in the Kebele.

Perhaps the biggest impact was the loss of communal grazing land, located on the abandoned state farm areas that weren't under cultivation or settlement. At most, those who have 0.75 ha of land leave a small part of this for grazing, or livestock graze around their homestead or use peg feeding. Others who have less land have been forced to sell their livestock or travel long distances daily to look for available grazing land. All in all, livestock numbers in the Kebele have decreased substantially since the investment. In the period between state farm and transaction, farmers owned on average 20 livestock (sheep, goats, cows, and oxen); nowadays almost all farmers only one or two cows and/or oxen. This has particularly affected household consumption of milk and milk byproducts.

No social services have been provided by the investor.

Employment Investors typically hire casual wage labor to work on their farms, male and female, of different ages, with more hired for peak harvest time. During this time, approximately 100 people (around 40 men and 60 women, mainly youths) will work 26 days per month for 20 birr per day. However, villagers complained that most investors refused to hire prior residents as labourers, preferring recruitment of workers from elsewhere, or even prisoners. Not more than 5-6 people were recruited into permanent positions in the firm, and such positions are all held by males. Most of permanent workers are from other places.

Migration Due to lack of employment opportunities and the shortage of land, many moved to nearby towns to look for other livelihood strategies. 50 households migrated out to Sasiga Kebele to do share cropping with the villagers there. Most young adults don't have their own land and cannot expect to inherit land (especially not young women). Due to the limited amount of employment available to them on the investor's land, youth (both male and female) have largely migrated to the nearby towns and to Addis.

1.1.2 Loko, Guto Gida

According to focus group participants, there are nine transacted lands in this Kebele alone.

Much forest here had been cleared by the Derg government in establishing and expanding the state farm. Following the fall of the Derg, the local communities began to use that land for their own production. Around 1999, the government gave the former state farm land to an investor, displacing the local population. A meeting led by the Woreda government was held to discuss land allocation between investors and farmers. Household heads (mostly men) were invited. Villagers were offered 2 ha of land each in a different location, as well as a school, clean water, a road, and electricity. The farmers refused, knowing that wasn't enough to compensate for the land and resources they would be leaving behind. The ensuing conflict resulted in some being imprisoned, including a Kebele official. Officials from the Zone (administrative unit between regional government and woreda office) later returned and also promised additional compensation for lost land and additional resources to build new homes. The villagers eventually agreed to this and left the land. New land was allocated by lottery, with all households (including female headed households) having equal rights and treatment. Now, villagers say that the government has broken its promises, that they were given unproductive land, no compensation was offered, and none of the services were delivered.

Impacts Before the investment, farmers had 1 ha for their home and gardens and on average 3 ha for crop production. About 936 households' home and agricultural lands were displaced from the investment lands. Most of them now live on 30m² of land for housing in a central camp with a church and school, lands which had not been given to investors. They do not have land to cultivate, so are extremely dependent on day labour offered by the investors. Yet work is infrequent and the income is insufficient for most family needs.

Some of those who were displaced into areas around the investment cleared more forest for agriculture, and some for housing resettlement, removing much of what remained of the forest. These households cultivate about 0.5-1 ha of land in these areas. Migration into the area from other parts of the country also continued, further contributing to the ongoing deforestation. The few remaining trees left at the peripheries of the Kebele for erosion control were eventually also felled for lumber for household construction. The loss of forests also represented the loss of many products that were either consumed or sold in

the past: bushmeat, honey, fuelwood, fodder, and medicinal plants. In particular, fuelwood shortages have led to the use of crop residue from sorghum and maize for energy (cooking and lighting). Some people are also planting fast growing trees around their homes as a fuel supply.

Grazing land during the period between state farm and investment was plentiful; as such households had up to thirty cattle. This has since reduced to less than ten head per household. This decrease has led to less milk and milk products for consumption and /or market, with detrimental effects on families' health, particularly children. Those who still have livestock risk high fines if livestock encroaches on investment land (100 birr per infraction).

Land shortage has also led to a decrease in both the quantity and variety of produce grown. Before the investment, local farmers grew a variety of crops on the land previously state farm, mainly sorghum, kidney beans, dagusa, sesame, and teff. Now they mostly grow maize.

Employment No one from this Kebele has been hired as a permanent worker for the investors. Daily labourers receive 15-20 birr per 8 hours of work, although occasionally men would make 40 birr for a whole day's worth of physically demanding work, and guards are paid 300-500 birr/month.

Migration One of the most profound effects on the community associated with the transaction and resulting land shortage is the outmigration of most of the youth in search of employment. Both young men and women travel to Addis and Debrezeit, with low educational attainment levels (most do not pass Grade 10), and have difficulty making a living in the cities.

1.2 Jarso Wama, Sibulire

There are about 200 households in Jarso Wama, from different ethnicities. Many people from different parts of Ethiopia came to the area to work on the state farms, and remained following the fall of the Derg to cultivate those lands for themselves. As the previous two cases, this transaction occurred at the site of the former state farm where villagers had been farming and grazing. Raj agro-industry (a sugar company) leased 3500 ha of land in the early 2000s, of which they currently implement about 2700ha. As the company's lands expanded, some new forests were cleared. Meanwhile, smallholders also encroached into the previously forested and wooded areas, particularly those being displaced.

Farmers in this area could be classified into three impact categories: i) the highly affected (the people displaced from their agricultural land and homes, as well as their communal grazing land, because of the investor's land or subsequently because of flooding from an irrigation canal that the investor built for the sugar plantation), ii) the moderately affected (the people who lost their communal and private land during land allocation but still live in the camp) and, iii) the less/not affected (the people who had lost only communal grazing land/ not affected by the transaction). About 50 households and their agricultural lands were displaced by the investor.

This investment received attention from high-level provincial officials. The president of Oromia Region visited this farm in 2014. Subsequently, a new sugar-processing factory was built, to replace more traditional methods of processing, as the government was interested in encouraging this kind of industrial processing activity. According to the villagers, the company brought most construction labour from India, and still keep foreign workers in permanent positions. Now with the improved processing capacity, the company hopes to start an outgrower scheme with local farmers (another key informant indicated that an outgrower scheme had been attempted earlier, but the villagers refused to participate).

Once again there had been no consultation with the community prior to selling off the land. Those who were displaced still do not know how the transaction took place. Discussion with the zonal and district level officials made it clear that participatory discussions were not an option, and claimed land was justified by government ownership, irrespective of people's acceptance. They were told that they would receive some subsidy for leaving the state farm, but this did not happen. The government did not support them to reestablish their life or cope with the change. Those who were highly affected (both homes and farm land displaced) were assigned new parcels of 1ha on average (prior to this, they had 5-6 ha). They had been offered land in another location, but it was too far from all basic infrastructure like drinking water and schools, as well as

being unproductive land. So some farmers decided to stay in the camp on the investor's land, but weren't allowed to construct new houses (meanwhile, the foreign permanent workers were able to build houses for themselves).

There has been substantial conflict between the investor and the nearby villagers. Our key informants gave two examples. The first one is that the last 800 ha of yet-to-be implemented land continued to be used as communal grazing areas. Villagers insisted that this piece of land is crucial for their livelihoods, but the land has been transferred to the investor without any consultation with villagers. The company hired guards to look after the to-be-implemented grazing lands, capturing any livestock that wandered into the land and fined the owner 50-100birr/cow. Due to such strong dissatisfaction with the farm, the villagers burned 37 ha of sugarcane in the secret of night in March 2016.

The other example is that the farm built irrigation canals without serious attention to its engineering design and consultation with the community. They dug trenches in the middle of the surrounding farms across the hill to divert water down to the farm. However, they did not use cement or any other water-proof materials in their construction. Thus, the water permeated into smallholders' farmlands and affected the productivity of their land. During peak rain season, the water in the canal overflowed and flooded the smallholders' farms, ruining their crops. Nineteen households were affected by the flooding; 11 had to move completely to a different area. The farmers also only had access to the water from the canal during the night, and the company didn't allow the farmers to use the river. The farmers said that they had an irrigation scheme in place even before the Derg government, but the investor doesn't allow them to use that either.

Villagers told stories of being sent to prison if one complained to the authorities about the investor's actions or asking for their rights. Others were labelled as "anti-development" by the government for opposing the investment in any way. Despite individual acts of resistance, they did not have any formal or organized resistance.

No community development efforts were made by the investor. An electricity line was built, but even though it passed through the community, it only provided electricity to the company and those living in the camp.

Villagers used to use the forest for many purposes. But, with the combination of the investor expanding into forests and the displaced farmers seeking deforestation for more agricultural land because of the subsequent land shortage and population growth, there are no forests remaining in the Kebele. Villagers cope with firewood shortages by collecting sugarcane residue from the investor's land (some indicated that they stole this).

Due to the loss of communal grazing land, livestock numbers have decreased from an average of 20 per household to less than 5. Those who have livestock do peg feeding around their homes. The herbicides used on the investment land was also harming livestock health. They also used to grow teff, rice, chickpea, red pepper and many vegetables like lettuce, tomato, potato, cabbage and onion as well as sugarcane, both for home consumption and sale. After the investment, they didn't have the space to grow this variety, so food consumption patterns changed. Sugarcane is no longer competitive, and they mostly produce maize and some pepper. Further to this, the farmers stated that the badly managed sugarcane plantation attracted birds and pigs to their farmland, which ruined their crops, particularly sorghum, were affected by birds, and now even their maize is damaged by pigs. Because their land is too small to support their families, some work as daily labour in the company, or petty trade.

The job opportunities for locals is not what they expected and they still have not covered their losses since the transaction. The villagers say that most people working on the farm are from far away, of the Tigray ethnicity, and only foreigners (especially from India) get priority in job type, with better treatment and wages. For example, in constructing the sugar processing plant, more than 80 workers were from India, and locals hired for the same jobs as foreigners would get paid less. According to the villagers, the investor had promised the government to hire 3000 permanent workers from the local area once the factory started to function, but they estimate the total number of workers to be just 200 daily labourers and 50 working in the workshop (with most coming from elsewhere). They also complained that the workers had few rights, their safety on the job was rarely considered, and layoffs were commonplace. Daily workers would make a maximum of 16 birr per day, if they are able to complete the daily assignment. Guards are paid 20 birr per day. Migration is increasing. Youth in particular have been highly affected by the change in tenure, since there is very little land to be transferred from their parents. They have tried to work on the investor's land, or rented or sharecropped on others' lands. Most emigrants are young adults.

The respondents reiterated often that the investment has brought nothing good to their livelihood, only disadvantages.

For those from the unaffected/less affected group, who lived farther from the transacted area, current forest use is much more limited compared to 10 years ago, given a large expansion of farmlands into nearby forests by the landless youth of the community. Erosion and flooding has increased since then. However, in terms of crop production, there is a large difference between this group and those impacted. Land shortage is less of an issue for this group, in fact some reported that the average land holding of a farmer at this site was increasing from 1.5 ha to 3 ha (expanding into forests). Government extension workers have helped them to improve maize production substantially (from 5 quintals per hectare to 50-60), through the use of fertilizers, improved varieties and planting techniques. They do, on the other hand, see that soil fertility is now decreasing due to these “modern” practices, and they struggle to afford the fertilizers and improved varieties. Unlike the impacted groups, they are producing more variety of crops now than 10 years before, and of better quality, buying less food, and eating more. Communal grazing land is decreasing, but due to population growth - youth are expanding farm lands into grazing areas. As with the impacted groups, this has resulted in a decrease in number of livestock, and foods derived from them.

1.3 Belo Jiganfoy, Belo Jiganfoy (Beninshangul-Gumuz)

In contrast to the cases in Oromia where conversion from state farm is the dominant pattern, in Beninshangul-Gumuz, clearance from forested/bush land into transacted lands for farming is typical. However, the case we have chosen, close to Oromia, also had a history of state farm, although the investments expanded beyond the land that used to be state farm to cut down additional forested/bush land.

The area was once largely covered in dense forest. People were scattered across the very rural area, in mobile settlements, until a villagization program a few years ago brought them to live in more permanent settlements. During this time, people started to move to nearby towns, leaving a household population of approximately 50, from 100 previously. People, mostly Gumuz and some Berta, farmed maize, sorghum, finger millet, and cotton, collected honey from forest, hunted, and raised livestock. Most crops were for sale. Land allocation was negotiated at the community level, with significant ‘open access’ and equal treatment of male and female headed households. There were strong social ties that bound people together, for instance in supporting one another in farming.

Three large scale land investors, with strong support at national and subnational levels, took over land in the Kebele, starting around 2000. The locals report that before this, the land was mostly forest. Deforestation was gradual since 2000. Investors grow mostly maize, with little mechanization.

There had been no consultation with farmers about the land transaction. There were some promises of development projects that never came to be. There was some conflict during the transfer, with the investors suing some local farmers who refused to leave the land. There continues to be conflict, boundary disputes and resistance in this area, with local officials supporting investors’ claims and local people being ignored or even put in jail. At one point, the farmers formed a committee for resisting the transactions and encroachment on to their land, financially supported by the community. Most of them were imprisoned by the local government officials. Resistance continues informally and not unified.

As a result of investment in the area, people have been displaced and land parcel sizes are now measured and much smaller.

As a result of the deforestation for investment lands, and spillover from displaced people, soil fertility is lower and erosion more frequent, resulting in abandoned lands left to fallow. Forest products such as honey and bushmeat are no longer available. Food sold on the market earns less and that which they buy is more costly. Still, people eat more now than they did before, and grow new types of crops (sometimes with seeds from the government).

Communal grazing land was taken by the investors; as a result, farmers began to allocate small pieces of their land for grazing, having to reduce their herd sizes substantially.

The tradition of helping one another in farming is almost lost, as many now engage in casual/ day labor- though most find the wages insufficient for their needs. Many entire families are leaving, as well as many youths who seek opportunities unavailable at home.

1.4 Jarso Tolera, Guto Gida (control)

Here we compare and contrast a few important characteristics between the control Kebele, Jarso Tolera, and the affected groups.

Most residents of Jarso Tolera were settled in the area through the government’s resettlement program, formerly coming from northern Ethiopia. On average, each household received two hectares of land. Parcel sizes are decreasing, due to population growth and inheritance, but this wasn’t emphasized by focus group participants as a constraint in the same way the affected groups had described it. In contrast to the affected groups, they have increased the amount and diversity of crops planted. Maize remains an important crop for consumption and sale, and they additionally grow dagusa, pepper, chat, coffee, and haricot beans for consumption, requiring little food to be purchased. However, they also described decreasing soil fertility, and the use of chemical fertilizers only by those who could afford them, noting that overall production has in fact decreased, even though they are consuming more food than in the past.

There was never a designated communal grazing land in this area, rather, farmers with adjacent parcels share land for their cattle. Some use open access spaces around the Farmer Training Centre for grazing, while most reserve some land on their parcels for cattle grazing. This group also experienced a shortage of grazing land, due to population growth, reduction in cattle, and reduction in consumption and sale of milk and milk products.

Youth from Jarso Tolera, like in the impacted Kebeles, were emigrating in search of employment.

2.0 Results from the pilot surveys across cases

50% of survey participants from the impacted group reported a decrease in their private land after the investment, 50% saw no change. For the control group, 75% saw no change, 25% saw a decrease. Most grazing land for both groups was on communal land or open access land. 80% of respondents (8 of 10 who responded to this question) said this had decreased post-investment (including 2 control respondents). Most of both control and impact groups have seen a decrease in the number of cows and oxen. 2 in Jarso Tolera (control) and 1 in Loko (impact) had seen an increase in number of cows. On tenure security, the impacted group more often said they are more likely to have their land taken from them (Figure A1).

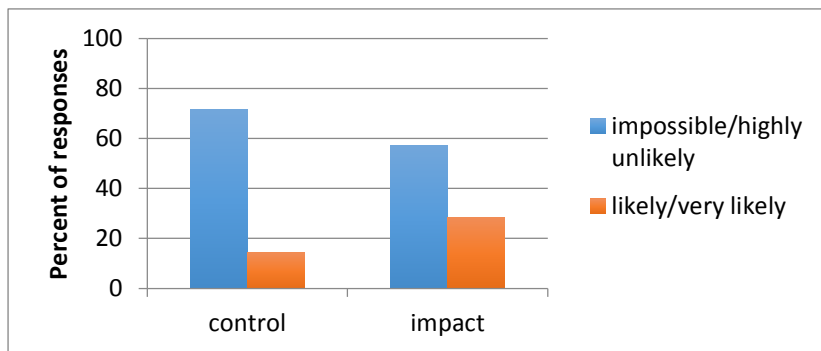


Figure A1: How likely is it that someone will take your land away?

control	average men	2
	average women	1.7
impact	average men	2.6
	average women	2.4

*scale 1=impossible, 2= highly unlikely, 3=unsure, 4=likely, 5=very likely, 6=happening right now

Table A1: Participants were asked about the likelihood that someone will take their land away from them.

The pilot surveys reinforced some of what the focus group participants and key informants had reported in terms of impacts on food and food security - that at least the variety they used to grow has decreased. Impacted communities have a wider variety of crops that they used to grow pre-transaction that they no longer grow (Figure A2 and Table A2). For the control group, reasons for no longer growing certain crops was loss of soil fertility. For the impacted group, the main reasons were land shortage, and birds from the investment site damaging their crops.

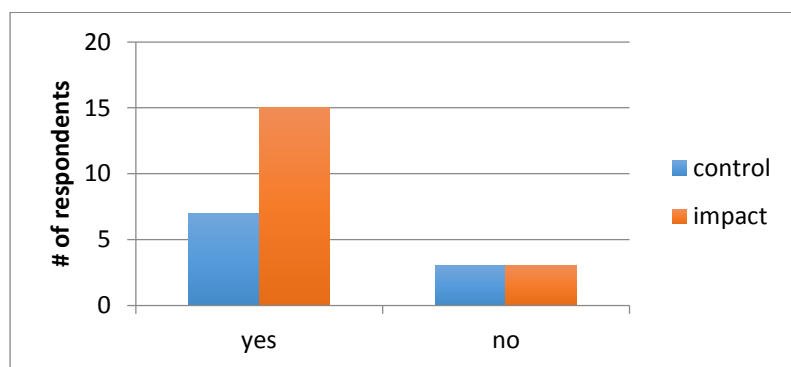


Figure A2: Are there crops you used to grow pre-transaction that you no longer grow?

Control		Impact					
sorghum	4	sorghum	10	sesame	1	boloke	1
teff	1	teff	2	pepper	2	salad	1
finger millet	3	finger millet	2	niger seed	2		
salad	2	maize	1	soya	1		

Table A2: Crops that they used to grow but no longer grow

We asked eight questions regarding their food consumption in the last 12 months:

In the last 12 months was there a time when:

- Q1: You were worried you would run out of food because of a lack of money, harvest, or other resources*
- Q2: You were unable to eat healthy and nutritious food because of a lack of money, harvest or other resources*
- Q3: You ate only a few kinds of foods because of a lack of money, harvest or other resources*
- Q4: You had to skip a meal because there was not enough money, harvest or other resources to get food*
- Q5: You ate less than you thought you should because of a lack of money, harvest or other resources*
- Q6: Your household ran out of food because of a lack of money, harvest or other resources*
- Q7: You were hungry but did not eat because of a lack of money, harvest or other resources*
- Q8: You went without eating for a whole day because of a lack of money, harvest or other resources*

Adding up their response gave a food security index from 0 – 8 for each respondent, with 0 being not food insecure and 8 being highly food insecure. Average results show that the control group was more food insecure than the impacted group, and for both groups, women reported that they and their households were more food insecure than men did (Table A3).

But when asked how often (in weeks) their household had trouble satisfying food needs in the past year, both impacted and non-impacted groups averaged roughly the same (4.8 weeks (non-impacted) to 4.5 weeks (impacted), and the same reasons (own production not sufficient, and not enough income to purchase food, both roughly equally common reasons among control and impacted groups)

non-impacted men	6.17
non-impacted women	7.00
impacted men	3.45
impacted women	4.88

Table A3: Food insecurity index across the cases (0 being not food insecure and 8 being highly food insecure).

On forest use, half of both control and impact groups said that there are forest products that they used to use before the transaction that they no longer use, including fuelwood, wood for construction, grass, medicinal plants, bushmeat (no differences between control and impact). All say it is because of limited availability (rather than limited access). Of the impacted group, 71% of women said that their forest use has decreased, while 45% of men said so. Of the control group, 75% of women said their forest use has decreased, while only 29% of men said so. However, they all reported that they use firewood as their principal fuel for cooking, indicating an ability to source firewood from somewhere.

Maps



Figure 1: The surrounding areas of Mada Jalala on 2013-10-22. To the west of the main road are most smallholder farms, to the right are large-scale farms. There is no historical data from Google Earth to compare with an earlier image.



Figure 2. The surrounding areas of Loko on 2013-10-22. To the southwest of the village settlement are the large-scale mango farm, and north of the mango farm are smallholder farms. Again, there were no earlier images available for comparison



Figure 3: Satellite images of the Sibusire farms from 2011-10-05 (left) and 2016-03-01 (right). A new sugar processing factory (to the left of the yellow pin on the right figure) was built in 2015 by clearing the woodland. The northwestern part of the farm was recently converted from woodland to sugarcane plantations. In addition, to the south of the sugarcane farm, woodlands were also converted into smallholder farms.

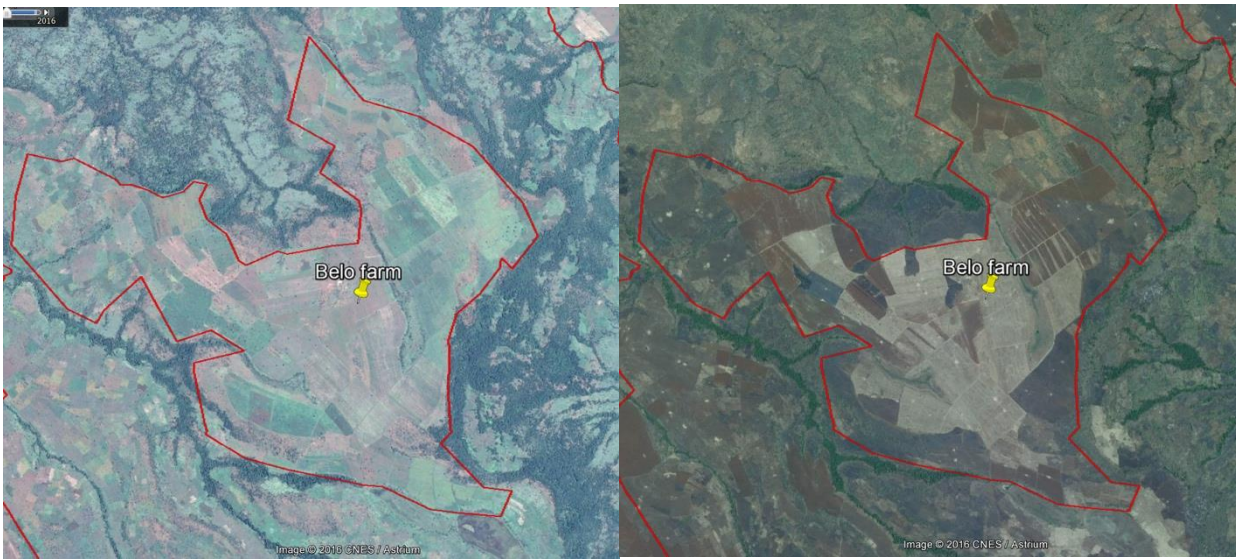


Figure 4: Images of the Belo farm cluster in Beninshangul-Gumuz, from 2013-10-23 (left) and 2016-02-29 (right). Trees outside of the large-scale farm were cleared in the past three years. Images earlier than 2013 were not available for this site.





Figure 5: Jarso Tolera and surrounding areas, on 2012-01-02 (top) and 2004-02-18 (bottom). Smallholder farming and limited woodlands relatively constant over this time period.

Appendix 2: Household Form for Pilot Surveys

Country ID: <CID>	Site ID: <SID>	Household ID: <HHID>
District Name: <HDNAME>		GPS reference for household (Lat/Long in decimal degrees): Latitude: <HHLAT> ° S Longitude: <HHLONG> ° E
Village Name: <FK_SETTLE>		
Village Code: <HVCODE>		Household wealth category (circle one): <HHWLTHCAT> Poor Average Wealthy
Local currency: <HLUNIT>		
Enumerator's Name: <HENNAME>		
Date of interview (dd-mm-yyyy): <HINTERVDT>		

A. Household Migration, Land, and Livestock Holdings

A1. a. For how many years has this village been your place of residence? <HRESYEARS> _____ years

b. What was the primary reason for moving here? <HRESY> _____

A2. a. Have any members of the household have ever migrated to another location? <HMIGRATE> ____ 0. No ____ 1. Yes

b. If yes, what year did they migrate: <HMIGYEAR> _____

c. If yes, what was the primary reason for their migration? <HMIGWHY> _____

A3. What is the area of land are owned by the household this year?

Land Use	Area in local units (Local unit <HLOCUNIT> _____)	Area in hectares
<i>Agricultural Land</i>	(____ % irrigated) <HAREAIRRIG>	(____ % irrigated) <HAREAIRRIGH>
(1) Cropland farmed for subsistence or cash crops	<HCROPAREA>	<HCROPAREA>
(2) Agroforestry	<HAGROAREA>	<HAGROAREA>
(3) Pastures and other non-agricultural uses	<HPASTAREA>	<HPASTAREA>
<i>Forest Land</i>		
(4) Plantations (planted trees)	<HPLANTAREA>	<HPLANTAREA>
(5) Natural forest (non-planted)	<HFORAREA>	<HFORAREA>
(6) Total area of land owned by the household:	<HTOTALAREA>	<HTOTALAREA>

A4. a. Does the household use land for farming that it does not own? <HNOTOWN> ____ 0. No ____ 1. Yes

b. If “Yes”, is this land: ___1. Rented ___2. Sharecropped ___3. Private land provided free ___4. Open access land

c. If “Yes”, what is the total area of land that the household farms this year but does not own?

<HNOTOWNLO> _____ local units

<HNOTOWNAR> _____ hectares

A5. We would like to ask about your household’s livestock holdings:

How many animals does your household own?	Estimated total number of animals	Mainly stall fed or grazed? (1 = stall fed; 2 = grazed)
(1) Large & medium sized animals (<i>cattle, sheep, goats, pigs, donkeys, etc.</i>)	<HLGANIMNO>	<HLGANIMFED>
(2) Small animals (<i>chickens, ducks, rabbits, etc.</i>)	<HSMANIMNO>	

B. Household Income

B1. What are the sources of cash income for the household, and estimated total household income over the past 12 months?

<H_INC>

Which of the following are sources of cash income for your household (please mark all that apply in the next column)	↓↓↓ <H_INCSRCE>	Mark the single most important source of cash income here: <HINCMOSTIMP>	Please estimate the annual household income from all household members over the past 12 months (excluding this survey month)	
			Amount over month prior to this survey month (<i>local currency</i>) <H_INCMO>	Amount over past 12 months (<i>local currency</i>) <H_INCYR>
(1) Sale of food crops				
(2) Sale of livestock				
(3) Sale of livestock products				
(4) Sale of cash crops				
(5) Business income				
(6) Wages or salaries in cash				
(7) Other casual cash earnings				
(8) Cash remittances				
(9) Fishing				
(10) Selling local brew				
(11) Sale of forest products (e.g. charcoal, firewood, timber, honey, medicinal plants, wild foods)				

(12) Rent received				
(13) Other (Specify: <H_INCOH>)				
(14) Estimated Total Annual Household Income			<HINCTOT1>	<HINCTOT2>

B2. If your household meets some of your livelihoods needs from products that you harvest from forests (charcoal, fuelwood, timber, honey, fruits) what is the monetary value of those products that your household **sells**:

<HSELLVALUE> _____ *local currency* (over the past 12 months excluding this survey month)

C. Shocks to Household Welfare

C1. During the past 12 months, was your household severely affected by any of the following events?

				Enumerators: Only ask these questions for the 2 most severe shocks		
				↓↓↓	↓↓↓	↓↓↓
1.	2.	3.	4.	5.	6.	7.
Shock ID	Shock	Y/N	Rank the two most significant shocks: 1 = Most severe 2 = 2 nd most severe <HSHOCK1> <HSHOCK2>	Did the shock cause a reduction in household income and/or assets? 1 = Income loss 2 = Asset loss 3 = Both 4 = Neither <HSHOCK1INC> <HSHOCK2INC>	How dispersed was this shock in terms of who it affected? 1 = Only this household 2 = Some households in the community 3 = Most households in the community 4 = All households in the community <HSHOCK1WHO> <HSHOCK2WHO>	How did your household cope with this shock? <HSHOCK1HOW> <HSHOCK2HOW> 1 = Harvest more forest products 2 = Harvest more wild foods not found in the forest 3 = Harvest more agricultural products 4 = Spend cash savings 5 = Sell assets (Land, livestock, etc.) 6 = Do extra casual labor 7 = Assistance from friends or relatives 8 = Assistance from NGO, community organization, religious organization, etc 9 = Get loan from money lender, credit ,associations, etc 10 = Reduce household spending 11 = Did nothing in particular 12 = Other (specify) <HSHK1HOWY> <HSHK2HOWY>
101	Loss of crops due to drought	<HDROUGHT>				
102	Loss of crops due to floods	<HFLOOD>				
103	Crop disease or crop pest	<HCRPPEST>				
104	Livestock died or were stolen	<HSTOCKDIED>				
105	Loss of salaried employment or non-payment of salary	<HJOBLOSS>				
106	Large fall in sale prices for crops	<HPRICEFALL>				
107	Large rise in price of food	<HPRICERISE>				
108	Large rise in agricultural input prices	<HINPUTRISE>				
109	Severe water shortage	<HWATERLOW>				
110	Loss of land	<HLANDLOSS>				
111	Chronic /severe illness or accident of a household member	<HILLNESS>				
112	Death of a household member or other close family	<HDEATH>				
113	Dwelling damaged or destroyed	<HHOUSEDEST>				

114	Other <HSHOCKY> (describe):	<HSHOCKOTH>				
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C2. Did the change in access to land have different effects on men vs. women?

a. Yes; b. No

C3. If yes, did these differences affect women's:

- a. Control over land
- b. Control over livestock
- c. Income
- d. Nutrition
- e. Decision making in the household
- f. Time spent in productive activities
- g. Other _____ (please specify)

C4. Please elaborate on the selected differences identified in question 2 above.

<Text answer>

Section D

D1. Please tell us about your household's participation over the past year in forest activities for the forest(s) near your village.

Activity: <i>0 = Never;</i> <i>1 = Rarely;</i> <i>2 = Sometimes;</i> <i>3 = Often;</i>	Harvested any forest products for subsistence or sale? <H_INTHARVEST>	Participated in creating rules over forest use, harvesting, or management? <H_INTCREATE>	Helped to monitor or enforce forest rules? <H_INTMONITOR>	Helped to resolve conflicts about the forest? <H_INTRESOLVE>
Government forest				
Co-managed forest (JFM)				
Community forest				
Private forest				
Other forest (specify): _____				

SECTION F. Household Construction and Food Security

F1. Please describe the construction of the home in which this household lives (*enumerator's observations*):

(1) What type of material are the external walls? <HWALLS>
 ____ 1. Mud / wattle / stones ____ 2. Wood (boards) ____ 3. Iron/metal sheets ____ 4. Baked burnt bricks
 ____ 5. Concrete / cement ____ 6. Grass / fiber / straw ____ 7. Other (Describe: <HWALLSOTH> _____)

(2) What type of material is the roof? <HROOF>
 ____ 1. Thatch / grass ____ 2. Wood (boards) ____ 3. Iron / metal sheets ____ 4. Tiles
 ____ 5. Other (Describe: <HROOFOTH> _____)

F2. How often in the last year did your household have problems of satisfying the food needs of the household?
 _____ months <HPROMON>

SECTION G. Identification Particulars

G3. Ethnicity of household: <HHETHNIC> _____

G4. Number of household members: <HMEMBNO> _____

G5. Age and education of household members (including respondent): {H_MEM}

Household member <H_MEMB>	Relation to respondent <H_MEMREL>	Gender <H_MEMGEN>	Age <H_MEMAGE>	Years of education completed <H_MEMED>	Primary Occupation <H_MEMOCC>
(1)					
(2)					
(3)					
(4)					
(5)					
(6)					
(7)					
(8)					

SECTION H. Household Assets Please indicate how many of these assets are owned by the household:

Item	# owned	Item	# owned	Item	# owned
Radio	<HRADIO>	Electric / gas stove	<HSTOVE>	House	<HHOUSE>
Telephone (landline)	<HPHONE>	Record/cassette player	<HRECRD>	Fan / A/C	<HFAN>
Telephone (mobile)	<HCELL>	Motor vehicle	<HCAR>	Dish antenna	<HDISH>
Mosquito net	<HMSQNET>	Motorbike	<HMBIKE>	Hoe	<HHOE>
Sewing Machine	<HSEWING>	Bicycle	<HBIKE>	Plough	<HPLOW>
Television	<HTELEVIS>	Animal-drawn cart	<HCART>	Milking machine	<HMILK>
Video / DVD	<HDVD>	Wheel barrow	<HBARR>	Fertilizer distributor	<HFERT>
Refrigerator	<HFRIDGE>	Lantern	<HLNTRN>	Hand milling machine	<HHDMLL>
Boat / canoe	<HBOAT>	Iron (charcoal or electric)	<HIRON>	Coffee pulping machine	<HCOFFEE>
Outboard engine	<HENG>	Threshing machine	<HTHRSH>	Generator	<HGENERAT>
Solar Panel	<HSOLARP>	Power Tiller	<HPOWTIL>	Other:	<HASTOTH> <HASTOHD> <HASTOTH2><HASTOHD2>