Stakeholders’ Perspectives on Large-Scale Agricultural Investment in Ethiopia: An Analysis of the Disconnects between Expectation and Reality

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ABSTRACT

This article examines whether expectations held by different stakeholders from Large-Scale Land Acquisition (LSLA) have been realized in Ethiopia. Data were collected from key informants working at different levels in government organizations in Benshanguel, Oromia and Gambella regional states. Primary data were collected from households directly affected by the two large-scale farms in Oromia and Benshanguel Gumuz regional states. The samples were selected using a systematic random sampling technique. The findings indicated that LSLA rarely met prior expectations and highlighted the difficulty in realizing a win-win situation.

Keywords: Large-scale land acquisition; agricultural transformation; expectation; reality; paired t-test; Ethiopia.
1. INTRODUCTION

Large-scale farming in the developing south is not a new phenomenon [1,2]. However, interest in farmland acquisition for large-scale farming has increased substantially since 2007/2008 following the tripartite food, finance and energy crises [3–5]. Investors and, in some cases, governments of capital-rich countries have explored land-based investment opportunities in countries comparatively rich in natural resources [6,7]. This is manifested primarily in rapidly rising rates of transboundary investments for plantation monoculture, notably in the developing South. In particular, Sub-Saharan Africa (SSA) has become the primary target of these new land-based investments [8,9].

Although farmlands were handed over to private investment in Ethiopia prior to the 2007/2008 increased global demand for farmland, promotion of the availability of farmlands for foreign capital started since 2007 [10]. In 2008, the government actively promoted and facilitated transfers of farmland to investors by establishing the Agricultural Investment and Land Administration Agency (AILAA) [11]. The open-door policy of the Ethiopian government to foreign capital in large-scale agricultural investment [10], coupled with the increased demand for farmlands by transnational investors, resulted in the country becoming one of the top five destinations for the agricultural investment in SSA [12]. This can be seen in the rapid rise in agricultural FDI flows into the country, which have increased from a mere US$ 135 million in 2000 to in excess of US$3 billion by 2008 [13].

While it is clear that large areas of land have been acquired by investors, estimates of the magnitude of large-scale 2 agricultural investments in Ethiopia are inconsistent. For example, [14] estimated that close to 3.6 m ha of land had been acquired. [15] reported that close to 5 m ha and 656,000 ha of land are under pre-implementation and actual implementation stages, respectively. On the other hand, [8] reported that 1.2 m ha of land have been transferred to large-scale investors. The various figures are difficult to reconcile since they cover different time periods and are taken from various data sources. The World Bank's estimate, for example, covers the period between 2004 and 2009 and includes only large-scale leases based on the national inventory. Lavers’ estimates are based on official figures but do not specify a time period and the Oakland Institute used a combination of sources, including personal communication, without specifying a time frame.

Several researchers [16–21] criticized the new intensity of land acquisition for large-scale farming in Ethiopia as a threat to local livelihood. They tended to label it as ‘land grabbing’ and a veiled form of colonialism. [5] & [22] viewed ‘land grabbing’ in Ethiopia in terms of historical context. For instance, [5] described ‘land grabbing’ during Ethiopia’s Imperial period in terms of the socio-spatial relationship between the state, and the centre and the periphery. At the core, peasants were closely incorporated into the empire and strong land-ownership rights dominated, while the predatory expansion of the state on the periphery undermined peasants’ customary property rights. The pattern of ‘accumulation by dispossession’ has continued to today’s republic (1991 to present) following a similar pattern of state ownership of land to that adopted in the previous republic (1974-1991) (Ibid: 84). Similarly, [22] viewed the current wave of agricultural investment in Ethiopia in terms of the historical relationship between the lowland periphery and the highland centre. He argued that during the Imperial era foreign investors were provided with farmlands on long-term leases displacing pastoralists. The current Ethiopian government also argues that there are huge tracts of land suitable for farming but “unused”. By putting this land under large-scale farming, it is argued that these modes of operation can play a complementary and vital role in the transformation of the agricultural sector in Ethiopia [23]. The incumbent government rejects labelling this as ‘land grabbing’ claiming that allocation of lands for large-scale farming is driven by the government’s motivation to foster the national development agenda in which the processes of land-lease procedures are clear and transparent [24,25].

Although there is a growing body of literature on LSLA in Ethiopia, none of them discussed the expectations and actual experiences to date of the government and the households who are

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1 Before 2013, the AILAA was known with the name ‘the Agricultural Investment Support Directorate (AISD).

2 [10] defined large-scale farms as concessions of 2000 ha and above.

3 Land grabbing is a term used to refer to commercial land transactions and speculations by (trans)national investors for the production of, mainly, food and biofuel and for the extraction of other land-based resources by disposing local and indigenous people [3 & 15].
directly affected by large-scale farms. For example, studies conducted by [10,15,22,26–31] foremost discussed the economic and/or environmental outcomes from large-scale farming in Ethiopia without evaluating in-depth whether earlier expectations of different stakeholders, notably farm households and policymakers, converge to their actual experiences. This paper attempts to fill that gap and identify the disconnects between earlier expectations and actual experiences of these stakeholders by analyzing qualitative and quantitative data collected from households that have been affected directly by large-scale farming and from key government employees having first-hand experiences with large-scale land transfers. Based on the perspectives of these stakeholders, the article evaluates the extent to which expected outcomes have been realized and challenges some of the early assumptions of the Ethiopian government about the potential of foreign capital to transform the agricultural sector of the country. In this way we attempt to contribute to the policy debates on large-scale farming and to the management of LSLA in Ethiopia, in particular.

The article is structured into sections focusing on background literature, methodology, results and discussion, and conclusion and policy implications. The background literature examines the current debates on large-scale land acquisition and puts the article into context by reviewing the current development discourse of Ethiopia. The methodological section provides the research context and an overview of the large-scale farms used as case studies. It also discusses the research approach, the data sources, and the method of data analysis. The results and discussion section critically reflects on the main findings of the study. The paper ends by drawing some conclusions.

2. BACKGROUND LITERATURE

2.1 The Debate on Large-Scale Land Acquisition

The literature on land transfer is extensive, focusing on discussions surrounding its institutional and legal framework and the agents involved in the transfer of farmlands (see for example, [4,27,32–36]). On the other hand, studies measuring the outcomes of LSLA have focused foremost on reporting possible threats [7,10,37–39] and predicting their impacts [8,40] more so than measuring the actual effects. NGOs and Civil-Society groups and activists criticized the way in which farmland was transferred to foreign and domestic capital with limited or no Free, Prior and Informed Consent (FPIC) of the local people (see for example [41,42]. They have argued that the increasing demand for fertile agricultural land has resulted in the wholesale alienation of customary land rights, which typically offered inadequate legal protection from involuntary expropriation [43]. This, it is argued, has directly resulted in human displacement, a loss of household-level income, rising local food insecurity, and threats to the existence of traditional socio-cultural structures [14,44]. More indirectly, land re-allocations of this form have threatened customary access to other resources integral to the rural livelihood portfolio including forest products, pasture and water resources.

While generally acknowledging these risks, international development institutions such as the World Bank, the FAO, UNCTAD, GIZ and IFAD have argued that agricultural FDI could, under the right governance conditions, contribute to economic development. And these investments should not be dismissed as innately destructive [8,45,46]. Instead, it is typically asserted that agricultural FDI could enable important occupational shifts, promote technological transfers and support smallholder integration into global commodity chains, while simultaneously generating much-needed foreign-exchange earnings and enhancing national food and energy sovereignty [8]. It is however recognized that these benefits are unlikely to materialize without effective governance structures. Accordingly, various codes of conducts and guidelines have been formulated in recent years to mitigate the costs and maximize the benefits of large-scale land acquisitions. The World Bank and other policymakers promoted the Principles of Responsible Agricultural Investment (RAI Principles) to discipline LSLA to reach to a win-win outcome 4 [47,48]. Similarly, the Voluntary Guidelines by the Food and Agriculture Organization of the United Nations [46] and the set of core principles and measures to address the human rights challenge of LSLA by [49], the
shift in emphasis of the Ethiopian government from a smallholder-focused approach to the promotion of capitalist farming is a clear reflection of the government’s predisposition for modernization in its development discourse. According to the government, allocating farmland to large-scale commercial farmers creates employment opportunities, generates additional revenue and the much-needed foreign currency, enables to transfer improved farming technology to smallholder farmers, contributes to local level food security, supplies raw materials to import-substituting domestic industries and contributes to infrastructure construction [23,54].

However, government policies, strategies and/or regulations that aimed at promoting large-scale farming are showing ambiguities and inconsistencies [55]. While large-scale farming is expected to play a complimentary role in addressing local-level food security objectives, no specific provision has been presented to ensure this objective is achieved through raising food production locally. The investment proclamations and directives either encourage production of non-food commodities or the export of food commodities produced locally. For example, (i) Investment Directives No. 10 [23] states that investment projects aimed at cultivating non-food commodities such as date and rubber trees, cotton and sugar cane receive priority in terms of acquiring farmlands; (ii) the land-deal contracts for large-scale farming prescribe the use of capital-intensive technologies that replace labour, which again contradicts the objective of employment creation and household food security; and (iii) Article 2 of Regulation No. 146/2003 and Articles 4 and 5 of Regulation No. 84/2003 state that any investor that exports at least 50% of their production shall be exempt from income tax for 5-6 years. On the other hand, investors that export less than 50% of their produce shall be exempt from paying tax on the rest. The investment directives, however, recommend capital intensive technologies that replace labour.

In the past, Ethiopia’s consecutive five-year development plans entitled ‘the Sustainable Development and Poverty Reduction Program (2002/03-2004/05)’ and ‘the Plan for Accelerated and Sustained Development to End Poverty (2005/06-2009/10)’ gave greater emphasis to smallholder agriculture [52,53]. The third five-year plan (2010/11-2014/5) known as the Growth and Transformation Plan (GTP), however, emphasized the development of large-scale commercial farms as an impetus for commercialization of the sector. The strategic

5 [10] reported the wide discrepancy in government reports in terms of identifying land available for agricultural investment, ranging from 54 m ha estimated by the Ministry of Agriculture to 24 m ha mentioned by the Ministry of Mines and Energy. On the other hand, [8] reported that the land available in Ethiopia that is suitable for farming but non-cropped, non-protected and non-forested and with a population density of less than 25 persons/km² totalled 4,726 m ha only.

6 Revenue in the form of land lease fee and income tax from firms and company workers.

7 Production of non-food crops may not necessarily jeopardise local food security if investment generates incomes through employment. The investment directives, however, recommend capital intensive technologies that replace labour.

8 For example, Article 3.5 of the contract agreement between Karuurti and the Ethiopian government clearly put that all activities shall be operated using mechanization [14].

2.2 Development Discourse in Contemporary Ethiopia

A 2010 Ethiopian government report states that Ethiopia is endowed with over 74 m ha of land suitable for annual and perennial crop production, but only 18 m ha are currently under cultivation [51]. Out of this, the AILAA identified about 3.5 m ha of land ‘available and suitable’ for large-scale agricultural investment and reserved it in its Federal Land Bank. 5 The land identification process was carried out by experts using satellite imagery. It ignored the traditional way of life based on mobility, shifting cultivation and the gathering of Non-Timber Forest Products (NTFP). The results of the satellite imagery were not subjected to ground testing and the land identified as “unused” and reserved as such in the Federal Land Bank is being contested.

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the right to expatriate any profits and dividends accruing from investment in a convertible foreign currency [58].

3. METHODOLOGY

3.1 Context and Case-Study Overview

Field research was done in Benshanguel Gumuz, Oromia, and Gambella regional states in Ethiopia. The regions were selected based on ecological and social variations and comparatively significant scale of investment flows to them. In terms of socio-ecological classification, Benshanguel Gumuz and Gambella regional states represent the country’s lowlands with a relatively better forest cover than the highlands. Agro-) pastoralism and shifting cultivation are the dominant livelihood strategies in these regions with sparsely populated settlements. On the other hand, Oromia regional state represents the mid to high altitude parts of the country where smallholder farming is widely practised in densely populated settlements. All the regions have received considerable investment flows that make them interesting to study. One large scale investment project from each region was selected for analysis. Although the sample size of the cases is small, the results generated from the case studies provide valuable information given the fact that the cases are typical examples of large scale investments in Ethiopia [59]. One of the case studies, Saudi Star Agro Products PLC, is owned by an investor who is an Ethiopian born Saudi multi-billionaire, while the other two investment projects are owned by Indians. Description of the case studies is presented below.

S&P Energy Solution PLC: The S&P is part of the large Indian construction conglomerate, Shapoorji Pallonji. In 2010, the company leased 50,000 ha of land in the Dangur and Guba districts of Benshanguel Gumuz regional state to cultivate Milletia pinnata (Pongomia) as feedstock for biodiesel production and other edible oil crops. Their lease is for a duration of 50 years at a rate of ETB 143.4 per ha per year (US$ 8.4/ha per year). Since late 2013, approximately 1,863 ha of land have been developed, so less than 4% only. The soil type of the land acquired by the company is a combination of Nitisols and Acrisols and was previously used by local people for farming, grazing and collecting products such as wild honey, firewood, forest fruits and roots (Table 1).

Karuturi Agro Products PLC: In 2008, Karuturi signed a 45-year lease on 11,700 ha of land in Bako Tibe district of Oromia regional state for the cultivation of different crops⁶ at ETB 135 (US$ 7.85) per ha per year. The soil type on the company’s leasehold is generally a combination of Vertic Cambisol and Vertisol. Vertic Cambisol is found on the relatively hilly side of the company’s concession where there is better drainage and the area has generally been used for teff (Eragrostis tef) and niger seed (Guizotia abyssinica) cultivation by smallholder farmers under a customary land-ownership system. The flood plain, which is Vertisol but with water logging problems, has been used for grazing by the local population under customary land-ownership system (Table 1).

Saudi Star Agricultural Development Project: is owned by a Saudi multi-billionaire and part of the MIDROC investment group. In 2008, the company leased 10,000 ha of land for rice cultivation for a period of 50 years at a rate of ETB 30 (US$ 1.7) per ha per year. The soil type of the land acquired by Saudi Star is a combination of Eutric/Dystric Cambisols and Calcic Vertisols. The project uses the Alwero dam, which was built by the Russians during the Derg regime, as a source of irrigation water. The company cleared the entire parcel at the end of 2011 and now cultivates rice on the land. The primary livelihood strategies of the local people are maize cultivation using hand hoes, fishing in the Alwero River and gathering of Non-Timber Forest Products (NTFP). As explained by key informants, the land transferred to the Saudi Star company had previously been used by the local people to gather NTFP and to cultivate maize (Table 1).

3.2 Research Approach and Data Source

Qualitative and quantitative research approaches were adopted to address the objectives of this study. Exploratory data were collected from secondary sources, interviews with key informants and focus-group discussions. This helped to identify locally relevant variables to be incorporated into the questionnaire and to contextualize the findings. A list of households that in the past had used the land resources was prepared.

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⁶The contractual agreement is for the cultivation of oil palm and other food crops. The company is cultivating maize although the soil type (Vertisol) is less suitable for maize production.
### Table 1. Comparing the three land acquisitions

<table>
<thead>
<tr>
<th>Name</th>
<th>Country of origin</th>
<th>Region</th>
<th>Size leased (ha)</th>
<th>Year acquired</th>
<th>Contract length (years)</th>
<th>Developed land size (ha)</th>
<th>Land lease price ($/ha/yr)</th>
<th>Crops</th>
<th>Causal labour</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P</td>
<td>India</td>
<td>Benshanguel</td>
<td>50,000</td>
<td>2010</td>
<td>50</td>
<td>1,863</td>
<td>8.4</td>
<td>Pongomia</td>
<td>200</td>
</tr>
<tr>
<td>Karuturi</td>
<td>India</td>
<td>Oromia</td>
<td>11,7000</td>
<td>2008</td>
<td>45</td>
<td>2800</td>
<td>7.85</td>
<td>Maize</td>
<td>200-300</td>
</tr>
<tr>
<td>Saudi Star</td>
<td>Saudi Arabia</td>
<td>Gambella</td>
<td>10,000</td>
<td>2008</td>
<td>50</td>
<td>10,000</td>
<td>1.7</td>
<td>Rice</td>
<td>200</td>
</tr>
</tbody>
</table>

*Source: Survey data (2012–2015)*
drawn up and was used as a sampling frame for the household survey. Household surveys were conducted at two of the three projects (S&P and Karuturi). The surveys comprised of 200 households from Guba district of Benshanguel Gumuz regional state (for S&P Energy Solution PLC) and 142 households from Bako Tibe district of Oromia regional state (for Karuturi Agro Products PLC). The households were selected by a systematic random sampling technique from a directly impacted population by the largescale farms in those regions. A total of 42 government officials who are working at various federal and regional offices and responsible for the governance of large-scale farms were interviewed. This included experts from AILAA, Ethiopian investment agency, regional and district investment offices, the district council, land administration offices, and agriculture and rural development offices. Respondents were asked to rank their expectations in a 6-point scale (0 = 'nothing expected', 1 = 'very low expectations', 2 = 'low expectations', 3 = 'average/medium expectations', 4 = 'high expectations' and 5 = 'very high expectations'). They were subsequently requested to rate the extent to which their expectations were met (0 = 'nothing changed', 1 = 'a very small part of expectations realized', 2 = 'a small part of the expectations realized', 3 = 'expectations realized on average', 4 = 'most of the expectations realized', and 5 = 'expectations completely realized'). Efforts were made to minimize potential ex-ante bias by probing respondents and asking them to justify the reasons for their earlier expectations. To understand what might bring differences between ex-ante expectations and ex-post reality, respondents were requested to qualify their responses. Data were analyzed using mean, mode, percentages and a paired t-test. To improve the validity of the results, the paired t-test analysis was complemented with the qualitative responses of the key informants and triangulated with the mode scores.

4. RESULTS AND DISCUSSION

4.1 Key Informants' and Land Users' Ex-ante Expectations of LSLA

Ethiopia’s 2010−15 Growth and Transformation Plan (GTP) put high expectations that large-scale commercial agriculture would serve as an engine of development for the Ethiopian economy. The study confirmed that expectations among key informants across the three study regions were high indeed. On average, the key informants scored their ex-ante expectations at 3.84, close to the 'high' category. The highest expectations were found to relate, in order of significance, to technology transfers (4.48), employment generation (4.13), revenue generation (4.1), infrastructure development (4.1) and foreign currency earnings (4.02). The mode value for many of these outcome variables was also ‘high’, which demonstrated the consistency of the results with the mean scores (Table 2).

The ‘high’ to ‘very high’ expectations of key informants regarding technology transfer to smallholder farmers stem from the fact that agriculture in Ethiopia is dominantly subsistent and the use of improved inputs is limited. [8] also indicated that only slightly more than 20% of the potential yield is realized by Ethiopian agriculture. In discussions with key informants, the full yield was typically envisaged to be realized by adopting a contract farming model that would gradually transform smallholder subsistence farmers into commercial farmers. This is expected in particular from Karuturi in Oromia regional state, where smallholder farming is widely practised adjacent to large-scale farms. A key informant from Bako explained that the total land leased to Karuturi in Bako is not enough to establish a sugarcane or palm oil processing plant, and the company might integrate smallholder farmers through a contract farming model if it establishes a processing unit in the area.

In Gambella and Benshanguel Gumuz regional states, (agro-) pastoralism and shifting cultivation, respectively, are extensively practised and there is only a limited chance of integrating the local people into large-scale farming, at least

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10 Although the local people only have customary property rights, it was possible to identify those that had lost access to land as a result of the project. A list of households was obtained from the lowest administrative unit (Kebele), which was updated with the help of key informants who have lived in the area for many years and who knew any person missing in the list. Identification of households included in the sample was done with the help of key informants and this was possible since households were not completely displaced as a result of the project from their villages.

11 Directly impacted population here refers to those households that had been using land but had lost access to land-based resources due to projects.

12 Agro-pastoralism way of life consists of livestock production such as cattle, sheep and goats through extensive management system and mobility. This is complemented with small-scale cultivation of crops such as maize and sorghum. Livelihoods based on extensive livestock production system were put at risk due to large-scale farms.
in the short-run. However, key informants at regional levels explained the regional governments’ vision of ‘transforming’ (agro-) pastoralists into sedentary farmers through its collectivization scheme. In the long run, the government expected the peasants to pick up improved farming technologies from large-scale commercial farms and integrate into the market. In addition, companies are expected to create jobs for the rural masses. In lowland areas like Benshanguel Gumuz and Gambella regional states, labour is scarce but is still expected to generate jobs for migrant workers from densely populated highland areas. This was a particular point mentioned by key informants at federal level who were the subject of this study. In the cases considered, migrant labour from Southern Nations, Nationalities and People’s Region (SNNPR) and from Oromia regional state dominated wage employment in Gambella and Benshanguel Gumuz regions.

The study also examined the expectations of land users’ from large-scale farming in Oromia and Benshanguel Gumuz regional states. The ex-ante expectations held by the local people in both regions were also high similar to those held by government key informants despite differences in the types of expected outcomes. Community members were provided with information about the potential benefits of the investments operating in their respective villages. For instance, at an information meeting held in 2008 in Bako between community members and the managers of Karuturi Agro Products PLC, the company promised to provide employment opportunities to the local people at a daily wage rate of ETB 25–30. In addition, Karuturi stated to construct different types of infrastructure for the local population, such as roads, clean water, school facilities and to retain the fig and acacia trees found on the company’s concession. As a result, the local people developed some ex-ante expectation about the potential benefits of the Karuturi farm in Bako which showed a mean and mode score that was above average (Table 3).

A survey was also conducted among 200 sample households affected by S&P Energy Solution in Guba district of Benshanguel Gumuz regional state. As in the case of Karuturi in Oromia, the local people in Guba district had also well-established prior expectations of the large-scale farm notably concerning employment generation, decent wages and access to infrastructure, and this was confirmed by mean scores above four and mode values of four. The people in Benshanguel, however, had very low expectations about the technology spill-over and the company’s contribution to local food availability. This attitude can be explained from two reasons: (i) as the area is dominated by subsistence agriculture based on a shifting cultivation system, there is little chance the local people will learn from highly mechanized large-scale farms like the S&P; and (ii) as the company cultivates biofuel feedstock, it contributes nothing directly to local food availability. Moreover, in terms of continued access to NTFP, which is an important livelihood source, the local people expected the forests to be devastated by the company and anticipated the subsequent disappearance of their existing livelihood sources as a result (Table 4).

4.2 Disconnects between Expectations and Reality from LSLA

Both government officials and local land users were dissatisfied with the outcomes so far of the large-scale farming projects. Significant differences between prior expectations and ex-post reality were observed across all variables for both groups of respondents (see Table 2, 3 & 4). However, there are differences between government key informants and land users in their assessment of the realization of their expectations. A detailed account of each outcome variable is presented below.

4.2.1 Employment and income generation

While government key informants considered employment generation to have been at least ‘partially realized’, the land users are dissatisfied with the magnitude of employment generated by the companies. The government informants maintained this position since some landless youth started to earn an income by working for companies. However, the government informants are disconcerted by both the quality and quantity of the employment available. Karuturi, for example, only pays ETB 12 (US$ 0.67) a day and Saudi Star pays ETB 25–35 (US$ 1.4 to US$1.68), while the going rate in the localities is ETB 20. In addition, after more than three years in operation, Karuturi still only employed 34
Table 2. Government key informants' perspectives on expected and realized outcomes from large-scale farming in Ethiopia (n=42)

<table>
<thead>
<tr>
<th>Outcome variables</th>
<th>Score for ex-ante expectation</th>
<th>Score for ex-post reality</th>
<th>Mean difference</th>
<th>St. Err.</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology transfer</td>
<td>4.48 4</td>
<td>2.47 1</td>
<td>2.01</td>
<td>0.13</td>
<td>16.36</td>
</tr>
<tr>
<td>Employment generation</td>
<td>4.13 4</td>
<td>3.30 2</td>
<td>0.83</td>
<td>0.16</td>
<td>5.04</td>
</tr>
<tr>
<td>Source of revenue</td>
<td>4.10 4</td>
<td>2.93 2</td>
<td>1.17</td>
<td>0.12</td>
<td>9.50</td>
</tr>
<tr>
<td>Infrastructure development</td>
<td>4.10 4</td>
<td>2.00 1</td>
<td>2.10</td>
<td>0.12</td>
<td>17.18</td>
</tr>
<tr>
<td>Generates foreign currency</td>
<td>4.02 4</td>
<td>1.43 1</td>
<td>2.60</td>
<td>0.16</td>
<td>16.21</td>
</tr>
<tr>
<td>Investors care for natural resources</td>
<td>3.79 4</td>
<td>1.79 1</td>
<td>2.00</td>
<td>0.13</td>
<td>15.68</td>
</tr>
<tr>
<td>Provide raw material for domestic industries</td>
<td>3.13 4</td>
<td>1.86 1</td>
<td>1.27</td>
<td>0.20</td>
<td>6.17</td>
</tr>
<tr>
<td>Increase availability of food supply</td>
<td>2.96 3</td>
<td>1.79 1</td>
<td>1.17</td>
<td>0.15</td>
<td>7.87</td>
</tr>
</tbody>
</table>

*Significant (2-tailed) at p<0.01
Source: Author's own data

Table 3. Land users' perspectives on expected and realized outcomes from large-scale farming in Bako Tibe District, Oromia Regional State (n=142)

<table>
<thead>
<tr>
<th>Outcome variables</th>
<th>Score for ex-ante expectation</th>
<th>Score for ex-post reality</th>
<th>Mean difference</th>
<th>St. Err.</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology transfer</td>
<td>4.04 4</td>
<td>0.24 0</td>
<td>3.80</td>
<td>0.11</td>
<td>36.27</td>
</tr>
<tr>
<td>Employment generation</td>
<td>4.10 4</td>
<td>2.07 2</td>
<td>2.03</td>
<td>0.16</td>
<td>12.68</td>
</tr>
<tr>
<td>Generate decent income from employment</td>
<td>4.08 4</td>
<td>1.01 1</td>
<td>3.08</td>
<td>0.14</td>
<td>22.2</td>
</tr>
<tr>
<td>Contributes to community development activities</td>
<td>4.48 4</td>
<td>1.84 1</td>
<td>2.64</td>
<td>0.18</td>
<td>14.85</td>
</tr>
<tr>
<td>Supply of drinking water for human beings</td>
<td>4.21 4</td>
<td>0.94 0</td>
<td>3.27</td>
<td>0.11</td>
<td>29.85</td>
</tr>
<tr>
<td>Access to drinking water for livestock</td>
<td>3.93 4</td>
<td>1.46 0</td>
<td>2.48</td>
<td>0.12</td>
<td>20.93</td>
</tr>
<tr>
<td>Access to pastureland</td>
<td>3.08 3</td>
<td>1.50 1</td>
<td>1.60</td>
<td>0.11</td>
<td>14.17</td>
</tr>
<tr>
<td>Increase availability of food supply</td>
<td>3.88 3</td>
<td>1.25 1</td>
<td>2.63</td>
<td>0.13</td>
<td>20.31</td>
</tr>
<tr>
<td>Maintain indigenous trees</td>
<td>3.40 3</td>
<td>1.40 1</td>
<td>2.03</td>
<td>0.13</td>
<td>16.07</td>
</tr>
</tbody>
</table>

*Significant (2-tailed) at p<0.01
Source: Author's own data

Table 4. Land users' perspectives on expected and realized outcomes from large-scale farming in Dangur District, Benshanguel Gumuz Regional State (n=200)

<table>
<thead>
<tr>
<th>Outcome variables</th>
<th>Score for ex-ante expectation</th>
<th>Score for ex-post reality</th>
<th>Mean difference</th>
<th>St. Err.</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology transfer</td>
<td>0.71 1</td>
<td>0.69 0</td>
<td>0.02 (r^2=0.5)</td>
<td>0.04</td>
<td>0.58</td>
</tr>
<tr>
<td>Employment generation</td>
<td>4.17 4</td>
<td>2.01 2</td>
<td>2.16</td>
<td>0.08</td>
<td>26.68</td>
</tr>
<tr>
<td>Generate decent income from employment</td>
<td>4.13 4</td>
<td>1.88 2</td>
<td>2.25</td>
<td>0.07</td>
<td>31.90</td>
</tr>
<tr>
<td>Contributes to community development activities</td>
<td>4.11 4</td>
<td>1.36 1</td>
<td>2.75</td>
<td>0.06</td>
<td>45.96</td>
</tr>
<tr>
<td>Increase local availability of food supply</td>
<td>0.24 1</td>
<td>0.23 0</td>
<td>0.01 (r^2=0.8)</td>
<td>0.02</td>
<td>0.59</td>
</tr>
<tr>
<td>Deforestation and loss of forest-based livelihood sources</td>
<td>4.14 4</td>
<td>4.10 4</td>
<td>0.04</td>
<td>0.06</td>
<td>0.54</td>
</tr>
</tbody>
</table>

*Significant (2-tailed) at p<0.01
Source: Author's own data
permanent workers and 200–300 casual employees working for 3–4 months per year. Similarly, although rice cultivation is considered to be labour intensive, Saudi Star employed only about 200 casual workers and very few tenured employees.

Also, the local population in Bako perceived employment offered by Karuturi to be highly insecure and seasonal, and wage rates comparatively low\textsuperscript{14} which limits its contributions to their livelihoods. The rate paid to daily labourers was ETB 7 per day during the first three years of operation before it increased to ETB 12 in late 2011. However, they argued that Karuturi in Bako-Oromia committed itself to paying ETB 25–30 a day during pre-implementation engagements. In practice, the company appears to have had substantial leverage when it came to determining wage rates due to the substantial availability of labour (landlessness is estimated at 7% in Bako) which is partly caused by the displacement of farmland and pasture for project development. With most labourers being poor and illiterate and with government inspectors noticeably absent, casual labourers have limited bargaining capacity. Further, community members in Bako predominantly participate in non-technical employment like security guards and plantation workers, despite having the potential to perform more skilled duties. Data from Bako Tibe’s district revenue office showed that between 30 and 44 Indian expatriates in the 2010–2011 period were engaged in on-farm employment. During field research it was noted that 13 Indian expatriates were working as tractor operators and field supervisors for Karuturi in Oromia regional state. As mentioned by the wage workers and a key informant working at Bako Tibe district Justice Office, employees do not have formal contracts, which led, for example, to the unfair dismissal of 14 employees in 2012.

Similarly, the S&P data analysis shows significant divergence between expectations and reality for employment generation and income. Only limited employment opportunities have been created so far\textsuperscript{15}. The monitoring and evaluation report of the Ministry of Agriculture (MoA) on agricultural investment projects for Benshanguel Gumuz regional state also indicated that investors that acquired land for large-scale farming, including S&P, had failed to generate sufficient employment [60].

4.2.2 Contributions to local revenues, community development and technology transfer

At the time of research only Saudi Star was paying a land-lease to the Abobo district. The other two farms did not pay their land rents to the respective local governments [60]. Also, examination of Karuturi’s payroll at the district’s revenue office indicated that the contributions in the form of employees’ income tax are insignificant and irregular. Furthermore, the researchers noticed that there are discrepancies between the employment records maintained at company-level and reports sent to the district revenue office for income tax purpose. For example, an Ethiopian working for Karuturi as human resource manager was reported to the district’s revenue office to earn ETB 8,000 per month while his Indian supervisors were reported to receive only ETB 1,500–5,000 per month. In reality, however, the Indian supervisors earned above ETB 20,000 per month. Similarly, the human resource records of Karuturi showed that about 13 Indian expatriates were working for the company, but the payroll reported to the district’s revenue office showed only 3 Indian employees. Such discrepancies suggest that tax-evasion practices might have occurred. When expressing his dismay, the head of the revenue office said that the company is cheating the district and his office planned to establish a case against it in court.

According to government informants, the companies have also made limited contributions to infrastructure development. For example, Saudi Star built a community meeting hall in Abobo district of Gambella regional state. However, no other efforts have yet been made by the company to contribute to the construction of roads, schools, health centres and community water points. In the case of Karuturi, feeder roads and an electricity grid were developed but these were largely to benefit the company itself. Other benefits seldom accrued to the surrounding communities. Local people in Bako have limited access to clean drinking water. Although they had been promised by Karuturi that they would have access to drinking water

\textsuperscript{14} For example, the company pays ETB 800-1200 per month for tractor operators while the going rate in the district ranges between ETB 2000-3000 a month. Jakaranda, a domestic investor, pays ETB 20 per day for the services of a daily labourer, while Karuturi pays only ETB 12 a day.

\textsuperscript{15} The company agreed to develop 50,000 ha of the land it acquired within five years and to develop at least 10% in the first year, but investment to date is minimal.
from the boreholes it was going to dig, access was denied in practice. Furthermore, communities used to get drinking water for their livestock from the nearby Aboko River that is adjacent to their pastureland. Karuturi promised communities to have continued access to the watering points. However, the company reneged on these promises and completely blocked access to water points and they are now forced to travel an additional three hours a day to the Gibe River to find water for their cattle. The experience in Bako shows that when land is transferred, important resources like water are also lost. Alienation of water resources from the community as a result of LSLA has also been reported in central Ethiopia by [61:278] and described as ‘water grabbing’ and the ‘water factor’ by [62:787]. [63] also reported in semi-arid Kenya that expansion of commercial flower farming resulted in the drying of local people’s wells.

With regard to technology transfers, government informants bemoaned the lack of direct smallholder engagement in the production process. None of the plantations had adopted schemes that enabled smallholders to gain access to inputs and extension services. According to experts from Bako Agricultural Research Centre, Karuturi’s farm in Bako is on black soil with water-logging problems, which is less suitable for maize cultivation. As a result of this wrong crop choice, it typically achieves maize yields (1.5 to 2 tons per ha) that are less than half of the maize yield levels achieved by smallholder farmers when produced in the relatively drained red soils (4 to 6 tons per ha). Before the land was leased to Karuturi, the local people cultivated teff on the black soil and produced about 1.5 ton per ha, similar to the maize yield level achieved by Karuturi but in terms of its market value, a kg of teff sells for ETB 16 while a kg of maize is valued at ETB 3.50 only. In other words, the smallholder farmers used to generate a more valuable crop than the large-scale farm does from the same land. The incorrect crop choice did certainly not act as a valuable technology transfer to smallholder farmers around the vicinity. Key informants in the district also questioned whether the company had the capacity to transfer technological know-how. In the other two cases in Gambella and Benshanguel regions, the companies are cultivating crops relatively new to the area (rice and Pongomia). The adoption of these crops and the relevant technologies by the local people is unlikely. This raises concerns about whether the government’s expectations of large-scale farming as a centre of technological transfers are realistic.

4.2.3 Natural resource management and contributions to local livelihood security

The study found that all of the three companies had cleared indigenous tree species on their newly acquired farms. These were destroyed without adequate diligence to the codes of conduct. An agricultural expert in Bako Tibe district explained that although Karuturi was expected to maintain the ficus tree species (Ficus benghalensis) that was found on its concession, it did not stick to that anticipation. The local people in Bako also complained about the loss of indigenous tree species that used to provide shade during community gatherings and cultural festivities. According to them, the micro-climate has changed significantly with the cutting down by the company of the fig and acacia trees. A monitoring and evaluation report of the Ministry of Agriculture (MoA) on agricultural investment projects in Benshanguel Gumuz regional state also indicated that large scale land investors, including S&P, showed little regard for natural resources management [60]. Where local climate might have suffered as a result of the loss of trees, certainly food security for the locals was affected by the cutting of trees as households meet part of their food demands by collecting Non-Timber Forest Products (NTFP). Food from their own production accounts for 51% of their needs. Bamboo (Oxytenanthera abyssinica) shoots and roots, Biobabe, Seido, phoenix tree, medicinal plants are some of the most important sources of food for the local people and they are accessed from the forest. Income from the sale of NTFP is an important source of cash that allows people to purchase food at the market. Among NTFP income sources, sales of firewood and charcoal, bamboo poles, Soyama and forest honey are particularly important. Through key informants, the study identified the different types of NTFP and described how these livelihood sources are

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16 The company had dug some 20 boreholes for irrigation purposes. Some were even dug on farmers’ plots without their consent but peasants are refused access to water from these boreholes.

17 The company also uses the Aboko River for dry-season irrigation, with a generator that has a discharge capacity of 142 liters/second for 6 hours a day. This clearly decreases the availability of water from such shallow river.

18 This negatively impacted on the farming practices of households as farmers only plough few hours now as they have to take their oxen to find drinking water faraway.
Table 5. Key informants’ perspectives on access to forest-based livelihood sources and large-scale farming in Dangur District, Benshanguel Gumuz Regional State

<table>
<thead>
<tr>
<th>Type of NTFP</th>
<th>Description</th>
<th>Degree of importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honey from forest</td>
<td>Wild bees in the forest are source of food and income</td>
<td>Very important</td>
</tr>
<tr>
<td>Bamboo wood</td>
<td>Source of cash and construction material</td>
<td>Very important</td>
</tr>
<tr>
<td>Bamboo shoots and roots</td>
<td>Food source during food shortage</td>
<td>Important</td>
</tr>
<tr>
<td>Baboon</td>
<td>Bush and its root is used for food during insecurity</td>
<td>Moderately important</td>
</tr>
<tr>
<td>Harakote</td>
<td>A runner tree both the fruit and branch are consumed</td>
<td>Moderately important</td>
</tr>
<tr>
<td>Seido/Kima</td>
<td>Vegetable eaten as food</td>
<td>Moderately important</td>
</tr>
<tr>
<td>Okera/ladies figure</td>
<td>Food source</td>
<td>Moderately important</td>
</tr>
<tr>
<td>Kokono/enkuata</td>
<td>Wild plant used as a spice</td>
<td>Moderately important</td>
</tr>
<tr>
<td>Biobabe/Agongush</td>
<td>Wild tree used as fruit and cash source</td>
<td>Very important</td>
</tr>
<tr>
<td>Phoenix</td>
<td>Wild fruit tree used as food, medicine and beverage</td>
<td>Important</td>
</tr>
<tr>
<td>Soyama</td>
<td>Bush used to construct beehive and as cash source</td>
<td>Very important</td>
</tr>
<tr>
<td>Wild animals</td>
<td>Different types</td>
<td>Very important</td>
</tr>
</tbody>
</table>

Source: Author’s own data

affected by the company. Land acquired by S&P was previously used for crop production through a shifting cultivation system, grazing animals, and was a source of forest-based livelihoods. Participants of the focus group discussion revealed that access to food and a forest-based income had significantly decreased due to the land clearing by the company (Table 5).

The local community explained how forest-based livelihood sources have been lost and fallow periods have been shortened due to the company’s operations. These developments have increasingly undermined food security of the local population. This negative effect from tree clearance could be offset though if food availability (in price and quantity) would be improved by the large farms presence.

5. CONCLUSION

First, large-scale farming is expected to play a vital role in helping to achieve national development goals. One could raise the issue, though, of ‘development for whom and at the cost of whom?’ Who are the winners and who are the losers? Is it realistic to expect only Win-Win-Win outcomes that will benefit local communities, the Ethiopian government as well as the investors in a similar way? Expectations of large-scale farming such as employment generation, technology spill-over and foreign-currency generation are benefits that the above experiences have shown do not directly accrue to lowland areas that are dominated by sparsely populated settlements and that practise agro-pastoralism and shifting cultivation. At least in the case of Karuturi and S&P, plantation agriculture did not live up to the expectations of the community when it came to generating much-needed employment. Migrant workers from the highlands, however, are benefiting from employment on the large-scale farms in the lowlands. For example, Saudi Star in Gambella absorbed about 200 casual workers in 2012 but only 5% (10 individuals) were from the local community and the remaining coming mostly from Jimma and its surroundings, located some 400–500 km to the east. Likewise, technology spill-over from large-scale farming cannot be realized in these regions with the current livelihood system, at least not in the short run. In the long-run, the government anticipates transforming the livelihoods of the local people from (agro) pastoralism into sedentary farming through its villagization programme and by creating linkages between ‘future’ farmers and large-scale farms operating in these regions. However, the rationale that the traditional way of life in the lowlands is ‘unsustainable’ and should

19 Another example can be presented from Bazen Agricultural and Industrial Development PLC that leased 10,000 ha of land in Abobo district of Gambella regional state to cultivate cotton. The company created employment for about 500 individuals in 2012 but only 1 person was employed from the local Anuak ethnic group.

20 Read [64] about Ethiopia’s move towards sedentary forms of livestock and agricultural production in pastoral areas of the country.
be changed into 'sustainable' through sedentary farming is wrong. It could be changed to a sustainable way of life in its own right if appropriate government support is availed.

Second, in densely populated regions where smallholder agriculture is widely practised (e.g. Karuturi in Oromia), the expectation that large-scale farms might play a complimentary role with technology spill-over is not something that has been easily realized. Although it is difficult to make generalizations from a single case, the Oromia study revealed that smallholder farmers are not necessarily less productive than large-scale farms. In addition, the number of jobs created, the infrastructure constructed and the revenue and foreign currency generated are little to non-existent in all the cases analyzed. Although this might be related to the relatively incipient nature of the projects, it could be argued that the projects have not lived up to the expectation that they would fully develop their concessions in three years as was stated in their contract even though they have been in operation for five years. One could make the following assertions: 1) investors rushed to acquire land without being well-prepared and knowledgeable of the local economics, environment and politics, and 2) the global financial crisis might have worked against large-scale farms to get the necessary capital.

Third, some of the ex-ante expectations held by both key informants and the local people are unrealistic. For example, as business entities, large-scale farms may not be interested in constructing infrastructure such as roads, water points, schools and healthcare centres for the local people. There are no binding articles in the land-deal contract agreements for large-scale farms that obliges them to construct such infrastructure for the local people. This can only be done based on the good will of the companies to develop their Corporate Social Responsibility. Similarly, while contract agreements require investors to mechanize their activities, expectations of large-scale employment creation for local people are unrealistic. Finally, unrealistic expectations and assumptions about foreign large-scale farms should be clarified in future land-deal processes.

CONSENT
As per international standard or university standard, respondents' written consent has been collected and preserved by the author.

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COMPETING INTERESTS
Author has declared that no competing interests exist.

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