Assessment of Rural Land Rental Determinants in Ethiopia – The Case of Hitosa and Dodota Woredas of Oromia

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LAND INVESTMENT FOR TRANSFORMATION PROGRAMME

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Contents

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Introduction

Background LIFT/EEU

The Land Investment for Transformation (LIFT) programme is a 6.5-year programme funded by the Department for International Development (DFID) of the UK. LIFT aims to support to the Government of Ethiopia in the implementation of second level land certification covering 14 million parcels, introduction of Sustainable Land Administration Systems (SLAS), and the use of the Making Markets Work for the Poor (M4P) approach to leverage the economic benefits of increased tenure security. Currently in its second year of implementation, the LIFT programme is expected to be completed by 2020.

The objective of the Programme is to improve the incomes of the rural poor and to enhance economic growth, through Second Level Land Certification (SLLC), improved rural land administration, development of land market systems and cross-cutting policy reviews in line with international good practice and human rights obligations. LIFT will be implemented in a stepped approach, with 3 million parcels certified in the first 2.5 years. Experience and evidence at that point will establish whether a further 5 million parcels will be certified at a total cost of £45 million, or whether a scaled-up trajectory of a further 11 million parcels at a cost of £68.2 million will be pursued after the completion of the mid-term review (LIFT Inception Report, 2014). Complementary interventions will be implemented to ensure that the benefits of second level certification are maximized through an M4P approach. The third component of the programme will address cross cutting policy issues in co-operation with the Government of Ethiopia (GoE) with the objective of improving security of tenure for communal land holdings, pastoralists and customary land use and improving the transparency of land allocation, in line with international good practice and human rights obligations.

Land Policy Issues in Ethiopia

Land Administration: improving land administration has the potential to significantly increase investments in agriculture by all producers, improve rural livelihoods, reduce (in the mid- to long-term) conflicts over land, reduce land degradation, and improve resource use (Ethiopia Land Policy and Administration Assessment, 2004).

Land tenure regimes in Ethiopia fall into three broad time periods. Before 1975, land tenure was based on a feudal system where land was concentrated in the hands of absentee landlords and the church. Accordingly, tenure rights were highly insecure, and arbitrary evictions took place. During the Derg regime, (Socialist oriented government) in 1974, transferred ownership of all rural land to the state for the distribution of use rights to cultivators through local peasant associations. Further transfer of land rights was highly restricted, because transfer through sales, lease, exchange, or mortgage was prohibited, and inheritance was severely restricted. Tenure security was further weakened by the peasant associations' and other authorities' ability to redistribute land. The transitional government that took power in 1991 following the fall of the Derg made some changes on land use rights. The 1994 Ethiopian Constitution draws a broad framework for land policy in the country and enshrines the concept of public land ownership and the inalienability of landholdings (Ethiopia Land Policy and Administration Assessment, 2004).

The Ethiopian Constitution asserts state ownership of land; there are no private property rights in land. Proclamation No. 89/1997, "Rural Land Administration", has further clarified Ethiopia's national land policy. This law defines the scope of individual land use rights and states that such rights can be leased and bestowed. The Rural Land Administration Proclamation of 1997 delegates responsibility for land administration to regional governments. The FDRE states that peasant farmers, pastoralists and semi-pastoralists can transfer their rural land-use rights through donation (FDRE, Proc. No. 456/2005, Art.5.2) or inheritance (FDRE, Proc. No. 456/2005, Art. 8.5) to members of their family and can also rent/lease part of their holdings to other farmers or investors for a specified period (FDRE, Proc. No. 456/2005, Art.8.1).

In relation to land renting, the federal and regional proclamations and regulations impose several limitations in terms of the duration and size of land that can be rented. In fact, such terms vary widely amongst regions. The proclamation No. 456/2005 of Oromia states that; a landholder can rent out a maximum of half of her/his holding to other persons who want to engage in agricultural activities. Where the rentee practices traditional farming, the rental period cannot exceed three years, whilst in the case of application of modern farming practices; the rental period can be up to 15 years. However, the Proclamation further stipulates that "aged, disabled, orphans, and women can use their holdings by hiring labour, renting, or entering an agreement to share income with a developer". The proclamation also provides that land rental agreement shall be valid before the law only if it is registered and approved by the competent regional authority; hence, implicitly the agreement is required to be made in writing (LIFT Market Assessment for Amhara and Oromia, 2014).

LIFT Land Market Assessment: As per the programme objective of LIFT in providing SLLC to target farmers in the LIFT programme area, it was identified that conducting market assessment using M4P approach will bring a more comprehensive understanding of how the rural land rental market functions as a system. Accordingly, two market assessments were conducted and one of them includes Oromia. The findings from the assessment indicate that there are a lot of legal provisions including the constitution that the right to ownership of rural and urban land, as well as all natural resources, is exclusively vested in the State and in the peoples of Ethiopia. However, LIFT's fieldwork indicates that there is only a limited understanding of the land policy laws and regulations both by farmers as well as relevant government officials at the Woreda and kebele levels. Though renting land between rural households has been an important aspect of the traditional tenure system in the country, Farmers have limited willingness to rent out their land. Farmers fear that they could lose their land rights, vulnerable groups prefer sharecropping for fear of insecurity of land tenure and farmers are unsure how to determine the price during negotiations and are therefore unwilling to rent outside of their families. The findings indicate that there are a lot of associated factors (support functions) that affect farmers' decision in the rural land rental markets. Some of them include absence of any formal mechanism that liaises renters and rentees, poor awareness of the community on their rights and obligation over their land use right and limited understanding of the process and options that farmers have to rent/exchange land. Beside these factors identified through the market assessment there are more associated determinant variables in land rental transaction decision-making process. These are supported by different literatures, researches and practical experiences.

Objective of the Assessment

As clearly stipulated in the ToR, the objective of this assignment is to better understand what the key determinants for farmers are when making a decision to rent out their land and how can LIFT influence these to further strengthen the rural land rental market. The study will focus in two Woredas, Arsi Zone (Hitosa and Dodota) in the Oromia region, and use both qualitative and quantitative methods to respond to the research questions identified in the ToR. It is a research-oriented assessment and the detail approaches will be as provided in the methodology section.

Significance of the Study

The Economic Empowerment (EE) component of LIFT aims to improve the mechanisms that will allow farmers with SLLC to invest more on their land. Within the rural land rental sector, the EE unit is implementing four interventions and the intervention related to this research is Intervention 4 - Undertake research on relevant and actionable land issues and disseminate findings.

In 2015, LIFT commissioned Bahir Dar University to undertake a desk research review to map, assess, and evaluate existing and on-going researches in the area of rural land policy issues in Ethiopia. The review identified areas of further research that could help improve land management issues in Ethiopia and promote the sustainable development of the country. One of the areas identified for further research was the need to have a better understanding of what are the factors that directly influence farmers when making the decision to rent out their land and what are the elements that prevent/incentivise them to do so. Apparently, the consultants who are commissioned to do this research prepared a technical proposal in response to the call for consultancy on 'Assessment of rural land rental determinants in Ethiopia" to be conducted in the two Woredas (Hitosa and Dodota) of Oromia region.

Scope and Limitation of the research

The determinant analysis is conducted in the two Woredas, Hitosa and Dodota in Arsi Zone of Oromia region. Arsi zone is one of the 22 zones of the Oromia National Regional State, located South Eastern part of Oromia Regional State and south eastern part of the country. As per the inception report and agreed plan, the respondents are those land owners who have got SLLC/in the process of getting their SLLC. Accordingly, the finding of this research is limited in scope, focusing in two Woredas where SLLC is going-on/completed.

Organisation of the Report

The research report is organised in six chapters. The first chapter discussed the research background, land policies in Ethiopia, objective and significance of the study, and scope and limitation of the study. The second chapter deals with literature review that considered land use and management, land distribution, land tenure policy, legal frameworks/policies on land, land administration and institutions, land markets and investment, interventions on land, and land rental market researched in Ethiopian and Africa. The third chapter presented brief description of the study area and approach and methodology employed in data collection and analysis.

In chapter four the report dealt with the results and discussion of the research and finally chapter five summarised the findings followed by conclusions and recommendations.

Review of Literature

This section focuses on major issues in rural land market and variables associated with determinants of rural land rental in Ethiopia. The literature review is based on national data and information available in relation to the subject. It doesn't go in detail to provide Woreda specific literature review as it is very limited /absent to get such documents. Accordingly, this section briefly describes land use and management; land distribution; tenure types; legal frameworks and land use rights; land administration and institutions; land markets and investments; and land disputes. It summarises key issues related to market and policy.

Land Use and Management

Given Ethiopia's history, there is continuing lack of clarity or assurance regarding the rights of peasants, pastoralists, women and others to manage, access, or use land, forest, water, and mineral resources upon which they depend for their livelihoods.

Ethiopia covers an area of 1,127,127 square kilometres, of which 34% is agricultural land, 9.6% is arable (of which only 4.5% of arable land is irrigated); 3.6% is forest area, and 48.9% is covered by woodlands and shrubs. Out of the estimated 80 million people, 85% live in rural areas. This highlights the importance of land access for rural livelihoods. Accordingly, 80% percent of all Ethiopians depend, either directly or indirectly, upon agricultural and livestock production to fulfil their livelihoods (USAID, Property rights and Resource Governance (PRRG) Country Overview).

As indicated by USAID, country overview of Ethiopia, average farm sizes are small. More than 85% of farming households have less than 2 hectares. This has declined overtime with increasing population and some recent estimates indicate that more than 40% of the population is having 0.5 hectares or less. Smallholder farming is the most important sector in Ethiopia's economy During the five years of the Growth and Transformation Plan (GTP I) period, the share of agriculture has reached to 38.5% at the end of the plan period (MoFED, 2016). Almost 90% of the exportable items are generated from the agricultural sector; and 85% of employment opportunities depend on this sector. Crop production contributes to 35% of the GDP, of which Cereals account for 80% of crop production while oilseeds and pulses contribute nearly 15% of the value.

Ethiopia has also the largest livestock population in Africa. This livestock sector has been contributing considerable portion to the economy of the country, and still promising to rally round the economic development of the country (CSA, 2016). Livestock accounts for nearly 10% of GDP and 30% of the employment of the agricultural labour force. Permanent pastures comprise 63% of agricultural land. There is a nascent floriculture and horticulture export sector industry that is growing rapidly with exports of flowers mainly to European destinations. The government is actively encouraging both the smallholder and commercial agriculture to produce exportable surplus of coffee, oilseeds, pulses, flowers and vegetables via a number of agricultural development projects, some privately funded, and some supported by the donor community using a value chain development approach (USAID, PRRG).

However, the country lacks a comprehensive Land use policy, except the rural development policy, GTPI and GTP II which guides overall agricultural growth in the country. On June 9, 2016, the Ethiopian government announced the decision to develop a comprehensive national land use policy that provides a framework for a holistic and sustainable use of land to achieve social and economic development (Getachew, 2016).

Land use policy is at the heart of all development endeavours that aim to bring about economic transformation. Our success in achieving the transformation depends on the effective use of our land according to its potential," the Prime Minister declared at a high-level discussion held in his office. Accordingly, Desalegn ordered the development of a comprehensive national land use policy immediately, to be followed by a national land use plan within the coming three years. He urged all federal and regional government officials to ensure that the country's land and natural resources are put to their best use until the policy comes into effect and the national land use plan is implemented (Getachew, 2016).

Land Distribution

Successive national governments in Ethiopia have implemented differing approaches to the distribution of rural land.

The imperial regime of Haile Selassie allocated land ownership to political supporters without regard to its occupation or use by farming populations. This created a feudal regime of landholdings in much of the country,

with many farmers operating tenancies on lands held by absentee landlords. Growing popular anger and unrest over the oppressive and inequitable effects of this feudal tenure system, particularly the large-scale eviction of tenants to give way for commercial farming, were major factors leading to a coup in 1974 by a cadre of military officers (the Derg) and the overthrow of the Emperor (Devereux et al. 2005).

"Land to the Tiller", the slogan and rallying cry of the opposition, mainly composed of high school and university students before the 1974 Revolution, became the basis for the Nationalization of Rural Lands Proclamation of 1975 and subsequent sweeping land reform. Between 1976 and 1991, the Derg implemented a series of reforms in which —all rain-fed farmland in highland Ethiopia was confiscated and redistributed, after adjusting for soil quality and family size, among all rural households (Devereux et al. 2005, 121). The military Derg regime redistributed previously privatised land to farming households but went further than that, repeatedly redistributing land every year or two with the aim of achieving an equitable allocation of rights. Moreover, the Derg retained state ownership of some large properties, setting them up as state-owned and -operated farms (Devereux et al. 2005).

The government formed by the existing Ethiopian People's Revolutionary Democratic Front (EPRDF) in 1991 largely maintained the policies of the Derg with regard to land, assigning ownership to the state and use-rights to farmers and livestock keepers, while prohibiting sales and collateralisation, encouraging redistributions at the village (*kebele*) and district (*Woreda*) levels to avoid landlessness, and permitting limited leasing and inheritance rights to be exercised. Gradually, more authority for land distribution policies was delegated to regional states, and several regional governments began experimenting with different approaches to land redistribution in order to increase rural tenure security. However, this changed in 2005, when the adverse effects of frequent land redistribution were recognised by federal government which limited forced land redistribution to only irrigation development areas in Proclamation No. 456/2005 (Holden and Yohannes 2001).

Additional land can only be acquired through leasing, as current policy restricts consolidation of holdings and prohibits the sale or purchase of holdings. The more recent initiative to make unused land available on long-term leases to foreign investors has also been controversial. Leases to foreign investors have so far been granted for more than 600,000 hectares (or 1.4% of land suitable for rain-fed agriculture, according to the FAO) (USAID, PRRG)

Though it is widely believed that Ethiopia's approach to land access and use has resulted in a highly equitable distribution of land, there is substantial evidence that this may not be true. The vast majority of rural holdings are small (less than 2 hectares) and fragmented (average holdings of 2.3 plots), many farms are less than one hectare and a not-insignificant number of households are landless (Gebreselassie 2006). While the right of women's access to land is stated in the Constitution, anecdotal evidence suggests that women's role and involvement in decisions regarding the allocation and use of landholdings at the local level remains limited (Kebede 2008; Mersha and Githinji 2005; Stein and Tefera 2008). However, rectification initiatives have resulted in an increase in the number of women with legally recognised rights as holders by including both spouses on the certificate in the case of joint ownership, and providing certificates to women in case of divorce, separation or death.

Land Tenure Policy

As indicated in Review of African political Economy (2008), Ethiopia is one of several post-socialist countries undergoing an ambivalent transformation process towards some kind of capitalist economy. This applies in particular to land tenure regimes. After the fall of the *Derg* (military socialist) regime in 1991, privatization of farm collectives took place rapidly. Many international observers expected that in this process of 'post-socialist transition', a move towards privatization and registration of land titles would follow, which was regarded as a means to increase productivity of Ethiopia's small-holder agriculture. Despite expected changes in land tenure, the Transitional Government of Ethiopia, though being committed to the liberalization of the economy, decided not to question state ownership (Adal, 2001a; Belay and Manig, 2004; Jemma, 2001). In its declaration on economic policy in November 1991 (TGE, 1991), it announced the continuation of the land policy of the *Derg* regime. The new constitution of 1995 approved and confirmed the state ownership of land in Ethiopia (FDRE, 1995).

Research and studies in Ethiopia show that insecurity of land tenure restricts rights in land, reduces incentives to productively invest in land, and limits transferability of land. In turn, these pose significant constraints to agricultural growth and natural resource management (USAID, 2004).

Land tenure regimes in Ethiopia fall into three broad time periods:

Tenure System in Imperial era [1875-1974]

During the Imperial period the country had a complex land tenure system with a variety of arrangements in place although they are usually broadly categorized into two main forms. On the one hand in most parts of the southern half of the country private ownership of lands after the territorial expansion the Imperial government from the second half of the 19th century. Millions of hectares of land were owned by individuals who usually resided in urban centres whereas most of the agricultural activities were performed by tenants who were obliged to pay a certain proportion of their produce, ranging from a third to three-fourth of output, to the landowners, and provide them with additional labour services. The land tenure system also allowed land markets. The tenure system that turned millions of people into tenants who had little incentive to produce more and keep-up the productivity of the land they work on (Melaku, 2003). From the second half of 1960's, the expansion of large scale commercial agriculture put additional pressure on the tenants who were forcefully evicted from the lands they used to cultivate (Jemma, 2004). On the other hand, tenure arrangements in Northern Ethiopia could largely be identified as communal. The main form of access to land was through what was known as *rist or kinship*. It was a system of allocating land in a given community belonged to descendants of an ancestor, who is believed to have been the first settler of the land in that community. The main feature of this system was that if one is able to prove that s/he is a descendant of the first settler of the land in a community s/he would be entitled to get her/his share from the community's land. Thus, in this system insecurity was manifested through the possibility of dispossession of the present occupier's rights and the sale of land was not a common practice outside of the extended family unless all members agree to it (Rahmato, 1984 cited in Belay, 2003). In general; during the imperial era land was concentrated in the hands of absentee landlords, tenure was highly insecure, arbitrary evictions posed a serious threat, characterized by great inequality and impact on production and investment, not only affected productivity but it was also considered to have been the most important cause of political grievances that eventually led to the over throw of the regime (Deininger *et al.* 2007).

Tenure System under the Derg Regime (1974-1991)

The Derg (military regime) that overthrew the imperial regime in 1974 introduced radical changes in the land tenure system of Ethiopia. It abolished all customary land rights, making all land and property, except for one residential house per family, the property of the state. It vested in the state the power to redefine right of property and access to land. People were given only usufruct rights in land. Land use right transfers were severely curtailed only to inheritance by family members. Renting use rights of land, share-cropping and hiring labour to work the land were prohibited. Rural land administration was placed in the hands of peasant associations that had the power to redistribute land - a right that was exercised frequently. The periodic redistribution that took place in the 1980s combined with inheritance of land use rights resulted in reducing the size of rural land holdings and increased tenure insecurity (Bekure et al. 2006).

Tenure System under the EPRDF Regime (Since 1991)

The Ethiopian Peoples' Revolutionary Democratic Front (EPRDF) that took over power after the Derg regime was ousted in 1991 continued the same policy of state ownership of land. This was even enshrined in the 1994 Constitution making land ownership an inflexible policy instrument. Article 40(03) states:

> *"The right to own rural and urban land as well as natural resources belongs only to the state and the people. Land is an inalienable common property of the nations, nationalities and peoples of Ethiopia and shall not be subject to sale or to other means of transfer".*

Proclamation No. 89/1997 on Rural Land administration further defines the scope of individual land use rights and states that such rights can be leased and bequeathed. The land rights themselves cannot be sold or exchanged or used as collateral, but private property improvements on the land can be sold or exchanged. This legislation vested the power to administer land to the regional states and stipulated that their land administration and land use policies conform to the national and regional constitutions and federal land legislation (Bekure et al.2006).

Legal frameworks/Policy and Land Rights

Many African countries have recently changed their land legislation or institutional setup with the goal of being able to recognize land rights and provide security of tenure to occupants in new and innovative ways. Ethiopia is one of those countries that made such changes which includes locally administered rights in land, improved position of women related to land rights and (local) dispute resolution mechanisms.

The Ethiopian Constitution asserts state ownership of land; there are no private property rights in land. The Constitution affirms that —the right to ownership of rural and urban land, as well as all natural resources, is

exclusively vested in the State and in the peoples of Ethiopia and reserves the right of the government to stipulate the amount of land a citizen may hold. However, the Constitution also recognizes the right of peasants to —obtain land without payment and the protection against eviction from their possession. Proclamation No. 89/1997, “Rural Land Administration”, has further clarified Ethiopia’s national land policy. This law defines the scope of individual land use rights and states that such rights can be leased and bestowed. The Rural Land Administration Proclamation of 1997 delegates responsibility for land administration to regional governments. The FDRE states that peasant farmers, pastoralists and semi-pastoralists can transfer their rural land-use rights through donation (FDRE, Proc. No. 456/2005, Art.5.2) or inheritance (FDRE, Proc. No. 456/2005, Art. 8.5) to members of their family and can also rent/lease part of their holdings to other farmers or investors for a specified period (FDRE, Proc. No. 456/2005, Art.8.1).

The Tigray Regional State issued its first land proclamation in 1997, followed by the Amhara region in 2000, the Oromia region in 2002 and SNNP region in 2004. The regional rural land laws imposed significant conditionalities on both rental arrangements and inheritance. Small scale farmers who have land use rights in perpetuity are given the right to rent their land short term (2-5 years for traditional farming and 15-20 years if modern technology in the form of improved seeds, fertilizer and machinery are used). However, they were not allowed to use their use rights as collateral for loans. By contrast, commercial farmers that rent land are given longer term leases (25-50 years) and are allowed to mortgage their land use rights. Landholders are not allowed to rent all of their holding and the lessee has to dwell in the rural area and engaged only in farming. In Tigray region, if a landholder rents his land and leaves his farm for a period of two years or more, his land use rights are revoked and reallocated to landless applicants waiting in line, thus restricting the mobility of rural labour. Some regions allowed inheritance only to those children who are dependent on their parents and live in the rural areas (Tigray and SNNP regions).

The 1997 federal rural land proclamation provided wide room for redistribution of land. Thus, land was redistributed in some parts of the Amhara region in 1997 while redistribution of land was affected in the Tigray region much earlier during 1980-1990. Because individuals rather than households have use rights of land, women were not excluded. In Tigray, Oromia and SNNP regions land certificates of married couples have both the name of the husband and wife recorded, giving equal rights to the wife. However, in the Amhara, Oromia and SNNP regions where there are communities that practice polygamy, only the name of the husband and his first wife is recorded in the land certificate. Female children are not prevented from inheriting their parents’ land use rights (Bekure et al. 2006).

In relation to land renting, the federal and regional proclamations and regulations impose several limitations in terms of the duration and size of land that can be rented. In fact, such terms vary widely amongst regions. The proclamation No. 456/2005 of Oromia states that; a landholder can rent out a maximum of half of her/his holding to other persons who want to engage in agricultural activities. Where the rentee practices traditional farming, the rental period cannot exceed three years, whilst in the case of application of modern farming practices; the rental period can be up to 15 years. However, the Proclamation further stipulates that “aged, disabled, orphans, and women can use their holdings by hiring labour, renting, or entering an agreement to share income with a developer”. The proclamation also provides that land rental agreement shall be valid before the law only if it is registered and approved by the competent regional authority; hence, implicitly the agreement is required to be made in writing (LIFT, 2014).

When it comes to SNNP region, according to Regional Proclamation No. 110/2007 farmers are allowed to rent out their land with no explicit restrictions on the percentage of land that can be rented. In addition, the proclamation allows for three different durations: Up to 5 years, for farmer to farmer rentals for cereal crops; up to 10 years, for farmer to farmer rentals for other perennial crops (e.g. some fruits, coffee, etc.); and up to 15/25 years for rentals to investors or institutions. The investors must be registered at the Investment Bureau.

In Tigray region, however, farmers are significantly more restricted in how much land they can rent out. According to Regional State Rural Land Administration and Use Proclamation No. 239/2006 and regulation No. 85/2006, Article 9, farmers can only rent out up to half their certified landholding to other farmers or investors. In addition, there is no special provision for members of vulnerable groups to rent out a larger percentage of their holding (compared to Oromia Proclamation 456/2005, under which vulnerable groups are exempt from the 50 percent limit). As for duration, land rental agreements for traditional farming practices are for a maximum of three years, unless the rentee is an investor applying modern technologies, in which case they have the right to rent for up to 20 years (LIFT, 2015).

Land Administration and Institutions

Many African countries have recently changed their land legislation or institutional setup with the goal of being able to recognize land rights and provide security of tenure to occupants in new and innovative ways. Ethiopia is one of those countries that made such changes which includes locally administered rights in land, improved position of women related to land rights and (local) dispute resolution mechanisms (Deininger et al. 2006).

Due to the significance of land for a country's growth and development, experts argue that the need for its appropriate administration and management is key for the country's future. Land administration is defined as the regulatory framework, institutional arrangements, systems and processes that encompass the determination, allocation, administration and information concerning land two important elements of a land administration system are (1) the registry, which records the rights to land, and (2) the cadastre, which provides information on the location, boundaries, use, and values of land parcels (World Bank, 2012).

The Transitional Government of Ethiopia established in 1991 initially continued the Derg's land policies. Under the 1995 Constitution, the state retained ownership of all land and the right to seize and redistribute as needed. Today, experts see Ethiopia's land administration as a major source of concern given the country's level of poverty and development. In Ethiopia, all land is under public/state ownership. While land is not subject to sale or other means of exchange, the government does recognize use rights and holdings (Solomon and Mansberger 2003). The country's legal and institutional structure with regard to land administration has been criticized for being unnecessarily complicated. While the Ministry of Agriculture and Rural Development (currently restructured as Ministry of Agriculture and Natural Resources) is the key responsible organ for the implementation of land administration laws, existing legislation is found on a piecemeal basis in different parts of the civil code and rural and urban land laws (Belachew and Aytenfisu 2010) as sited from (World Bank, 2012).

The Federal Rural Land Administration and Land Use Proclamation No. 456/2005 was enacted for the purpose of ensuring tenure security; strengthening property rights of farmers; sustainably conserving and developing natural resources; establishing land data base; and establishing an efficient land administration in the country. Significant authority and responsibilities for land administration were transferred to regional governments, including authorities that provided the legal basis for piloting of land certification activities that are ongoing and broader in their geographic scope. These certification processes consist of adjudicating land rights for each parcel of land by ascertaining landholdings by village land committees in the presence of adjoining landholders. The landholder(s) of each parcel are given certificate of holding if the land rights of the parcel in question are not contested by another claimant(s). If the land rights are contested, the village land committee attempts to resolve the contest, failing which the contestants settle the case in the district court. A landholding certificate is issued to such parcels only after the contest is settled.

The Federal Rural Land Expropriation Proclamation No.455/2005 mandated improvements to the land administration system, implementation of land-use planning, and compensation for expropriated lands. It may also have made it easier for federal and regional authorities to expropriate communal land of pastoralists for private investment and development projects. Amhara, Oromia, the Southern Nations, Nationalities and Peoples (SNNP) and Tigray Regions have subsequently enacted corresponding laws that are being implemented.

The federal Ministry of Agriculture is supporting a broad titling and certification initiative that is being implemented in Amhara, Oromia, SNNP, and Tigray Regions. Regional governments are the principal administrators and regulators of land, including the assignment and granting of use-rights and regional land-use planning and administrative authorities are responsible for recording, documenting, and administering use-rights. In rural areas, it is the Land Administration Committees at the *kebele* level that are most relevant to the process from the perspective of most Ethiopian farmers. About three million households received their First Level Land Certificates (FLLC). This first phase is weak on the description of the land plots, which neither include a map, nor any kind of spatial reference (save a list of neighbouring landholders), and only give a roughly measured or estimated indication of the acreage. Nevertheless, the fact that it is covering large areas (and soon all rural landholdings in several states) makes it possible to have a real effect on the way land is administered and managed in those states. This differs from the 'advanced' cadastral and registry approaches that even after many years often only extend to certain pockets of a territory (Deiningera et al. 2006)

The second phase of land certification (Second Level Land Certification) is in progress in the four big regions of Ethiopia. The certification adds additional spatial components to the first level certification. This is in the form of parcel map, supplied to the right holder in hard copy and maintained digitally at Woreda level. The dimensions of the parcel are demarcated in the field and digitized into a GIS. The primary component of the

LIFT programme in terms of both activity and cost is the second level land certification which will take place in 140 programme Woredas which will cover about 14 million parcels. Hitosa and Dodota are among these Woredas. The SLLC process combines GIS technology and data with participatory field techniques. Ortho-photography is used to produce high resolution maps on which land holders, assisted by trained field teams, will identify their parcel boundaries (Abegaz et al. 2016).

Despite the institutions and proclamations being in place, land administration in Ethiopia phases several challenges, as indicated in literatures. These include there is no federal institution responsible for land administration to support and coordinate regional efforts, at the regional level, institutional structures vary with the four regional governments and each has adopted a different approach to land administration institutional structures.

Implementation of land administration at the regional and local levels is constrained by a shortage of trained staff and finance, exacerbated by the intent to further decentralize land administration to Land Administration Committees at the *Woreda* and *kebele* levels without always providing sufficient resources. (Deininger et al. 2008).

Land Market and Investments

Land is a sensitive and contentious topic in Ethiopia, and two primary approaches inform debates over policy. Economists and donors present a range of possible policy changes to improve productivity and efficiency, including privatization of land, liberalization of land rental markets, and instituting secure, long-term and transferrable use rights. The government promotes fairness and protection of the rural peasantry through State ownership of land and restrictions on land transactions, including rental markets. Entrenched views on land ownership policy mean there is little likelihood that the status quo of State ownership will change anytime soon. Thus, it is useful to examine the role that land rental markets play as an important means of accessing and transferring agricultural land in the country.

Restrictions in Ethiopia's land laws regarding transfer of property have inhibited the emergence of even an informal market for rural and agricultural land. Existing federal and regional requirements for residency on or near one's holding and restrictions on transfers limit access to land for immigrants and constrain the movement of people to areas of greater availability of land for fear of losing existing holdings. There is, however, an active market in land leases for both short- and long-term periods (USAID, PRRG).

As per the programme objective of LIFT in providing SLLC to target farmers in the LIFT programme area, it was identified that conducting market assessment using market systems approach will bring a more comprehensive understanding of how the rural land rental market functions as a system. Accordingly, two market assessments were conducted and one of them includes Oromia (LIFT, 2014). The findings from the assessment indicate that there are a lot of legal provisions including the constitution that the right to ownership of rural and urban land, as well as all natural resources, is exclusively vested in the State and in the peoples of Ethiopia. However, LIFT's fieldwork indicates that there is only a limited understanding of the land policy laws and regulations both by farmers as well as relevant government officials at the Woreda and kebele levels. Though renting land between rural households has been an important aspect of the traditional tenure system in the country, Farmers have limited willingness to rent out their land. Farmers fear that they could lose their land rights, vulnerable groups prefer sharecropping for fear of insecurity of land tenure and farmers are unsure how to determine the price during negotiations and are therefore unwilling to rent outside of their families. The findings indicate that there are a lot of associated factors (support functions) that affect farmers' decision in the rural land rental markets. Some of them include absence of any formal mechanism that liaise renters and rentees, poor awareness of the community on their rights and obligation over their land use right and limited understanding of the process and options that farmers have to rent/exchange land. Beside these factors identified through the market assessment there are more associated determinant variables in land rental transaction decision-making process. These are supported by different literatures, researches and practical experiences.

The federal government has initiated taking responsibility for leasing contiguous land areas in excess of 5000 hectares in order to expedite development of such lands for export and industrial crops. The Agricultural Investment Support Directorate was created in 2009(currently restructured) within the Ministry of Agriculture to identify, delineate and transfer such lands to investors. As of 2011, it had identified a total of 6 million hectares of land that would be made available to investors, with the majority of this land located in Gambela, Beneshangul-Gumuz, Afar and Southern Nations, Nationalities and Peoples (SNNP) (GoE 2009). As of mid-2010, a total of 1.2 million hectares have been allocated to local and foreign investors. The distribution by

regional states in hectare is in Gambela 535,000 hectares, in Oromia 380,000, in Benishangul-Gumuz 191,500, in SNNPR 60,500, in Afar 20,000, and in Amhara 18,000 (Deininger and Byerlee 2010).

The Agricultural Support directorate is now restructured as Ethiopian Agriculture Investment and Land Administration Agency since 2014.Ethiopia is endowed with fine and suitable agro-ecology for large scale farming and is a land of unique opportunity for agricultural investment. Taking this in to consideration, the Federal Democratic Republic of Ethiopia has given particular attention for the sector. As a result, many local and foreign investors have been highly attracted to invest in large scale agriculture in the country. Primarily, land identified for the agricultural investment has been properly administered, fairly distributed, according to the rules and regulations, to the investors under the agricultural investment support directorate within the Ministry of Agriculture. Now it is launched as “Agricultural Investment Land Administration Agency” under the Council of Ministers Regulation No. 283/2013. It is believed that the newly established agency facilitates over all agricultural investment, land administration and transferring process more significantly than before (Abera, 2013).

A long-term land lease ranging from 25–99 years is issued, and the investor given support to facilitate implementation of the business plan. Investors seeking land less than 5000 hectares go through the same procedure by applying to the regional state’s investment bureau and signing lease agreements with the regional agricultural land administration agency (Crewtt et al. 2008). Critics have noted that this long term commercial leasing process is not always participatory, stakeholders including current users of the land are not always adequately consulted, and the terms of the leases and the allocation process are not transparent, making it unclear whether each land allocation is beneficial to the economy in general and to the local communities in particular. This has contributed to an active debate as to whether further steps toward establishing markets for land would be useful in terms of encouraging investments and increased productivity. Some economists have argued that Ethiopia’s restrictions on rental, mortgage, and land sales have caused inefficient land use, unrealized productivity, and food insecurity. They argue that a liberalization of restrictions, allowing the sale of land, will lead to the development of a robust land market and a net gain in agricultural productivity and economic performance (Grover and Temesgen 2006; Deininger et al. 2003).

Interventions on Land

This section provides a basic highlight of interventions related on land into two parts, government and donor supported interventions.

Government Interventions

Access to productive land and the security of tenure on land are issues of critical importance across Ethiopia. Many farm households experience moderate to extreme land scarcity, while others have access to adequate acreage but find the quality of the land inadequate to generate sufficient incomes through either crop or livestock productions.

Efforts since 2004 to convey more secure tenure rights through low-cost certification of plots have been well-received by rural Ethiopians as well as many external donors who believe that such measures will underpin greater rural investment and poverty reduction (Deininger et al. 2008). Since 2007, the government of Ethiopia has initiated and approved foreign-financed agricultural projects and leased the land that makes these investments possible.

In order to address the lack of tenure security accompanying state ownership of land, first level certification programs of use-rights have been carried out and have increased perceptions of tenure security and resulted in economic benefits for participants (Deininger et al. 2008; USAID 2008). It has been only eight years or less since land administration development activities have been implemented in the four regions. Despite the brevity of the experience, notable benefits have been registered. Preliminary findings of studies confirm that GoE‘s regional land certification program is appreciated by rural landholders and is resulting in increased sense of tenure security leading to attitudinal change from short term exploitation to long term protection and development of land with multiple positive benefits. Recorded benefits include: increased soil conservation; increased planting of perennial crops including timber; increasing intensive production; enhanced land rental market; gender equality in tenure rights; and significant reductions in land disputes. In some *Woredas* reported court cases are down, and the cadastral-based modern method of land certification appears to be enhancing farm household’s confidence and security of tenure (USAID, PRRG). As a continuation to the first phase of land certification, the government is implementing Second Level Land Certification with the support of external donors.

Realizing that Ethiopia's development is increasing the demand for an appropriate policy and legal framework for governing land, and an effective land administration system to deliver rights, the GoE is demonstrating commitment to further improve land administration and use management. Some of the most visible efforts is the establishment of a Directorate for Rural Land Administration and Use under the Ministry of Agriculture (MOA) (Abera, 2013).

Donor Supported Interventions

The Ethiopia Strengthening Land Tenure and Administration Program (ELTAP), funded by USAID from 2005 to 2008, was implemented by the Ministry of Agriculture (MOA) in four regional land administration and land use bureaus. It focused on the implementation of a land certification system in the four regional states of Amhara, Oromia, SNNP, and Tigray. Components were designed to strengthen tenure security and improve systems of land dispute resolution, streamline and improve the effectiveness of land titling and administration by standardizing rural land registration and cadastral surveying methodologies, increase capacity through training and provision of materials, and increase support of public information and awareness about land laws, regulations, and procedures.

The Ethiopia Strengthening Land Administration Program (ELAP), funded by USAID from 2008 to 2013, continues the work initiated under ELTAP., The program focused on extending certification and survey activities to new areas; including Afar and Somali regions that have considerable pastoral lands; formulating land policies and preparing land laws and regulations; broadening the scope of public information awareness; improving coordination among federal and regional governments responsible for land administration; building and coordinating support among donors for federal and regional land administration strengthening; and developing the potential for commercial land investment.

The Ethiopia Land Administration to Nurture Development (LAND) project works at the national and regional levels of government to further improve the legal and regulatory framework related to land tenure and property rights and thereby support the Government of Ethiopia's and USAID's goal of increasing economic growth; particularly agricultural sector growth; improving rural resiliency; and improving governance. LAND project uses a variety of activities to strengthen capacity of land administration and land use institutions. In addition, LAND project supports activities focusing on securing rights to community lands; and strengthening capacity of community members to manage their natural resource assets.

The LAND project builds on two previous USAID/Ethiopia projects, ELTAP (2005-2008) and ELAP (2008-2012to improve land governance and land administration and strengthen land tenure rights in Ethiopia and thereby promote economic growth, increase agricultural productivity, reduce conflict and resource degradation and improve women's rights to control and manage assets (USAID ELTAP,2016).

The Netherlands is providing funding to FAO to facilitate land registration activities in Kafa Zone, Southwest Ethiopia and support of regional and national fora and workshops regarding the practical impacts of land policy. The Swedish International Development Cooperation Agency (SIDA) has supported land registration in the Amhara region of Northwest Ethiopia, the results of which has supposedly included a reduction in land conflicts, increased investments in farming equipment, and improved agricultural production (ORGUT Consulting 2010). Finland is implementing a project to support land administration in Benshangul-Gumuz regional state and the growth corridor of the TanaBeles river basin in the Amhara regional state, Responsible and Innovative Land Administration in Ethiopia (REILA). The overall objective of the project is improved livelihood and economic wellbeing of the rural population through promotion of sustainable land management practices (MFA, Finland, 2016). The project supports policy, legal and institutional reform, cadastral surveying and mapping and capacity building of the land administration agencies of the two states and the federal government.

Land Rental Market Research in Ethiopia and experience from Africa

There are a lot of researches around land issues. However, researches related to determinant analysis on land market are very much limited in Ethiopia. This literature offers very few related researches here under, and describes the research approach employed, their major findings and conclusions. Accordingly, a review of five researches conducted in Ethiopia and three similar/related researches conducted in Africa is provided below.

Determinants of Household Participation in Land Rental Markets in Amigna District, Arsi Zone of Oromia Region, Ethiopia was conducted by Abaineh et al. This study examines factors affecting household participation and intensity of the participation in land rental markets using data collected from 118 households. The results revealed that landholding and age of the household heads are important variables which had an inverse but significant influence on participation and intensity of participation in land renting-in market. These

variables were found to positively affect renting-out market. On the supply side, having less oxen and being aged are more likely to affect renting-out. Credit market imperfection, tenure insecurity and poor infrastructure development remain important factors impeding the function of land rental markets. These suggest that interventions should emphasize facilitating land-related transactions through creating effective micro-finance institutions, public awareness and strengthening enforcement of formal rules in land rental markets.

Most recent study on related subject by Abayineh Amare, ***Agricultural Land Market Transaction: The Case of Land Rent-in Market in Amigna District, Ethiopia***, was published in Journal of Agriculture and Biodiversity Research, 2013.In the introductory note, it was indicated that land market developments and household access to land through land rental markets are important for the majority of Ethiopian people who, in one way or the other, depends on agricultural production for their income and subsistence. The objective of this study was to empirically examine factors affecting participation and intensity of participation in land rental markets in the Amigna district. Determinants of land rental market in the district were studied based on a survey of 88 sample household heads selected using probability-proportional-to-sample-size technique from four peasant associations (PAs) purposively selected followed by multi-stage random sampling. Result of the Tobit model in this research indicates (that the same result as above; landholding size, and age of the household heads is important variables which had an inverse and significant influence on participation and intensity of participation in land renting-in market). The result further revealed that access to rental land is tightening to farmers with no access to credit, less oxen ownership, and older households. The overall finding of the study revealed that credit market imperfection remains an important issue impeding the smooth functioning of a dynamic land rental market. The research concluded that policy attention should focus on issues which impede performance of rental market to contribute to further efficiency and equity improvement vis-à-vis institutional support systems such as facilitating micro-finance institutions; strengthening infrastructural development so as to enhance well-functioning dynamic land rental markets in the district.

A research conducted by Tesfaye Teklu, **(**Associate Professor) entitled ***Rural Land, Emerging Rental Land Markets and Public Policy in Ethiopia*** is published by African Development Bank (ADB, 2004). The introductory note indicates that while farmers today access land mainly through administrative-based land distribution, transactions in rental markets are on the rise. Different rental contracts are informally arranged with varied land use and transfer rights and degree of enforcement. These contracts are often interlocked to overcome the problem of incomplete or missing non-land factor markets. The findings indicate that transactions in rental markets provide an additional venue to access land, reduce disparity in distribution of area of land operated, correct imbalances in factor proportions at farm level, and partly substitute for missing or incomplete factor markets. However, rights to rental land are restricted and poorly enforced, and markets are localized and thinly traded. While participation in rental markets is potentially welfare improving, increasing scarcity of land and demands for higher rent, a fee for right to rent land, payment in cash, farming skills and experience, and proof of no-default are tightening conditions to access to land, particularly to the young poor farmers. The research concludes that public policy has an important role in formalizing and enhancing the development of rental markets through strengthening enforceable long-term security of tenure, providing legal cover to rental contracts, allowing tradability of long-term use rights through rental markets, and providing the institutional mechanism to enforce contracts and reduce the burden of self-enforcement. These policy measures need to be nested within a broad framework of market development and informed by policy research and experimentation.

Ayele et al, in 2004 conducted a research entitled ***Determinants of Land Contracts and Efficiency in Ethiopia: The Case of Libo Kemkem District of Amhara Region***. In their introduction note they indicated that there are different arguments regarding sharecropping and land tenure arrangements in productivity and efficiency. The efficiency of land lease market is a critical issue in many developing countries including Ethiopia. Land markets are obviously thin and inhibited by problems of asymmetric information and limited development of credit markets. The issue will be more important in Ethiopia, under a situation where land sales are officially prohibited but leasing and inheritance are allowed in one form or another. They conducted the research with the help of maximum likelihood estimates the effect of various factors on total operated fields and tenure arrangement was examined. Econometric method has been employed to model the effect of land use, lease contract choice, use of labour, oxen and output. Choice of tenure arrangement on the other hand depends on livestock units, large family size and food shortages, and access to markets. On their conclusion, they indicated that the finding calls for a kind of intervention, which can support operation of informal land markets to be more efficient than the prevailing situation.

Other similar researches conducted earlier on ***determinants of rural land rental, decision whether to rent out land or not, markets*** are largely land-constrained farmers whose main objective is to increase the area

of operated land. The better-off farmers, who have labour, oxen, seed, and cash, are more into renting land since they rarely hire out their labour. But those who are short in land, oxen and cash, especially the young and newly formed households, either exchange their labour for land or hire out their labour. If the lessee has a reputation for trustworthiness and industriousness, he may acquire land from non-parental sources in the form of rent (Yared Amare, 1995). The econometric evidence in TesfayeTeklu and Adugna Lemi (2004) shows that the decision to lease out land is positively correlated with the size of PA land relative to other complementary inputs such as labour and oxen, poor quality of land, female-headship, number of dependents in a household, poor adult nutritional status, and distance from better infrastructure and market access. Consistent with the hypothesis of subsistence pressure, as the number of dependents in a family increases, farmers lease out land in exchange for access to credit for meeting consumption needs (Tesfaye, 2004).

Similar studies conducted in Africa have used different models for rural land market analysis. The methods used and the findings of some of the researches is provided as follows.

Determinants of land rental markets: Theory and econometric evidence from rural Rwanda conducted by Claude Bizimana (Journal of Development and Agricultural Economics Vol. 3(4), pp. 183-189, April 2011) studied based on a survey of 251 household farms from the Southern Province during 2006 to 2007. Accordingly, the research indicates that Land market developments and household access to land through land rental markets are important, especially at the stage where land reform is taking place in Rwanda. Determinants of land rental markets in rural Rwanda, assessed according to household and land market characteristics as well as transaction costs constraints using household data collected through a survey of 26 cells (a sample of 10 household heads from each) from three administrative districts. The empirical model used was censored Tobit regressions to analyse the determinants of land rental markets. Based on the theory and empirical evidence, renting in and renting out decisions were estimated separately. The determinant/independent variables include age, education, family size, income, use of credit, land size, land quality and tenure certainty. Results from the analysis indicated that, households often combine buying and renting of land to adjust their land holding to the optimal farm size. Land rental markets reallocate land between households with different management abilities and allow a consolidation of land use, as land ownership in Rwanda is very fragmented. Land specific issues such as transaction costs, rural credit and labour constraints impeding access of households to land were evident in the data. The recommendations provided indicate that policies should be implemented to improve the functioning of other rural markets, in order to allow the rental markets to contribute to further efficiency improvements and poverty reduction in rural areas.

Similar related research was conducted in Kenya by Wilfred Nyagena, University of Nairobi. The research was entitled "***Determinants of household participation in land Rental Markets in Rural Kenya***". The study identified determinants of participation of rural households in the land rental market in Kenya. On the basis of rural households from Laikiapia district, a number of theoretical hypotheses on what determines the participation of households in land rental markets in Kenya were tested. According to this research finding, rental markets have important positive equity and efficiency effects in Kenya, despite existing imperfections. It found out that land-poor households' access land through the land rental market and are able to access land through renting in than through sales markets. One of the recommendation was policy attention should focus on issues which impede performance of rental markets to contribute to further efficiency improvements and poverty reduction in rural areas of Kenya.

Research Methodology

In this section of the report the information discussed includes a brief overview of the study area and the descriptive and regression data analysis methods employed to achieve the results of this study. Moreover, data type, method of collection and sampling technique utilized are briefly described. Qualitative data analysis procedures and determinant analysis using binary logistic regression are the methods employed for estimation and analysis. The brief description is divided and presented into sub-division as described below.

Description of the Study Area

The determinant analysis is conducted in the two Woredas, Hitosa and Dodota of Arsi Zone in Oromia region. Arsi Zone is one of the 22 Zones of the Oromia National Regional State, located at South East of Oromia Regional State. The variation in its altitude enables Arsi Zone to have different agro-ecological Zones. The Zone is characterized by mixed farming system. It is known for its surplus production and known as wheat-belt of Ethiopia (Tamrat, 2015).

Hitosa Woreda is located along the northern border of Arsi Zone. Iteya is the capital town of Hitosa Woreda. The Woreda with Iteya the capital town has 23 kebeles with estimated total households and population size of

17,536(LIFT, 2014) and 155,864 (CSA, 2015) respectively. It is estimated that more than 85% of the population of the Woreda lives in the rural area. The land area of the Woreda is 59,436 hectares. Eteya is the market centre for surrounding kebeles. There are three agro-ecological zones in the woreda, Dega, Weynadega and Kolla, which is high land, mid-land and lowland respectively. Annual rainfall in the Woreda is 600 – 900mm, and rain fed agriculture is the major source of livelihood for the population. The general Land use and cover of the Woreda is estimated to be crop production covers 52%, Grazing land 16%, forest/scrap land 28% with estimate total land area of 51,800 ha. The Woreda is characterized by high to medium plateau and ridge systems where the altitude ranges from 1500-4170 Meter above Sea Level (masl). Mount Chilalo is the highest peak where, the altitude reaches to about 4170 meters. There are two regional protected forest areas in the Woreda; the Chilalo protected forest area and Jawi-chilalo protected forest area. These protected forest areas are owned and managed by Oromia wild life and Forest Enterprise Agency. During the rainy season flood hazards are reported to be frequent in kebeles situated at the valley bottom lands. Kebeles prone to flooding hazard includes Gury, Deyee and Habeguc. On the extreme, kebeles located in the lower altitudes suffer from frequent drought hazards and this includes Guridabla, Danisa, Dayadabaso, Hurutaba, Dandi and Tero. The Woreda at present has three private agricultural investments: a horticultural farm, poultry farm and beef fattening farm (LIFT, 2014).

Dodota Woreda has 12 kebeles of which 9 are rural kebeles and the remaining 3 are urban kebeles. The total population in the Woreda is 83,125 and out of this 41,534 are female (CSA, 2015), with 10760 HHs. The total land area is estimated at 40,560 ha (Dodota Woreda Administration, 2016). The agro-ecology of this Woreda is mainly Kolla, almost all the rural kebeles with altitude of 1360 - 2070 Meter above sea level. The predominant land use in the Woreda is crop cultivation, where the major crops grown include wheat, barley, teff, maize, beans and pulses. The planting of the major crops is during mid-June/ beginning of July and harvested during the month of November. The Woreda is characterized by plain fields to medium undulating plateaus and ridge systems. During rainy season flood hazards are reported to be frequent (LIFT, 2014). There are is significant environmental hazards known in the Woreda, primarily related with drought. In the whole Woreda, there is limited commercial agricultural investment.

Research/Assessment Conceptual Framework

As researches indicate a growing and increasingly important trend in the social and behavioural sciences is to think about and attempt to understand specific research problems from multiple angles, well designed using theoretical as well as practical experiences from interdisciplinary perspective (Oxford University Press, 2010). Developing a research theoretical framework is essential to demonstrate an understanding of theories and concepts that are relevant to the topic of the research and relate to the broader areas of knowledge being considered. It helps to develop an explicit statement of theoretical assumptions, give a basis for developing hypotheses; permits generalize about various aspects of that phenomenon and help to identify the limits to those generalizations. A theoretical framework specifies which key variables influence a phenomenon of interest and highlights the need to examine how those key variables might differ and under what circumstances.

The following framework was used to guide the overall process of this research. Accordingly, land renting is associated with multiple factors including resources, policies and institutions, which results in an outcome, which determines the household status. The resources, policies and institutions combined effect could incentivize a household, which will result into to rent his/her land. If the combined factors outcome becomes disincentive for a particular landowner, then the household could decide not to rent out his land. This framework was presented to LIFT/EEU programme team and valuable inputs have been provided. As per the comments provided the initial framework at technical proposal level is revised and included in the inception report. The landowner decisions hypothesized above are going to be tested through this determinant analysis and the decision-making process will further be verified through qualitative findings. Accordingly, in this theoretical model various interlinked factors are included which determine land-renting by a given household.

Table 1: Research Framework

RESOURCES/CAPABILITY		POLICIES/INSTITUTIONS		OUTCOME OF THE DETERMINANT FACTORS AND LAND OWNER DECISIONS
NATURAL	Land size Irrigation access	Institutional support to facilitate LR/LF Access to extension service Access to credit/finance for agricultural inputs Access to LRSP (old and new) Access to agricultural Machinery	LEGAL PROVISIONS Legal support on RL Transaction Knowledge on Land Rental Legal Frameworks Perception on land security	Incentive to rent the land (Renting)
HOUSEHOLD ECONOMY	Income Access to Credit Perception on the productivity of the land Ownership of productive assets (oxen & machinery)			
DEMOGRAPHIC	Age Family size Family structure (Female/Male Headed)			Disincentive to rent the land (no renting)
SOCIAL	Social Status (as perceived by the renter) Vulnerability Status Education			

Research Approach

In the analysis of determinant factors on land rental the following four interlinked approaches were applied. These are:

- **Assessment of Land Rental Market (Literature review):** Extensive document review was part of the research. At the start of the assessment a document mapping exercise was employed to identify key literatures related with land including LIFT programme documents and literatures outside the LIFT Programme (which includes researches, policies, land laws, regulations etc.). Relevant documents that have been identified during the kick-off meeting with LIFT/EEU programme staff are reflected and captured in refining the inception report. As per the ToR, further document review will be conducted, and relevant findings will shape the assessment approach, specifically in-terms of identifying the most important determinant variables.
- **Identification of key determinant Factors/Variables:** The major variables/factors that determine land renting were identified at two levels. First level was identifying a list of factors (variables for the research) from theoretical and practical perspectives. The second level was identifying the major determinant factors through engaging different stakeholders in the identification process. Initial identification of the most important variables has been conducted with LIFT/EEU team. Further identification/validation of the variables was conducted with key stakeholders at a later stage (including Mekele University).
- **Econometric Analysis of Land Rental Market determinant factors and their level of influence:** econometrics model which will help to identify the significant variables and their degree of influence through quantifying the variables using simple regression analysis is employed.
- **Triangulation of determinant factors (qualitative and quantitative findings):** through this method the data analysis and result findings from the qualitative and quantitative data collection were triangulated and substantiated further to justify findings as well as interpret results.

Research Methodology

The following section provides details of the assessment methodology. The quantitative and qualitative analysis methods are separately explained.

Sampling and sampling Frame

As indicated in the methodology section above, household survey was employed to collect data on household specific responses that determine land renting decision. This was made in relation to the variables identified through major stakeholder engagement. The consultant team employed a multi-stage cluster sampling technique where the Kebeles were identified as first level clusters and 2nd level clusters were specific Villages where the SLLC project intervention is taking place. The Kebeles for this research were randomly selected using statistical software and a total of 15 kebeles (10 in Hitosa and 5 in Dodota) were identified for the research, from kebeles where SLLC is completed/going-on. The sample frame was the total farmers/land owner in those kebeles which have the SLLC and their number was obtained from the Woreda LAU and kebele Administration in each Woreda. To consider appropriate selection of households for interview random sampling technique proportion to size was employed to determine the sample size at each kebele. A random sampling technique was employed to select households in each cluster/village. In this regard, data collectors and supervisors were trained on the techniques of random selection and how to identify sample households.

For practical reason sample size was determined using the following formula. The standard sampling frame formula used to estimate the sample size is Kish, Leslie (1965)

$$n = \frac{z^2 * p * (1-p)}{c^2}$$

Sample size estimation has been verified at initial kick off meeting with LIFT HO programme staff. Accordingly, a total of 170 households (HHs) were interviewed in the two Woredas. This level of sample size was reached with standard sample size calculation with:

- estimated population size of 50,000 household
- 95% Confidence Level
- Desired precision of (CI) ±7.5%

During the field research the actual population size of each Woreda was used to allocate proportional sample size between the two Woredas. Accordingly, 117 from Hitosa and 55 households in Dodota Woreda has been interviewed and included in the analysis. Two additional households are included in Hitosa so as to maintain the proportional sample size as per the population size in the sample kebeles. Accordingly, the total sample size included in the analysis was 172.

Data Type, Source and Method of Data Collection

The data used in this study include both primary and secondary data which was collected using different tools from target sources identified during the inception phase.

Quantitative Data: This was collected from document reviewed and interview of households using questionnaire. The survey questionnaire included questions related with household demographics, livelihood, education, access to services, institutional support, social and vulnerability status, knowledge on legal framework etc. As agreed during the Kick-off meeting due consideration was provided for gender, vulnerability status and agro-ecological differences. Accordingly, gender representation in the interview was maintained by giving weight for female headed households according to their number in the two Woredas. Moreover, consideration has been given to capture agro-ecological difference so that the three agro-ecology zones were included in the sample. Kebele with irrigation access were also included to capture the information related with land renting in the context of irrigation access.

Qualitative Data: qualitative data has been collected from different target groups including land owners, land rentees, Vulnerable Groups (Women and aged people), land renters, key stakeholders from the Woreda sector offices and Land Administration Committees at kebele level using KII, FGD and case story tools. The key questions included were what are the incentives that farmers have to rent out their land; how do these differ in the case of sharecropping and fixed/cash rental; what are the key determinants for farmers renting out their land; how do farmers actually determine the amount of land that they want to rent out; how do fixed rental agreements address different risks (e.g. inflation), particularly in case of long- term leases and the engagement of major stakeholders in the process etc.

Method of Data Analysis

Appropriate methods useful for the analysis of both quantitative and qualitative data were employed. Accordingly, quantitative data was systematically analysed using appropriate software to provide a clear picture for the qualitative findings. Qualitative data (gathered through interviews, focus group discussions, and observations are analysed and discussed together with the quantitative data to give the overall picture of the assessment. The quantitative data is used to enrich and illustrate the findings of the determinant analysis and complements qualitative data findings. Quantitative data collected through survey questionnaire e were entered into SPSS latest version for the analysis. The analysis used for the household survey is binary logistic regression technique which is applicable and relevant for similar types of research.

The Analytical Model

In the analysis of determinant factors for land rental besides quantifying determinant factors researchers and policy makers are often interested in identifying causes of decision-making process, and hence what determines this situation. In doing so econometrics techniques are applied as an appropriate tool. In this case, binary logistic regression was applied using latest version of SPSS software. Hence, it follows that in analysing the determinant factors for land rentals was a probability model which is used in which the chances of making decisions are linked to household, socio-economic, natural, political and geographical characteristics. Given the dependent variable of main interest, a given household may be interested/decide to rent his land or not/otherwise. This is a qualitative response / situation / hence, the variable, or dependant variable can take only two values say 1 if the household decides to rent his land and 0 if not/decide not to rent. Hence in this study, the binary logistic regression model was used to assess the determinants of land rental for its practical applicability and simplicity in analysis.

In the study the dependent variable, land owner decision is given a value of 1 if the household being studied decides to rent out his land and is considered renting with the probability of P and otherwise not willing to rent his/her land taking the value of 0 with a probability of 1 – P.

Following Gujarati (2005), the binary logistic (Logit) model for the consumption/income poverty can be specified as follows:

$$\text{Pi} = \text{E(y = 1 / xi)} = p(i) = \frac{1}{1+e^{-Z(i)}}$$

When this model is further explained and analysed we reach to the final analysis model, the Logit as follows.

$$Zi = Bo + \sum BiXi + \mu i$$

The model is estimated by using the maximum likelihood procedure with the help of computer software package SPSS. Accordingly, the association between the dependent variable, land owner decision and the independent variables is obtained. This model is the most appropriate for this type of research and is helpful to identify the relationship between the dependent and independent variables and for its simplicity of analysis so as to interpret results.

Findings from the econometric analysis was separately elaborated and triangulated with the qualitative findings so as to interpret the results. These findings from the econometric analysis using the Logit model will be explained in detail for all the variables (the determinant variables) including their significance, degree of influence on land owner's decision, and associations with this decision make process in rural land rental in the finding section.

Definition of Variables and Working Hypothesis

Description of Variables: As indicated in the above sections of the methodology part, the variables identified for this assessment in the revised framework are of two types. These are those directly related with LIFT programme components and those indirectly related to the programme with potential determining effect on rural land rental transactions. In this section the variables are outlined and explained further. For the purpose of this assessment operational definition is provided for each variable and how it is treated in the analysis of this research.

The dependent variable: It is a dichotomous variable, which represents the household decision-making. It indicates whether a particular household is willing to rent his/her own land or not depending on the various determining factors to reach to this level of decision in rural land rental transaction decision making process.

Independent / Explanatory / variables: As literature and different researches indicate, household decision making process is affected by a variety of socio-economic, institutional, demographic and personal preference factors. In this study those factors (variables) found to have influence in different empirical studies, assessment and practical experiences are included. Accordingly, variables that are negatively associated which becomes a dis-incentive factor or those which have positive association (incentive for renting the land) are hypothesized based on their expected relationship (association).

LIFT Programme Related Variables

Resource/Capital Related Variables

Income: As indicated in the market assessment report those resource poor, low income households used the income generated from renting out land most often used for household consumption, to send children to higher education, to purchase agricultural inputs (fertilizer seed etc.) and to cover medical expenses. This indicates that cash shortage (small income) is one of the driving factor for renting their land. Accordingly, those households who have better income are less likely to rent their land than those with smaller income. In this research all sources of income per annum will be added up to come up with the analysis and result interpretation.

Productivity of the Land: Farmers perception on the productivity of their land is also expected to be one of the determining factor on decision of whether to rent his/her land or not. Productivity in this assessment refers to the way the landowner values his/her land in-terms of the yield obtained from a given ha of land. It is assumed that productive lands have high return from own production than renting out.

Ownership of productive Asset: The farming system in the area is characterized by a mixed farming system whereby livestock production is also one of the means of livelihood. Productive assets like oxen and machinery are essential complements for labour power for ploughing the land. A productive asset like oxen and agricultural machinery determines the level of productivity. Those households with productive assets are expected to produce more and encouraged to retain their land for farming. Available oxen used for farming the land are measurable for adult equivalent of the livestock resource in TLU. Agricultural machineries will be counted in number and type.

Social Status: This refers to the household perception with regard to acceptance within the community because of their social status like being religious leader, community leader, and acceptance within the community. Being in a better social status makes them powerful and influential to make decisions in the community as well as in their household decision including land rental. Such households are expected to have better bargaining and influential power so that they have less fear on losing their land security than any other community group. Accordingly, it is expected they will be incentivized to rent their land as a result of their better social status.

Vulnerability status: This refers to factors that are associated in increasing the vulnerability status of a particular household. In this assessment vulnerability is considered from three dimensions. These are being an OVC (orphan and vulnerable children) household, elderly household and any form of disability status by the landowner. These factors do affect such households to make the best use of their land. As revealed in market assessment report of LIFT vulnerable groups (VG) such as the elderly and those with disabilities, are vulnerable to being forced to rent out their land due to their distressed circumstances which arise out of them not being able to access credit. As a result, it is hypothesized that such households with land prefer to rent out their land.

Knowledge on Land Rental Legal Frameworks: As other literatures and the market assessment conducted by LIFT indicated, there is a limited understanding of the land policy laws and regulations both by farmers as well as relevant government officials at the Woreda and kebele levels. This limited understanding is reflected on land renting and farmers are afraid of losing their tenure security, if rented out their land. Accordingly, it is hypothesized that those landowners with limited knowledge could be dis-incentivized to rent out their land for fear of losing tenure security.

Institution/Legal System related variables

Institutional support on Land Rental: As other literatures and the market assessment conducted by LIFT indicated, the sources of information of land available to rent in/rent out remain informal, mostly through informal meetings. There are no land brokers and the Bureaus of LAU do not facilitate any operations. Looking at the market from the perspective of the poor, the consequence of this market failure is that they are disadvantaged, as the poor are not able to maximise the revenue from their main asset, land because of lack of proper support through the formal system. Those land owners with access and support to formal system in

land transaction will have better confidence of land security. It is hypothesized that access to institutional support is an incentive for landowners to rent their land.

Access to extension Service: This refers to agricultural extension services provided by the development agents through agricultural office. Some farmers usually lack adequate knowledge and insight to recognize their problems, to think of a possible solution, or to select the most appropriate solution to achieve their goals. Through discussion, extension agents may be of a lot of help to the farmers. They may help farmers acquire specific knowledge related to certain problem solution, to make a responsible choice and improve their own opinion-forming and decision-making skills in achieving their goals. Extension service promotes the best use of the land so that those landowners will be motivated to cultivate their land for a better return than renting out.

Other Socio-economic Variables

Age: This is the number of years the household head has reached since birth. Maturity in-terms of age could determine decision-making based on practical experience and knowledge gained over time. However, as the household head gets older and older, he/she will become weak to farm their land usually becomes labour short household. Accordingly, older aged household have high chance of renting out their land than farming by themselves.

Family size: Family size indicates that the total number of adult equivalent members of the household who live together. A larger household size is positively associated with household economy and availability of labour. It is hypothesized that those household who have ample labour as a result of larger family size will prefer to farm their land and do not prefer to rent out their land and vice versa.

Family structure: is referring to the gender aspect of the household head in terms of sex, where by the dummy value of 1 represents if the household head is male and 0 if female. It is hypothesized that being a female-headed household makes them more vulnerable and lack sufficient labour so that such households opt renting their land.

Education level of Household head: This variable measures the number of school years achieved by the household head. The household head is usually the leader of the family that holds the lion share of decision-making in the family. These decisions are usually related to the overall socio-economic activities and resource utilization of the household. These decisions in turn do affect the wellbeing of the household based on the wise decision-making which is related to education. It is expected that those educated have better negotiation skill during price determination and could better decide on the terms, price and amount of land rented Those educated are expected to make the best use of their land than renting out and decide not to rent in-terms of unfair land rent price offers.

Land size: In Ethiopia where 85% of the population is agrarian, the majority of farmers' livelihood and wellbeing depends on the available land holding size. In the study region farm households mainly rely on land holding to satisfy most of their needs. Larger land holding size is expected to generate more revenue from the production of crops and higher consumption of own production. Therefore, it is hypothesized that as the land holding size increases it is a dis-incentive factor/less motivating to land owner to rent out the land.

Irrigation Access: This refers to any form of irrigation, including traditional irrigation systems. Those land cultivated through irrigation have better productivity and could provide yield twice and more per year. It is hypothesized that it is an incentive for the farmer to rent it out with better price than non-irrigable lands.

Perception on land security: Though the legal provisions on rural land law indicates that the land owner will not lose his/her land use right because of change of locations, there is an increased fear of losing land security by land renters. Some land owners go to urban centres for diversifying income by working there while others move because of family and social reasons. As indicated in the LIFT market assessment and literature review, still there is a perception and fear of losing land use rights because of changing location. Because of these reasons it is hypothesized that land owners in such status might not be motivated to rent out their land.

Variables with expected impact on new activities

In principle, these are variables that are expected to have impact on rural land rental decision making process. Their expected impact and association is explained for each variable as depicted below. For analysis purpose these variables were included in the determinant analysis though as LIFT programme they are at early stage of implementation. Though it was expected that there are chances that the variations in land rental will happen due to the impact of these interventions, significant relationship was observed as some of the practices like renting of machinery is in place and credit provision initiated. This was further investigated and assessed through the qualitative discussions like FGD with land owners and KII with key stakeholders.

Access to credit: This refers to formal credit services provided by Microfinance and related Institutions. One of the institutional factors that affect households' status is lack of credit institutions. Poor households usually lack capital for expanding their existing livelihood activities. This means that smallholder farmers are not able to access finance that would allow them to invest in their land and increase their incomes. It is hypothesized that farmers with access to credit will be motivated to cultivate their land and diversify their livelihood options therefore increase incomes. Farmers with access to credit are less motivated to rent out their land.

Access to LRSP: As indicated in LIFT market assessment report, interventions in the rural rental land market will allow rentees and farmers to make better decisions regarding the allocation and use of land as the required information will be available and easy to access. However, the existing system in the research area by service providers on rural land rental market is not well systematized guided by a standard protocol. As indicated in the market assessment research report of LIFT, information on the availability of land to rent is difficult to obtain from farmers. Information is normally generated informally through friends and family, and social networks. Access to LRSP (both old and new) is expected to be a driving factor to facilitate land renting and hence an incentive factor for landowners.

Access to Machinery leasing/renting: As one of the LIFT's intervention, LIFT aims to facilitate the creation of a leasing scheme for agricultural machineries aimed at smallholder farmers. This is with the assumption that small holder farmers will make the best use of their land and will be encouraged to farm their land and increase their productivity and hence their income. It is hypothesized that those farmers with access to machinery leasing will make the best use of their land through farming by themselves than renting out their land.

In the analysis of households' decision on land rental, is included as a binary response variable where by a dummy value of l representing if a household is found to be willing to rent his/her land 0 otherwise. The independent variables included in the model are a combination of continuous and discrete variables. Out of the total 18 socio-economic, demographic and behavioural variables 7 are continuous while the rest 11 are discrete.

Results and Discussions

This part discusses the descriptive and econometric analysis results related to the research objective, land renting decision making process and livelihood. Moreover, findings from secondary data sources are also presented and discussed.

Household and Demographic Characteristics

Age of household head

The age structure of the sample households indicates that the minimum and maximum age of household head is 20 and 80 respectively. The average age is 48.7 years. There is a slight difference in the mean age of household heads between male headed and female headed households, with mean age of 48.6 for male headed households and 48.9 for FHH household heads. The mean age difference between the two groups is statistically significant at less than 10% probability level. The mean age difference among those who rent out their land and those who didn't rent out have no significant statistical difference. The mean age of land owners that rent out their land is slightly higher than those who didn't rent out with mean ages of 51.02 and 48.16, respectively. This indicates that those household heads who rent out their land are older than those who didn't, and this could be an indication that younger ages are better capable in managing assets and hence more productive than older aged households.

Table 2: Mean age difference of household head

Household Land Renting	No.	Mean Age	Std. Deviation	Std. Error Mean
Yes	41	51.02	14.336	2.239
No	131	48.16	14.113	1.243
Total	172			

Sex of household head

Sex of the household head in the current study indicates that there is a significant difference between female and male headed households. Despite lower percentage of female headed households (31.4%) in the sample, the difference is statistically significant in terms of household renting out land. As can be seen from the table below the difference is significant at less than 1%. This is the case in many rural Ethiopia where female headed households are less literate and have poor access and decision-making power on resources.

Table 3: Sex of household head and Land Renting

Sex of the HH Head	Household Land Renting Status		Total	Percent
	Non-renter	Renter		
Male	100	18	118	68.6
Female	31	23	54	31.4
Total	131	41	172	100

Education Level of household head

The finding for literacy indicates that 10 % of household heads renting out land and 45% of those who didn't rent out land are literate at basic education and above literacy level. A little above half of the total respondents (55%) are educated including basic and, medium and higher education. When comparison is made between land renters and non-renters in-terms of their education achievement within their group, land renter households are more uneducated (60%) as compared to non-renters (40%). As a result, mean school grade achievement is lower for land renting households than those who didn't. The possible explanation is that the non- renters are more educated and can make better use of their land than renting out.

Table 4: Education level of household head

Education status	All groups		Land Renters		Non-Renters	
	Number	Percent	Number	Percent	Number	Percent
Educated	95	55	17	10	78	45
Non-Educated	77	45	24	14	53	31
Total	172	100	41	24	131	76

Family Size and structure

The average household size is 5.97 which is approximately 6 people per household in general. When comparison is made between the renters and non-renters, non-renters have higher number of family size at an average which is 6.26 people than renters (5.02) which indicates that larger family sizes are characteristics of the non-renters group. The finding is statistically significant at less than 5% probability level. Sex composition indicates that there are more females than males when seen from the overall perspective. However, at an average the figure is different, and the average number of females is slightly more in non-renters which are 2.86 females per household, while it is 2.66 females for land renters.

When comparisons are made from gender perspective, MHH have larger family size than the FHH. The FHH tend to have lower family size which is at an average 4.35 person per household compared to the MHH which is 6.7 household members. This may indicate that the burden of family size is higher in MHH families than FHH. One possible explanation in this regard could be the polygamous nature of marriage where males usually marry more than one wife.

Table 5: Family size among Land renters and non-renters group

Land Renting Status	Average Family size			
	N	Mean	Std. Deviation	Std. Error Mean
Renters	41	5.02	2.475	.386
Non-renters	131	6.26	3.465	.303

Economic Characteristics

Land Size

In the agrarian economy land is the basic livelihood asset for all farm activities. It is important for both crop and livestock production. The average land size per household is found to be 2.2 hectares. As indicated in Table below the result shows that the mean land holding by the land renters is 2.4 ha while that of the non-renters is 2.1 ha. However, the mean difference in land holding between these two groups is not found to be statistically significant.

Table 6: Mean land holdings of the Renters and non-renters, Hitosa and Dodota

Land Renting	Land Size			
	N	Mean	Std. Deviation	Std. Error Mean
Renters	41	2.4	1.97511	.30846
Non-renters	131	2.1	1.57656	.13774
Total	172	2.2		

It was found out that the average land size is greater in MHH than FHH, the mean holding being 2.2 ha. for MHH and 2.0 for FHH which is not though statistically significant. This is because the MHH, used to have better access to land than FHH. However, overtime due to population pressure land holding was reduced by sharing their holding to new family members of their own who got married.

Livestock ownership

The farming practice in the study area is characterized by mixed farming and livestock is a significant part of the agricultural livelihood. Main livestock types are Cattle, Sheep, Goats, Poultry, and Donkeys. The study Woredas have got vast potential for livestock production even though the challenge of animal diseases and shortage of pasture land is high. Livestock holdings at household level are measured in Tropical Livestock Units (TLU). One of the farm household's productive assets is Oxen which are used to plough the land and other farm activities. It is an important agricultural input in all aspects of the farm activities starting from land tilling to harvesting. Close to 80% of the household have at least one Ox whereas the remaining 20% didn't have Oxen to plough their land. The average Oxen ownership per household is found to be 2.2 Oxen per household among those households which have livestock.

Table 7: Livestock holdings in of sample households

Land Renting Status	Oxen Ownership by Households		
	Mean	N	Std. Deviation
Renters	1.7	20	.81273
Non-renters	2.3	113	1.18960
Total	2.2	133	1.16016

In the study it is found out that livestock holdings in-terms of oxen are higher in MHH than FHH. The mean Oxen ownership by MHH is, 2.3 and 1.8 for FHH respectively for these two groups. One of the important livestock assets is oxen which are used for farming/plough land. The Land renters have at average 1.7 Oxen holdings which are lower than the non-renters which have 2.3 Oxen at an average. This is an indication that having Oxen is an important element for farming and those Oxen shortage households are found to be renting their land than those who have better number of Oxen.

Household Income

In the study area farmers are engaged in diverse livelihood activities besides farming and livestock production which are sources of income. In this study income sources from non-farm, off-farm activities and other sources are the main concern. These major sources of income are aggregated and discussed in the following paragraphs.

One of the activities that farm households depend on for their livelihood beside own farm is off-farm and non-farm employment. The off-farm activities included employment on others farm, petty trade and crafts. Those households who couldn't meet their home consumption through farming are engaged in different activities and some have income sources like from remittance. At an average the farm households have 15,806 Birr annual income as reported by respondents during interview. Those land renters have additional income from renting their land. Average reported income from land renting was Birr 3,832 per renter per annum. At an average, non-land renters have more income than those who rent out their land. The average income between these two groups is 11,973 Birr for land renters and 17,006 birr for non-renters per annum. FHH households are found to have less income at an average than MHH households. The average income across these two groups is 17,478 Birr and 12,152 birr/annum for MHH and FHH households respectively.

Table 8: Average annual income by source

Source of income	Average income(Birr) per annum for Land owners		
	Renters	Non-renters	Total Average
Agriculture (Crop and Animals)	11,253	8737	10,529
Non-agricultural Business	7,840	3,383	5,409
Land renting	2575	-	
Loans/Gift	3,563	5,786	4,162
Formal employment/retirement	8,417	400	7,271
Casual/daily labour	9,141	1350	7,786
Remittance and others	2,655	6,930	4,080

The above table indicates the averages of annual incomes for individuals who have engaged in the specified IGA/income sources and it is as reported by the respondents. It is found out that some 8% of the respondents reported no income from any sources while those which earn incomes less than 10,000 Birr per annum are 51%. This is an indication that a little over half of the households don't afford the 1.25 USD/day incomes.

Irrigation Access

As it is found from secondary documents and observations, irrigation access is very much limited in Hitosa Woreda where as some few Kebeles in Dodota have irrigation access. Among the sample kebeles included in the analysis, those kebeles which have irrigation access is Awash Bishale and DireKiltu. Accordingly, those who have irrigation access are only 4 % of the total respondents.

*Table 9: Irrigation Access **by Sex and Land renting***

Sex of the HH Head			Irrigation Access and Land		Total
			Yes	No	
Male	Land Renting	Yes	2	14	16
		No	4	90	94
	Total		6	104	110
Female	Land Renting	Yes	1	20	21
		No	0	30	30
	Total		1	50	51
Total	Land Renting	Yes	3	34	37
		No	4	120	124
	Total		7	154	161

As stipulated in the table above majority of the households who have irrigation access are non-land renters and it seems they use their land by themselves than renting out to rentees.

Land Productivity

Land productivity is one of the major factors in farming to get the most out of land as compared to less productive lands. Land productivity is hypothesized that it is an incentive for land owners to keep it for themselves than renting out. It is found out that 19% of the farmers perceive that their land is highly productive as compared to lands owned by other farmers in their village. Majority of the farmers/land owners, around 66% indicated that their land is moderately productive.

Table 10: Land Owners perception on Land Productivity

Sex of the household Head	Land Renting	Land Productivity				Total
		Highly Productive	Moderately Productive	Less Productive	Poor	
Male	Yes	1	11	5	1	18
	No	22	72	5	1	100
	Total	23	83	10	2	118
Female	Yes	5	11	7	0	23
	No	5	20	4	2	31
	Total	10	31	11	2	54
Total	Yes	6	22	12	1	41
	No	27	92	9	3	131
	Total	33	114	21	4	172

It is found out that farmers who perceive their land is highly productive, most of them (82%) didn't rented out their land. This is mostly for those households headed by males than female. Regarding FHH households,

despite their perception of having highly productive land, half of them have rented out their land. This could be one of the indications that FHH households have labour shortage and get less income from other sources than male headed households to meet household expense needs. As indicated in the above sections, FHH households have less income than male headed households.

Institutional Support and Access to Services

Access to credit

Credit institutions play a vital role in the livelihood of rural dwellers by providing loans so that poor households boost their economic performance. In the study area, WASSASA in Hitosa Woreda and OCSSCO (WALKO) in both Hitosa and Dodota Woredas have been providing credit services for the needy. It is found out that despite the presence of the service, credit users were only 43% of the total households. Though the credit service is accessible to majority of them, they did not use the service for various reasons.

In the study it is found that the 56 % of the renters and 40% of the non-renters are credit users. Among the gender groups FHH are found to be more credit users than the MHH. One of the justifications for more number of credit users from the land renting group specifically from FHH households is that the LAU has identified poor and VG to access credit using their SLLC as collateral. The service provision was more supported with adequate training in which of credit receivers have got training on credit usage and loan management. Credit default is one of the prominent problems of the sector.

Table 11: Access to credit By households

Sex of the HH Head	Land Renting HH	Household access to Loan		Total
		Yes	No	
Male	Yes	9	9	18
	No	44	56	100
	Total	53	65	118
Female	Yes	14	9	23
	No	8	23	31
	Total	22	32	54
Total	Yes	23	18	41
	No	52	79	131
	Total	75	97	172

Access to extension Service

For an agrarian economy like the one in the study area, extension is expected to play vital role in promoting agricultural production and productivity. The Woreda agricultural Offices are mandated to provide this service through district and PA level experts and development agents. There are development agents (WoA, 2016) in the study districts and almost all development centres/PAs have got extension agents. However, the service provision is poor so that majority of the farmers have responded that they are not user of extension service. The study indicates that 67% of the farmers have received extension support while 33 % of the farmers do not get any type of extension services. This can be further strengthened by the fact that 25% doesn't have development agent (DA) contact within the study period.

Significant difference is observed between the land renters and non-renters in using the service. Access to extension service was found to have difference among the two gender groups and the FHH are more users than the FHH. This finding is significant at less than 10% probability level (Chi square).

Table 12: Access to Extension Service

Sex of the HH Head	Land Renting	Households received extension services		Total
		Yes	No	
Male	Yes	14	4	18
	No	86	14	100
	Total	100	18	118
Female	Yes	20	3	23
	No	29	2	31
	Total	49	5	54
Total	Yes	34	7	41
	No	115	16	131
	Total	149	23	172

Access to machinery Leasing

The farming system in the area is characterized by a mixed farming system. Farmers usually plough their land three times in one cropping season. Tractors and Oxen are both used interchangeably for farming the land. Those better off households who can afford paying for tractors renting will use tractor for first and consecutive ploughing. There are farmers who use all in all tractors for farming while middle income households use tractor for first ploughing and then use Oxen for the remaining two ploughing of their farm land. Low income households are totally dependent on oxen to plough their land. Combiner harvester is also used during crop harvesting. Accordingly, machinery leasing (Combiner harvester and tractor) is highly practiced specifically in Hitosa than Dodota. Accordingly, majority of the households in the survey are found renting tractor for farming which is 34% of the total respondents. Among the FHH households 28 % rented tractors while for the MHH households

37% rented tractors. Not only tractors but also oxen are rented in for cash and labour to farm lands. Poor farmers who haven't oxen are found renting out their land and rent oxen to plough their land. Accordingly, ownership of productive assets in these regard oxen is found an essential element and significant asset to make the decision of renting out land or not.

Table 13: Farm Households with Machinery leasing (Tractor and Combiner)

Rented Tractor	Renting Land	Sex of the HH Head		Total
		Male	Female	
Yes	Yes	7	8	15
	No	37	7	44
	Total	44	15	59
No	Yes	11	15	26
	No	63	24	87
	Total	74	39	113
Total	Yes	18	23	41
	No	100	31	131
	Total	118	54	172

Combiner harvester leasing is found to be higher than tractor and 39% of the respondents lease machinery, in this regard combiner harvester. One of the reasons in this regard mentioned during the qualitative discussion was increasing costs of labour price from time to time. Those land owners who use their own land are found to be the majority of the renters which are 30% of the total respondents. The findings are statistically significant at less than 1% probability level.

Market Access

Markets play a vital role in rural communities for they are a source for inputs and a place for sale of outputs. In Arsi zone there are local markets at different location which serves the above purposes. The result of the study indicates that majority of the households, 66% have access to nearby predefined markets and only 34 % goes to distance places to trade or do not have surplus production to sell in these markets. These markets also serve both buying and selling of all classes of agricultural produce and consumption goods.

Table 14: Access to predefined Markets

Sex of the HH Head	Household Land Renting	Households sell in a predefined Markets		Total
		Yes	No	
Male	Yes	11	7	18
	No	71	29	100
	Total	82	36	118
Female	Yes	11	12	23
	No	21	10	31
	Total	32	22	54
Total	Yes	22	19	41
	No	92	39	131
	Total	114	58	172

As compared to market access and usage by land renters and non-renters group, a little above half of all renters, 54% sell their produce/buy inputs from predefined market places while 70 % non- renters use these markets. FHH households are more users of market than the MHH households. Though the difference, between the renters and non-renters in terms of access to market is observable, the mean difference is not found to be statistically significant.

Knowledge on legal framework and social status

Knowledge on Land Rental Legal Frameworks

Land related legislations in particular the legal frameworks in general are well known by the majority of the respondents (78%). Among these those mentioned include the constitution, federal land proclamation, regional land proclamations and regional regulations. Among the land renters majority of them (78%) of them know at least one of the provisions among the legal framework and they understand their land use rights. However, contrary to this 22% of the land renters don't have any knowledge of the legal frameworks and how it works. This could be one of the indications for continued disputes between land renters and rentees over rented land.

Table 15: Knowledge on Land rental legal framework

Land Renting Status	Knowledge on Laws related with land		Total
	Yes	No	
Renters	32	9	41
Non-renters	102	29	131
Total	134	38	172

When it comes to the FHH households, they are the one which have less awareness about the land related laws than MHH households. Accordingly, 72% of the FHH households and 81% of the MHH households have good understanding of land related laws. This could be one of the indications that FHH households are more prone to land related disputes than male headed households. It is found out that 30% of the FHH households don't believe that they can protect their land use rights by appealing their case to the formal system. This is one of the indications for their vulnerability status.

Perception on Social Status

Social status was considered in this research so as to see whether perceived social status affects land rent decision making by vulnerable groups. Accordingly, respondents were asked on their perceived social status within their community and whether this will affect their decision making during land renting. Accordingly, the findings indicate that a little over 3/4th of the total respondents 76% indicated that they have a respected status within the community. The remaining, those who consider that they don't have a respected social status or consider themselves as an ordinary community member are 23% of the total respondents.

Table 16: Land owners perceived Social status

Perceived Social Status	Frequency	Percent
Respected elderly	92	53.5
Respected religious leader	9	5.2
Respected Community leader	30	17.4
I don't have the status mentioned above	31	18.0
Ordinary Community member	7	4.1
Total	172	100.0

The respondents' response whether their social status affects them during land renting is in conformity with the above findings and only 12% of the total respondents indicated that their social status affects the land renting negotiation putting them at the vulnerable side, in this case mostly female headed households.

Vulnerability Status

Vulnerability status in-terms of having OVC children and OVC member in the household which have direct relation with land owned was also assessed and related data collected. The findings indicate that only 7% of the respondents have OVC children while 15% household heads have visible and reported disability status.

Regression Result of the Study

Model fitness

As specified in the methodology part of this research the analysis was made using binary logistic regression model. Before discussing about the results, the model specification and data fitting the model should be seen. The model was found to be fit for the data which can be elaborated by the fact that all of the variables included in the analysis were correctly predicted.

Model result and discussion of significant Variables

Table 17: Regression output of explanatory variables

Independent Variables	B (coefficient)	S.E.	Wald	df	Sig.	Exp(B)
Age	.069	.048	2.041	1	.153	1.072
Education Level HH head	.224	.209	1.156	1	.282	1.252
Sex of HH head	-3.330	1.604	4.312	1	.038**	.036
Family size	-.557	.354	2.480	1	.115	.573
Land Size (Owned)	.439	.400	1.204	1	.272	1.550
Access to Irrigation Land	-5.653	3.228	3.067	1	.080*	.004
Market access	-1.410	2.012	.491	1	.483	.244
Number of Ox/Oxen	-.745	.697	1.143	1	.285	.475
Machinery leasing (Tractor)	-6.140	2.441	6.327	1	.012**	.002
Machinery leasing (Combiner)	-3.483	1.795	3.764	1	.052*	.031
Knowledge On Land Tenure Rights	.491	1.716	.082	1	.775	1.635
Perception on Land Right Security	.857	2.604	.108	1	.742	2.356
Access to Credit	-4.543	2.150	4.464	1	.035**	.011
Access to Extension Service	6.113	3.014	4.115	1	.043**	451.820
Social Status	-.826	.550	2.252	1	.133	.438
Income	.000	.000	.331	1	.565	1.000
Vulnerability Status (OVC children/HH head)	1.637	4.607	.126	1	.722	5.138
Land Productivity	3.385	1.340	6.384	1	.012**	29.517
Constant	9.168	11.835	.600	1	.439	9582.385

****,**,* Significant at 1%,5% and 10%*

Source: Survey result, 2016

It is found from this logistic regression analysis that out of the 18 variables included in the analysis, seven are found significant while the remaining though not found statistically significant, the model has correctly predicted their relationship with land renting. Those significant determinant variables in order of importance are productivity of land; machinery leasing (Tractor); access to credit; sex of household head; access to extension service; machinery leasing (Combiner); and access to irrigation land. The significance and relationship of each variable is explained here below.

Productivity of the Land: Farmers perception on the productivity of their land is also one of the expected determining factor on decision of whether to rent his/her land or not. According to the FGD and KII informants, productive lands have high rental price than those perceived less productive. Accordingly, productive lands are rented out as high as 16,000 birr/ha. The regression analysis indicated the same and land productivity is positively associated with land renting and significant at less than 5% probability level. This is found to be a motivational factor for farmers who have land to rent out. As indicted during the discussions in the field, renters do prefer to rent these productive lands than less fertile lands. As a result, productivity of land is found to be a significant determining factor in land transaction, which is further verified through quantitative data analysis.

Access to credit: This refers to formal credit services provision by Microfinance and related Institutions. One of the institutional factors that affect households' status is lack of credit accessibility. Poor households usually lack capital for expanding their existing livelihood activities. As it is found from the KII and FGD discussions, those poor households with shortage of cash income rent out their land to meet their needs of agricultural inputs which includes seeds, fertilizer and machinery leasing. Cognizant of this factor LIFT/EEU in collaboration with local microfinance institution (Wasasa) and the Woreda LAU in both Woreda initiated and arranged a credit access. The arrangement is made to low income households who get SLLC so as to get credit from micro-finance institute. This initiative has helped farmers to purchase agricultural input, renting tractor and harvesting machinery. This was arranged to protect households from renting their land because of shortage of money. It was aimed to increase productivity and improve the well-being of these households. In Hitosa about 100 low income HHs and female headed households are provided Birr 15,000 credit from a micro-finance. Similarly, the same has been done in Dodota Woreda. In the regression analysis, credit access is found to be significant determinant of land renting decision making as it is found statistically significant at less than 5%. Having access to credit is found to be negatively associated with land renting. Those households with credit access have lower probability of renting out their land than those who do not have access. The finding is inconformity with the initiative of the Woreda LAU where credit is arranged for households who have

shortage of cash income. The association is that the credit received will cover cash shortages for agricultural inputs if otherwise the households have to rent out some of their land to meet agricultural input needs.

Family structure: is referring to the gender aspect of the household head in terms of sex, where by the dummy value of 1 represents if the household head is male and 0 if female. It is hypothesized that being a female-headed household makes them more vulnerable and lack sufficient labour so that such households opt renting their land. The finding was found inconformity with this hypothesis and statistically significant at less than 5%. As indicated in the coefficient of the finding indicates FHH households rent out their land in most cases as compared to MHH households. This indicates that being a FHH is one of the driving factors for renting out land. This is in-line with the qualitative discussion findings that FHH households face different problems than MHH households including labour shortage, cash shortage and limited institutional support. As a result, these and other factors drive FHH households to rent out their land.

Access to Machinery leasing/renting: The farming system in the area is mainly supported by machinery. Machinery leasing is common in both locations most importantly in Hitosa. Accordingly, farmers rent out some of their land to get money for machinery leasing. Machinery is found to be important element in the farm households, As it is found from the FGD and KII discussions, most farmers rent tractors for first farming and most of them use combiner harvester during harvest time. The regression analysis result indicated that machinery leasing (both tractor and combiner harvester) are negatively associated with land renting. This means those households who can afford to lease these machineries are better off and are not motivating to rent out their land. The findings are statistically significant at less than 5% for leasing tractor and less than 10% leasing for machinery.

Irrigation Access: This refers to any form of irrigation, including traditional irrigation systems. Those land cultivated through irrigation have better productivity and could provide yield twice and more per year. It was hypothesized that it is an incentive for the farmer to rent out with better price than non-irrigable lands. Though the number of respondents with irrigation access was found to be small the logit regression analysis has shown-up significant and negative relationship between irrigation access and land renting. This has proved the hypothesis was right and significant at l0%. It indicates that those households who have irrigation land and an increase in the size of irrigable land is found to be an incentive to farm their land by themselves than renting out.

Access to extension Service: This refers to agricultural extension services provided by the development agents through agricultural office and any other NGO supported extension services provided to farmers. Some farmers usually lack adequate knowledge and insight to recognize their problems, to think of a possible solution, or to select the most appropriate solution to achieve their goals. Through discussion, extension agents may be of a lot of help to the farmers. They may help farmers to acquire specific knowledge related to certain identify solutions for problems, to make a responsible choice and improve their own opinion-forming and decision-making skills in achieving their goals. Extension service promotes the best use of the land so that those landowners will be motivated to cultivate their land for a better return than renting out their land. According to the hypothesis, access to extension service is found to be one of the determinant factors for land rent decision making. It is found that those farmers who get extension support and advice will make the best use of their land and positively associated with land renting. The finding is significant at 5%.

Age: It was hypothesized that maturity in-terms of age could determine decision-making based on practical experience and knowledge gained over time. As the household head gets older and older, he/she will become weak to farm their land usually becomes labour short household. Accordingly, older aged household have high chance of renting out their land than farming by themselves. However, this is not found to be significant both in the regression analysis as well as inferential statistics. It is found out that the number of old age HHs (60+) who rent out their land are smaller than those who didn't rent out being the same age group. Similarly, the regression analysis came-up also with the same result and significant relationship was not observed between old age and renting out land. However, this doesn't mean that older age households with labour shortage do not rent out their land. It is found out during the FGD discussions older age households with labour shortage do rent out their land.

Family size: In this study it was hypothesized that larger household size is positively associated with household economy and availability of labour. Accordingly, those household who have ample labour as a result of larger family size will prefer to farm their land and do not prefer to rent out their land and vice versa. The finding from the regression analysis doesn't show any significant relationship between land renting and family size. Though not statistically significant result, family size is found to be negatively associated with land renting this could be an indication that those households who have larger family size do not prefer land renting.

Education level of Household head: This was one of the variables included in the analysis which measures the number of school years achieved by the household head. It was expected that those educated have better negotiation skill during price determination and could better decide on the terms, price and amount of land rented Those educated are expected to make the best use of their land than renting out and decide not to rent in-terms of unfair land rent price offers. However significant relationship was not found between education achievement and land renting. In the descriptive analysis both groups (Educated and un-educated) most of them were found not renting land regardless of their education level. The regression analysis result also indicated the same that significant relationship was not found between land renting and education level of the household head.

Land size: In Ethiopia where 85% of the population is agrarian, the majority of farmers' livelihood and wellbeing depends on the available land holding size. In the study Woredas farm households mainly rely on land holding to satisfy most of their needs. There are three modalities of renting land: renting out the entire land that a farm household has (poor HHs), especially in the form of share cropping; renting out some part of the land or a parcel if the HH has more than one parcel (middle class HH); and renting out some part or a parcel if the HH has more than one parcels (better off HH). It is found out that farmers rent out their land regardless of the land size. However, mostly those who have smaller land size are more renting so as to cover some of their cash needs while those better off with large land size are renting out for more income and those who are leaving outside the kebele for other businesses. The regression analysis indicates that land size is positively associated with land renting, indicating that as the size of land increases farmers have extra lands to rent out for cash income. However, the result is not found to be statistically significant at less than 10% significance level.

Ownership of productive Asset: The farming system in the area is characterized by a mixed farming system whereby livestock production is also one of the means of livelihood. Tractors and oxen are both used interchangeably for farming the land. Those better off households who can afford paying for tractors renting will use tractor for first and consecutive ploughing. Farmers usually plough their land three times in one cropping season. There are farmers who use all in all tractors for farming while middle income households use tractor for first ploughing and then use oxen for the remaining two ploughing of their farm land. Low income households are totally dependent on oxen to plough their land. Not only tractors but also oxen are rented in for cash and labour to farm lands. Poor farmers who haven't oxen are found renting out their land and rent oxen to plough their land. Accordingly, ownership of productive assets in these regard oxen is found an essential element and significant asset to make the decision of renting out land or not. The logit regression output indicated the same and ownership of one or more oxen is negatively associated with land renting. This means as the number of oxen ownership increases by one unit the probability of renting out land decreases by a factor of 0.74.

Income: was one of the variables in the analysis and discussed during the field research. The main source of income identified was income from agriculture in the form of crop and livestock sale. It was also found out that most farmers rent out their land and land renting is one form cash income source to households. Participants in the determinant analysis discussion indicated that, that farmer who has cash shortage for purchase of seed, agricultural input (fertilizer, improved seeds, etc.), and renting of agricultural machineries rent out part of their land to get money to fulfil these inputs and farm their unrented land. Besides, households who have small income and unable to cover expenses for their children schooling, health, food purchase and household miscellaneous need also rent out their land. Accordingly, income is found to be one of the important and close to negative related factor with land renting. The regression analysis output indicated the same that those households with low income prefer to rent out their land.

Social Status: This refers to the household perception with regard to acceptance within the community because of their social status like being religious leader, community leader, and acceptance within the community. The qualitative discussion indicated that those older people who haven't sufficient labour rent out their land regardless of their perception/social status. The finding from the regression result indicated the same and social status doesn't have significant relationship with land renting. The relationship though not significant, it is found to be negatively associated with land renting which is an indication that those households who consider themselves on a better social status within their community prefer not to rent out their land as compared to those with lower social status.

Vulnerability status: This refers to factors that are associated in increasing the vulnerability status of a particular household. In this assessment vulnerability is considered from three dimensions. These are being an OVC household, Elderly household and any form of disability status by the landowner. Discussions conducted with Key informant vulnerable group (elderly and sick household,) indicated that they are forced to

rent out part of their land to survive and regain their health from the income they get from renting land. This could be taken as an indicative factor for renting out land. VGs also face dispute over their land rented out by rentees enforcing them into unacceptable contracts during entering an agreement. This has been witnessed by cases coming to the Woreda Women and Children Affairs office seeking support after facing dispute over land rented. However, the econometric result didn't come-up with significant result. This could be because the randomly selected cases of VGs included in the analysis are small as compared to the overall sample size.

Knowledge on Land Rental Legal Frameworks: As found from the discussion with participants most of them have basic understanding of the law related with land were found confident about the system that it will protect them in case of disputes. Accordingly, most of the discussants are well aware of land renting is their right by law while they are familiar with the measures to be taken in case of disputes. Though not statistically significant relationship observed in the regression analysis output, knowledge on land tenure rights has been found positively associated with land renting. This indicates that those who have knowledge on the legal frameworks are well aware of the law and could possibly rent out their land as they understand it is their legal right and the law can protect them.

Perception on land security: Though the legal provisions on rural land law indicates that the land owner will not lose his/her land use right because of change of locations, there is an increased fear of losing land security by land rentees. During the discussions, land owners indicated that disputes over tenure security is common in their villages. As indicated by key informants, this emanates from improper rental agreements. For example, land rental/transaction happen in three forms. One of this is just by mutual agreement by rentee and renter without formal agreement. There is also rental transaction that will happen in the face of witnesses without registration at the Woreda /Kebele LAU offices. There are also formal agreements conducted using the new simple Standardised Rural Land Rental contract Format (SSRLRCF) introduced by LIFT. These contracts are mediated by LRSPS trained by LIFT and so far, 60 contracts finalised and documented at kebele levels in two Woredas. Those transactions happening simply with mutual agreements in words have faced disputes between the two parties as indicated by FGD and KII participants. Accordingly, perception on land security especially those contracts performed on mutual consent without formal agreement are found to be determining factors not to rent land for fear of losing land security. However, this is found to be individual cases not representing majority of land renters. The regression analysis indicated the same result though the finding is not statistically significant.

Conclusion and Recommendations

Conclusions

The demography of the study population indicates that there is an average of six people per household. The number of MHH households is higher than the FHH households. Majority of the respondents' 55 % were educated, which is literate on basic education, formal schools and above. There is no significant difference between land renters and non-renters.

The farming system in the study area is characterised by mixed farming as both crop and livestock production are practiced. The majority of the farm households depend on agriculture for their livelihoods. The average land holding size is 2.2 hectares, and is slightly higher for land renting groups compared to non-renters. The land is mostly used for production of staple crops, except in few kebeles which have irrigation for cash crops production.

As observed from the FGD discussions the farming system is very intensive and requires all sorts of agricultural inputs including improved seeds, fertilizers and pesticides. This is further verified by most of the farmers: 66% indicated that their land is moderately productive as compared to others land. Access to irrigation is limited to a few kebeles and small number of households (4% of respondents). Major crops produced are wheat, barely, teff, maize, bean and sorghum. Extension service provision is not fully accessible to all, but a significant number of the farmers (67%) received extension service during the study period.

Farming is intensive and machinery is widely used. 39 % of the respondents used machineries including tractor, combiner harvester and sewing machines for their farm. This was particularly true for non-renters, who rented in/leased machinery. Tractors were used for first farming and consecutive farming are done using oxen. Those households who doesn't afford for machinery leasing use oxen for farming including rented in oxen in the case of poor farmers. Even household has an average of two oxen. Non-land renters have more oxen compared to renters. Those households, close to 20% are in short of a pair of oxen, as a result these farming households have to lease machine or rent Oxen for farming. There are a significant number of farmers who couldn't afford for machinery leasing. This could be fulfilled through credit provision. However, the number of

households who have access to credit is small, 43% of the total respondents. One of the challenges observed in this regard is lack of collateral for credit. There are small initiatives by the Woreda LAU office to facilitate credit provision to farmers using their SLLC as collateral. This is by far small as compared to the need on the ground.

Farmers are also engaged in off-farm activities for additional income including handicrafts, petty trade, daily labour and formal employment. The average annual income per household from all sources is 15,806 Birr. However, a significant number of the households didn't earn sufficient income from farm and non-farm sources so they had to resort to land rental to meet their cash needs. Average income from land renting per household is found Birr 3,832 per renter per annum. At an average, non-land renters have more income than those who rent out their land while FHH households have less income than the MHH households.

The study found out that there are different vulnerable groups in the target Kebeles of the study Woredas. These include female headed households, households with older age group, disabled household members and orphans and vulnerable children. However, well documented evidence regarding the number of OVCs and old age groups is not found at Woreda level. The study has purposely included these groups to represent their opinion in land rental decision analysis. The findings indicate that only 7% of the respondents have orphan and vulnerable children while 15% household heads have visible and reported disability status. Regarding social status in the community, most of the respondents 76 % indicated they have good social status in the community as a result they don't feel insecure/face difficulties in renting out land.

Regarding knowledge about land related issues, majority of the respondents (78%) know the country's legal frameworks including constitution, regional and federal land related laws. Knowledge on the legal frameworks was found to be high. However, there are some households who don't have clear understanding of the law as a result 22% of the land renters don't have any knowledge of the legal frameworks and how it works, as a result most of them indicated they might lose their land use rights if rented out their land. In this regard, FHH households are less aware of the legal frameworks as compared to MHH households putting them exposed to land disputes during renting. This could be taken as one of the indications for continued disputes between land renters and rentees over rented land.

Land renting decision making in the study area is associated with multiple factors (associated with variables) as included in the analysis. Among the 18 determinant variables included in the analysis, seven variables were found with significant relationship with land renting. These are productivity of land, machinery leasing (Tractor), access to credit, Sex of household head, access to extension service, machinery leasing (Combiner) and access to irrigation land.

Land productivity as perceived by farmers is found to be positively associated and one of the incentive factor for renting out land. As indicated in the descriptive part of this report, majority of the households rent tractor and combiner for farming. Accordingly, these households are better off households and afford for machinery leasing which use machinery for higher productivity. Accordingly, those farmers who have access and afford paying to machines prefer to keep their land and increase their productivity and maintain the benefit from their farms than renting out their land. The finding indicates that access to credit and land renting is negatively related so that land owners with better access to credit didn't prefer to rent out their land than those who do not have the access. Those households who have got credit access can afford the cash needs for agricultural inputs and can farm their land using their own labour. Being a female headed household was found to be one of the driving forces for renting out land. As it is found during the FGD and case story discussions, FHH have multiple challenges to farm their land. They have labour and cash shortage for farming and usually lack support. As a result, they prefer renting out their land than farming by themselves. The finding indicates that, land renting is positively associated with FHH households than MHH households. Extension service which usually provide professional advice to farmers is associated with farmers decision to make the best use of their land accordingly those farmers who have extension advise are found to be positive about renting land. Though irrigation access is limited to majority of the farmers, those who have access to irrigation have proved negative association with land renting. Accordingly, it is found out that those land owners with irrigation access prefer to cultivate their land by themselves than renting out.

Recommendations

The following recommendations are provided in relation to the findings of this research and in accordance with the LIFT programme objective.

- Access to credit is found essential element to improve productivity and improve the livelihood of farmers through SLLC. Accordingly, credit support to farmers should be enhanced through the existing system for those who need it. Therefore, Credit facilitation through SLLC should be scaled-up.
- Female headed households require tailor made support to their needs and gaps. The FHH households require special support than the MHH households. Support provided to these group should be according to their specific gaps and needs.
- The inclusion and working through different stakeholders is expected to enhance rural land rental market to be more functioning. In this regard extension service and stakeholders engaged with VGs should be actively engaged so as to enhance the knowledge of VGs on Rural Land Renting market and avoid potential disputes on land renting.
- Creating access to machinery leasing is found to be one of the important elements of the farming system. Creating affordable access in this regard will facilitate productivity as well as the functioning of the rural land rental market.
- Further study on the subject at scale including other LIFT intervention Woredas is essential. This should include an in-depth analysis of how the Rural Land Rental market functions to provide more in-sight and knowledge in the subject. It is recommended to conduct a scaled-up research covering more Woredas and parameters is essential to understand better the Rural Land Rental market in Oromia in particular and the country in-general.

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