

## **The Potentials of Local Institutions for Sustainable Rural Livelihoods: The Case of Farming Households in Dawuro Zone, Ethiopia**

**Terefe Z. Abebe<sup>1</sup>**

### **Abstract**

---

This study investigates the potentials of local institutions in building the sustainable rural livelihoods to farming households in Dawuro zone of SNNPR, Ethiopia. To achieve this objective, three local districts with their respective kebeles and farming household heads were selected for survey by using simple random sampling technique. In this respect, 200 household heads from three districts were selected for collection of primary data with use of survey questionnaire. In addition, focus group discussion with representatives of household heads; key informant interviews and personal observations have been employed to this study. In addition to descriptive statistics, the study has employed binary logistic regression and multiple regression models for analysis and presentation of quantitative data. The results of the study show that some public institutions like health institutions, schools and agriculture and rural development offices at local level are remarkably accessible to farming household heads. As a result, they provide the health services, education and agricultural inputs to the farming household heads respectively. The accessibility to some other public institutions that can contribute to the livelihood of household heads has not yet been improved in the study areas. The study also shows that the engagement of private sectors, NGOs, micro finance and cooperatives at local level is yet at infant stage and not actively filling the service provision gaps left by the public sector. Most household heads at local level belong to traditional voluntary organizations and are gaining benefits like the humanitarian supports, labor support, information exchange, reciprocal credit, crop harvesting and farming support for building their livelihood assets. In addition, the result of logistic regression shows that those household heads that have access to health institutions, agriculture and rural development offices are more likely to improve their human capital of livelihood asset. The household heads that have also access to micro finance, local rotating savings, festive groups, finance and economic development offices, and agriculture and rural development offices are more likely to improve their financial capital of livelihood asset compared to those who do not have access to these institutions. Moreover, the multiple regression results show that the access of household heads to funeral societies, rotating saving, labor share, micro finance, and the offices of finance and economic development significantly determine the social capital of livelihood asset at local level. The access of household heads to rotating saving, faith based organizations, agriculture and rural development office and health institutions also significantly determine their natural and physical capitals of livelihood assets at local level. Furthermore, the household heads with improved livelihood assets like financial capital, natural capital and physical capital are more likely to have better-off welfare status (Above 3871 ETH Birr of poverty line) as compared to those who are with unimproved of these capitals. Therefore, it is indispensable for all stakeholders to improve the access of farming household heads to local public, private and traditional institutions to enhance the improvement of their welfare status.

---

<sup>1</sup> PhD Candidate at Ethiopian Civil Service University, School of Graduate Studies,  
E-mail: [terefezeleke@gmail.com](mailto:terefezeleke@gmail.com), Tel: +251-912139720; P.O.BOX 5648, Addis Ababa.

**Keywords:** Livelihood, local institutions, livelihood assets, welfare, farming household heads

## 1. Introduction

Livelihood is “an adequate stock and flow of food and cash to meet basic needs that comprise the capabilities, assets including both material and social resources, and activities required for a means of living” (Scoones, 1998; Ellis, 2000). The main livelihood assets include human capital, physical capital, social capital, financial capital, and natural capital that determine the wellbeing of households (Elliott, 1994; Ellis, 2000). The strategies that can promote the livelihood assets of rural households are agriculture, income diversification and the natural resource base which need attention by government in designing and implementing these strategies. Regarding the livelihood of citizens in Ethiopia, the basic needs of the majority of rural households is met through agricultural farming which consists of cropping and livestock rearing (Yared, 2001). However, some people argue that an adverse combination of agro-climatic, demographic, economic and institutional constraints, trends and shocks (environmental, economic, social or ecological disturbances) locked Ethiopian agriculture into down and decreasing productivity. Also rapid population growth by almost 3% per annum is highly related with progressively declining landholdings and food production per landholder (Masefield, 2001).

Improving the agricultural productivity of smallholder farmers and linking them with commercial markets is very important strategy for the broad-based alleviation of rural poverty and for leveraging agriculture as a vehicle for economic growth and development. Thus, the governance and policy that give due attention for improving the productivity of smallholder farmers to ensure sustainable rural livelihood had paramount importance (Spielman, et al., 2008).

The Southern Nations, Nationalities and Peoples Region (SNNPR) is characterized with agro-climatic zones like arable highlands (dega), midlands (woina dega) and lowlands (kola), and pastoral rangelands (bereha). The region is relatively fertile; mostly comprises of humid midland which contains the densest rural populations. The poor and middle wealth group households in the region usually represent around 80% of all households with somewhat greater numbers of very poor rural people (CANGO, 2007; USAID, 2005). To address the livelihood of this large poor population, the efforts exerted by the public institutions and government bodies at local level seemed insufficient unless gained the integrated effort of local institutions like private firms and formal and informal civil society organizations.

Dawuro zone is one of the fourteen zones in SNNPR where agriculture is the dominant livelihood for the majority of rural households. In line with the decentralization of power, the communities in the zone were able to get better access to some social services like education, health, electrification and telecommunications. However, the livelihoods of rural households mostly depend on subsistence farming which is vulnerable to weather variability. The farming system itself is still traditional and not accompanied with better productivity (Dawuro Zone Agriculture and Rural Development Department /DZARDD/, 2013). The zone has immense natural resources that can attract potential investors and tourists to the area but these potentials have not yet been harnessed because of underdeveloped infrastructure facilities like transportation and market links. More than 85% of the population of the zone is living in rural areas and engaged in different agricultural activities such as crop production, livestock rearing, fruit and vegetables cultivation. Land of Dawuro is among the suitable areas for agriculture.

Its warm temperature, availability of enormous perennial rivers for irrigation, possibility to grow crops both in dry and rainy seasons, better status of soil fertility; depth and texture are among the indicators of suitability for agricultural activities in the area (DZARDD, 2013). However, the productivity is very low because of traditional means of production; dependence on natural rain fall coupled with poor market access that make the livelihood of farming households extremely stagnant. This is not due to the lack of efforts made by the local government bodies. But it might be because of the capacity of government bodies and communities to mobilize local resources; unsatisfactory coordination with non-state actors (private sectors and civil society organizations) which are indispensable for effective local service delivery.

In rural areas of the zone, communities have long experience of using traditional organizations/informal organizations such as funeral societies/ iddirs, rotating savings/iqquibs, labor share/debbo, etc for different social issues. Besides, it is common to find faith based institutions, cooperatives and micro finance institutions in most parts of the zone. As it was noticed by Jütting (2003), the private sector and civil society engagement is currently considered to be essential to guarantee need-oriented planning and execution of activities at local level, strengthening accountability of local governments, and improve the livelihood of their citizens with locally available resources.

In this regard, the local government that comprises public institutions and non-state actors (private institutions, formal and informal civil society institutions) must be responsive and capable to design and implement a livelihood strategy (on farming, off-farming, non-farming activities) required to making the situation of livelihood sustainable for farming households (Scoones, 1998).

Besides, the services delivered by the government institution can never meet the growing demand of rural people unless coordinated with private sectors, civil society organizations (formal and informal institutions). Thus, this study argues that in addition to government institutions, non-governmental institutions like private institutions, NGOs, producer associations, and traditional community based organizations can play an increasingly important role in building the livelihood of citizens. Therefore, this study aims to examine the effects of access to formal public, private and civil society organizations and informal traditional institutions at local level on access and ownership of livelihood assets and well-being of rural farming households.

## **2. Objectives of the Study**

- To investigate the access of farming households to local government offices and non-state actors (private sectors, formal and informal voluntary organizations) and the benefits gained from these institutions.
- To examine the effect of access to local institutions on livelihood assets of rural farming household heads in the study areas.
- To analyze the effect of livelihood assets on the livelihood outcomes/ welfare status of rural farming household heads.

## **3. Research Methodology**

This study applies the explanatory type of research substantiated with both quantitative and qualitative research approaches to achieve the objectives of the study. Scholars also agree that a combination of quantitative and qualitative methods is most effective when researching about local institutions and livelihoods (Prowse, 2010). The types of data used in this study include both qualitative and quantitative which were collected from primary and secondary sources with use of different methods. Primary data were collected from farming household heads with use of survey questionnaire.

Besides, interview guidelines have been used to collect data from the representatives of civil society organizations, private sector organizations, and government officials operating at local level. Secondary data were collected from policy documents, books, journals, articles, activity reports of various years. Furthermore, personal observations and focus group discussions have been held with representatives of farming household heads and representatives of informal traditional institutions.

For selection of representative to the study, both probability and purposive sampling techniques have been employed. First, three districts among six districts of the zone were selected randomly with their respective three kebeles/lower administrative units. Second, stratified sampling technique was used to stratify each of selected districts to three strata on the basis of agro-climatic zone and population density as humid climatic zone/Dega agro-climatic zone with high population density, semi-humid zone/Woyina-Dega agro-climatic zone with medium population density and hot zone/Kola agro-climatic zone with low population density.

Then one kebele/lower administrative unit from each of three agro-climatic zones in three kebeles; totally nine kebeles (three kebeles from each of three districts) have been randomly selected. Finally, 200 farming household heads (60, 75 and 65 household heads from Essera, Mareka and Tocha districts respectively) have been selected with use of simple random sampling technique. Moreover, purposive sampling has been applied to contact key informants for interview (government officials, private business owners, and representatives of NGOs and other civil society organizations) and focus group discussion participants.

Regarding data analysis, both quantitative and qualitative data collected in this study were analyzed quantitatively and qualitatively respectively. The quantitative data were analyzed with use of SPSS program to facilitate descriptive and inferential statistical analyses. Initially, the access of household heads to formal and informal local institutions has been analyzed and presented with use of graphs and frequency. Then after, binary logistic regression and multiple regression models have been applied to test the effects of access to local institutions on the livelihood assets as well as the effects of selected livelihood assets on the welfare status of farming household heads. Before the application of the models, the multicollinearity of explanatory variables has been detected with use of variance inflation factor (VIF). Besides, the fitness of both models was checked and their P-values are less than 5 percent.

Furthermore, the information collected from key informants, observation and focus group discussion has been analyzed qualitatively with use of content analysis.

#### **4. Basic Concepts and Analytical Framework**

##### **4.1. Basic concepts of Local institutions**

Institutions are humanly created formal and informal mechanisms that influence social and individual expectations, interactions, and behavior. They can be classified as public (government institutions), and non-state actors/ private business organizations, and civil societies/formal and informal organizations/ (Uphoff and Buck, 2006). Usually in any rural area, these variety of local institutions may exist and at least some of these may be playing or can play positive roles in economic and social development that promote the sustainable livelihood of rural farming households. According to Ellis (2000), "institutions, organizations and social relations are critical mediating factors for livelihoods because they encompass the agencies that inhibit or facilitate the exercise of capabilities and choices of individuals or households".

##### **4.1.1. Formal Local Public/Government Institutions**

The basic roles of the central government would be the formulation and implementation of policies to enhance the effectiveness and efficiency of other actors in carrying out their regular functions. In the process of decentralization, local governments will have to suppose more responsibilities and would become the focal points for local development. Local governments have to be effectively linked with the national levels as well as with local communities for local development. Local governments would be expected to carry out certain activities undertaken by the central government, such as certain legal and regulatory functions and the provision of services like extension, health, education, market link, clean drinking water, credit facilities that will contribute to the livelihood improvement of local communities. In addition, especially with increased demand and diversification of economic activities mainly due to the growing emphasis on globalization and associated changes, they would be entrusted with extra responsibilities to enhance local development. These may include guiding local communities how to diversify livelihood activities, facilitating the capacity-building of local communities, catalyzing the interactions between the community organizations and the organized private sector, voluntary sector/civil society organizations, installation of monitoring mechanisms, etc (Asian Productivity Organization, 2004).

Since 2002, the Government of Ethiopia's decentralization process was carried further to the local/ district level, with the reassignment of public civil servants and reestablishment of more institutions at the district level. This was mainly to bring government priorities and investments into closer alignment with community priorities (Ayele, Alemu, and Kelemework, 2005). However, the study by Tegegn and Kassahun (2005) noticed that while grassroots empowerment efforts in Ethiopia have brought government and community priorities closer together, local-level systems for representing community voice, involving citizens in planning processes, and ensuring government accountability are only developing slowly.

At district level, each office is comprised of a number of desks that deal with particular sectors. However, this study mainly focuses with some of these sectors that actively involve with planning and implementation of development activities and provision of social services which contribute to the livelihood of rural farming households.

Therefore, the offices of Education, Health, Agriculture and Rural Development and Water are expected to be the dominant offices in most districts in Ethiopia as their responsibilities correspond most closely to development and social needs in rural areas. The office of Finance and Economic Development is also anticipated to play an important role, as it will have the responsibility for integrating the various office plans, and matching these plans with the available budget to meet the local demand.

#### 4.1.2. Non-State Actors' Institutions

Non-state actors can be defined as the organizations/institutions that refer to a wide range of non-governmental development actors (Barrientos and Nino- Arazua, 2011) and include the private sector/national and multi-national business firms and civil society organizations. Non-state actors can be categorized in to formal and informal traditional institutions/ associations. The formal non-state actors are viewed as modern organization with legal personality and clear structure of decision making and area of interventions. They are considered as "outward oriented" groups since their mandate goes beyond the relatively narrow interest of their members or constituencies and embraces issues of broad public concern. According to Dessalegn, (2002), the formal organizations can be grouped as:

- i. National/international NGOs engaged in development activities,
- ii. Associations (professional associations – primarily serve their members),
- iii. Self help groups ( labor union, cooperatives),
- iv. Private business firms,
- v. Mass organizations (Youth associations, women associations, farmers associations, HIV/AIDS associations, etc),
- vi. Ethnic-based Development associations,
- vii. Micro finance institutions, etc.

Studies by Bouman (1995); Steel and Andah (2003) reflect a diverse range of functions undertaken by the formal non-state actors. They involve in greater program specialization and greater activism at the community and grass root level, more so in urban areas than rural. There is also a shift from engagement solely in service delivery, relief and rehabilitation towards concerns for poverty reduction and welfare improvement, socio-economic development, human rights policy reforms.

Moreover, recently the focus of these voluntary sectors on poverty reduction, enhancing equitable development to poor in order to improve their livelihoods is showing exponential growth in the country.

The informal non-state actors are traditional community based institutions and local groups legitimized by customary and/ or formal institutions acting in the community at grass root level for the betterment of its members (Chhetri et al, 2007). According to Spielman et al (2008) and Chhetri (2007), the varieties of informal institutions operate by local residents and share a basic mission of improving the quality of life in their community through the provision of social services that enhance their livelihoods which include:

- o Adjudicating over conflicts by council of elders/ shimagilewoch;
- o Pooling resource mobilization through labor-sharing groups/debbo;
- o Share of production implement like oxen, farm land by festive groups/ mekenajo;
- o Providing financial services through rotating savings and credit associations /quibs;
- o Provide humanitarian social welfare services through funeral groups/ iddirs;
- o Carrying out traditional and religious functions and building social networks through religious groups / faith based organizations.



Ethiopia is rich in traditional organizations such as funeral societies/iddirs, religious associations /mahber, senbete/, rotating saving / iquibbs, labour share/debbo, etc. What makes these organizations unique in Ethiopia is that their role is strictly confined to social, economical, and religious activities only. Because of Ethiopia's history of not being colonized unlike other African countries, traditional civil society organizations did not have any role in the political struggle. These traditional Civil Society Organizations (CSOs) were never allowed to engage in formal political, social and economic issues of the country rather than concentrating only on addressing their self or neighborhood/community interests. They were tolerated by the government during their organization /formation since they perform without registration, state control and not seen as threats (Konjit, 2008).

#### 4.2. Sustainable Livelihoods and Its Dimensions

While a livelihood in its simplest definition could be defined as a 'means of living', the most popular definition of sustainable livelihood by Chambers and Conway (1992); DFID (1999); Elliott (1994); Ellis (1999; 2000); Ellis and Freeman (2005) has been given as:

Livelihood is the capabilities, assets (including both material and social resources), and activities required for a means of living. They noticed the basic livelihood assets such as human capital, physical capital, social capital, financial capital, and natural capital which are indispensable for means of living to households. A livelihood is sustainable when it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation and which contributes net benefits to other livelihoods at local and global levels in long and short terms.

The definition of livelihood thus to be separated to highlight four core sub-components in this study: i) livelihood assets, ii) livelihood strategies, iii) livelihood outcomes, and iv) livelihood adaptations, vulnerability and resilience. The following section presents the discussion of these sub-components.

***Livelihood assets:*** are assets that belong to recognized economic categories of different types of capital, and some of which do not, namely, claims and access (Ellis, 2000).

Scoones (1998) tended to identify five main categories of livelihood assets as natural, physical, human, financial and social capitals. These assets according to Singh (2007) are the basic building blocks upon which households are able to make their living.

Natural capital refers to the natural resource base (farm land, water, forest, air quality) that yields products utilized by human populations for their survival. Physical assets refer to assets brought into existence by economic production processes (livestock, shelter, machines, roads, irrigation canals, communication services). Human capital refers to the education level and health status of individuals and populations. Social capital refers to the social networks and associations in which people participate, and from which they can derive support that contributes their livelihoods. Financial capital refers to stocks of cash that can be accessed in order to purchase either production or consumption goods (Ellis, 2000; Scoones, 1998; Singh, 2007).

According to Singh (2007), financial asset is the most versatile among the five assets as it can be converted in to other types of assets, or it can also be used to achieve livelihood outcomes directly. However, this study focuses on all five types of assets to examine the effect of functions of local institutions on these livelihood assets and their effects, in turn on the welfare of rural farming household heads.

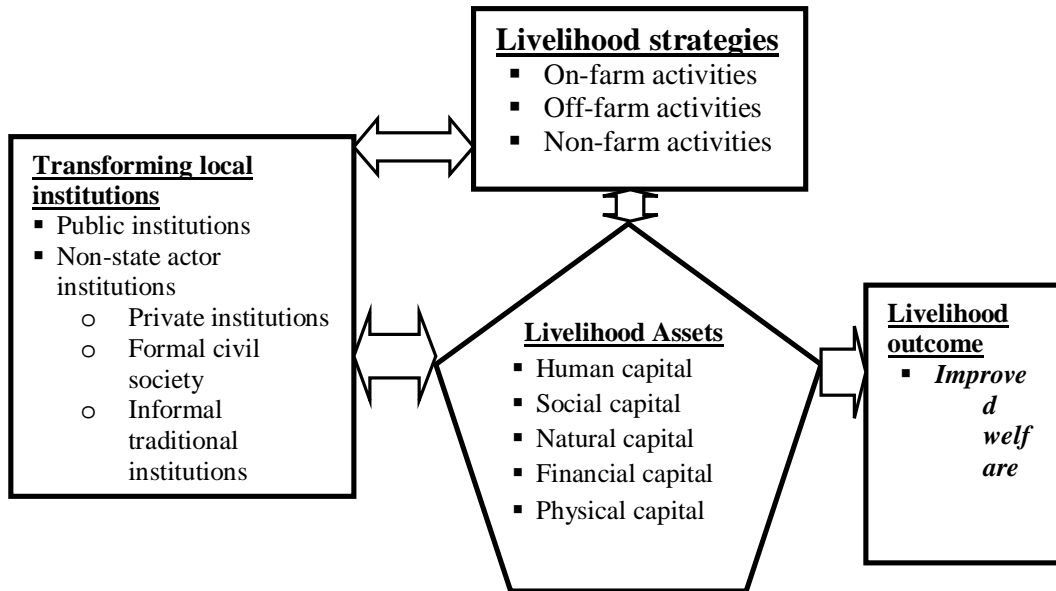
***Livelihood strategies:*** are the mechanisms that rural households construct increasingly diverse portfolio of activities and assets in order to survive and to improve their standard of living. These strategies are framing activities (cropping, livestock rearing, beekeeping), off-farm activities (daily labor work, work for food), and non-farm activities (petty trade, handcrafting, and remittances), which help to build assets and contribute to welfare improvements (Ellis, 2000).

***Livelihood adaptation, vulnerability and resilience:*** The functions of local institutions build the ability of rural households to be able to cope with and recover from stresses of trend and shocks (Davies, 1996). According to Ellis (2000) and Singh (2007), trends and shocks occur outside a household and influence the occurrence of livelihood assets and outcomes. Trends include population pressure, technological change, relative price, macro policy, and national and world trends; whereas shocks include drought, flood, pest, disease, and war.

***Livelihood outcomes:*** The end result of adequately built livelihood assets, diversified livelihood strategies adopted, with adaptation and resilience mechanisms, is different kinds of livelihood security (outcome). This livelihood outcome includes among others, improved income, food security, household welfare, and environmental sustainability. This study considers the welfare status of household heads as outcome of the livelihood. According to Slesnick (1998), welfare is broadly defined as the money needed to maintain a constant level of utility, which is thus important outcome of livelihood. To measure it, consumption expenditure is viewed as better indicator than income since it reflects the household's ability to meet basic needs. Income is only one of the elements that allow consumption because consumption reflects the ability of household's access to credit and saving at times when their income is very low. Besides, in most developing countries, income report of households is likely to be understated compared to consumption expenditure report. Hence, it is viewed as appropriate to use consumption rather than income in the analysis of welfare (MoFED, 2012).

#### 4.3. Analytical Framework of the Study

The role of local institutions has been significantly recognized in the rural development that enhances rural livelihoods (Chhetri, 2007). In this respect, this focuses on the improvement of the farming household heads' livelihood through institutional approach. The institutions are the transforming structures acting on the community to facilitate the household heads to change their initial resource endowments to welfare improvement (Figure 4.1). The household head's decision to allocate initial resources is influenced by plans and policies of transforming institutions acting in that community. These transforming institutions according to Chhetri (2007) include governmental and non-governmental organizations, private sectors and traditional community based associations/institutions. Therefore, the interaction between household heads and the transforming institutions determine the livelihood activities or strategies undertaken by household heads to build their livelihood assets that enhances their welfare improvement. Thus, the participation of farming household head in development of rules and regulations, programs selection and implementation, operation and maintenance, transparency of overall programs, group leadership, independency and coordination of community based organizations determine the performance of household heads to enhance the livelihood outcomes.

**Figure 4.1: Analytical Framework of the Study**

Source: Adapted from Ellis (2000)

## 5. Results and Discussions

### Introduction

This section presents the background of respondents, the access of farming households to the local government and non-governmental institutions, the benefits gained by farming households from these institutions, the effects of access to local institutions and their benefits on selected livelihood assets of households. In addition, the effects of livelihood assets on welfare status of farming household heads are presented.

#### 5.1. The Characteristics of Respondents

This section discusses the demographic characteristics of respondents participated in the study. These respondents are the residents selected to participate in this study from the three districts in the Dawuro zone of Southern Nations, Nationalities and Peoples Region/SNNPR, Ethiopia.

**Table 5.1: The Demographic Characteristics of Respondents**

| <b>Attributes</b>       | <b>Categories</b>       | <b>Frequency</b> | <b>Percent</b> |
|-------------------------|-------------------------|------------------|----------------|
| Sex                     | Male                    | 186              | 93             |
|                         | Female                  | 14               | 7              |
|                         | <b>Total</b>            | <b>200</b>       | <b>100</b>     |
| Age                     | 20-30                   | 55               | 27.5           |
|                         | 31-40                   | 45               | 22.5           |
|                         | 41-50                   | 39               | 19.5           |
|                         | 51-60                   | 36               | 18             |
|                         | Above 60                | 25               | 12.5           |
|                         | <b>Total</b>            | <b>200</b>       | <b>100</b>     |
|                         | 1-3                     | 27               | 13.5           |
| Family size             | 4-6                     | 77               | 38.5           |
|                         | 7-10                    | 88               | 44             |
|                         | Above 10                | 8                | 4              |
|                         | <b>Total</b>            | <b>200</b>       | <b>100</b>     |
| Education               | Illiterate              | 118              | 59             |
|                         | Literate                | 82               | 41             |
|                         | <b>Total</b>            | <b>200</b>       | <b>100</b>     |
| Residence district      | Essera                  | 60               | 30             |
|                         | Mareka                  | 75               | 37.5           |
|                         | Tocha                   | 65               | 32.5           |
|                         | <b>Total</b>            | <b>200</b>       | <b>100</b>     |
| Agro climatic condition | Humid (Dega)            | 80               | 40             |
|                         | Semi-humid (Woina Dega) | 60               | 30             |
|                         | Hot (Kola)              | 60               | 30             |
|                         | <b>Total</b>            | <b>200</b>       | <b>100</b>     |

Source: Field survey 2013

Table 5.1 shows that majority (93 percent) of the participants involved in the study are male while the female counterparts constitute only 3 percent. This might be due to the focus of the study on heads of households where heads in most households are male. Regarding the age category, the study mainly targeted the adult heads of the households who are 20 and above years old. Thus, they are at right age level to give genuine information regarding the local institution functions and their livelihood conditions.

The table also indicates one of the indicators of human capital of household heads (education). In this respect, majority (59 percent) of the participants are illiterate.

The lack of ability to read and write may deter the farming households to adopt new means of agricultural production on which their livelihood mostly relied on.

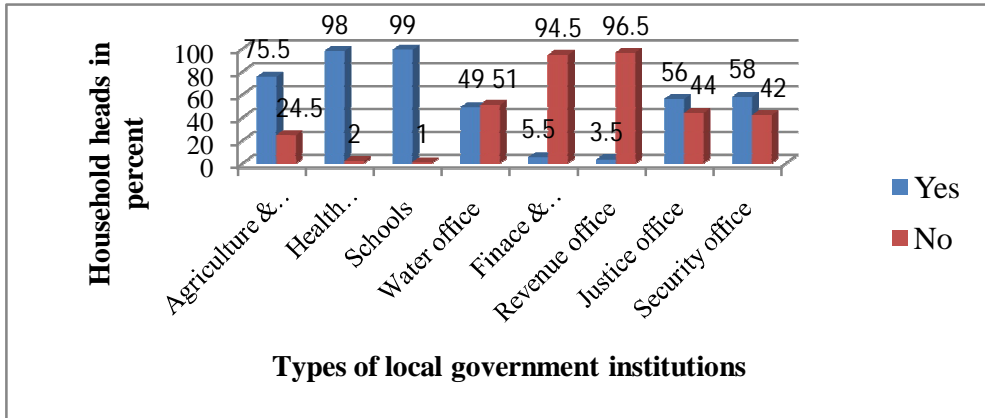
The study also addressed selected farming household heads with their respective agro-climatic condition with the assumption that the climatic condition might have its own influence on the livelihood of the household heads and effectiveness of local institutions for involving households to improve their livelihoods. In this regard, 40 percent participants are from the humid (Dega) agro- climatic zone, 30 percent are from each of semi-humid (Woyina Dega) and hot (kola) agro- climatic zones.

Moreover, the study assessed the family size to understand the household members belong to one household in the study area. The study by Masefield (2001) reported that it is difficult to farming household heads to successfully feed all their family members when the family size is greater than five even with use of improved technology for agricultural production. In this regard, the study found that 48 percent of the participants in this study have 7 and above while the remaining 52 percent have six and below family members. From this we can realize that how it will be challenging for majority of farming households to lead their livelihood with all these family members by the subsistence agricultural farming in the study areas.

## 5.2. Access to Government Institutions and Benefits Gained

Government institutions at local level are mainly expected to deliver various services in order to meet the daily service demand of citizens at grass root level. In this regard, figure 5.1 shows that majority of the household heads participated in the study have access to schools, health institutions, and agriculture and rural development offices. On the other hand, the significant numbers of household heads do not have access to revenue, and finance and economic development offices. From this we can realize that the experiences of local public institutions have not yet been fully improved to have close relationships with community at grass root level. This may deter the local people's ability to understand what the public institutions are doing and how they can be evaluated for failure to meet their service expectations.

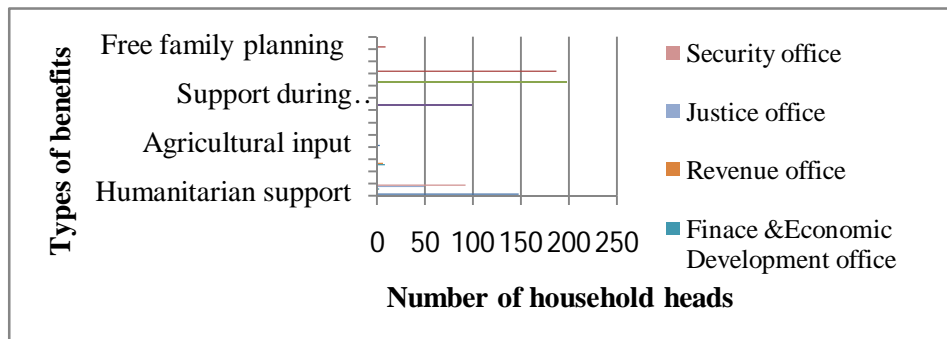
**Figure 5.1: The Accessibility of Public Institutions to Household Heads**



Source: Field survey, 2013

Figure 5.2 shows that schools play satisfactory role in improving the access of children for education followed by the health institutions that provide the health treatment services to household heads. In addition, the agriculture and rural development office and water office show their commitment in provision of humanitarian services and safe drinking water for 150 and 100 household heads respectively. However, the service provision from many local public institutions is not satisfactorily accessible to household heads which require the attentions from local government bodies in the future.

**Figure 5.2: Types of Benefits/Services gained from Local Public Institutions**

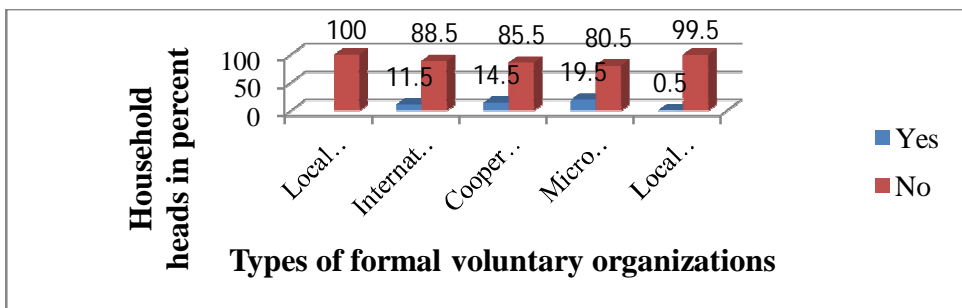


Source: Field survey, 2013

### 5.3. Access to Local Non-governmental organizations and Benefits Gained

The non-governmental organizations also play vital role in filling the gaps left by public sectors in provision of services to local people. Their role has also significant contribution to meet the service needs of local people and improving their livelihood. However, the study shows that the accessibility of these institutions to farming household heads is at the infant stage and almost null (Figure 5.3). From this, it is possible to understand that the local farming households' service demand is highly relied on public institutions which are not satisfactorily accessible to community at local level. The interviewed officials and focus group discussants mentioned the problems of infrastructure facilities mainly, road and market for deterring the active engagement of NGOs and private investors in the area. In addition, it was also noticed during the field work that only one international NGO is operating in one district, where there is road accessibility. Thus, it must be taken in to account by concerned bodies for accelerating the involvement of these sectors in the area to enhance their contribution in provision of social services to farming households in the rural area.

**Figure 5.3: Access of Private Institutions to Household Heads**



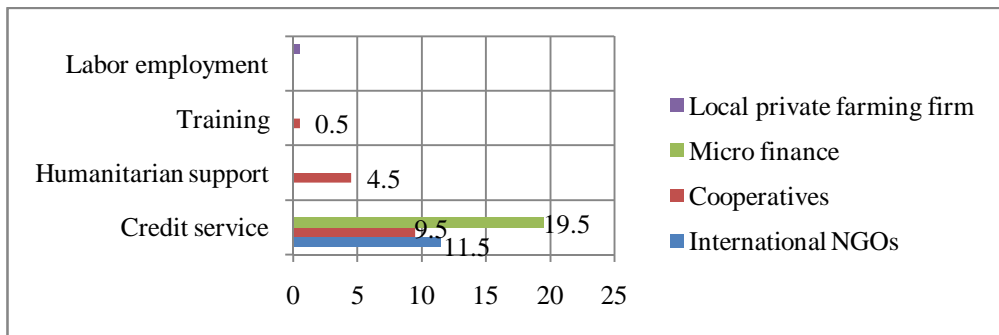
Source: Field survey, 2013

The international NGOs, cooperatives and micro finance institutions are mostly involving in provision of credit to household heads (Figure 5.4). Among the three institutions, micro finance institution is dominantly providing the credit service to farming household heads which is promising to improve the accessibility of credit services to people at local level. As it was noticed during field visit, all study districts have the offices of micro finance called as "Omo micro finance" that is extending its service to village level.



The cooperative is newly emerging institution in the study districts and currently provides the humanitarian supports like agricultural implements, crop containers in addition to credit for household heads in the area. Though not well developed, it provides training to farmers that can contribute for their human capital improvement.

**Figure 5. 4: Types of Benefits Gained from Local Private Institutions and NGO**



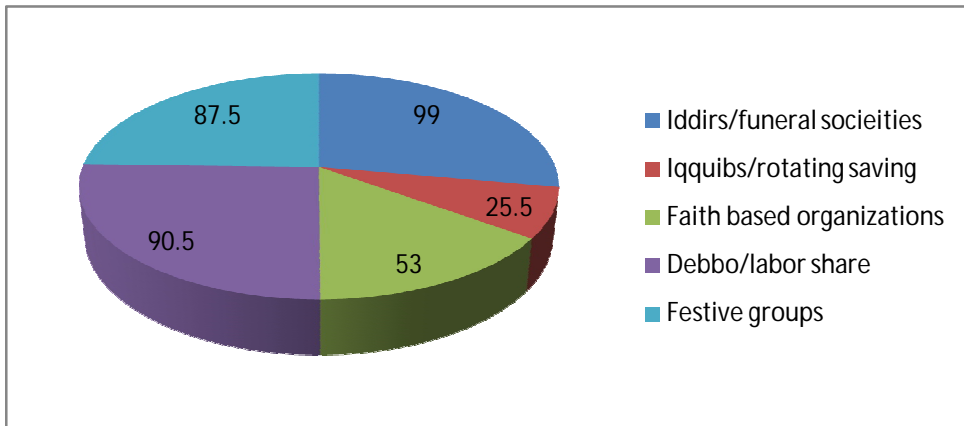
**Source: Field survey, 2013**

Figure 5.5 shows that the participants in rotating saving/iqqiubs are low compared with other types of traditional organizations. During focus group discussions, the participants reported fear for mismanagement of money by the coordinators as a main obstacle for involvement in iqqiubs. It was indicated that sometimes the money they contribute would be illegally used by unethical coordinators due to poor and traditional financial management system. On the other hand, majority of the household heads participated in the study belong to funeral groups/iddir, labor share/debbo, and festive groups.

In addition, the number of household heads participating in faith based organizations is not incredible. This finding concurs with the study by MCB (2005), estimated that in the country about 39 million people participate in iddirs, some 21 million in iqqiubs, about 9 million members participate in a variety of self-help organizations. These facts can be taken as reality because of the satisfactory accessibility of these institutions to household heads at grass root level compared to formal institutions. These institutions have also long history in Ethiopia and they have been in place for several years.

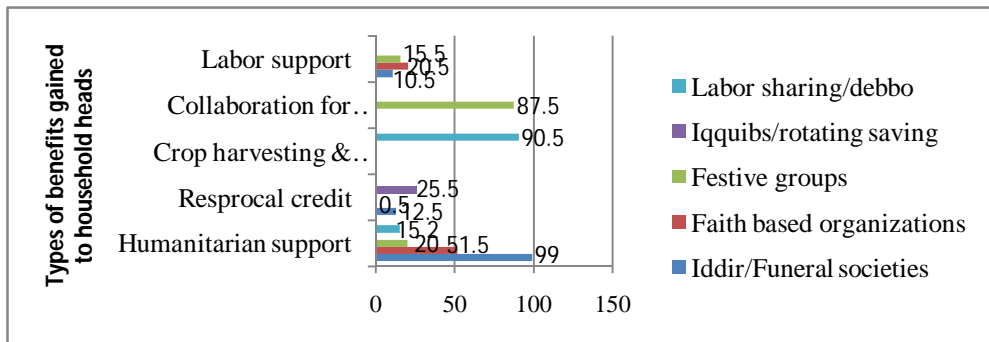
As indicated by Spielman et al (2008) and Nigatu et al (2013), these informal traditional organizations are used to provide welfare services, insurance and play significant roles in food security and for the improvement of livelihoods of households at local level too.

**Figure 5. 5: Access to Informal Traditional Informal Organizations**



Source: Field survey, 2013

Figure 5.6 also shows that majority of household heads (99 percent) are gaining the humanitarian support/ the welfare services from funeral groups/iddirs and 90.5 percent of them gain the crop harvesting and farming supports from labor share/debbo. In addition, the festive groups to which 87.5 percent of household heads belong play satisfactory role in strengthening their social coordination and information exchange which builds the social capital. Furthermore, credible number of household heads receive humanitarian and labor supports from faith based organizations to reverse the adverse circumstances they faced. In general, these institutions are involving in provision of welfare services, financial supports, pooling resources for production, provision of labor support for elders and physically disable persons which cannot be done by formal institutions at local level. Thus, it is possible to say that the role of informal traditional institutions to the resilience of shocks and building the livelihoods of farming households is remarkable in the study area.

**Figure 5.6: Benefits Gained from Informal Traditional Organizations**

Source: Field survey, 2013

#### 5.4. The Effects of Access to Local Institutions and Benefits Gained on Selected Livelihood Assets

To examine the effects of access to local institutions with their respective gains on livelihood assets of household heads, the study employed the binary logistic and multiple regression models depending on the nature of the proxies used to represent the livelihood assets. The binary logistic regression models were used for livelihood assets represented by dichotomous proxies while the multiple regression models were used for livelihood assets with quantifiable proxies. In this regard, the binary logistic regression models were applied for examining the effects of local institutions on dichotomous livelihood assets such as human and financial capitals. This model has been also used to examine the effects of livelihood assets on welfare status of household heads. On the other hand, the multiple regression models were used to examine the effects of institutions on quantifiable livelihood assets like the social, physical and natural capitals.

**Human capitals:** Human capital refers to the education, skills and health that can be increased by training, education and investment in health (Carney, 1998). In this respect, the study used the health situation and the farming skill training received by household head as proxy for the human capital. Thus, table 5.2 presents the probability of household heads not to face any health problem during the last 12 months with use of binary logistic regression model as follows.

**Table 5.2: The Results of Logistic Regression Regarding the Effects of Access to local Institution on Health Problem/Illness**

| <b>Explanatory variables</b>  | <b>B</b> | <b>S.E.</b> | <b>Wald</b> | <b>df</b> | <b>Sig.</b> | <b>Exp(B)</b> |
|-------------------------------|----------|-------------|-------------|-----------|-------------|---------------|
| Access to Iddir               | -20.512  | 28380.079   | .000        | 1         | .999        | .000          |
| Access to iqquib              | -.586    | .376        | 2.428       | 1         | .119        | .556          |
| Festive groups                | -.249    | .495        | .254        | 1         | .614        | .779          |
| Access to local farming firm  | 20.133   | 40192.970   | .000        | 1         |             | 553973611.414 |
| Access to micro finance       | -1.117   | .411        | 7.382       | 1         | .007        | .327          |
| Access to agricultural office | .499     | .370        | 1.819       | 1         | .177        | 1.648         |
| Access to health institution  | 2.169    | 1.175       | 3.408       | 1         | .065        | 8.748         |
| Constant                      | 19.164   | 28380.079   | .000        | 1         | .999        | 210198360.827 |

Source: Field survey, 2013

From the table we can understand that those who have access to iddir has an odd ratio = 0.000. The reference category is those who do not have access to iddir. Therefore, the odd ratios of facing a health problem during the past 12 months are 100 percent (1-0.000). This indicated that the likelihood of facing the health problem for those who do not have access to iddir is 100 percent. Those who do not have access to iqquib have the odds equal to  $1-0.556 = 44$  percent. This implies that the likelihood of facing health problem for those who do not have access to iqquib is about 44 percent higher as compared to those who have access to it. Having access to micro finance institutions is statistically significant at 1 percent significance level and has an odds ratio equal to 0.327. This implies that the likelihood of facing health problem for the household heads who do not have access to micro finance institutions is 67.3 percent (1-0.327) higher compared to those who have access. The household head who has access to health institutions is 8.748 times more likely to face health problem compared as household head who does not have access to it (Statistically significant at 10 percent). This might be due to lack of adequate health treatment from health institutions at the local level.

In addition to health condition of household heads, the delivery of farming training has been used as additional proxy for human capital with assumption that the farming skill of households will be gained through training.

In this regard, table 5.3 presents the result of binary logistic regression that shows the relationship between access to local institutions and human capital in terms of training gained in the last 12 months.

**Table 5.3: The Results of Logistic Regression Regarding the Effects of Access to Local Institution on the Probability of Gaining Farming Training**

| <b>Explanatory variables</b>    | <b>B</b>    | <b>S.E.</b> | <b>Wald</b> | <b>df</b> | <b>Sig.</b> | <b>Exp(B)</b> |
|---------------------------------|-------------|-------------|-------------|-----------|-------------|---------------|
| Access to iddir                 | 19.318      | 28409.653   | .000        | 1         | .999        | 245194688.020 |
| Access to iquib                 | -.421       | .439        | .919        | 1         | .338        | .656          |
| Access to micro<br>finance      | -.396       | .486        | .661        | 1         | .416        | .673          |
| Access to<br>Agriculture office | 3.164       | .516        | 37.625      | 1         | .000        | 23.660        |
| Access to health<br>institution | -<br>19.863 | 20096.485   | .000        | 1         | .999        | .000          |
| Access to festive<br>groups     | .126        | .534        | .055        | 1         | .814        | 1.134         |
| Constant                        | -1.404      | 34799.098   | .000        | 1         | 1.000       | .246          |

Source: Field survey, 2013

From the result table, it is possible to understand that the household head who has access to local agriculture and rural development office is 23.660 times more likely to get training to acquire his/her farming skill as compared to those who do not have access to this institution (Statistically significant at 1 percent level). Besides, the household head who belongs to festive groups is 1.134 times more likely to gain training as compared to those who do not belong to that group. From the discussion, we can realize that improving the access of farming household heads to the local agricultural and rural development office is the most important effort to improve their human capital through training.

**Financial capital:** refers to stocks of cash that can be accessed in order to purchase either production or consumption goods. In this respect, cash in hand, saving, accesses to credit in the form of loan are the fundamental financial capital for rural households including pensions and other transfers from the state and remittances (Ellis, 2000; Scoones, 1998; Singh, 2007).

Thus, this study uses the access of household heads to credit and the presence of saving habit as proxy for financial capital. In this regard, table 5.4 and 5.5 present the relationship between access to local institutions and the presence of credit services and saving habit with use of binary logistic regression models respectively.

**Table 5.4: The Results of Logistic Regression Regarding the Effects Of Access to Local Institution on the Probability of Access to Credit Services**

| <b>Explanatory variables</b>                    |        | S.E.      | Wald   | df | Sig. | Exp(B) |
|---|--------|-----------|--------|----|------|--------|
| Access to iddir                                 | 19.612 | 8.764     | .000   | 1  | .999 | 9.843  |
| Access to iquib                                 | .119   | .403      | .087   | 1  | .768 | 1.126  |
| Access to festive groups                        | .759   | .526      | 2.076  | 1  | .150 | 2.135  |
| Access to faith based organization              | .322   | .327      | .968   | 1  | .325 | 1.379  |
| Access to micro finance                         | 1.710  | .496      | 11.885 | 1  | .001 | 5.527  |
| Access to agriculture office                    | 1.211  | .439      | 7.605  | 1  | .006 | 3.357  |
| Access to health institution                    | -1.194 | 1.177     | 1.030  | 1  | .310 | .303   |
| Access to finance & economic development office | 2.218  | 1.082     | 4.204  | 1  | .040 | 9.186  |
| Constant  | -      | 27698.764 | .000   | 1  | .999 | .000   |
|   | 20.637 |           |        |    |      |        |

Source: Field survey, 2013

As it can be seen from table 5.4 , the household head who has access to micro finance institution at the local level is 5.527 times more likely to get credit facilities as compared to those who do not have access to this institution (Statistically significant at 1 percent significance level). The household head who has access to agriculture and rural development office is 3.357 times more likely to get credit facilities as compared to those who do not have access to this office (statistically significant at 1 percent).

Besides, the household head having access to finance and economic development office is also 9.186 times more likely to get credit facilities as compared to those who do not have access to this office at local level which is statistically significant at 5 percent. The household head having access to iquib is 1.126 times more likely to get credit service as compared to those who do not have access to it though it is not statistically significant.

In addition, the household heads that has access to the local finance and economic development office is 9.186 times more likely to get credit services as compared to those who do not have access to this office. Access to faith based organizations and belongingness to festive groups will increase the access of household heads to credit facilities by 1.379 and 2.135 times more respectively as compared to those who do not have access to these institutions.

Regarding the presence of saving habit of household head, the household head having access to iqqub is 5.394 times more likely to increase the saving habit compared with those who do not have access to this traditional organization at local level. This is statistically significant at 1 percent significance level. Access to micro finance institutions also increases by 11.032 times more the habit of saving to household head that has access to this institution than those who do not have access with statistical significance at 1 percent. In addition, household head that belongs to festive groups is 12.630 times more likely to increase saving habit than those who do not belong to this group with statistical significance at 5 percent significance level. In addition, the household head that has access to faith based organizations is also 2.203 times more likely to increase the saving habit as compared to those who do not have access with statistical significance at 10 percent.

**Table 5.5: The Results of Logistic Regression Regarding the Effects of Access to Local Institution on the Probability of Increasing Saving Habit**

| <b>Explanatory variables</b>                    |        | S.E.      | Wald   | df | Sig. | Exp(B)       |
|---|--------|-----------|--------|----|------|--------------|
| Access to iddir                                 | 18.869 | 8.976     | .000   | 1  | .999 | 156492926.26 |
| Access to iqqub                                 | 1.685  | .458      | 13.547 | 1  | .000 | 5.394        |
| Access to festive groups                        | 2.536  | 1.169     | 4.706  | 1  | .030 | 12.630       |
| Access to faith based organization              | .790   | .468      | 2.841  | 1  | .092 | 2.203        |
| Access to micro finance                         | 2.401  | .489      | 24.091 | 1  | .000 | 11.032       |
| Access to agriculture office                    | -.242  | .526      | .211   | 1  | .646 | .785         |
| Access to health institution                    | 19.157 | 7.451     | .000   | 1  | .999 | 4.662        |
| Access to finance & economic development office | .022   | .917      |        | 1  | .981 | 1.022        |
| Constant  | -      | 32370.716 |        | 1  | .999 | .000         |
|   | 42.815 |           | 000    |    |      |              |

Source: Field survey, 2013

In general, the result of binary logistic regression reveals that access to micro finance institutions, agriculture and rural development office, finance and economic development office, iquibs, belongingness to festive groups, and access to faith based organizations play significant role in improving the financial capital of farming households in rural areas.

**Social capital:** is the social network and association in which people participate, and from which they can derive supports that contribute to the improvement of their livelihoods. In this regard, the study assessed all the social networks and associations to which household heads belong and added all of them together for examining the effect of local institutions on them. Accordingly, table 5.6 shows the multiple regression result about the effect of local institutions on total number of networks/ associations to which participants belong.

**Table 5.6: The Results of Multiple Regression Regarding the Effects of Access to Local Institutions on the Number of Social Networks of Household Heads**

| Explanatory variables                             | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|---|-----------------------------|------------|---------------------------|--------|------|
|   | B                           | Std. Error | Beta                      |        |      |
| (Constant)  | .839                        | 1.422      |                           | .590   | .556 |
| Involvement in iddir                              | 1.726                       | 1.016      | .103                      | 1.699  | .091 |
| Involvement in iquib                              | 1.173                       | .253       | .307                      | 4.644  | .000 |
| Involvement in debbo                              | 2.516                       | .371       | .444                      | 6.780  | .000 |
| Involvement in festive activities                 | -.100                       | .307       | -.020                     | -.325  | .745 |
| Access to faith based organizations               | .118                        | .211       | .035                      | .557   | .579 |
| Access to local farming firm                      | -.834                       | 1.369      | -.035                     | -.609  | .543 |
| Access to micro finance                           | -.640                       | .276       | -.153                     | -2.319 | .021 |
| Access to agricultural & rural development office | .083                        | .269       | .021                      | .309   | .758 |
| Access to health institution                      | .645                        | .728       | .054                      | .885   | .377 |
| Access to education office                        | .007                        | 1.023      | .000                      | .007   | .995 |
| Access to finance & economic development office   | 1.543                       | .578       | .212                      | 2.668  | .008 |
| Access to Revenue office                          | -1.401                      | .709       | -.155                     | -1.977 | .050 |
| Access to Justice office                          | .495                        | .256       | .148                      | 1.937  | .054 |

Source: Field survey, 2013

Dependent Variable: Total social network established by the household head

**Note:** All explanatory variables in the model are dichotomous in which 1 = Yes & 0 = No



The table clearly indicates that involvement in rotating saving/ iqquib, labor share/debbo, access to micro finance institutions, access to finance and economic development and revenue offices can significantly determine the number of networks/associations to which household heads belong in rural areas at 5 percent significance level. For instance, involvement in a single iqquib increases the number of social network by 1.173 to household heads. Involvement in a single labor share increases the number of social network to households by 2.516. Access to finance and economic development office at local level will increase the number of social networks to household heads by 1.543. Access to micro finance institution decreases the number of social network by 0.640, while to revenue office decreases by 1.401. This might be due to lack of the frequent relationship with these institutions. During focus group discussion, the participants disclosed that most people come to the offices of micro finance at the time of loan provision and repayment. They also added that their contact with revenue offices is mostly at time of tax collection which might not increase their social network.

In general, involvement in iqquibs, debbo, access to finance and economic development office play significant role in increasing the social capital of households at local level.

**Natural capital:** refers to the natural resource base (farming land, water, forest, air quality) that yields products utilized by human populations for their survival (Ellis, 2000). In this respect, this study considered the farming land size cultivated by household heads and their access to safe drinking water for analyzing their natural capital conditions with assumption that these resources are the most important sources that yield products of utilization. Thus, multiple regression models were applied to examine the effect of involvement/access in local institutions on the size of farm land cultivated by households during the last 12 months at local level (Table 5.7).

**Table 5.7: The Results of Multiple Regression Regarding the Effects of Access to Local Institution on the Size of Farm Land Cultivated in Hectare**

| Explanatory variables                             | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|---|-----------------------------|------------|---------------------------|--------|------|
|   | B                           | Std. Error | Beta                      |        |      |
| (Constant)  | -.523                       | .989       |                           | -.529  | .597 |
| Involvement in iddirs                             | .660                        | .820       | .052                      | .805   | .422 |
| Involvement in iquibs                             | -.463                       | .206       | -.161                     | -      | .025 |
| Involvement in festive groups                     | -.251                       | .249       | -.065                     | -      | .314 |
| Access to faith based organizations               | .422                        | .172       | .167                      | 1.010  | .015 |
| Access to micro finance                           | -.063                       | .223       | -.020                     | 2.463  | .777 |
| Access to agricultural & rural development office | .966                        | .204       | .330                      | -2.283 | .000 |
| Access to finance & economic development office   | .145                        | .358       | .026                      | 4.738  | .685 |
| Access to health office                           | .812                        | .571       | .091                      | .406   | .157 |

Source: Field survey, 2013

Dependent Variable: Total farm land cultivated during the last agricultural season

**Note:** All explanatory variables in the model are dichotomous in which 1 = Yes & 0 = No

Table 5.7 clearly reveals that involvement in iquibs, access to faith based organizations and agriculture and rural development offices significantly affect the size of farmland cultivated by household heads.

In this regard, the household head who has access to faith based organizations can cultivate 0.422 more hectare of land plot as compared to those who do not have access to these organizations. Besides, the household head having access to agriculture and rural development office can cultivate 0.966 more hectare of land plot than those who do not have access to this office. The household head involving in iquib can cultivate 0.463 less hectare of land plot compared to those who do not have access. This might be due to the involvement of most household heads on non-farm activities like petty trade after collecting money from this social organization. Though the involvement of household heads in iddirs is not statistically significant, the involvement of household head in this institution increases the size of farming land plot by 0.66 hectares compared to those who do not have access.

Table 5.8 shows the binary logistic regression result on relationship between the local institutions and access to safe drinking water. In this respect, the festive groups, faith based organizations, micro finance, and water offices at local level significantly determine the household heads' access to safe drinking water at 5 percent significance level. Therefore, the household head belongs to festive groups is 3.389 times more likely to get access for safe drinking water as compared to those who do not belong to this group. The household head that has access to water office is 3.947 times more likely to get access to safe drinking water as compared to those who do not have access to this office. In addition, the household head who does not have access to micro finance is 67.4 percent (1-0.326) more likely to get access to safe drinking water compared with those who have access to this institution. This reveals that the access to micro finance institutions does not matter to the household heads' access of safe drinking water.

**Table 5.8: The Results of Logistic Regression Regarding the Effects of Access to Local Institution on the Access to Safe Drinking Water**

| Explanatory variables                  | B       | S.E.   | Wald  | df | Sig. | Exp(B) |
|--|---------|--------|-------|----|------|--------|
| Iddirs                                 | -21.237 | 0.245  | .000  | 1  | .999 | .000   |
| Iqqiubs                                | .167    | .406   | .169  | 1  | .681 | 1.182  |
| Festive groups                         | 1.221   | .524   | 5.425 | 1  | .020 | 3.389  |
| Faith based organizations              | -.884   | .340   | 6.743 | 1  | .009 | .413   |
| Micro finance                          | -1.120  | .481   | 5.423 | 1  | .020 | .326   |
| Agriculture & rural development office | -.222   | .452   | .242  | 1  | .623 | .801   |
| Health institutions                    | 1.249   | 1.211  | 1.064 | 1  | .302 | 3.486  |
| Water office                           | 1.373   | .515   | 7.096 | 1  | .008 | 3.947  |
| Constant                               | 19.795  | 50.245 | .000  | 1  | .999 | 63.834 |

Source: Field survey, 2013

In general, the traditional organizations like iddirs, iqqiubs, festive groups, faith based organizations and the formal ones such as agriculture and rural development office, and water offices have paramount role to the improvement of the natural capital of livelihood asset for household heads at local level.

**Physical Capital:** is the livelihood asset brought in to existence by economic production processes like livestock production, machines, shelter, roads, irrigation canals, communication services (Ellis, 2000).

This study considers the livestock production and the conditions of shelter of household heads as proxy for examining the physical capital of livelihood asset. In this regard, Table 5.9 shows the result of multiple regression model used to examine the effect of local institutions on the ownership of livestock to household heads in Tropical Livestock Unit (TLU). The binary logistic regression model has been also used to examine the relationship between local institutions and the conditions of households' shelter either to be hut (made up of woods and mud) or corrugated iron sheet as indicate in table 5.10.

As indicated in table 5.9, access to agriculture and rural development office and health institution significantly affect the number of livestock ownership at 5 percent and 10 percent significance level respectively. The household head's access to agriculture and rural development office can increase the number of livestock ownership by 1.714 as compared to those who do not have access to this office.

Besides, the household's access to health institution can increase the number of livestock ownership by 2.446 as compared to those who do not have access to this institution.

**Table 5.9: The Multiple Regression Result Regarding the Effects of Access to Local Institutions on the Number of Livestock Ownership**

| Explanatory variables                   | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|---|-----------------------------|------------|---------------------------|-------|------|
|   | B                           | Std. Error | Beta                      |       |      |
| (Constant)                              | -.681                       | 2.286      |                           | -.298 | .766 |
| Iddir                                   | 1.445                       | 1.896      | .054                      | .762  | .447 |
| Iquibs                                  | -.303                       | .490       | -.048                     | -.618 | .537 |
| Festive groups                          | -.327                       | .579       | -.040                     | -.565 | .572 |
| Faith based organizations               | .398                        | .399       | .073                      | .997  | .320 |
| Micro finance                           | .564                        | .535       | .083                      | 1.055 | .293 |
| Agricultural & rural development office | 1.714                       | .480       | .271                      | 3.575 | .000 |
| Finance & economic development office   | 1.314                       | .903       | .102                      | 1.455 | .147 |
| Health office                           | 2.446                       | 1.320      | .128                      | 1.852 | .066 |

Source: Field survey, 2013

Dependent Variable: Total livestock in Tropical Livestock Unit (TLU)

**Note:** All explanatory variables in the model are dichotomous in which 1 = Yes & 0 = No

Table 5.10 shows that access to agriculture and rural development office at local level is statistically significant at 5 percent significance level to determine the shelter condition of household heads. In this regard, the household head that has access to this institution is 4.94 times more likely to build iron sheet corrugated shelter as compared to those who do not have access. Though not statistically significant, household head that has access to the local institutions such as iddirs, iqqiibs, and faith based organizations is above 1 times more likely to construct iron sheet corrugated shelter than those who do not have access to these traditional organizations. In the same manner, the household head who has access to the formal institutions like agriculture and rural development office, micro finance and health institution is above 1 times more likely to construct iron sheet corrugated shelter as compared to those who do not have access to these institutions at local level though not statistically significant at 5 percent significance level.

**Table 5.10: The Results of Logistic Regression Regarding the Effects of Access to Local Institution on the Type of Shelter**

| Explanatory variables                  | B       | S.E.  | Wald  | df | Sig. | Exp(B) |
|--|---------|-------|-------|----|------|--------|
| Iddirs                                 | 21.361  | 4.996 | .000  | 1  | .999 | 7.514  |
| Iqqiibs                                | .516    | .436  | 1.402 | 1  | .236 | 1.675  |
| Festive groups                         | -.433   | .522  | .688  | 1  | .407 | .649   |
| Faith based organization               | .339    | .341  | .989  | 1  | .320 | 1.403  |
| Agriculture & rural development office | .903    | .395  | 5.212 | 1  | .022 | 2.466  |
| Micro finance                          | .452    | .481  | .885  | 1  | .347 | 1.572  |
| Health institution                     | 1.597   | 1.247 | 1.642 | 1  | .020 | 4.940  |
| Constant                               | -22.754 | 4.996 | .000  | 1  | .999 | .000   |

Source: Field survey, 2013

In general, access to agriculture and rural development office and health institutions have statistically significant contribution for the improvement of physical capital of livelihood asset for farming household heads at local level. In addition, iddirs, faith based organizations, and micro finance institutions have positive contribution to the improvement of household's physical capital of livelihood asset at local level.

### 5.5. The Effects of Livelihood Assets on Welfare of Farming household Heads

The final result of adequately developed livelihood assets, adoption of diversified livelihood strategies, with coping mechanisms, is various kinds of livelihood outcomes. These livelihood outcomes include among others, improved income, food security, household welfare, and environmental sustainability (Ellis, 2000). In this respect, this study has considered the household heads' welfare as outcome of livelihood. The welfare of household heads in this study has been reflected by using the amount of money spent for consumption during last 12 months. On the basis of MoFED (2012), consumption rather than income is viewed as the preferred welfare indicator because it better captures the long-run welfare level than current income. Consumption may better reflect households' ability to meet basic needs. Income is only one of the elements that allow consumption. Consumption reflects the ability of household's access to credit and saving at times when their income is very low. Hence, consumption reflects the actual standard of living (welfare) of households.

In this regard, the poverty line that has been established by MoFED in its interim report of 2012 has been used to categorize household heads as better off and poor categories of welfare status. Hence the absolute poverty line has been determined to be ETH Birr 3781. Thus, household heads whose consumption expenditure is less than 3781 Birr are assumed to be poor, while those whose consumption expenditure is above 3781 birr are considered as better- off as indicated in table 5.11.

**Table5.11: The Welfare Status of Household Heads**

| Consumption Expenditure<br>in ETH Birr | Frequency | Percent | Welfare status | Code |
|--|-----------|---------|----------------|------|
| 2056 -3780                             | 134       | 67.0    | Poor           | 0    |
| 3782 -23104                            | 66        | 33.0    | Better-off     | 1    |

Source: Field survey, 2013

In order to examine the effect of some selected livelihood assets on welfare status of household heads, the study used the binary logistic regression model because of the dichotomous nature of the dependent variable (welfare). Here the model is used to examine the effects of human capital, financial capital, natural capital, physical capital and social capital of livelihood assets on welfare status of household heads.

**Table 5.12: Livelihood Assets and Their Selected Indicators**

| Types of livelihood assets  | Indicators                               | Measurement   |
|-----------------------------|--|---|
| <b>1. Human capital</b>     | Health problem/illness faced             | Dummy: 1 for 'yes', 0 for 'no'  |
|                             | Educational status                       | Dummy: 1 for literate, 0 for illiterate   |
|                             | Farming training gained                  | Dummy: 1 for 'yes', 0 for 'no'  |
| <b>2. Financial capital</b> | Access to credit                         | Dummy: 1 for 'yes', 0 for 'no'  |
|                             | Presence of saving habit                 | Dummy: 1 for 'yes', 0 for 'no'  |
| <b>3. Natural capital</b>   | Access to safe drinking water            | Dummy: 1 for 'yes', 0 for 'no'  |
|                             | Cultivated Farming land size in hectares | Categorical: 0 for 0.01-3 hectares, 1 for > 3 hectares  |
| <b>4. Physical Capital</b>  | Total livestock owned in TLU             | Categorical: 0 for 0-5, 1 for > 5   |
|                             | Shelter                                  | Dummy: 0 for hut constructed from trees and mud with grass cover, 1 for iron sheet corrugated |
| <b>5. Social Capital</b>    | Number of social networks                | Categorical: 0 for 1-3, 1 for > 3   |

Therefore, table 5.13 shows the result of binary logistic regression regarding the effects of selected livelihood assets on welfare status of household heads.

In this respect, the shelter, saving habit and cultivated farmland size are statistically significant at 1 percent, 5 percent and 10 percent significance levels respectively to determine the welfare status of farming household heads at local level. The household head with corrugated iron sheet shelter is 21.981 times more likely to be better-off as compared to those with hut shelter. The household head that has saving habit is 3.524 times more likely to be better-off as compared to those who do not have the saving habit. In addition, the household who cultivates more than three hectares of farm land is 5.382 times more likely to be better-off as compared to those who cultivate less than three hectares of his/her farm land. Though not statistically significant, the household head owned more than five livestock in TLU; those having more than three social networks and having access to credit are 2.194, 2.711 and 1.205 times more likely to be better-off respectively compared to those who do not have access to these institutions at the local level.

**Table 5.13: The Result of Logistic Regression Regarding the Effects of Livelihood Assets on Welfare**

| <b>Explanatory variables</b>      | <b>B</b> | <b>S.E.</b> | <b>Wald</b> | <b>df</b> | <b>Sig.</b> | <b>Exp(B)</b> |
|-----------------------------------|----------|-------------|-------------|-----------|-------------|---------------|
| Health problem faced (1)          | -.776    | .495        | 2.461       | 1         | .117        | .460          |
| Educational status (1)            | -.256    | .456        | .315        | 1         | .575        | .774          |
| Farming training received (1)     | -.580    | .502        | 1.335       | 1         | .248        | .560          |
| Saving habit (1)                  | 1.259    | .584        | 4.654       | 1         | .031        | 3.524         |
| Access to credit (1)              | .186     | .480        | .150        | 1         | .698        | 1.205         |
| Access to safe drinking water (1) | .336     | .444        | .573        | 1         | .449        | 1.400         |
| Cultivated farm land (1)          | 1.683    | .871        | 3.736       | 1         | .053        | 5.382         |
| Shelter (1)                       | 3.090    | .457        | 45.641      | 1         | .000        | 21.981        |
| Livestock owned (1)               | .786     | .505        | 2.423       | 1         | .120        | 2.194         |
| Total social network (1)          | .997     | .786        | 1.609       | 1         | .205        | 2.711         |
| Constant                          | -4.697   | 1.153       | 16.585      | 1         | .000        | .009          |

Source: Field survey, 2013

In general, the financial capital, natural capital and physical capitals of livelihood assets have statistically significant effect of the welfare status of farming household heads at the local level. Furthermore, the human and social capitals of livelihood asset have indispensable effects on the welfare status of farming household heads though they are not statistically significant.

## **6. Conclusion and Policy Implications**

The role of institutions in economic development is an important area of research and interventions (North, 1990). These institutions range from formal public to informal traditional institutions that play essential roles in shaping and bringing sustainable livelihood to people at local level. In this regard, this study examines the accessibility of both formal and informal local institutions and their effects on the livelihood assets of the farming household heads. Accordingly, the study found that the accessibility of informal traditional institutions is extremely higher than the formal public and private institutions to farming household heads at local level. As a result, these informal traditional institutions are providing remarkable welfare services, labor support, credit services, crop harvest and farming to household heads as compared to formal public and private institutions. It was also noticed that the engagement of private sectors to fill the gaps left by public sectors to meet service needs of farming household heads is at infant level and almost not existing. This is due to poor infrastructure facilities, mostly due to poor transportation services and market links in the study areas.



In addition, the inferential statistical results show that those household heads that have access to health institutions, agriculture and rural development offices are more likely to improve their human capital of livelihood asset. The household heads that have also access to micro finance, local rotating savings, festive groups, finance and economic development offices, and agriculture and rural development offices are more likely to improve their financial capital of livelihood asset. Besides, the access of household heads to funeral societies, rotating saving, labor share, micro finance, and the offices of finance and economic development significantly determine the social capital of livelihood asset of farming households at local level. The access of household heads to rotating saving, faith based organizations, agriculture and rural development office and health institutions are also significantly determine the natural and physical capitals of livelihood assets at local level. Furthermore, the household heads with improved livelihood assets like financial capital, natural capital and physical capital are more likely to have better-off welfare status as compared to those who are with low conditions of these capitals.

In general, accessibility of farming households to formal and informal local institutions have significant contribution for improvements of livelihood assets such as human, financial, natural, social and physical capitals at local level.

In addition, the improvement of financial, natural and physical capitals of livelihood assets play remarkable role for promoting the welfare status of farming households at local level. Therefore, the local government bodies should work hard to improve the accessibility of all formal public institutions to meet the service needs of people that can change their livelihood. It is clear that all activities could not be satisfactorily undertaken only by the effort of local public institutions. In this regard, it is very important for all stakeholders to improve the infrastructure facilities mainly road to attract the potential private sectors and civil society organizations like NGOs to the local areas for adding their contribution. Furthermore, the role of informal traditional institutions on building the livelihood assets of farming household heads at local level is notable. Therefore, they should be empowered to enable and rebuild their technical, financial capacity and promote the acceptance of legality to assume greater responsibilities in provision of sustainable social services that build the livelihood assets of local people. According to Chambers and Conway (1992), the livelihood of people can be sustainable if they are able to adopt diversified livelihood strategies to cope with shocks and strengthen their capabilities and assets both at present and in the long- run.

Thus, the formal and informal local institutions should collaborate to each other to periodically train and advise farming household heads to involve in different livelihood strategies like off-farm and non-farm activities in addition to their current on-farming activities.

## References

- Asian Productivity Organization., 2004. Role of Local Communities and Institutions in Integrated Rural Development: Report of the APO presented in Seminar held in Islamic Republic of Iran, 15-20 June 2002 (ICD-SE-3-01).
- Ayele G. Alemu, D. & Kelemework, F., 2005. The Provisions of Rural Services in Ethiopia: Characterization, Impacts, and Farmers' priorities. Unpublished manuscript.
- Barrientos, A. & Nino-Zarazua, M., 2011. 'Financing social protection for children in crisis context.' *Development Policy Review*, 29(5): 603-620.
- Bouman, F.J.A., 1995. 'Rotating and Accumulating Savings and Credit Associations: A development perspective.' *World Development* 23(3): 371-384.
- Canadian Network of Non- governmental Organization in Ethiopia/ CANGO/, 2007. The Path to Self Resiliency in Ethiopia: Volume II, Regional Specific Findings. Ethiopia.
- Carney, D. (ed.), 1998. Implementing the Sustainable Livelihoods Approach: In Carney, D Sustainable Rural Livelihoods: What Contribution Can We make? Paper Presented at the DFID Natural Resource Advisers' Conference, London.
- Chambers, R. & Conway, G.R., 1992. Sustainable Rural Livelihoods: Practical Concepts for the 21<sup>st</sup> Century. Discussion Paper No. 296. Brighton, IDS.
- Chhetri, A. K., Joshi, N.M., and Maharajan, K.L. 2007. Intervention on Livelihood Management Through Community Based Organizations: Evidence from rural Nepal. *Journal of International Development and Cooperation*, Vol. 13 (1), PP. 187-208.
- Davis, S., 1996. *Adaptable Livelihoods: Coping with Food Insecurity in the Malian Sahel*. London: MacMillan.
- Dawuro Zone Agriculture and Rural Development Department/DZARDD/, 2011. Official Annual Report on Rural Facilities Achievement, Unpublished. Tarcha, SNNPR, Ethiopia.
- DFID, 1999. Background Briefing on Sustainable Livelihoods Approach: Available at <http://www.Livelihoods.org/info/docs/dee99bbfg.html>, accessed on 20<sup>th</sup> December, 2011.
- Elliott, J., 1994. *Introduction to Sustainable Development: The Developing World*. London: Routledge, 11 New Fetter Lane,
- Ellis, F., 1999. Rural Livelihoods and Diversity in Developing Countries: Evidence and Policy Implications, Overseas Development Institute Natural Resource Perspectives, No. 40.
- Ellis, F., 2000. The Determinants of Rural Livelihood Diversification in Developing Countries. *Journal of Agricultural Economics* 51(2):289-302.
- Ellis, F. & Freeman, H., 2005. *Rural Livelihoods and Poverty Reduction Policies*. New York: Routledge.
- Jütting, J., 2003. *Institutions and Development: A Critical Review*, Working Paper No. 210. OECD Development Centre.
- Konjitt, F., 2008. Civil Society in Kenya, South Africa and Uganda: Lessons for Ethiopia. Edited by Taye, ., & Bahru, Z. PP 34-39, Addis Ababa, Forum for Social Studies.

- Masefield, A. 2001. Chronic Food insecurity in Ethiopia: Looking through a livelihood lens: In Yared, A. (ed.), Proceedings of the Symposium of the Forum for Social Studies: Food security and sustainable livelihoods in Ethiopia. Addis Ababa: Forum for Social Studies.
- Ministry of Capacity Building/MCB., 2005. Civil Society Organizations Capacity Building Program ( revised). Addis Ababa, Ethiopia.
- Ministry of Finance and Economic Development /MoFED, 2002. Ethiopia's Progress Towards Eradicating Poverty: An Interim Report on Poverty Analysis Study (2010/11), Addis Ababa.
- Nigatu, R., Eden, M. and Ansha Y. 2013. Situational analysis of indigenous social institutions and their role in rural livelihoods: The case of selected food insecure lowland areas of Southern Ethiopia. DCG Report No. 73, Norway.
- North D.C. 1990. Institutions, Institutional Change and Economic Performance. New York, W.W North and Company.
- Prowse, M., 2010. Integrating reflexivity into livelihoods research, Institute of Development Policy and Management (IOB). University of Antwerp, Belgium, Progress in Development Studies 10 (3) 211–31. SAGE Publications.
- Scoones, I., 1998. Sustainable Rural Livelihoods: A framework for analysis. IDS Working Paper 72. Brighton: Institute of Development Studies.
- Singh, M., 2007. Contribution of Farming on Rural livelihood in Nepal: Focusing on Dairy Farming in Chitwan. Doctoral Dissertation, Hiroshima University.
- Slesnick, D. T. (1998). Empirical Approaches to the Measurement of Welfare: Journal of Economic Literature, Vol. 36, pp. 2108–2165.
- Spielman, D. Cohen, M. & Mogue T. 2008. Mobilizing Rural Institutions for Sustainable Livelihoods and Equitable Development: A Case Study of Local Governance and Smallholder Cooperatives in Ethiopia. Washington: International Food Policy Research Institute.
- Steel, W. F., & Andah, D.O., (2003). 'Rural and microfinance regulation in Ghana: Implications for development and performance of the industry'. WB Africa Regional Working paper Series No. 49, Washington, DC.
- Tegegn, G. and Kassahun, B. 2007. A literature review of decentralization in Ethiopia. In T. Assefa and T. Gebre-Egziabher (Eds.), Decentralization in Ethiopia, Addis Ababa: Forum for Social Studies, pp. 9-68.
- USAID, 2005. SNNPR Overview of Livelihood Profile: Regional Livelihoods Baseline Study. USA: Chemonics International Inc.
- Uphoff, N. & Buck, L., 2006. Strengthening rural local institutional capacities for sustainable livelihoods and equitable development. Paper prepared for the Social Development Department, Washington DC., World Bank.
- Yared, A (ed.), 2001. Livelihood Strategies and Food Security Policy in Ethiopia: In Proceedings of the Symposium of the Forum for Social Studies, Food Security and Sustainable Livelihoods in Ethiopia. Addis Ababa: Forum for Social Studies.