



THE NATIONAL REGIONAL STATE OF OROMIA
OROMIA IRRIGATION DEVELOPMENT AUTHORITY (OIDA)



**OROMIA 19 SMALL SCALE IRRIGATION PROJECTS (SSIPs)
FEASIBILITY STUDY AND DETAIL DESIGN FOR LOT-4 SSIPs:
ABISHIKA, TILO, DANISSA AND LEGA LOLA**

**PART-I:-FINAL FEASIBILITY STUDY REPORT
ANNEX F:-SOCIOECONOMY, AND ORGANIZATION AND MANAGEMENT STUDY ABISHIKA**

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FINAL FEASIBILITY STUDY & DETAIL DESIGN REPORTS

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ACRONYMS

AFI	Acute Fibril Illness
AFI	Acute Fibril Illness
ASSIS	Abishika Small Scale Irrigation Schemes
BoFED	Bureau of Finance and Economic Development
FP	Family planning
FTCs	Farmer Training Centers
FTC	Farmers Training Center
GC	Gregorian calendar
GDP	Gross Domestic Product
GTP I	Growth and Transformation Plan I
GTP II	Growth and Transformation Plan II
GTPs	Growth and Transformation Plans
Ha	Hectares
HIV/AIDs	Human Immune Virus/ Amino Immune Deficiency Syndrome
KG	Kindergarten
km ²	Square Kilometer
KV	Kilo-Volt
M ³	Cubic Meters
MDGs	Millennium Deployment Goals
mm	millimeters
NGOs	Non-governmental Organizations
°C	Degree Centigrade
OIDA	Oromia Irrigation Development Authority
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
PLC	Private Limited Company
Qts	Quintals
SSI	Small Scale Irrigation

SSIP	Small Scale Irrigation Project
SSIS	Small Scale Irrigation Project Scheme
WUA	Water Users Association

EXECUTIVE SUMMARY

Oromia has a total land area of about 363,375 square kilometer (km²), with an estimated population of 33.69 million. It is divided into 18 Zones including Finfinne Surrounding Special Zone, and 309 districts. Oromia National Regional State has been targeting on boosting agricultural development sector which contributes to more than 56 percent of Gross Domestic Product (GDP) and provide employment and exchange earnings to more than 85 percent of the population (BoFED, 2013/14/). In line with this development trends of agriculture in the region, exploration of agricultural resource base such as small scale irrigation development is fundamental.

Digalu-Tijo District of Arsi Zone is one of the potential small scale irrigation development areas of the region of which this Abishika Small Scale Irrigation Development socioeconomic assessment was undertaken. The land area of Digalu-Tijo District is estimated to be 927 square kilometers found in the South Eastern parts of the region at about 198 kilometers south of Finfinne/the capital of the region. It is located between 7° 19 '22" N to 7° 36' 54" N Latitude and 39° 20' 59" E to 38° 33' 26"E Longitude. Digalu-Tijo district is classified as highland, characterized by ragged mountain ranges of Galama, at about 2,000 - 3600 meters above sea level. It has an average annual rainfall of 1,000 - 1,400 millimeters (mm) with 150 rainy days in a year. The annual temperature ranges from 15°C to 20°C.

The District is divided into 27 administrative units of which 23 are Peasant Associations/ rural Gandas/ Kebeles and four are Urban Administrative Towns with a population of about 178,993 with female sex ratio of about 51 percent. Abishika Small Scale Irrigation Project (SSIS) is one of the small scale irrigation development potential of the district on Abishika River. The proposed Abishika SSIS is found in Digalu Arabi Peasant Association to the Northeast at the periphery of mountain ranges of Galama at 16 kilometers from Sagure Town.

Mixed agriculture, both crop and livestock production is the base for the economy and the main livelihood of the population in the area. The main food crops grown are Wheat, Barely,

Teff, Maize, sorghum, Lentils, Horse Beans, Field Peas, Vegetables and etc. The district has about 437,729 livestock in number while Ganda Digalu Arabi of the project site has 5,018 cattle and a total of 14,333 livestock in number. Traditional way of crop production and livestock rearing and management is the main practices in the area with no improvement in production, productivity and breed.

As to investment development, there are about 118 small scale and three medium and large scale industries in the district. Other operational investment activities serving the community include hotels, cafes, restaurants and barbers that are not yet developed well. The project area is a rural which has no developed investment opportunity. Trade is also dependent on agricultural produce of the area.

The current status of Digalu-Tijo District in terms of social service and infrastructure development is low. As to the educational facilities, the total numbers of schools prevailing in the district are 54 primary (1-8) and five secondary (9-12) schools. In the project area there is one primary (1-8) school. The existing health institution in the district include 23 health posts; five health centers and four drug stores while there is a health post in the project area. Health coverage of the district is 72 percent. The major causes of morbidity of the area in 2015/16 were Pneumonia; Acute Upper Respiratory Infection and Acute Fibril Illness (AFI).

The water supply to the residents of the district in general and that of the project area in particular is from springs and rivers. There are 61 springs of which 21,350 rural people got access to potable water. Similarly, there are 114 operational water supply points from rivers for both urban and rural dwellers. As to the financial institutions, there is one branch of government and two private banks and four micro-finance institutions in the district which provide financial services to the rural project areas. The existing market possibilities are town shops and open markets, rural weekly markets and mini shops which the community exchange goods and services.

In general, the socio-economic data indicated that Digalu-Tijo District in general has a potential resource base for economic development and conducive environment for irrigation development. The project area has diverse topographic features with good climate and agricultural land both for crop production and animal husbandry. The main potential resources include land for extended development with conducive climate and natural vegetation. The existing landscape is sloppy with chained mountain endowed with diversified plantation serving as home for diversified wild animals, beekeeping and forest development which can be a source of raw materials and potential supply of inputs for handicrafts, timber and cottage industry. There are mineral resources such as ashes, sand and stone that are not exploited but potential for the construction and growth of the district.

However, as these resources mainly infrastructure are limited to meet the existing demand, consideration of self-sustained development packages that trickles down to the improvement of the livelihood of the surrounding community is very crucial. The proposed small scale irrigation scheme development infrastructure is one of the needed packages which can enhance and improve production and productivity of the areas.

1. INTRODUCTION

1.1 Background

Agriculture is a dominant economic sector of Oromia National Regional State that contributes to more than 56 percent of Gross Domestic Product (GDP) and provide employment and exchange earnings to more than 85 percent of the population (BoFED, 2013/14/). Rain fed agriculture with subsistence farming is the main practices of production system which has made the majority of the population vulnerable to food shortage due to frequent drought. However, agriculture is still believed to remain a determinant sector that can play a dominant role in stimulating the overall economic development of the region.

The main agricultural development strategy of the region is, thus, geared to increase production and productivity by increasing use of modern farm inputs, improved farm implements as well as introducing modern farming systems. The development of the proposed small scale irrigation projects in Digalu-Tijo District on Abshika River of Arsi Zone of the region is to increase production and productivity of the area that enhance the overall socio and agro-economic conditions of the target beneficiary populations. The project improves the general income of the target beneficiaries and contributes to holistic livelihood improvement of the rural community in the region.

The main livelihoods of the communities in Digalu-Tijo District of Arsi Zone of the region in general and that of the project site in particular is mixed farming which is mainly crop production and livestock rearing. Rain fed agriculture is a common practice of the community and tradition use of irrigation has practiced recently. The major crops grown in the project areas are barley, wheat, bean, peas, and lentils. Vegetables mainly cabbage, potatoes, onions and garlic are grown in small amount at homestead. Since the start of the traditional irrigation, potatoes, cabbages and onions grew at large by the households accessed to the existing traditional irrigation system.

Abishika traditional irrigation scheme was identified as a potential small scale irrigation project and wanted to be promoted to modern development scheme through feasibility and detail design study. In response to the community needs of promoting the development of scheme for efficient utilization of the beneficiaries, the Oromia Irrigation Development Authority (OIDA) has bided to carry out the feasibility study of the project for detail design of construction.

PLANET Integrated Water Resource Development PLC has won the Lot four irrigation bid to undertake feasibility studies of which Abishika Small Scale Irrigation Schemes (ASSIS) is part.

ASSIS is to be developed on Abishika River which is found in Digalu-Tijo Districts of Arsi zone. This is the socioeconomic study of irrigation project that helps to generate social, economic and cultural settings of the population in the project area. The main purpose of the report is, therefore, to provide the major findings of the socioeconomic survey of the study area. It gives detail information on the major social, cultural, and economic settings of the project. It serves as an instrument to provide adequate and more focused benchmark indicators to pertinently utilize during monitoring and evaluation processes in the future and direct essentially important points to sustainable use of the project.

The area has good irrigation potential (water, land and labor) and is conducive for the undertaking of new irrigation scheme. The people are positive and they are also ready to support the project with their own resources. There are potential marketing places in small distance for their products and input requirements. The project could lead to the diversification of crop and livestock production and also to the creation of more labor than the existing one. Except the shortage of water potential, additional area of land could be developed with no significant socio economic impacts. Thus, there are no socio economic constraints which could prevent the project from implementation.

1.2 Project Rationale

The main livelihood of the community in the project site is dependent on agriculture and traditional agricultural production is a common practice of the area. Rain fed agriculture mainly crop production is taking place in the area at large while very limited traditional irrigation is practiced. It was found that the traditional irrigation agricultural production in the project area limited and production both livestock and crop are largely dependent on seasonal rainfall.

The farming community produces food crops mainly wheat and barley for domestic consumption while surplus from consumption are provided to market and the foods crops serve as cash crops. The mode of production of food crops is rain fed agriculture and vegetables mainly cabbage and potatoes are grown at homestead mainly for domestic consumption and by the use of irrigation for market. The irrigation mechanism is traditional i.e. ditches and canals are dug manually and diversion of water to the farm land is made from mud and wood and the effective utilization of the potential is very limited. Thus, the mode of water abstraction hampered irrigated agriculture production in the project area and limited potential irrigable land utilization of small holder farmers.

To this effect, the development of small scale irrigation scheme using Abshika River would contribute enhance effective utilization of irrigation water and improve livelihood status of the beneficiaries in engaging them produce at least twice in a year and diversify their income. The scheme promotes farmers to maximize their benefits that could be obtained from irrigated agriculture; enables farmers generate vegetable crops that provide them high value per unit of land; and promotes production and consumption diversification and increment of crop production.

In addition, the project creates full time job opportunity for household members of the beneficiaries and advance the involvement of larger number of jobless people, youths and women groups in production, transport and marketing activities of the produce. It is also

believed to increase production which could be marketed to various places in the region in general and the district and the one in particular with involving various stakeholders in the form of market chained services from the project area to regional potential markets such as Adama. This system again promotes constant production and benefit which helps maintain sustainability of the project.

1.3 Objectives of the Study

The main objective of the socio-economic study is to assess social and economic information of the area and Digalu-Tijo district and provide both quantitative and qualitative data/information showing the salient socio-cultural and economic features as well as resource potentials of the project areas.

The specific objectives of the study include but not limited to:

- Identify and describe existing socio-economic condition (physical features and administrative setup, demographic characteristics; farming system, inputs used, production, markets and other means of incomes) of the project areas;
- Investigate and assess the attitude of the beneficiaries towards the proposed development project;
- Recognize development potentials, constraints of each scheme in order to involve all beneficiaries in the area for sustainability of the schemes; and
- Identify mitigation measures for adverse effects associated with project implementation to its social context for the attainment of effectiveness and sustainability.

1.4 Scope of the Study

The scope of the socio economic study is identifying the overall socio-economic information and collects both primary and secondary data through designed appropriate data collection instruments and review of related documents and literatures with the aim of producing project level report. The study included assessment of demographic characteristics, social services /institutions and infrastructures, attitudes of the beneficiaries and participation of

women, and direct social impacts and mitigation measures. The study was organized to cover discussion with the beneficiaries, Ganda /Kebele level data and sectoral offices and or line departments operating in the district as its principal data sources.

1.5 Methodology of the Study

1.5.1 Approaches

The approach of the assessment follows participatory identification of source of data that involve administrative and public sector structures at all levels of district, and Ganda. The check lists designed will direct the necessary information the sectors have and collection of data in any form available for analysis.

1.5.2 Methods of the Study

In order to attain the envisaged objectives of the study, both quantitative and qualitative data/ information have been collected and analyzed from both secondary and primary sources. The methodologies followed in the study are deskwork, in-depth interview of resource persons (key informants), focused group discussions, and field observation.

a) Deskwork

The deskwork is the principal data-gathering instrument employed in this study. The deskwork involved review of institutional records, prior studies and reports at district and Ganda levels. In addition, secondary data/ information on the socio-economic settings of the district were solicited from finance and economic office of the districts.

b) In-depth Interview of Resource Persons and Focused Group Discussions

In addition to review of readily available data/ information from secondary sources, in-depth interview of resource persons and focused group discussions were employed to solicit complementary data/ information. The discussants were viewed their ideas on the importance, benefit and experience of using irrigation. List of participants in focused group discussions were composed of community representative beneficiaries (see Figure1) and knowledgeable individuals including local experts/ officials from sector offices and bureaus.



Figure 1: Male, Female and Youth Focus Group Discussants, Abishika SSI Project

Source : *PLANET Integrated Water Resources Development PLC Socioeconomic Study Team, April 2016.*

c) Field Observation

Field observations were made along with the fieldwork with the view of soliciting complementary information mainly on resource potentials, investment, and natural resource management activities of the project area.

d) Study Instruments

In order to allow focused work and to maintain data quality by ensuring consistency among the study areas, data collation formats and checklists were developed prior to launching the actual fieldwork. Accordingly,

- Formats were employed to collate readily available data from secondary sources; and
- Checklists were employed to guide in-depth interviews and focused group discussions, and field observations.

With the help of the stated instruments, almost all the required data for the study have been collected, analyzed and included in this report. It is believed that the information provide a concise description of the socio economic characteristics of the project area, with recommendations for mitigating adverse impacts and tuning the envisaged project to its social context, which is vital for sustainability for the project.

1.6 Constraints in the Study

The main problems encountered in the course of the study that have their respective influences on the findings of the study are:

- Scarcity of the necessary information and inconsistency of the information i.e. data provided to direct interview on processions are estimations;
- Lack of organized and readily available data / information and absence of systematized documentation with organized information;
- Limited number of community members participated in consultative meetings due to their social and other personal reasons that forced the consultant to exploit those attended the meetings to fully discuss the project issues representing all the communities; and
- Time consumption and toiling in between the sectors in collecting the data.

1.7 Data Analysis and Report Writing

The data collected from different sources for socio economic assessment was analyzed by using both electronic and manual approach in the form of descriptive and quantitative way. Focussing on the project area, the information obtained are further analysed in respect to reflect the district's socio-economic situation to provide comparative analysis with the district as required and for profound future development interactions.

1.8 Organization of the Report

This document presents the report on the socio-economic study of Abishika Small Scale Irrigation Project of the Digalu-Tijo District which is organized in eight chapters. Chapter one is the introduction consisting of the background, project rationale, objectives, scope the study, methodology of the study and goes on to provide constraints in the study, data analysis and organization of the report. Chapter two presents review of irrigation development policies which describes policies and strategies, past and current growth and

transformation plan. Chapter three provides physical features of the district and/or project area.

Chapter four presents population characteristics and dynamics. The main characteristics of the economy of the project are discussed in chapter five. Chapter six is about social and economic infrastructure followed by chapter eight discussing on potential resources of the project site. Chapter nine discusses development support structure and community ownership and management attitude of the project while chapter ten presents social impact and mitigation measures. The last chapter eleven is conclusions and recommendations.

2. IRRIGATION DEVELOPMENT POLICY, STRATEGIES AND PLAN

2.1 Policies and Strategies

2.1.1 Water Resource Management Policy and Strategy

Oromia National Regional State has adopted Federal Water Resource Management Policy which was promulgated in 1999 for a comprehensive and integrated water resource management in the country. The overall goal of the water resources management policy is to enhance and promote all national efforts towards the efficient and optimum utilization of the available water resources for socio-economic development on sustainable basis.

Irrigation is dealt as sectoral issue in part of water resource management policy with major objective to develop the huge irrigated agriculture potential for the production of food crops and raw materials needed for agro industries, on efficient and sustainable basis and without degrading the fertility of the production fields and water resources base.

2.1.2 Irrigation Development Policy and Strategy

The irrigation development policy of the country induce sufficient production of food crops to meet the requirements of the fast growing population and ensure food security at household level. It also indicates strategic importance of the development of small scale irrigation schemes in order to enhance reliable agricultural development to ensure food security and cater for externally marketable surplus that would earn the country raw material inputs for industries.

The overall objective of irrigation policy is to develop the huge irrigated agriculture potential for the production of food crops and raw materials needed for agro industries, on efficient, and sustainable basis and without degrading the fertility of the production fields and water resources base.

2.1.3 Agriculture and Rural Development Policy and Strategy

Agriculture and Rural Development Policy and Strategy of the country is promulgated with specific objectives to:-

- Increase agricultural food crops production both in quality and quantity to attain food self-sufficiency at household and the country at large;
- Improve the livelihood of the rural community through sustainable development infrastructure in the areas of agricultural sector;
- Initiate agricultural products that serve as raw material for industries and promote the agro-industrial development; and
- Ensure sustainable agriculture through promoting conservation of natural resources based of agricultural practices.

The main targets taken as a strategy to meet the objectives in considering the growth of agriculture and rural development as central issue are:

- To make agriculture and rural development bring fast economic growth;
- To ensure benefit of the community in all direction;
- To eliminate food dependency of the country;
- To expand market based economic development;
- To fully deploy existing large labor force on production;
- To fully deploy existing large labor force on production; and
- To effectively utilize farm lands in a continuously protected in the way it does not affect the natural resource.

It is in line with the policy objectives indicated above that the region is intending to enhance rural development through accelerating water based development as Abshik Small Scale Irrigation Scheme.

2.2 PASDEP, Growth and Transformation Plans (GTPs)

The Ethiopian government is adopting midterm development plan and strategic action every five years. The first is Plan for Accelerated and Sustained Development to End Poverty (PASDEP) adopted for the period of 2005/6-2009/10. The second is the Growth and Transformation Plan I (GTP I) adopted for the period (2009/10-2014/15) and the third, the current one, is adopted for the period of (2015/16-2020/21). The past development

strategic plans have given prime importance for rural and agriculture development with aims for accelerated, sustained and people-centered economic development to achieve the MDGs by 2015. The plan also aimed to enhanced technology and an industrial sector that plays a leading role in the economy; to sustain economic development and secure social justice; and, increase per capita income of citizens.

The Growth and Transformation Plan (GTP II) is directed to achieve an economy which has a modern and productive agricultural sector. It is to enhance smallholder farming to shift to produce high value crops and development of small and large-scale commercial agriculture in order to ensure the food security challenge of the country. The sector also directed to serve as a spring board to bring about structural transformation to industrial growth and to promote multiple cropping and better cope with climate variability and to insure food security.

In general, agriculture will direct on placing major effort to support the intensification of marketable farm products by small and large farmers for domestic and export market. In the Growth and Transformation Plan-II has adopted range of interventions and public investments directed to basic infrastructure development mainly road, market infrastructures and others to support and scale-up of the success in economic growth of the country.

3. PHYSICAL FEATURES OF DIGALU-TIJO DISTRICT /PROJECT AREAS

3.1 Location, Size and Administrative Set-up

Digalu-Tijo District is one of the 24 districts of the Arsi Zone, found in the South Eastern parts of the Oromiya National Regional State. Sagure Town is the capital of the District located at 198 km from regional capital, Finfinne, and 23 km from zonal capital, Asella Town, on the main Asphalt road of Arsi Asella-Bale.

Abshika SSIS is found in the watershed that covers the geographic extents of longitude 39° 15' 00" E - 39° 24' 00" E and latitude 7° 43' 30" - 7° 51' 00" to the Northeast at the periphery of mountain ranges of Galama at 16 kilometers from Sagure Town. The watershed dominantly laying in Oromia rift valley basin that stretched from high land part to low laying area (see Figure 2).

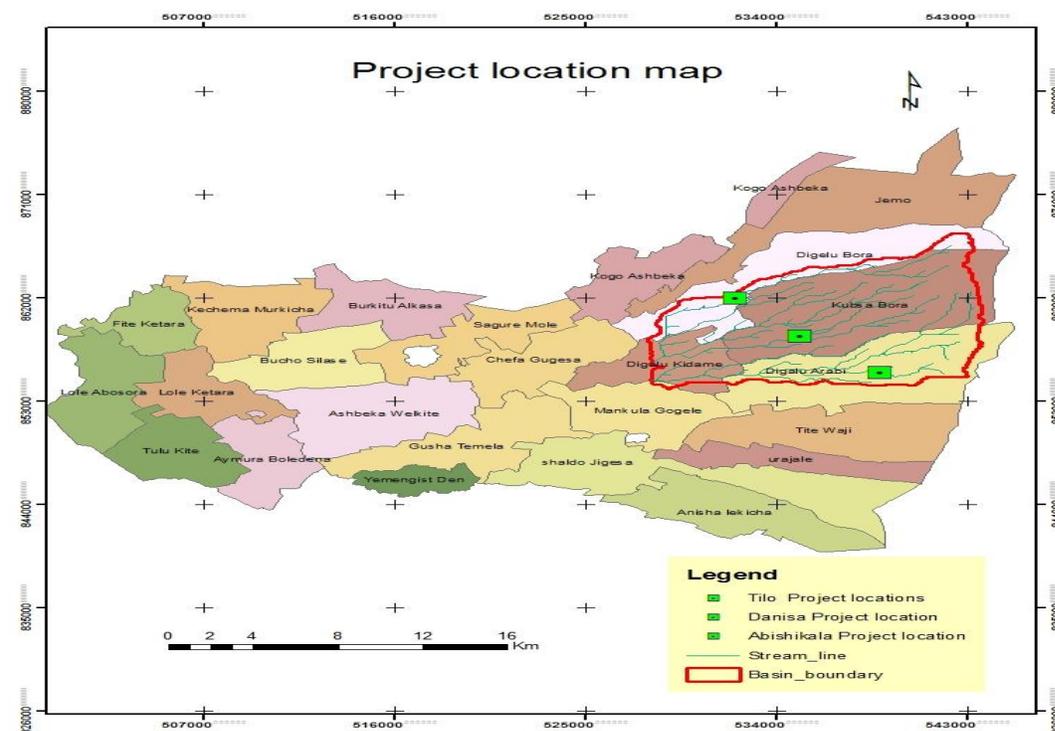


Figure 2: Location of the Project Abshika Project Site

Source : PLANET Integrated Water Resources Development PLC Socioeconomic Study Team, April 2016.
 Remark: Abshika Project Site is a Lower Right Mark

Administratively, Digalu-Tijo is divided into 27 administrative units of which 23 are Peasant Associations/ rural Gandas/ Kebeles and four are Urban Administrative Towns. The proposed Abishika SSIS is found in Digalu Arabi Peasant Association. The project site is accessible for transport (vehicles), marketing, and communication through rural dry road and linked to District Town, Zonal Capitals -Asella and Adama- via to Finfinne Regional Capital.

3.2 Topographic Features

Digalu-Tijo in general and the project area in particular of great physiographic diversity with high and ragged mountain ranges of Chilalo and Galama chain mountains, undulating to rolling plateau and plains dissected by major and small rivers of the district and low flat plateau. The land configuration can be categorized into Eastern Highlands and Associated Lowlands with the average altitude of 2,800 meters above sea level that ranges from 2,000 meters in Lole area to 3,600 meter in Bora Lukku area of Galama Chain Mountain. The general land feature is flat to 65 percent slope. The topographic formation of command (Abishika) catchment area ranges in between 0-30 percent and dominated by slope class of 0-8 percent.

3.3 Climate

The climatic condition of the district is predominantly cold due to its high altitude. About 70 percent of the total areas of the district has a temperature of 10°C - 15°C. The remaining (30%) are cool less than 10°C and moderately cool having a temperature that ranges from 15°C - 20°C. Agro-ecologically, it is classified as midland (78%) and highland (22 %). The climatic condition in the project area is characterized by a distinct rainy season between mid-May and end September and a dry season between mid-October and mid-February. Monthly average maximum and minimum temperatures are estimated as 22.17 °C and 7.01 °C in the month of March and November respectively.

The rain fall situation of Digalu-Tijo is characterized by bi-modal (short and long) pattern with an average annual precipitation that ranges from 1,000 - 1,400 millimeters. A short rainy season occurs during March to April and a long rainy season occurs during June to September. There are 150 rainy days per year at an average. The rainfall pattern of the command area is uni-modal. with an average annual rainfall of 887.2 mm. The rainfall distribution and amounts vary from year to year. The moist months of the project area are mid April to the beginning of May and end of October to the beginning of November. The dry months start from the end of November and goes to mid April. The months from May to end of October are humid that could be growing period.

3.4 Land Use, Soil, Vegetation and Wild life

3.4.1 Land Use Pattern

The current land use pattern of the district in general and that of the project area in particular is predominantly occupied by farm land. For instance, the grazing land, natural forest and fallow lands are observed at small amount on the mountain chains at far distance. The following Table 1 shows the land use patterns of the district in 2015/16 GC.

Table 1: Land Use Patterns of Digalu-Tijo 2015/16 GC

Type of Land Use	Area Covered (ha)	Remarks
Annual crops - rain fed	43,680	
- irrigation	9,990	Within the rain fed
Grazing land	15,050	
Vegetation cover	11,310	
Uncultivable (rivers steep slope, hills, mountains & rocky)	6,800	
Others (including settlements and roads)	15,860	
Total	92,700	

Source: Agriculture and Rural Development Office, Digalu-Tijo District

The potential irrigable land of the district is estimated to be 32,250 hectares (74%) of the cultivable land which is about 43,680 hectares.

The land use patterns of proposed command area, Ganda Digalu Arabi, with in Digalu-Tijo district is depicted on the Table 2.

Table 2: Land Use Patterns of Project Area, Ganda Digalu Arabi 2015/16

No	Land use Types	Area (ha)	Proportion (%)
1	Cultivated land	1880	63.5
2	Grazing land	459	15.5
3	Forest land	585	19.8
4	Land under construction for social services	36	1.2
	Total	2960	100

Source: Respective Ganda's Farmers Training Center (FTC)

The present state of land use and farming systems of the command area, Abshika Small Scale Irrigation Development Project, is a cultivated land by both traditional irrigation and rain fed. The cultivated land and residential lands are occupying larger area including very sloppy areas forming gorges (see Figures 3).



Figure 3: Cultivated Land Encroaching Sloppy Gorges (Ganda Digalu Arabi)

Source : PLANET Integrated Water Resources Development PLC Socioeconomic Study Team, April 2016.

The farming system practiced in and around the project area is mixed farming (both crop production and animal husbandry). The major crops produced by rain fed agriculture are wheat, barley, beans and peas while potatoes are grown both by rain fed and traditional irrigation. These crops are produced for both food and market to generate income for the people. Cereal crops dominate rain fed crop production and it is a subsistence farming system but the main livelihood of the people of the project area.

3.4.2 Land Tenure and Farm Size

The ultimate ownership/ tenure system of Land is vested upon the government/public and farmers have got the legal right to use and enjoy the advantages of their holdings. In the land reform policy, however, land has made a provision for individual farmers to lease and pass it on by inheritance to their kin. Accordingly, the land use systems of the farm land in the project area are managed as per the regulation pertinent to the land use policy under the land holders. Thus, irrigation farm land distribution will need to be sued for irrigation development among the beneficiaries during the implementation of the project.

As the data from the kebele Farmers Training Center (FTC) shows that, currently, an average land holding trend of Ganda Digalu Arabi at an average is 1.5 hectares per household with a maximum of four and a minimum of 0.5 hectares.

3.4.3 Soil

The major types of soil in the district are red soil that covers about 44 percent, black Vertis soil that covers 35 percent and gray mixed soil that cover 21 percent. The mixed soil includes Orthic Lome and Mollic sand that covers some parts of the western, north western, north eastern, eastern and south eastern tips of the district. It is learnt that the soil in the command area is well deep to an average of 120-200 centimeter with free of accumulation of salt and no acidity effect if irrigated.

3.4.4 Vegetation

The vegetation coverage of the district is a kind of Afro-Alpine found on Chilalo and Galama mountain chains. The lower land structure of the district adjacent to Afro-Alpine vegetation is known by having endogenous natural forests. There are protected forests in the district that are known as public forest covering 1,109 hectares, Lukunche forest covering 928,695 hectares, Digalu forest covering 180,305 hectares. There are also about 1,500 hectares of community forest in the district.

It was indicated that the expansion of agricultural land has cause serious deforestation in the project areas that has significant impact on the environment. There were locally named Hexo, Didiksa, Rejjii, Garmba, Sato, Gatira, Kombolcha, Abayi, Bargamoo, Mararoo, Bulchana, Garamba Ansha and etc forest trees in the area. The remnants of these trees are observed in farmlands and along riverine of the catchments. The situation indicates the need for conservation and rehabilitation action in the project implementation.

3.4.5 Wild Life

Wild animals found in the district are Mountain Nyala, Columbus Monkey, Rabbit, Antelope, Wolf, Red Fox, and different kinds of birds. These animals are found in Chilalo and Galama massifs and along riverine catchments. The deforestation of indigenous forest trees in the area has affected the existence number of these wild lives.

4. POPULATION CHARACTERISTICS AND DYNAMICS

4.1 Population Size, Structure and Distribution

Based on the 2007 National Population and Housing Census of Ethiopia, the total population of Digalu-Tijo District projected to July 2016 is 178,993 with female sex ratio of about 51 percent (Table 3).

Table 3: Population Projection Values of 2016 at District Levels by Urban and Rural Residence and by Sex

Sex Category	Urban	Rural	Total
Male	10,533	77,664	88,197
Female	11,140	79,656	90,796
Total	21,673	157,320	178,993

Source CSA 2013 Population Projection of Ethiopia for all Regions at Woreda Level

The total numbers of households of the project area (Ganda Digalu Arabi) are about 1,297 (see Table 4). They are smallholder farmers engaged mainly in agricultural activities, whose major livelihoods are predominantly dependent on rain fed crops and livestock production.

Table 4: Numbers of Households in the Project Site, Ganda Digalu Arabi, by Sex, 2016

Sex Category	Households
Male	1,157
Female	140
Total	1,297

Source: Respective Ganda's Development Agent Office

4.2 Estimated Project Beneficiary

Attempts were made to find the potential project beneficiaries in the gross command area through developing format for registering of the beneficiary communities. Primarily, using the prepared format, the names of households who will have irrigable land within the command area were identified and data such as household survey, focus group discussions, and community consultations were taken from the list of identified households.

Abishika SSIP has four irrigation area groups namely Bonayya, Chaffa, Ariro and Lukkota. The current traditional irrigation direct beneficiary farmers indicated by group discussion

participants are greater to the data obtained from the survey. For the preference of the evidence, however, the list of the beneficiary farmers obtained in the survey by the enumerators, got leader, and DA of the kebele with signed requesting for the development was used in this report (see lists attached). In collecting the information, the assumed beneficiary households were fully involved in the providing opinions and basic information.

It is believed that identification of the exact project beneficiary numbers will be obtained when the construction of irrigation facilities/infrastructures are properly placed on the ground and irrigation water is conveyed to equipped command area of each household. The identified project beneficiaries are presented in the Table 5.

Table 4: Identified Beneficiary Number

Ganda	Name of Sub-village	No of Users HH		
		Male	Female	Total
Digalu Arabi	Bonaya	96	13	109
	Caffaa	72	8	80
	Hariro	88	12	100
	Lukkoota	59	6	65
Total		315	39	354

Source: Socio-Economic Survey Data, April 2016

4.3 Demographic Characteristics of the Beneficiaries

Based on the beneficiary data obtained from the survey, the total age structure of the beneficiary household members of the command area shows 93 percent of them as active social groups (18 to 65 years) which are considered as working age (Table 6).

Table 6: Population Size of the Beneficiary Households by Age Group

Age Categories	Respective Beneficiary Villages				
	Bonaya	Caffaa	Hariro	Lukkoota	Total
<18 Years	-	1	0	0	1
18 - 65 Years	100	71	97	61	329
>65 Years	9	8	3	4	24

Source: Socio-Economic Survey Data, April 2016.

The other results of the household survey indicating household characteristics of the beneficiary household are depicted in Table 7. The male composition of the households of the command area is about 89 percent and the rest 11 percent is female households. Considering the religion of the household beneficiaries, about 57 percent of the beneficiaries are followers of Muslim while the remaining about 43 percent are followers of Christian. Ethnically, about 93 percent of the beneficiary households are Oromo and the rest (7%) are Amhara. Afan Oromo is spoken by almost all of the households whereas few (7%) speaks Amharic as a prime language.

As to the educational status of the household beneficiaries, the data reveals that the majority (35.59%) of the household heads are at 1st primary (1- 4 grade) while the considerable minority about 30%) are at 2nd primary (5 - 8). About 21 percent of the households are illiterate and unable to read and write whereas about 13 percent attained secondary and preparatory levels.

The household survey result also showed that about 63 percent of the beneficiary households have been resided in the area since 1980s, about 19 percent resided in 1990s and about 18 percent resided in 2000s. The types of residential houses are mixed of wood with grass roofing and corrugated iron sheets. Houses of grass roofing are common and used for supplementary uses and these houses also used for storing of different crop products and shelter for livestock.

As to the land holding situation of the household beneficiaries, the majority (about 38%) have less than 0.25 hectares while a considerable minority (24 %) have 0.25 hectares and about 19 percent have between 0.25 and 0.5 hectares.

Table 7: Basic Characteristics of the Beneficiary Households

Categories	Respective Beneficiary Villages					
	Bonaya	Caffa	Hariro	Lukkota	Total	Percent
Sex						
Male	96	72	88	59	315	88.98
Female	13	8	12	6	39	11.02
Total	109	80	100	65	354	100
Religion						
Muslim	50	27	88	37	202	57.06
Christian	59	53	12	28	152	42.94
Total	109	80	100	65	354	100
Ethnicity						
Oromo	96	80	89	65	330	93.22
Amhara	13	0	11	0	24	6.78
Total	109	80	100	65	354	100
Education						
Illiterate	26	8	28	13	75	21.19
1st Primary	30	33	39	24	126	35.59
2nd Primary	36	24	24	21	105	29.66
Secondary	14	11	9	5	39	11.02
Preparatory	3	4	0	2	9	2.542
Total	109	80	100	65	354	100
Year of Residence						
1980s	46	80	59	37	222	62.71
1990s	51	0	10	7	68	19.21
2000s	12	0	31	21	64	18.08
Total	109	80	100	65	354	100
Land Holding						
< 0.25	2	29	96	6	133	37.57
0.25	39	32	4	10	85	24.01
> 0.25 - < 0.50	42	5	0	19	66	18.64
> 0.5 - < 0.75	18	6	0	2	26	7.345
1	8	7	0	10	25	7.062
> 1	0	1	0	18	19	5.367
Total	109	80	100	65	354	100

Source: Socio-Economic Survey Data, April 2016.

The primary occupations of the people in the command area are mixed farming, crop and livestock production. It was learnt that few engaged in supplementary income generating activities such as trade and other services.

4.4 The Existing and Future Labor Availability

It was learnt that there are sufficient labor force available during construction and implementation of the project. The project is also advantageous to occupy the jobless youths who are landless as but dependent on their families' income. Irrigated farming establishments in the area will open production, transportation and marketing/ business opportunities to a numbers of people in the district and in the vicinity of the project. It also creates opportunity for land access family members to extensively utilize the irrigated agriculture land. The current daily unskilled and semiskilled labor cost is Birr 50 to Birr 100 depending on the quality of work but the community use contractual base in terms of unit of activity. Labor coast is higher during harvesting and seeding.

4.5 Settlement Pattern

The settlement patterns of the people in the project area clustered to villages and intermittently scattered. At the hill-ridge areas of the project, scattered rural family settlements are common (See Figure 4).



Figure 4: Abishika SSIS Area Settlement Patterns of the Farming Community

Source : PLANET Integrated Water Resources Development PLC Socioeconomic Study Team, April 2016.

5. CHARACTERISTICS OF THE ECONOMY

5.1 Agriculture and Allied Activities

Mixed farming is the existing agriculture in and around the project area of which, crop production is widely practiced by most of the farmers. Agriculture, both crop production and animal husbandry is the main livelihood of the population and it is the main source of food, job opportunity, source of income and draught power. However, the agricultural system in the project areas are characterized by backward traditional farming practices. The farming system in general is mixed farming composed of crop and livestock production.

5.1.1 Crop Production

In 2015/16 production season there was 41,631 hectares of land under cultivation both rain fed and small scale irrigation in the district. The main food crops grown are Wheat, Barely, Teff, Maize, sorghum, Lentils, Horse Beans, Field Peas, Vegetables and etc. Table 5 shows production of major crops by type and area in the Digalu-Tijo District (Table 8).

Table 8: Crop Production in Digalu-Tijo District by Type of Crops and Area, 2015/16

Type of Crops	Area (Ha)	Yield /Hectare	Production (Quintals)
Wheat	19,802	59	1,168,318
Barley -	12,958	57	738,606
Bear	7,905	59	467,331
Food	5,053	54	271,275
Teff	8	20	160
Oats	181	40	7,240
Qaxee	174	45	7,830
Maize	659	85	56,016
Sorghum	9.5	58	551
Hoarse Bean	3,908	32	125,056
Field Peas	2,360	24	56,640
Qanxora	1190	25	29,750
Rape seed	381	26	9,906
Total	41,631		2,200,073

Source: Digalu -Tijo District Agriculture and Rural Development Office

Similarly, in the same year (2015/16) production season there was 1,505 hectares of land under cultivation both rain fed and small scale traditional irrigation in the project site

/Ganda Digalu Arabi. The main crops grown are wheat, barley, field peas and rape seed (Table 9).

Table 9: Crop Production in Project Site by Type of Crops and Area, 2015/16

Type of Crops	Ganda Digalu Arabi	
	Area (Ha)	Production (Qts)
Wheat	104	5,408
Barley -		
Bear	866	32,908
Food	526	19,606
Field Peas	77	1540
Rape seed	12	216
Total	1,505	59,678

Source: Digalu -Tijo District Agriculture and Rural Development Office

The beneficiaries have well developed irrigation experience endowed by the members themselves. First they came together as self-help irrigation users group and organized themselves. They elected irrigation water user committee among themselves and constructed traditional way of irrigation structures. They developed traditional irrigation system lay-out and operate, maintain the structures as per the requirement as directed by the committee. The committee direct and manage water distribution systems, their financial contribution, conflict management practices and implement the developed internal regulations. Although there is no data for irrigation cultivated land in the command area, farmers use their own experience of developing traditional and produce different vegetable crops. The current irrigation experience and agricultural output in the command area is shown in Figure 5.



Figure 5: Beneficiary Women Collecting Product, Abshika Traditional Irrigation Project
Source : PLANET Integrated Water Resources Development PLC Socioeconomic Study Team, April 2016.

Input supply and product marketing situation of the project area is constrained due to inconvenient and poor infrastructure mainly limited to dry weather road. Since there is no storage and marketing facilities, farmers are forced to sell their product on the farm while collecting the products. Only limited traders deal with low price. It was also indicated that there is a shortage of agricultural inputs mainly improved seed for irrigation production. Since the production system is traditional there was no marketing network and marketing channels that initiate competitive prices for the production. The majority use the product for local consumption in case the traders are not willing to buy at farm level. The beneficiaries, thus, complain regarding input supply and product marketing and the problem of roads for purchase of inputs and marketing of their products.

As it was indicated in the aforementioned sections, the potential irrigable area in the district is about 32,250 hectares of which only 9,137 (28%) hectares is under irrigation. The data from district irrigation office indicated that the traditional diversion irrigation coverage of the district is about 96 percent or 8,803 hectares from 32,250 hectares. The remaining four percent is modern (311 hectares) and pump (23 hectares). The main irrigated crops are vegetables, potato, onion, cabbage, and garlic and beet/red roots.

Human labour is crucial in all stages of crop production cycle (ploughing to harvesting). Small hand tools like hoe, shovel, axe and sickle are used for farm practices. They utilize improved farm inputs like fertilizer, improved seeds and agro-chemicals to boost crop yield. Horses, donkeys and mules are used for crop transportation from the field to storage and market places. In case farmers sell in mass, vehicles are deployed. The major constraints of crop production are high prices of agricultural inputs, lack of improved seeds for vegetable crops and limited irrigation water. The major problem associated with the irrigation sector is lack of skill on irrigated crops management and road transport which is dry weather road.

5.1.2 Livestock Production

Livestock plays an important role in the economy of the district in general and of the farmers in the project site in particular. The data obtained from the district livestock office indicated that there are 437,729 livestock in number in the District. In Ganda Digalu Arabi of the project site there are 5,018 cattle and a total of 14,333 livestock (see Table 10).

Table 10: Livestock Production in Project Site (Digalu Arabi) by Type, 2015/16

Category	Total Number
Oxen	1,600
Cows	2,310
Heifers	528
Calves	580
Poultry	1,338
Horse	817
Donkeys	243
Mule	17
Sheep	6,555
Goats	345
Beehives	238

Source: Digalu Arabi Development Agent Office

Traditional way of rearing and management is the main practices in the area with less improvement in breed, production and productivity. The major livestock diseases indicated in the project site include Gororsa, / Pasterlosis and external parasites. In the district, it was learnt that, blackleg, hemorrhagic septicemia, anthrax, lamb skin, foot and mouth, and others are common. To overcome the problem one animal health clinic is found in the project area. There are also animal health assistants supporting farmers and providing health services.

5.2 Investment and Related Activities

Digalu-Tijo is one of the potential agricultural produce area and convenient to investment and related activities. It is accessible to traders and consumers and has a potential consumer that creates conducive market for manufacturers. According to data from District Finance and Economic Development Office (2015/16), there are about 118 small scale and three medium and large scale industries in the district. Similarly, operational investment activities undergoing include 14 hotels construction and construction of 20 trade centers with a capital of Birr 5,560,408 and Birr 2,665,517 respectively. The data also showed that there are about 460 MSEs cooperatives with 3,038 members of which 21 percent are females. Although there are opportunities for investment in the project site, mainly in agriculture and forestry development, there is no one till this study was undertaken.

5.3 Trade

There are developed marketing services, business infrastructure, labor intensive enterprises that improved purchasing capacity of the community and favored of the development of trade and commerce in the district. In 2015/16 there were a total of 272 traders in the district having a total capital of Birr 2,881,000. Of the total number of traders in the district, the majority (61%) are engaged in retail trade. Trade in wholesale, industry, service and others account for 11 percent, four percent, three percent and 20 percent respectively (Table 11).

Table 11: Type of Trade and Capital in Digalu-Tijo District 2014/15

Type of Trade	Number	Capital (Birr)
Wholesalers	135	2,716,198
Retailers	752	12,173,298
Service	53	10,394,338
Industry	37	27,924,359
Others	247	5,310,696
Total	1,224	58,518,889

Source: Digalu-Tijo Finance and Economic Development Office, 2014/15

The project site Digalu Arabi is at far distance from the district connected with dry weather road to use the trade services the district provides. Discussion made at project site level revealed that there are no as such significant sources of off-farm income generating activities and alternative sources of livelihoods.

However, petty trading of food crops and animal and animal products were some of the off-farm income generating activities that serves as sources of income in the area. Thus, market and trade activities are rural type based on weekly rural markets. Transporting trade items to and from the project area for marketing is both by vehicles (Figure 6) during dry time and truck animals used commonly at all times.



Figure 6: Beneficiary Producer, Abshika Traditional Irrigation Project Loading for Market
 Source : PLANET Integrated Water Resources Development PLC Socioeconomic Study Team, April 2016.

The major development constraints in the trade sector indicated are:

- Limited capacity in planning of business at lower level; and
- Lack of financial investment capital for creating market linkages with other development sectors.

5.4 Mining

It was indicated that the mineral resources potential of Digalu-Tijo district in general and that of the Digalu Arabi was not investigated. However, data from Mineral and Energy Resource Development Office showed that there are high potential of about 15,000M³ white stone (non-metallic minerals deposits and production) of about 4,000 tons in Laga Abishika.

5.5 Tourism

There are tourist attraction sites in the area not yet exploited and under developed due to lack of promotion and tourist facilities like standard hotels, roads and other social infrastructures. The tourist attraction sites include natural forests, caves, a fall and special natural reserves in the high lands near the project. The project is at the base of a gentle chain of Chilalo Galema mountain resource full with wildlife, cave and natural forest.

The major problems that constrained the development of the tourism industry are:

- Experience and low capacity of institutional ownership that take the responsibilities to protect, guide and direct the tourist attraction sites; and
- Poor developed and poor promotion of tourist attraction sites to better income generating activities such as tourist guide, and other potential exploitable opportunities.

6. SOCIO ECONOMIC INFRASTRUCTURE AND SOCIAL SERVICES

6.1 Education

6.1.1 Existing Number of Schools by Ownership

There are, four kindergartens, 54 primary (1-8) and five secondary (9-12) schools in the District. The primary schools is composed of lower primary (1-4) which is five, upper primary (5-8) which is 47 in number. Of these primary schools government owned 52 and the remaining two schools are owned by the private sector. The secondary schools is composed of 9-10 which is four and preparatory (11-12) is one in number of which all of the secondary schools are owned by the government (see Table 12).

Table 12: Existing Number of Schools in Digalu-Tijo District by Ownership (20015/16)

School Level	Number of Schools by Ownership		Total
	Government	Private	
Kindergarten (KG)	2	2	4
Primary (Grade 1-8)	52	2	54
Grade 1-4	5		5
Grade 5-8	47	2	49
Secondary	5		5
Grade 9-10	4		4
Grade 9-12	1		1
Total	59	4	63

Source:- Digalu-Tijo Education Office, 2015/16

The averaged section to student ration is one to 51 with minimum of one to 39 for kindergarten and maximum of one to 64 for secondary (9-10) schools. Digalu-Tijo has access to higher level education opportunity since it is near to zone capital Asella City Administration which has a University. Asella University provides comprehensive learning that includes research and trainings in different socio-economic fields. In addition, there are private colleges, teachers' education and other institutions in the City Administration.

In the project area, there is first and second primary (1-8) school which provides social education services to the community in the project area including family members (particularly children and youth) and neighboring kebele population (See Figure 7). It was learnt that any families' members in the area has strong understanding about the advantage of education in general and girls enrollment in particular.



Figure 7: Primary (1-8) School in Digalu Arabi, Abishika SSI Project Area

Source : PLANET Integrated Water Resources Development PLC Socioeconomic Study Team, April 2016.

6.1.2 Existing Number of Students by Schools Level

There are 45,545 students enrolled to attend the formal education sessions in 2015/16 of which 49.63 percent are females. There are 4,250 students in the first cycle secondary schools (Grade 9-10) of which 2,026 (47.67%) are females. The number of registered students in the second cycle secondary schools (11-12) is 394 and only 136 of them, i.e., 34.52 percent are again female students. The total number of students in both cycles is 4,644 in the current academic year (2015/2016) (see Table 13).

Table 13: Existing Number of Students in Digalu-Tijo District by Ownership (20015/16)

School Level	Government		Private		Total		Grand Total
	Male	Female	Male	Female	Male	Female	
Kindergarten(KG)	82	105	151	129	233	234	467
Primary	19,919	19,899	307	309	20,226	20,208	40434
Grade 1-4	12,733	12,457	183	188	12,916	12645	25561
Grade 5-8	7,186	7,442	124	121	7,310	7563	14873
Secondary	2,482	2,162			2,482	2,162	4644
Grade 9-10	2,224	2,026			2,224	2026	4250
Grade 11-12	258	136			258	136	394
Total	22,483	22,166	458	438	22,941	22,604	45,545

Source: - Digalu-Tijo Education Office, 2015/16

The enrolment ratio of the students in the primary level is 96.5 percent for males and 91.4 percent for females. it was learnt that this due to a progress made in expanding primary schools in the district. However, as the school grade increases, the enrolment ratio for females decreases. For example, the enrolment ratio of the students in the first cycle secondary schools (Grade 9-10) is 81.2 percent for males and 72.3 percent for females. The enrolment ratio for the second cycle secondary schools (11-12) is 80 percent for males and 69.5 percent for females.

High concentrations of students are recorded in lower primary (1-4) and low concentrations are recorded in secondary schools. It was also pointed out that distance to schools travelled by students range from 1.45 km to 20 km for all school levels (1-12 grades). For primary (1-8 grades) it was estimated to be 1-15 km.

6.1.3 Number of Teachers by School Level and Profession

The total numbers of teachers providing education service are 874 of which only 33.4 percent are female teachers. The involvement of female teachers is high at lower level of education mainly at Primary (Grade 1- 4) and low as it goes on to upper level (see Table 14).

Table 14: Number of Teachers in Digalu-Tijo District by Ownership (20015/16)

School Level	Total		Grand Total
	Male	Female	
Kindergarten(KG)	11	6	17
Primary	441	262	703
Grade 1-4	203	183	386
Grade 5-8	238	79	317
Secondary	130	24	154
Grade 9-10	108	22	130
Grade 9-12	22	2	24
Total	582	292	874

Source: - Digalu-Tijo Education Office, 2015/16

The general teacher student ratio of Digalu-Tijo District is 1:53. The major constraints in the education sector indicated include shortage of textbooks and other educational materials, lower education level include inability to fully maintain standards of class size and high staff turnover. The major reasons for dropout indicated include family case, poor facilities of

schools and other socioeconomic factor. The limited preparatory school in the district is the other major problem for the students to drop at high school level.

6.2 Health

Data obtained from Digalu-Tijo District Health Office showed there were a total of 32 health institutions that include 23 Health Posts; five Health Centers; and four Drug Stores. Of the total health institutions, the private sector owns drug stores and engaged in only drug vending services. If the ratio of population to health center and health post is analyzed, it is 35,799 people to one health center and 7,783 people to one health post. This ratio indicates that the health coverage in the district is very low compared to the standard set by Health Bureau of the reign which is 25,000 people for one health center and 5,000 people for one health posts.

The health post is available in the project area and it provides health care services through the health extension workers especially on the problem of water borne diseases, HIV/AIDs, the use of family planning (FP), nutrition status of the households and on the decreasing of mother and child mortality rate.

As to the health personnel, there are no doctors working in the district but there are 531 community health promoters; 13 birth attendants/ midwives; 41 health extension workers; eight laboratory technicians; 10 health officers; seven pharmacists, two supervisors; and 41 nurses (Table 15).

Table 15: Existing Medical Personnel by Profession in Digalu-Tijo District, (20015/16)

Nº	Profession	Male	Female	Total
1	Community health promoters	123	408	531
2	Birth Attendants	1	12	13
3	Health Extension Agent	-	41	41
4	Health assistant	2	-	2

Nº	Profession	Male	Female	Total
5	Laboratory technicians	3	5	8
6	Pharmacy technicians	6	1	7
7	Supervisor		2	2
8	Nurses	19	22	41
9	Health officers	5	5	10
10	Others	30	28	58
	Total	189	524	713

Source:- Digalu-Tijo Health Office, 2015/16

It was indicated that there are enough beds in the health centers of the district and the with an average health coverage of 72 percent. The ten top causes of morbidity of the district in 2015/16 were Pneumonia; Acute Upper Respiratory Infection; Acute Fibril Illness (AFI); unspecified diseases; diarrhea; skin disease; acute bronchitis, urinary tract infection; dental and mouse diseases; and typhoid favor in that order of importance.

Major development constraints of the health sector indicated are:

- Shortage of financial budget and logistics for effective performance of different activities; and
- Shortage of health facilities and skilled manpower or professionals due to high turnover.

6.3 Water Supply

Digalu-Tijo district has rivers permanently flowing such as Ketar, Ashabeka, Gusha, and Tamala for water supply. Also there are major seasonal streams such as Dangalati, Danisa, Girisa, Sokora, Nanawa, Bojora and Korsa. These permanent and seasonal resources are potential to potable water supply and for both traditional and modern irrigation system which can be used to increase agricultural production and productivity if they are utilized efficiently.

The water supply to the resident of the district is thus from the spring and the rivers. There are 61 springs of which 21,350 rural people got access to potable water. Similarly, there are 114 operational water supply points from rivers for both urban and rural dwellers. The river scheme is the potential one that can serve about 57,000 people. There are 16 water reservoirs with a total holding capacity of 650 meter cube (m³). Of the total water reservoir 15 of them are found in the rural areas with a total holding capacity of 600 m³.

The percentage of rural population served with potable water supply is 61.5 percent and for the urban residents is 41.35 percent. The situation of the people in the project area is similar in that they use river and springs. Infrastructures such as water points and washing basin are very important that need to be considered during implementation of this irrigation project. The major bottlenecks that constrained the development of water resources to meet the needs of the population is lack of capacity in terms of finance and institution with materials and skilled manpower.

6.4 Transport and Communication

Transport and communication infrastructure of Digalu-Tijo district is relatively good to promote development and community interaction / physical linkage among localities (rural and urban) since it is on the main asphalt road and near to zonal town.

6.4.1 Transport

The road network of Digalu-Tijo as of 2014/15 totals about 386 kilometers of which 226 kilometers is all weather road and 160 kilometers is dry weather road. Of all weather road, 20 kilometers is asphalt and 129 gravel. There are hoarse carts, few Bajajs, minibuses and buses that provide public transport services to the residents of the districts where accessible to four-wheel drive or on rural all weather roads where cross bridges were constructed.

The road connection of the project site, Digalu Arabi that connects to district town Sagure is half way dry weather and half way rural all weather road. It is asphalt about five kilometers, gravel about five kilometers (see Figure 4) and earthen foot road made by farmers about six kilometers (Figure 8).



Figure 8: Dry Weather Road about Six Kilometers to the Project Site, Abshika

Source : PLANET Integrated Water Resources Development PLC Socioeconomic Study Team, April 2016.

The main problem of the road sector indicated is shortage of capital and increasing prices even to maintain the existing road network to keep truck of the system.

6.4.2 Telephone and Postal Services

There are automatic switching systems of telecommunication, which could give services to international and national communication in the district. Mobile telephone communication is now become common to rural level and some the beneficiary focus group discussant showed up that they processed mobile phone and use for day to day communication need. The postal services are provided through Sagure Post Office. The office has 95 boxes that are to be used by the residents.

6.5 Power Supply/Energy

Traditional or woody biomass (firewood, charcoal, crop residue and animal dung) and Kerosene are the main energy sources used by most of the residents in the district. About

7,797 people are users of hydro electric power supply connected to the national power system of the country. The people served with electric energy for the whole year are 17.67 percent and only 655 households accessed to this hydroelectric energy.

The demand for the power is high in that about 25.67 percent of the households in the district are waiting for delivery of the system. The existing power server is a 15,000 KV line connected to the main grid of the country. It was planned to boost it up to 33,000 KV to meet the demand of the district. In addition, there is solar energy utilization process and currently 92 households of the district are accessed to it. There are no modern power supply sources accessible to the project area for the beneficiaries in the project site.

6.6 Financial Institutions

Modern financial institutions operating in the district are government and private banks and four micro-finance institutions. There are one branches of government bank and two branches of private owned banks in the district town that serve the community. The existing micro-finance institutions have eased the credit and saving needs of the business men and fulfilling the financial requirements of the ongoing investments.

It is known that credit services are the critical inputs for boosting agricultural production and productivity. In this respect, primary cooperative and unions have limited activities in providing services and based on the discussion with farmers, there is a large demand for credit in the project area but the farmers indicated they are not happy to the high interest rate.

6.7 Farmer Training Centers (FTC)

Farmer training centres (FTCs) are established at the kebele level. These FTCs are working to be centres of rural development and the medium to transfer agricultural technologies to

the rural small holder farmers through trainings provided by DAs and district subject matter specialists.

However, during discussion with the farmers at site level and our observation the FTCs are not fulfilled with the required training materials.

6.8 Market and Exchange Facilities

Digalu-Tijo is a bridge that connects central part and of the zone to the south eastern parts of the country and has a potential market for both agriculture and non-agriculture products. In addition, there are different levels of markets (town open markets, rural weekly markets and shops in which the community intercept in exchange of goods and services. The large weekly holistic market at Sagure Town is that promotes and facilitates marketing of agricultural and industrial product for inland consumption, processing and export.

In the project area there is weekly rural open market places that promotes exchange of goods mainly agricultural and industrial products. It was indicated that household heads have access to market information, mainly through informal communication with their friends, neighbors and relatives as well as using formal means such as mobile phones and radio.

7. SOCIETAL STRUCTURE/ GENDER ANALYSIS

7.1 Gender Condition

Gender, climate change and nutrition are some of the crosscutting issues that should be considered in the development of the economy. The issue of gender has been assessed for main streaming process in all developmental and community-related sectors and activities. As the term “gender” refers to both male and female, the focus herein is on female perspectives since male domination is a common culture in the district in general and project area in particular.

In addition to reproductive and house management position, women in the project area play greater role for both social and cultural integrity of the community. They are the backbone of the family in performing all kinds of domestic duties. The main activities performed by them include but not limited to such as cooking, housekeeping, rearing and caring (children, the elderly and the sick), fetching water and fire wood, milking cows and purchasing items for home consumption other provisions. They also work on the field activities such as planting/sowing, cultivation, weeding, harvesting and threshing, collecting and storing as well as herding of livestock. Conversely, men are mostly responsible for activities relating to farm and community management

Gender equality is recognized at national and regional levels and on the basis of the regional land use proclamation; women have equal rights with men to possess, use and administer the rural land. Husband and wife have common land holding procession and have joint certificate that ensures them have equal right on their holdings. However, in discussion with women group, it was indicated that the income from rain fed agriculture on the land far from homestead is by large controlled by male. Thus, the irrigation project would bring significant benefit to females than male since it creates an opportunity to women to grow and produce backyard gardens for income generation. It will also reduce dependency on their male counter partners in income.

Women discussants indicated that they will participate in the construction and operation of the project equally with their counterpart males. It was learnt that in the traditional water users' association committee members, women were not recognizing to participate. To get the input of women and their active role to play in the development, women must be included in the Water Users Association (WUA) and the project could bring many improvements for female population by widening their participation.

As indicated above women are active and major participants in almost all types of agricultural production activities including idea generation and decision making. It was believed that without their active involvement, the survival of family and the community as a whole would be at risk. As it is the case to other areas of the region rural farming women in the project area are overloaded to lead tedious lives that require them to work very long hours to complete their domestic tasks.

7.2 Access to and Control Over Resources

Although there exist egal framework that assets are jointly owned by husband and wife, it is customary that control over resources such as livestock, farm land, crop produce and family wealth, men have the domination and women do not have less rights to such resources. Husband has control over all assets and income from sale of major livestock and agricultural produce. Women have full control over the income from the sales of small amount of grain, vegetable grown at homestead, and livestock products and by-products.

7.3 Decision Making

It was indicated that major assets and products of the household is decided in discussion among household members mainly husband and wife with the portion of husband is more. Women usually take the decision to the sales of animal products, poultry and garden vegetables. However, any decision related to borrowing of cash or kind, purchase of agricultural inputs, health care of the family are taken by the husband.

7.4 Participation to Local Institutions

There are female household members participate in saving and credit associations, religious institutions, Kebele council and Kebele cabinets. The disparity between women and men is that only few women participate and the majority are less exposed to public. It was clear that women are more illiterate than men although illiteracy rate among farmers is high. This illiteracy status has a negative impact on the activities of women in participating to the activities of local institutions.

8. POTENTIAL RESOURCE OF THE PROJECT SITE

8.1 Land

Digalu-Tijo is endowed with diverse topographic features that had different resource potentials. It has good conducive climate and agricultural land both for crop production and animal husbandry. It has unexploited potential for tourism industry that need further development. Land is the major potential for agricultural crop production, animal husbandry, bee keeping, forestry and forest development. The proposed project land is mainly used for crop production and livestock grazing.

8.2 Crop and Livestock Production

The project area is very potential for crop and livestock production and the farmers in the area are engaged in mixed farming system. Major types of crops grown are barley and wheat which are important input for the development of brewery and flour milling and food processing industry.

Livestock production is also the major resources and economic activities of the household in the project area. Livestock are significant source of milk, egg, meat, hides and skins, source of income and have cultural values for the existing project beneficiaries. There is substantial number of livestock owned by the community. The types of livestock available are cattle (dairy cows, oxen, calves and heifers) goat, sheep and horse. The potential situation of livestock production in the area is also a great benefit for extended production and consumption of various products of livestock resources.

8.3 Natural Vegetation and Forest Potential

The Eastern part of the project area is a mountainous chain endowed with diversified plantation serving as home for diversified wild animals. The areas are good potential for beekeeping and forest development which can be a source of raw materials and potential supply of inputs for handcrafts, timber and cottage industry. However, the situations of the hilly land in the project area are denuded for agricultural production (see Figure 9).



Figure 9: A Degrading Hill for Crop Production, Abishika SSI Project Area

Source : PLANET Integrated Water Resources Development PLC Socioeconomic Study Team, April 2016.

8.4 Minerals

There is no information about the mineral exploitation of the project site. However, it was learnt that there are potential mineral resources such as ashes, sand and stone that are exploitable for the construction and growth of the area / district.

8.5 Labor

As indicated in the aforementioned sections of this report, the majority of the populations in the district are productive agricultural working people. With inherent culture of the people in agricultural production, the people only need limited trainings and experience sharing exercises of modern innovation to boost production and productivity. Some of these productive people have experience working in traditional irrigation system and able to directly apply the potential for improved production and productivity.

9. EXISTING ORGANIZATION, EFFECTIVENESS GAPS AND LEGAL FRAMEWORK

9.1 Community Level Organizations

The project area is administered under Digalu Arabi Kebele Administration which again divided into development groups or *Gares* at the sub-village level. The Kebele is structured to different administrative actors such as kebele council, kebele cabinet, kebele court or traditional judiciary, security and peace affairs, women and youth associations, land administration affairs, water supply and sanitation affairs, education, forest conservation and control committee, health affairs and etc. The kebele council has five year terms in the office of which members of the various management of development actors are selected and appointed.

The kebele councils are responsible for participatory development planning, budget appraisal, evaluation of ongoing development activities, ensuring peace and security in the kebele, administer and conserve any public property within the area especially land, water, forests and communal grazing areas. It also enforces government laws and regulations within the kebele and implement establish different types of cooperatives and other social committees such as school, health and sanitation and others necessary for the area. Kebele cabinet members are leaders elected from the council to manage both social and economic activities of the kebele and report activities performed to concerned government bodies of the district.

It was indicated that the basic challenges of the kebeles include shortage of budget to run the kebele office. The kebele offices (administration/ management and Agriculture Development) lacks office equipments such as chairs, tables, computers and printer and stationary materials. The kebele leaders and committee members are providing free service for years except the kebele manager. The kebele doesnot have income other than appealing directly to the kebele population to contribute to specific development activities. The kebele

also lacks provision of services in a coordinated way timely and lacks responsibility among elected members.

9.2 Traditional Institutions

Traditional social institutions such as *Debo*, *Dugda/Wonfel*, *Idir* and religious based social and support associations are common in the project area. These are indigenous institutions common among men and women household groups.

Debo is a kind of groupings to perform farm activities such as cultivation, weeding, harvesting and threshing. It is a kind of arrangement for free labour in which each member has the right to get it in turn to what ever the work needed. *Dugda/Wonfel* is a direct seasonal exchange of labour for particular activity such as weeding, cultivation and harvesting. *Debo* involves all kinds of community members including friends and/or relatives from far areas while *Dugda/Wonfel* is usually with neighbors or Gares.

Idir is a kind of social association to assist families during the events of death and illness. It is open for every household has formal bylaws, membership lists, some financial accounts and basic fixed assets such as cups, tents and others. The members of the *Idir* elects its leaders. Women's and men *Idir* has strong mutual network and assist the affected person in cash and contribute in kind.

9.3 Existing Irrigation Development Support Organizations

The Regional Government of Oromia has given due attention to irrigation project development and established an entity at regional level that has its own implementing structures at zones and districts. In addition, there are several institutions that have their own roles, responsibilities and objectives at regional, zonal and district as well as Gandas/Kebeles level that can influence the irrigation development implementation of a project. Of all levels of structures, the sector development offices at district and Ganda

/kebele levels are very important to the project implementation and management sustainability.

Among the existing different sector development offices at district level, the major ones that have direct relation to irrigation development include Irrigation Development Authority, Agriculture and Rural Development Office, Livestock and Fishery Development Office, Rural Water Supply and Energy Office, Land and Environmental Protection Office and Community Promotion Office. At project Ganda/ kebele level, Kebele Administration, Development and Health Extension Agents and Community Based institutions are the influential ones.

The above offices are responsible for creating conducive environment and providing the required support services in management, operation and maintenance of irrigation schemes and directly involve in the day to day activities of the project. They are the main interface between the zone level offices, region level sector bureaus and the communities. The offices are organized with required professionals that are able to executing the objectives of the development activities in the region. The detail duties and responsibilities of the Oromia Irrigation Development Authority which is responsible for the irrigation development design, implementation and follow up is briefly discussed for this study.

According to the existing organizational structure of the Oromia National Regional State, all activities related to small scale irrigation development, execution and monitoring is clustered under Oromia Irrigation Development Authority. The ownership and management responsibilities of irrigation development are entirely entrusted to the Authority. It is responsible for the overall management of the project through an independent consultant for the preparatory works, detailed design and construction activities of irrigation projects. It is also mandated for securing the necessary budget/fund for the project implementation. Upon securing the necessary fund the Authority has hired consultants and contractors for the design, supervision and construction of the irrigation scheme.

The offices at the zonal and respective districts have to supervise project implementation. Mainly district office will carry out both pre-construction/preparatory works and activities during construction up to final transfer of the scheme to Scheme Administration. Such functions include coordinating and facilitating local resource mobilization, preparing frameworks for continuous participation of local communities in project, development and operation, organizing and establishing water users associations in coordination with relevant District level sector bureau/office and District administration, land negotiations and resettlement plans and recruiting and training local project staffs. Identifying individual holdings, defining compensation, communicating with the relevant sector offices for resettling those individuals/families to be moved from construction sites, if any and handing over free lands to the contractor are also some of the responsibilities of the District Office.

The Authority along with its zonal and district level structures will also perform functions such as follow up the activities of the consultant/construction supervision, coordinating all stakeholders in the region such as Agriculture and Natural Resource Development, Cooperatives Promotion Agency, Forest and Environmental Protection Authority, Zone and District Administration Offices, etc. for the proper implementation of the project. In general the Authority with its Zonal and District level structures is responsible for:

- Supervision and follow up the implementation of the project;
- Coordination of the stakeholders during irrigation project implementation and functioning;
- Training of irrigation water user farmers on water use, structure management i.e., operation & maintenance;
- Enforcement of irrigation water related regulations;
- Land distribution and registration in collaboration with concerned sector office and Peasant Association; and
- Cause payment of compensation to those affected by the construction of irrigation scheme.

In addition, the district office is responsible for setting the water rate (cost recovery) to be paid by small scale irrigation water user farmers. It is also responsible for organization of Water Users Associations (WUAs) that have no definite legal status to enforce their authority on their members.

The other sectors such as Agriculture and Rural Development Office, Livestock and Fishery Development Office, Rural Water Supply and Energy Office, Land and Environmental Protection Office and Community Promotion Office are responsible in directing farmers including irrigation users to carrying out integrating watershed management & conservations measures, all promotion activities including studies related to agricultural development, disaster prevention activities, livestock development, providing agricultural research and agricultural extension services, coordination of input supplies, facilitation of credit service and marketing outlay, selection and utilization of irrigation technologies and strengthening the capacity of farmers through training to decide on the use of the land and, to redistributes the land to those who have the right to land holding on the basis of the existing regulation. They also support irrigation water user farmers to be organized as irrigation Cooperatives based on Cooperative Societies Proclamation.

At kebele or Ganda level district Agriculture, Livestock and Natural Resource Development Offices are the operational arms through their DAs, supervisors and subject-matter specialists, that (i) execute many of the agricultural projects and programs, ii) provide multi-faceted extension services and (iii) carry out many of the other functions that are assigned to the Agriculture, Livestock and Natural Resource Development. Rural development, in general and attempts to increase farmers' production and productivity, in particular, are the objectives pursued by these offices.

Community based organization exist in the form of "*Iddir*" social group gathering to support each other during funerals or disaster, "*Maheber*" social group gatherings as peer group and or religious get together, "*Debo*" groupings to work together. The most common structure of

community level organization in the irrigation development project areas are Peasant Associations and Water Users Committees. The Peasant Association (PA) is a public administration (security, tax collection, settlement of different disputes, protection of public property etc.) and development activities of the Kebele/Ganda. It is a stakeholder of irrigated land management, acting as immediate support structures to solve disputes of agreement for land exchange or transfer and help in enforcement of the bylaw of IWUA. It would play a role of a mediator when land dispute will take place among the water user farmer.

Water Users Committee is volunteers selected by water users members to serve them in carrying out the responsibility to manage and supervise distribution of water and organize maintenance works, monitoring of day-to-day water delivery, operations and general conditions of the existing traditional irrigation scheme and its surroundings with the full participation of the beneficiaries. This Water Users Committee are expected to be promoted to legal Irrigation Water Users Association (WUA) based on the proclamation for the establishment of the WUA of the region.

9.4 Existing Organization Effectiveness/ gaps

Effective utilization of water in the country in general and the region in particular could not achieve the intended due to factors such as improper and inefficient utilization of the available manpower, machineries and equipment; inefficient study and design works and absence of full accountability and responsibility in the process of development activities in the sector and weakness in the restructuring process itself. To effectively utilize irrigation potential of the sector, the region has given special attention to irrigation development and thereby to established independent institution that strive for maximum water resource utilization through development of irrigation systems.

However, from the discussion made at different levels, it has been learnt that in almost all institutions participating in irrigation development implementation, the actual staff numbers are quite below the target, the institutions have limited logistics capacity to carry out their duties effectively, and low staff motivation which resulted in high rate of turnover with a shortage of qualified staff at all levels.

Similarly, the existing government and community institution lack coordinative effort and mechanism of integration for effectiveness of project implementations. The gaps could be summarized as follows:

- Lack of clarity on the organization and establishment of IWUA;
- Lack of institutional capacity at grass root level, Water User Committee, involvement of women and youth association in implementing, managing and operation of irrigation projects;
- Most of the extension agents have a general training in agriculture to perform in rain fed areas of the project, but lacks no special training in irrigation techniques and practices;
- Support institutions that participate in irrigation development implementation, have limited institutional and logistics capacity;
- Weak agricultural research and extension support Service; and
- There are no sufficient and reliable provisions of commercial services, such as agricultural input supplies, credit facilities, marketing and other related services.

9.5 Legal Frameworks

The existing organizational structures at all levels are legal and monitored by laws and regulations of the federal and regional government. The Federal Government promulgated laws and regulations (proclamations) of each sector organization. Based on these proclamations, the Oromia National Regional State has endorsed and or prepared its own guideline/ proclamation in its regional context.

In accordance to this process, Oromia National Regional State proclamation to establish irrigation water user association was drafted and presented to regional council for promulgation. The draft proclamation of IWUA sticks to the basic principles and guidelines of Ministry of Water, Irrigation and Energy of proclamation 841/2014 and regional Water Resources Management proclamation and related directives.

9.6 Formation of Legal IWU Association

Abishika IWUA will be established with its sub-committees and working water user teams or Water Users Group. The association will have by-law that will be ratified by its beneficiary members. A regulatory body designated by a Regional State is Oromia Irrigation Development Authority. The authority has zonal and district offices with irrigation development professionals assigned to undertake the activities designated by its establishment laws.

Digalu-Tijo District Irrigation Development Authority Office is responsible for organizing and registering the IWUA, providing training and other technical assistance to the association as specified in the Proclamation. This is supposed to be done immediately after the budget for construction of the scheme is approved for implementation to facilitate the construction process and ensure participation of the beneficiaries in the very beginning of the project construction.

9.6.1 Objectives of the Association

The Abishika IWUA shall have the following objectives.

- a. Manage an irrigation and drainage system wholly or partly in its service area and provide fair water to its members for agricultural purposes;
- b. Manage and operate the irrigation and drainage system within its service area in order to supply irrigation water and drainage services to its members;

- c. Maintain, rejuvenate and improve the irrigation and drainage system within its service area and to undertake construction and reconstruction works as may be necessary;
- d. Take measures to combat erosion, pollution, salinity and flooding;
- e. Issue internal rules for consumption of irrigation water and collect fees from its members for the services provided;
- f. Procure, substitute, maintain and operate irrigation equipment;
- g. Train its members in irrigation techniques, irrigation farming methods, water saving methods and new technologies of irrigation;
- h. Provide market information for its members and create agreement with concerned body for the provision of market outlets of irrigation products;
- i. Coordinate and manage the crop production plan and implementation within the command area and consult farmers to be market oriented, commercial and to produce high value crops.

9.6.2 Guiding Principles of the Association

The guiding principles in which the association shall operate include:

- a. Fairness and equity in decision making and allocation of irrigation water;
- b. Preventing wastage and pollution of water, avoiding erosion and salinity of soil and, protecting and administering irrigation and drainage system within the operation area so as to protect the environment;
- c. Non-discrimination among member of an association in allocation of water on the basis of ethnicity, gender, religion or any other similar ground;
- d. Applying transparency and participatory approach in decisions making process; and
- e. Insuring cost recovery and efficient use of resources.

9.6.3 Procedures for the Formation of the Association

- a. The Digalu-Tijo District Irrigation Development Authority Office (Supervising Body) shall, following the consultation with potential members of the association and

- relevant stakeholders and after the acceptance of its opinion announce its decision as to the formation of an association;
- b. Persons not less than five need to form the association; to this effect they will organize provisional initiative committee to identify the service area of the proposed association and also founders committee which may not exceed twelve potential members of the association.
 - c. The founders committee will be composed of persons representing different unit of the proposed service area so as to ensure fair representation of potential members of the proposed association.
 - d. The founders committee will elect its chairperson and adopt its own rules of procedure to carry out activities preceding the formation of the association.
 - e. The founders committee after consulting the Supervising Body regarding the proposed association, will prepare:
 - i. Draft article and memorandum of association;
 - ii. A plan of the proposed service area that shows the size and location of the units, if any;
 - iii. Application of the potential members for the formation of association; and
 - iv. The lists of potential members of the proposed association, which will include the name, address, signature and description of each potential members land holding and land certificate number where available; and a draft budget and work-plan.
 - f. The founders committee will:
 - i. Give opportunity for the potential members of the association to comment on the documents prepared; and
 - ii. Organize signing of the application for the formation of the association.
 - g. The founders committee will convene founders meeting, when half of the potential members of the proposed association have signed the application for the formation of the association and by taking into account comments on the draft by-laws, budget and work-plan to:

- i. Approve the draft memorandum and article of association, budget and work-plan of the proposed association; and
 - ii. Elect the provisional management committee and other officers of the association.
- h. There will be a quorum of founders meeting where majority of potential members of the proposed association are present at a meeting; the formation of the proposed association and decision on the approval of the memorandum and article of association shall be passed by the majority vote of the members found at a meeting.
- i. The provisional management committee will submit an application for registration to the supervising body together with:
- i. The minutes of the founders meeting;
 - ii. Three copies of memorandum and article of association;
 - iii. The plan of the proposed service area and the location of the units, if any;
 - iv. The application of the members for the formation of association;
 - v. The draft budget and work-plan;
 - vi. Documents signifying their assets and bank balance
 - vii. Different journals, income and expense voucher and;
 - viii. Other particulars that may be specified in regulations or directives issued for the implementation of this Proclamation.
- j. The supervising body will examine the documents with the application and documents annexed thereto facilitate registration of an association to the registered by legalized registering body and if legalized registering body is satisfied it should issue a certificate of registration.
- k. If the legalized registering body rejects the application for the registration of an association, it will give a written explanation to the provisional management committee within 15 days.
- l. If an association is not satisfied with the response of legalized registering body, the association can have a right to apply.

9.6.4 Legal Personality and Liability

- a The associations formed and registered in accordance with the above process acquire legal personality as of the date of its registration.
- b It will also have limited liability and shall not be held liable beyond its total assets

9.6.5 Service Area

- a Each association shall operate within defined service area
- b The service area of each association shall comprise a distinct irrigation and drainage unit with a defined area of land that is capable of receiving irrigation water through the irrigation and drainage system operated by that association from one or more water supply points
- c Service areas of associations shall not overlap with each other.

9.6.6 Rights and Obligations of the Beneficiary Community

A. Membership of Association

- a. Any person who possess and uses land in accordance with the appropriate land holding system which is located within the service area of an association will be a member of the association.
- b. Any person who acquires use right of the land located within the service area of an association by succession or any other legal method will become a member of that association upon payment of any outstanding contributions and fees due to the association from the previous user of that land that have not been collected.
- c. The rights and duties derive from the formation of an association are inseparable to the plots located within the service area of an association and will be transferred with those plots while the association is alive or until such plots no longer lie within the service area following an amendment to the by-laws of that association.
- d. Based on the approval of Oromia Rural Land proclamation No. 130/1999 a person who uses land located within the service area of an association on the basis of lease contract three or for more than three years shall be considered as a member of the association throughout the term of that lease.

- e. Based on the approval of Oromia Rural Land proclamation No. 130/1999 a person who leases his land possession located within the service area of an association for three and less than three years shall continue as member of that association; provided, however, that the lessee:
 - i Shall comply with the by-laws and regulations of the association;
 - ii May exercise the membership use right of lesser in the association by written authorization of the latter.

B. Rights and Duties of Members

Any member of an association will have the following rights.

- a. To gate a fair share of the irrigation water distributed by the association.
- b. To benefit from other services provided by, or through, the Association.
- c. To elect or to be elected for the different bodies of the association upon discharging fees of the association;
- d. To propose agenda for discussion at general assembly meetings;
- e. To propose candidates to the different bodies of the association for election;
- f. To receive compensation from the association for damages caused on his crops or land as a result of the intentional or negligent act of any employee of the association or as a result of the maintenance activities undertaken by the association;
- g. to visit the offices of the association during working hours, to peruse records of the association and to be provided, on request, with information regarding the association's accounts, and management plans.

Any member of the association has duties:

- a. To respect the by-laws, directives and the decision of the Association;
- b. To pay fees of the association;
- c. To use irrigation water only in accordance with the association's water distribution schedule;
- d. to repair or to pay replacement costs of any equipment or infrastructure of the association damaged as a result his intentional or negligent act;

- e. to provide relevant information on request to the association about his land and use of water;
- f. to allow entrance of employees of the association, or service providers agreed with the association, to his land, with machines and equipment as necessary, in order to undertake operation and maintenance of the irrigation and drainage system;
- g. To carry out activities related to cleaning, maintaining and repairing of the irrigation and drainage system;
- h. to comply with applicable technical rules concerning the operation and maintenance of the irrigation and drainage system.
- i. To participate in all meetings and trainings called by the Association
- j. To notify the concerned body on any emergency situation within the irrigation system.
- k. To conduct soil and water conservation works related with the irrigation and drainage system

9.7 Proposed Organizational and Management Structure

9.7.1 Management Bodies of an Association

The management bodies of the association will be:

- a. The General Assembly;
- b. The Management Committee;
- c. The Control Committee; and
- d. The Dispute Settlement Committee.

An association may provide in its by-laws for the establishment of such other committees as may be necessary. The powers and duties of the management bodies of an association shall be as determined by the Proclamation and the associations by-laws.

Abishika IWUA's organization and management structure is a formal line of management hierarchy and power as well as the roles the subordinates assume. It is the operating structure that tells members how the organization is put together and how it works. It is a

hierarchical arrangement of line of authority, communications, rights and duties of the association. It determines the roles, power and responsibilities are assigned, controlled and coordinated.. It helps to direct a systematic management and control of the implementation of the proposed scheme and how information flows between the different levels of management. Based on the draft proclamation of Ormia Irrigation Water Users Association, the organizational chart rights and obligations and duties and responsibility of benefiting committee and members of water users committee was included this assessment for the proper administration and management of Irrigation Scheme (Figure 10).

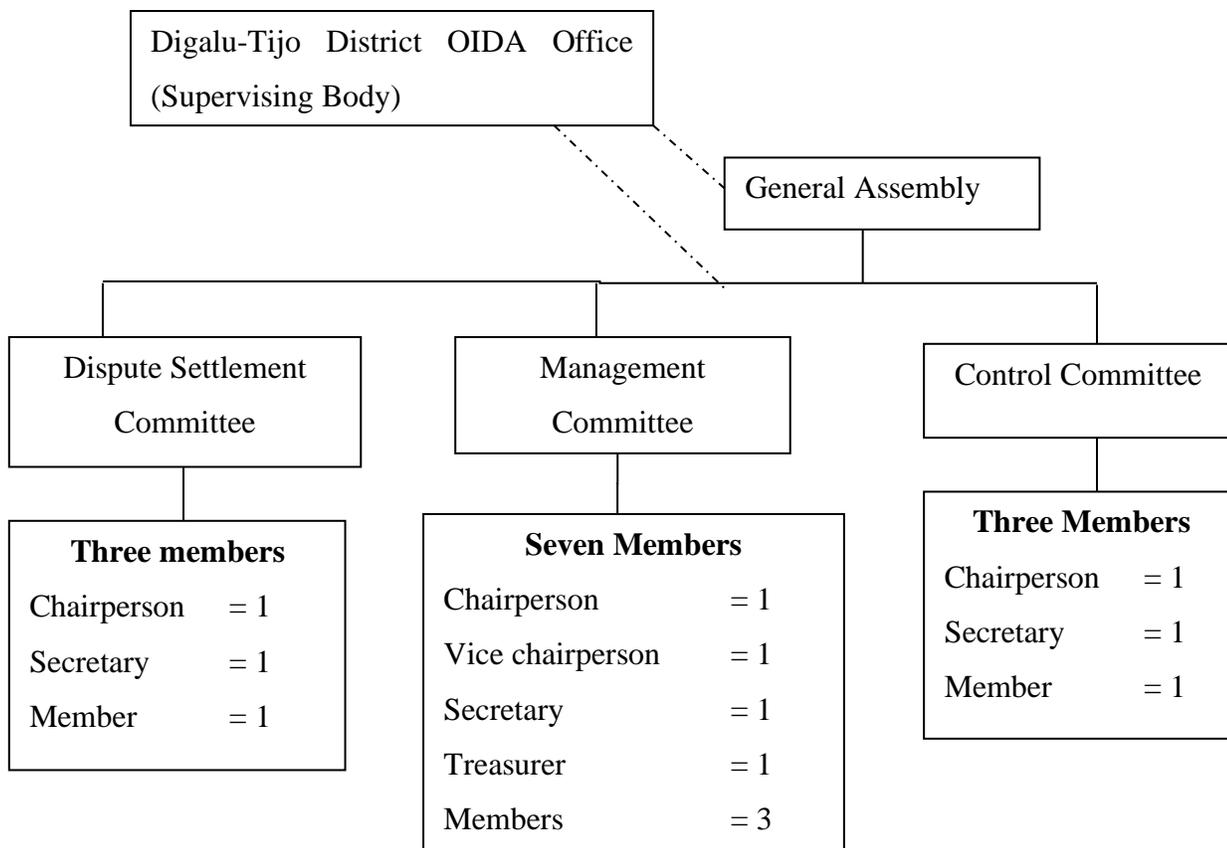


Figure 10: Proposed Organizational Structure of Abishika IWUA

The management committee could organize and assign other committees if necessary with the approval of the general assembly.

A. Supervising Body

As in the proposed organization and management structure of the scheme, the draft proclamation stipulates a supervising body will have the powers and duties to:

- a. provide training and awareness creation in connection with the establishment and operation of Associations;
- b. provide technical assistance and support to associations on water management, accounting, financial planning, irrigation techniques, practices, and maintenance issues;
- c. form new associations in accordance with this Proclamation and establish and maintain the Register of Irrigation Water Users' Associations;
- d. conduct legal and financial supervision in accordance with the laws; and
- e. work for gender mainstreaming on irrigation development.

The supervising body while exercising the legal and financial supervision of associations will be limited to the activities of the association whether it comply with the provisions of the Proclamation and applicable accounting rules. It would facilitate communication and linkages of the IWUA with formal institutions in any legal procedures.

B. General Assembly

The general assembly will constitute representatives of units unless it is provided in the by-laws of the association that all members of the association can reasonably participate in the meetings of the general assembly due to small size of members. However, Members who are not unit representatives shall have the right to attend meetings of the general assembly without having the right to vote. The general assembly is the supreme organ of an association

i. Powers and Duties of the General Assembly

- a. Approve the annual work plan and budget of the association;
- b. Elect and dismiss the members of the management body, the control committee, the dispute settlement committee and members of other subcommittees;

- c. Approve or amend the by-laws and internal regulations of the association;
- d. Set the amount of fees and fines payable by the members;
- e. Approve the annual income and expenditure statement and balance sheet and the annual report of the management bodies;
- f. Make decisions on the re-organization or liquidation of the association;
- g. Set limitation on the sale, purchase, mortgaging or pledging of any assets owned by the association, investment or conclusion of loans, overdrafts or other financial liabilities of the association;
- h. Approve contracts above a certain value or of high significance to the association as may be specified in the by-laws ; and
- i. Decide on any issue submitted to it by the management bodies or other committees.

ii. Meetings of the general assembly

- a. The general assembly of the association shall hold ordinary meeting at least two times in a year.
- b. The quorum of the general assembly shall be specified in the by-laws of the association.
- c. The management committee may call an extraordinary meeting of the general assembly upon written request of the control committee or at least one third of the member of the association or their unit representatives.
- d. The procedures for calling the meeting of the general assembly, setting agendas, proposing additional agendas and informing agendas to the unit representatives and their members shall be specified in the by-laws.
- e. The meetings of the general assembly shall be presided by the chairperson or in his absence by the deputy chairperson of the management committee.
- f. The decisions of the general assembly shall be passed by a simple majority votes; except in case of dissolution, liquidation or re-organization of the association or amendment to its by-laws or any other matter directly specified in its by-laws to be decided by a two third majority votes.

- g. The procedures for voting shall be described in the by-laws.
- h. The minutes of the general assembly shall be kept in the record of the association, signed by the management committee members, stamped and contain, as annex, the names and signatures of members of the association in attendance of the general assembly.

9.7.2 Management Committee

The management committee of the association will be elected in accordance with the by-laws of the association, which is accountable to the general assembly and whose members shall not exceed 11 and not be less than five. To get effective and efficient coordination of committee members, the discussants emphasized on the need for sizable numbers. Thus, it is proposed that the management committee need to have seven members of which at least three members are female household heads.

A. Rules Bounding the Management Committee

- a. The term of office of the management committee will be three years; provided, however, that not to expire the terms of committee members elected at the same time at once, the stagger for three of them shall be specified in the bylaws of the association.
- b. A member of the management committee shall not be elected for more than two consecutive terms.
- c. The by-laws of the association may provide that members of the management committee shall be represented from one or more than one units within the service area and to be elected from among those represented.
- d. Any member of the management committee shall declare and cease his participation in the discussions and decisions of the management committee when there is conflict of interest.
- e. No member shall have the right to stand for election to the management committee when he is subject to outstanding liabilities including fines to the association.

- f. Those members elected for management committee shall elect chairperson, vice chairperson, secretary and treasurer from among themselves.

B. The powers and duties of the management committee

Shall be specified in the by-laws of the association and in particular will include:

- a. To implement decisions given by the general assembly;
- b. To prepare the annual work program and budget of the association and implement same upon approval;
- c. To prepare agenda for the meeting of the general assembly;
- d. To call the general assembly in accordance with the by-laws of the association;
- e. To maintain the minutes of meetings of the general assembly in writing;
- f. To submit reports to the general assembly on the activities and budget of the association;
- g. To maintain the documents and books of accounts of the association; and
- h. To implement such other activities specified in this Proclamation or in the by-laws or determined by the general assembly.

C. Meetings of the Management Committee

- a. The management committee shall convene its ordinary meeting once in every month; provided, however, that it may hold extraordinary meetings at any time as may be necessary.
- b. The quorum for the meeting of the management committee shall be as specified in the by-laws of the association.
- c. The decisions of the management committee shall be passed by consensus; in case of lack of consensus, the by-laws may authorized the passing of decision by majority vote.
- d. Without prejudice to the provisions of the above points, the management committee may adopt its own rules of procedure.

D. The Chairperson of the Management Committee

The chairperson of the management committee will be chairperson of the association. The chairperson shall have powers and duties to:

- a. call and chair the meetings of the management committee, and chair the meetings of the general assembly;
- b. represent the association in its dealings with third parties;
- c. sign contracts and other legal documents in accordance with resolutions of the management committee; and
- d. undertake other duties specified in the by-laws.

E. Powers and Duties of Vice Chairman

- a. The Vice-Chairperson shall act in place of the chairperson where the latter is not in a position to discharge his duties.
- b. The Vice-Chairperson perform works ordered by Chairperson.

F. Powers and Duties of the Secretary

The powers and duties of the secretary shall be specified in the by-laws of the association and in particular shall include the following:

- a. Organize the Secretariat of the Association;
- b. Keep properly the documents of the Association;
- c. Ensure that the minutes of the Associations are properly kept;
- d. Be responsible for the direction of secretarial activities; and
- e. Perform other duties may be assigned to him by the Chairperson and the Management Committee.

G. Powers and Duties of the Treasurer

- a. Maintain income and expense voucher, collect, deposit and follow up all revenue of the Association. Reconcile actual receipts and expenditures of the Association and render report to the Executive Committee.

- b. Together with the association chairman and secretary act as one of the signatories on the Association's bank account opening, sign and hold associations bank documents properly
- c. After approval of the chairman or vice chairman or secretary, pay all monies owing by the Association and obtain receipts for such payment.
- d. Collect and deposit all revenue of the Association.

H. The Control Committee

- a. Every Association shall have a control committee composed of not less than three members elected by the general assembly.
- b. The term of office of the control committee shall be three years.
- c. The terms of the members of the control committee shall be staggered in the bylaws not to expire the terms of all members elected at one time.
- d. A member of the control committee may not at the same time serve as a member of the management committee.
- e. The control committee shall be accountable to the general assembly.

I. Powers and Duties of the Control Committee

The powers and duties of the control committee shall be specified in the by-laws of the association and in particular shall include the following:

- a. to follow up that the management committee is discharging its responsibility properly;
- b. to follow up that the funds and property of the association are properly utilized;
- c. to follow up that the financial and other activities of the association are undertaken in accordance with the by-laws and internal regulations; and carry out audit at least once in a year; and
- d. to submit a physical work and audit report to the general assembly.

J. Common Provisions of the Management Bodies

The members of the management, the control and the dispute settlement committees are not entitled to receive salary as they are not employees of an association; provided, however, they may be entitled to reimbursement of reasonable expenses incurred during

their functions and sitting allowance in accordance with the budget of the association. The situation will be prepared in implementation manual. A member of the management, control and dispute settlement committees may be removed from office pursuant to a decision of the general assembly on the grounds of failure to discharge duty; repeated failure to attend scheduled meetings more than two times without having good reason; or not able to attend the meetings of the committee for more than a month on the grounds of force majeure. The general assembly, in the event of removal of elected committee member shall replace him by another member.

K. Employees of the Association

An association may employ a director and other administrative supporting staff. Subject to specific regulations to be issued in the by-laws of the association an employee director will be:

- a. a person with suitable qualifications and relevant experience of irrigation management and will not be member of that association; and
- b. accountable to the management committee and attend meetings when so requested, but shall not participate in decision making or voting.

Subject to specific regulations to be issued in the by-laws of the association, the management committee may authorize the director to sign contracts of specific small amount of money. The recruitment of the administrative staff will be conducted in accordance with the by-laws and internal regulations of an association. An employee of an association may not at the same time serve as a unit representative or an elected official of that association.

9.8 Technical and Capacity Building Requirements

The sustainability of irrigation schemes depends on the capability of the organizations responsible for operation and maintenance of the systems. The management, operation and

maintenance of irrigation scheme require strong and effective organizations built in both technical operational capacities.

9.8.1 Training Requirements

To enhance the implementing capacity of the government and community based institutions to be involved in irrigation implementation, irrigation water users' members and beneficiaries need continuous trainings that build their technical capacity. In other words, there is urgent and essential need for imparting training to those who are involved in irrigation management systems to achieve the sustainability and good performance of the irrigation scheme. Mainly, leaders of the association require intensive assistance and training to cope up with the technical and financial management requirements.

Trainings to the beneficiaries will include educating IWUA in the management, operation, and maintenance of irrigation systems, proper water usage, and other related matters. For capacitating the community, the training coordinator of the supervising body in coordination with other stakeholders, will organize on-the-job trainings, workshops, seminars, and visits to established irrigation water users association. It is believed that the supervising body will arrange such training facilities and work on providing further capacity building interventions to the beneficiaries. Building local people's capacity for operation and management is given a high priority because it is one of the activities most likely to enhance sustainability and effectiveness of irrigation systems. Exposure visits to successful schemes, group meetings between new and well established schemes within the districts are useful ways for communities to exchange experiences.

Training methodologies should focus on learning by doing. Therefore, on the job training and participating local representatives in the operation and maintenance of the scheme. The training should be in the local language, appropriate for different age, gender and class

groups and the prevailing level of literacy. The training areas to be provided could include, but not limited to:

- Irrigation crops production, storage and marketing;
- Community management structures and their roles (management, general assembly, water service providers);
- Constitution and by-laws development and implementation for irrigation systems;
- Financial management, record keeping and accounting procedure;
- Financial and physical auditing and procurement;
- Members' rights and duties;
- Participatory decision-making;
- Accountability and transparency;
- Setting development goals and objectives, planning and budgeting;
- Leadership/management skills;
- Monitoring and evaluation mechanisms;
- Community conflict resolution and communal use of scares resources;
- Communication skills, negotiating capacity towards contract with private sectors, suppliers of inputs, buyers of their produces and with others; and
- Procurement and marketing strategies

9.8.2 IWUA Budget Requirement

A. Source Budget Required

According to Irrigation Water Users' Association establishment draft proclamation, Abishika IWUA will have its own sources of income as an independent institution and prepares its annual budget. The sources of budget for Abishika IWUA could be:

- Registration fee,
- The annual membership fee payable by members of the association,
- A water delivery fee of the members,
- Gifts or grants,
- Interest on outstanding fees due to the association,

- Interest on any money it deposited in bank accounts or interest from other similar sources,
- The proceeds of fines or other sanctions imposed on members,
- Payments for services provided by the association,
- Fund raising events, and
- Loan from different sources.

Similarly an association will keep reserve fund for emergency repairs, for improvement or for the rejuvenation of the irrigation and drainage system. The reserve fund mentioned above shall be kept in interest-bearing bank account until such time as the funds are required.

B. Budget Required

Cost of the water users association could be defined as running and investment costs. Running cost is expenses that help to cover day to day activities performed, services used and utilities or supplies purchased to keep the association functioning. Investment costs could be expenses for permanent assets owned by the association to support the wealth and growth of the association. These costs are estimated and incorporated in the financial and economic analysis part of the study.

a. Running Costs/ Annual Budget

An annual budget is required for running costs that include emergency repairs, improvement/ rejuvenation of the irrigation and drainage system; cost for encouraging and compensating members and committee members. It is an annual operation cost for covering the responsibility allowances, per diem and stationary materials, utility equipment, services, labor and experts expenses incase hired, and costs for training provided for members and committee in order to capacitate them. As indicated above, the committee memebbers require traning in the field of leadership, conflict management, maintenace and water allocation, finanacial managemenet, billing and cash collection, finanacial and

physical planning. The training fields such as leadership, conflict management, maintenance and water allocation, financial and physical planning may require frequent trainings.

b. Investment Cost

The major investment cost for the project was included in the design of engineering estimation. However, an essential investment cost required could be office construction of IWUA, which need to be constructed on appropriate and accessible place. It is suggested that the camp and offices that would be built by the contractor would be used for the purpose of the office after the termination of the construction works. Apart from serving as an office, the camp site would be used for meetings, trainings, store for output and input, marketing center and for other festive occasions of the IWUA.

9.9 Project Ownership and Management Attitudes of the Community

The communities of the project areas of Digalu-Tijo represented by selected beneficiaries have great interest to participate in the proposed irrigation project from inception to implementation and management phase. They indicated that they are ready to exert their experience and utilize in a well planned management process and ensure ownership of the proposed small scale irrigation project.

As pledged promise for taking part in the implementation of the project, group discussants ensured to keep their promise. It was learnt that the community has well experience in actively involving to the development intervention in their areas. Their experience in the utilization of irrigation water is through their organized committee members. Digalu Arabi has four schemes on Abshika River. Each scheme has Water Users Committee of an average of nine members from the total users of 381 direct beneficiaries.

The existing Water Users Committee will be strengthened and promoted to Water Users Association and will take over the responsibility of administering the overall management

activities of the new project implementation and utilization. They also indicated that the beneficiaries will represent women in the organization and management of the scheme and ensure community based follow up, operation and maintenance of the project.

On the issues of the land use after modern scheme development, the discussants were not clear of it but willing to accept the regulations that the user association develops upon negotiation. The participants expressed their willingness to use the irrigation land commonly. They are convinced to accept the exchange of irrigation land to rain fed agricultural land. Nevertheless, the distribution of irrigated land needs, serious community based considerations since it has negative impact on land use right of the households who has more irrigation land area.

The discussants also indicated that they could be able to mobilize the beneficiaries community members through their committee to contribute to the project development in terms of labor and material supplies. Their main expectations of the participants from the planned project are better infrastructure that access them more water for better opportunity of irrigation scheme.

10. SOCIAL IMPACT AND MITIGATION MEASURES

10.1 Positive Impacts

The project has both economic and social benefit to the beneficiaries. It induces production of various types of crops in a more intensive way using irrigation that brings economic benefit in marketing the surplus. It would substantially increase production of irrigated crops of high level yields. In addition, there would be an increment of by products from which the farmers would get benefit as income for the beneficiaries. The other economic benefits of the project is that it creates job opportunities for the land less labor force in income generating activities that boost their production and productivity.

As important as economic benefit, the project would require integrated social interventions that would take place within and outside the project area. Watershed development and environmental protection that would conserve the environment will be part of the project components that would be considered in the project implementation. Since it would lead to the creation of employment opportunities for the surrounding community women and youth will enable to participate in irrigated farming and garden vegetable production and marketing. Particularly, women household will benefit in generating adequate income for their family's prestige. It will also induce skill and knowledge in farming system that will improve the nutritious culture of the households. It contributes to the development of market expansion and growth of urban centers in the project areas.

10.2 Negative Impacts

In fact, the project does not have any adverse impacts on the community. However, there are some negative impacts that could occur in the process of the project implementation in terms of biophysical and human environment which include:

- Removal of available trees and grasses at the head work, diversion areas and in the immediate vicinity of access roads are that can cause soil erosion resulting in the

reduction of the soil depth affecting the water and nutrient holding capacity of the crop soils

- There will be an expectation of silt deposition in the diversion point and along the main canal that will affect the efficiency of the irrigation system conveyance and increase in the costs of construction and maintenance;
- Displacement and/or changes in land use patterns and social equity as a result of irrigation structures;
- Over-use of water in the upper stream structured diversion systems will deprive downstream users that might affect community relations and might cause social chaos;
- Possible health problem may be due to waterborne diseases that come as a result of use of irrigation water for household use and cooking; and
- Increasing population pressure on the existing farm land, unemployment and underemployment will increase demand and request for irrigation from the downstream kebeles that may be aggravated by low income that might result in social difference.

10.3 Suggested Mitigation Measures

The negative impact need to be mitigated based on social equity and justice of small scale irrigation development. The mitigation measures that have been identified include but not limited to:

- Strict flow of social norms and water user association rules. It is important to strengthen community's norms, enforce water users association rules and regulations among user members and avoid over-using the available water and avoid or reduce impacts on downstream users;
- Exploring past experience of user community during construction in minimizing high hill side soil cut, removal of stone, demolishing of trees and other properties that enhance the involvement and willingness of the community. In this regard, the community has well experience of construction of investment with economic compensation cost;

- Maintaining essential microbial activity and water holding capacity the soil structure is important that improves soil productivity for retention and uptake of nutrients; and
- To induce well planned healthy family nutritional status that can be maintained ensuring gender sensitivity in irrigation utilization and the concerned district health office is expected to closely follow the health aspect of the people in and around the project area.

11. CONCLUSIONS AND RECOMMENDATIONS

11.1 Conclusions

The socio-economic study of Abishika Small Scale Irrigation Development Project of Digalu-Tijo District is relevant to the context of agricultural development strategies of the country in general and that of the Oromiya Region in particular. The study is to provide information on the background of the project areas and the district for decision making in the priorities of the development intervention. It is based on primary (focus group discussion and informants) of the beneficiaries and secondary data/information from Ganda/Kebele district sector offices.

This socio economic study of Abishika Small Scale Irrigation Development Project included basic information on the existing experience and development prospects of the area at grass root community level. It has shown direction to look forward for further alternative analysis and develop confidence in pointing out locally known and identified resources with its existing potentials. The district is access to regional basic road facility that enhances any economic development and historical and natural eco-tourism. There is also ongoing urban development potential in and around the district in all directions including large farm, which could be potential marketing for agricultural outputs form the project to be developed in Abishika.

The project area has potential resources and conducive environment that include land, water sources for small scale irrigation, unexplored tourist attractions, abundant labor force, potential development actors and growing basic social infrastructures. Despite such an important resource, the facility of using irrigation has so far been only minimal leaving agriculture to be mainly dependent on the rainfall.

The proposed project is a kind of innovative practices in improving production and productivity of the rural areas and creates community marketing potential ensuring urban rural linkages. The existing basic infrastructure, which is the base for all aspects of resource utilization and or mobilization, is scant. In sum, the socio-economic study apart from offering the available resource potential of the district, the information it revealed is imperative to understand the existing conditions of the project sites and plan or design further development requirements.

11.2 Recommendations

To the concept of small scale irrigation development and implementation, the following recommendations are drawn from the socioeconomic study.

- The community around the intended project areas and the beneficiaries of the project are farmers who only know farming in a traditional way. In addition to establishing water users association for the management of the project, irrigation product marketing and service associations are instrumental in promoting community involvement to maximize the benefits from the project and create marketing for the products.
- It is important to improve and develop social and economic infrastructures like road, telephone network, drinking water supply, electricity supply and others as it is poor in the project areas. The improved infrastructures mainly road and market net work will enhances resource management capacity of the community and ensure development partnership to local government.
- Trainings and experience sharing of the beneficiaries on modern irrigation crops production and productivity improvement is very essential. Trainings given in farmers training centers need to practical in the way it maintains environment, use available resource wisely and motivate farmers to use modern inputs like compost to maintain soil fertility.
- Encouraging labor intensive development component to absorb the existing labor force on one hand and create opportunity to income diversification, education and technical

experience of the community and enhance the use of disease resistant variety rather than using chemicals/ herbicides to minimize pollution.

- The role the Non-governmental Organizations (NGOs) as a development partnership to local government is imperative in supporting the districts development plan implementation. Initiating and providing possible supports to NGOs to involve in capacity building of the local community will bring positive changes in the intervention and enhance income generating capacity of the community through integrated development program implementation.
- In the project area there are high potential livestock populations but the farmers use traditional way of rearing and benefit less than the expected output from this sector. So it is important to motivate the farmers to adopt modern way of animal rearing and concentrate on the improvement of production on small land.
- Strengthening services provided by rural agricultural institutions such as Farmer Training Centers (FTC), farmer service cooperative and rural credit services in order to facilitate farmer's access to modern agricultural input like extension service, fertilizers, improved seeds and farm implements are important.
- Since the areas are denuding for farm land, it needs intensive effort in soil conservation, land closing and rehabilitation as an integrated watershed management as well as improved and balanced natural resource protection.
- Intense population pressure in the district induced high demand for infrastructure and basic human needs. The existing ones mainly potable water, road and power are scarce to the community. Therefore, it is important to incorporate future development with planned budget and source of finance for basic infrastructure in the area.
- It is observable that project areas are hills with potential resources that can be substantiated for more development interventions such as forest, wild life /zoos, solar and wind energy, beekeeping/honey production and recreation/eco-tourism. Therefore, planned intervention thorough studies and research in exploring, conserving and promoting these potential resources need be considered.

- The project area has a high potential investment opportunity in agricultural production and food processing industries. It is important to initiate development investment that upgrade the value of irrigated crops production and processing as well as natural resource management need to do more to attract investment in the area.

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ANNEXES

Annex I: List of Focus Group Discussants Ganda Digalu Arabi, Abishika SSIP

No	Name	Village	Age	Telephone
I	Male Participants			
1	Mr. Mulatu Arado	Chaffa	42	+251 92 728 4858
2	Mr. Umar Gishe	Chaffa	55	-
3	Mr. Kabbo Mohamed	Chaffa	47	+251 93 143 7313
4	Mr. Chala Badho	Chaffa	35	+251 92 372 1967
5	Mr. Birru Gamachu	Chaffa	43	+251 92 367 7577
6	Mr. Genene Mashilla	Chaffa	42	+251 92 728 1556
7	Mr. Badho Galata	Chaffa	66	-
8	Mr. Husen Ibrahim	Bonaya	32	+251 92 461 9719
9	Mr. Bacha Ejeru	Bonaya	32	+251 91 040 9692
10	Mr. Zemedu Ayele	Bonaya	39	+251 91 040 4857
11	Mr. Kebede Ejeru	Bonaya	55	-
12	Mr. Kebede Hordofa	Lukota	38	-
13	Mr. Saboka Shumi	Lukota	28	+251 91 040 8412
14	Mr. Teshome Negash	Lukota	35	+251 93 494 1851
II	Female Participants			
1	Mrs. Yeshi W/Kiristos	Bonaya	65	-
2	Mrs. Alemitu Wolde	Lukota	51	-
3	Mrs. Feleku Kifle	Lukota	36	-
4	Mrs. Magartu Tolasa	Lukota	31	-
5	Mrs. Fatuma Boru	Bonaya	21	-
6	Miss Adanu Dejene	Bonaya	14	-
III	Youth Participants			
1	Mr. Aliy Bahir	Lukota	23	-
2	Mr. Abdella gosa	Lukota	20	+251 91 598 1203
3	Mr. Adam Aliyi	Ariro	29	+251 92 149 3686
4	Mr. Teshome Tsegaye	Bonaya	20	+251 93 231 3807
III	Youth Participants (Continue)			
5	Mr. Abu Gabi	Bonaya	20	+251 91 597 4562
6	Mr. Ibrahim Sanu	Lukota	18	-
7	Mr. Mohamed Gamachu	Lukota	18	+251 94 335 2201

Annex II: List of Officials and Experts Communicated, Dialu-Tijo District

No	Name	Position	Sector	Telephone
1	Mr. Girma Fita	Officer,	Scheme Administration, Irrigation Development Office	+251 91 225 8433
2	Mr. Tadesse	Agronomist	Irrigation Development Office	+251 91 330 9946
3	Mr. Endalkachew Tsega	Head	Irrigation Development Office	+251 91 041 6534
4	Mr. Belay Feyisa	Expert	Irrigation Development Office	+251 91 002 4412
5	Mr. Kadir Abu	Vice Head	Agriculture and Rural Development Office	+251 91 362 1537
6	Mr. Harsame Hunde	Agronomist	Agriculture and Rural Development Office	+251 93 276 3896
7	Dr. Tesfaye Hailu	Expert	Animal Health Clinic, Livestock Development Office	+251 93 494 9482
8	Mr. Dawud Mohamed	Vice Head	Water, Mineral and Energy Office	+251 91 039 9878
9	Mr. Jemal Husen	Expert	Community Participation, Water, Mineral and Energy Office	+251 91 076 8761
10	Mr. Feyisa Gudu	Facilitator	Water, Mineral and Energy Office	+251 91 095 3147
11	Mr. Jemal Bashir	Expert	Culture and Tourism Office	+251 93 494 6411
12	Mrs. Belaynesh Felke	Vice Head	Office of Finance and Economic Development	+251 96 196 4622
13	Mr. Bire H/ Meskel	Officer	Education Office	+251 91 226 1057
14	Mr. Husen Gudata	Expert	Capacity Building and Civil Service Office	+251 91 225 8071
15	Mr. Worku Abarra	Head	Health Office	+251 91 313 6273
16	Mr. Fikadu Tola	Expert	Trade and Market Development Office	+251 91 334 9768
17	Mr. Girma Teshome	Development Agent	Ganda Digalu Bora	+251 91 225 8158
18	Mr. Endale Haile	Head	Sagure Post Office	+251 91 041 2993
19	Mr. Yosef Abera	Head	Sales Operation, Electric Light Authority, Sagure	+251 91 305 6776

Annex III: Letter of Request from the Beneficiaries Supported by Officials Digalu- Tijo OIDA District

Annex 3.1: Bonaya Water Users Association Application

Godina Arsiniif Asuu Di Xijoo
Ganda Oo Bala Digalu Arabi
Wadda Bonnyyaa

Lakk 30/07/2009
Guyyaa 4/1/2009

**Abba Taayitaa Misooma Jallisi A/D/Xijootiif
Saguree**

**Dhimma: Gaaffii Qorannoo Piroojektii Misooma Jallisii
Dhiyeeffachuu Ilaala**

Nuti maqaa fi mallattoon keenya armaan gaditti kan mul'atu jiraattotni
Godina Arsii Aanaa DI Xijoo
Bulchiinsa Ganda DI Arabbii bishaan/lolaa/burqaa/ Laga
Laga Abshikka humnaa fi ogummaa aadaan qabnuun jallisnee
misooma jallisii irra oolfachuuf yaalii goonu iyyuu jallisiin kun humnaa fi
ogummaa dandeettii keenyaa ol ta'e waan nu gaafateef gargaarsi
barbaachisaa ta'e karaa keessan nuu godhamee qorannoon isaa akka
nuu gaggeeffamu gaafachuuf dirqamnee jirra.
Kanaaf nuti gama keenyaan hojii qorannoo, dizaayinii fi ijaarsa
piroojektichaa keessatti qooda fudhachuuf akkasumas seeraa fi
qajeelfama mootummaa irratti hundaa'uun lafa misooma jallisii jala oolu
walii qooduuf waadaa seenaa qorannoon piroojektii kanaa karaa keessan
akka nuu gaggeeffamu ni gaafanna.



Nagaan Wajjin
Boocaa Eperuu

Miseensoota koree itti fayyadamtoota bishaan jallisi

Lakk	Maqaa	Ga'ee hojii	mallattoo	ibsa
1	Taufaa Kaaftoo	Buulchiidaa	፳፻፲፱፻፳፱	
2	Maanzaa Baakaroo	Ibbi Andaa	፳፻፲፱፻፳፱	
3	Baacaa Eejnuu	Barracassaa	፳፻፲፱፻፳፱	
4	Huuddeen Ibraahim	mat-qobaa	፳፻፲፱፻፳፱	
5	Zamaduu Ayaalaa	Abi Herregaa	፳፻፲፱፻፳፱	
6	Biruu Kabadaa	koree Taawanaa	Biruu	
7	Biranuu Fayidmaa	miseensoo	፳፻፲፱፻፳፱	

Guyya Miseensoota koree fayyadamtoota bishaan jallisi itti dhabbate _____



Waldha Bonayya

PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arsi Woreda Dixiisoo Ganda D/Al-cabbi Goxi Gealmaa

No.	Name of household	Age	Sex	Educ ation	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
1	Abduraman Bakaroo	43	Ph	10	oromifa	oromifa	muslim	19-83		Sungaa 1	0910952922	A...
2	Adam Saaddoo	70	Ph	-	??	oromifa	muslim	19-85		2		Ph...
3	Abbas musaa	30	Ph	10	??	oromifa	muslim	19-83		1		Abbas musaa
4	Abdulec musaa	38	Ph	6	??	oromifa	muslim	19-85		2	0726254794	Abbas musaa
5	Abdulec Timoo	30	Ph	5	??	oromifa	muslim	19-85		1		
6	Abdir/padi musaa	30	Ph	10	??	oromifa	muslim	19-92		1		Abdir/padi musaa
7	Abew Hincence	50	Ph	3	??	oromifa	muslim	19-85		3		
8	Abdur Padi Githoo	40	Ph	5	??	oromifa	muslim	19-85		3		Abdur Padi Githoo
9	Abuu Gabbi	27	Ph	7	??	oromifa	muslim	19-73		1		Abuu Gabbi
10	Ababaa Dibabaa	45	Ph	3	??	oromifa	kristana	19-93		2		Ababaa
11	Alamajoo Baqalaa	42	Ph	3	??	oromifa	kristana	19-93		3		Alamajoo
12	Asnifoo Taalaa	38	Ph	3	??	oromifa	kristana	19-93		2		Asnifoo
13	Ashanaabi T/Keangyii	60	Ph	3	??	oromifa	kristana	19-93		3		Ashanaabi
14	Ashaa Daawid	50	Ph	-	??	oromifa	muslim	19-93		2		Ashaa
15	Argash Shishigee	70	Ph	-	??	oromifa	kristana	19-85		3		Argash
16	Ayana Gurmu	38	Ph	2	??	oromifa	kristana	19-85		1	0937859312	Ayana Gurmu
17	Abduraa Tufaa	28	Ph	5	??	oromifa	muslim	19-92		2		Abduraa Tufaa
18	Abdir/Tabb Kaaditoo	28	Ph	7	??	oromifa	kristana	19-07		1		Abdir/Tabb Kaaditoo
19	BaCaoo Gurmu	32	Ph	2	??	oromifa	muslim	19-73		2	0937419687	BaCaoo
20	BaCaoo Hincence	65	Ph	3	??	oromifa	kristana	19-85		1	034856700	BaCaoo
21	Biruu kabadaa	50	Ph	9	??	oromifa	kristana	19-85		1		Biruu
22	Biruu kajiisaa	48	Ph	5	??	oromifa	kristana	19-85		3		Biruu
23	BaCaoo kabadaa	30	Ph	-	??	oromifa	kristana	19-85		2		BaCaoo
24	BaCaoo Fichuu	38	Ph	8	??	oromifa	kristana	19-73		1	0910408692	BaCaoo
25	Dabane Gurmu	26	Ph	9	??	oromifa	kristana	19-93		1	0922143537	Dabane
26	Dabane Dithaa	45	Ph	8	??	oromifa	kristana	19-87		3	0931004921	Dabane
27	Durki kaftoo	42	Ph	-	??	oromifa	kristana	2007		1		Durki kaftoo
28	Dane Gurmu	50	Ph	-	??	oromifa	muslim	19-85		1		Dane
29	Dabane Dabalce	38	Ph	5	Amh.	Amharic	kristana	19-85		1	0927922342	Dabane



Waldha Bona ya.

PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arsi Woreda Dixjo Ganda Diarmabbi Goxi Gaalama

No.	Name of household	Age	Sex	Educ ation	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
30	Darjaane	Girmaa	38	dh	5	oromifa	kirtana	19-93		Sanga 2		Da Jane
31	Darbalce	Baalchoo	75	dh	-	oromifa	kirtana	19-85		22 3		Da Jane
32	Darjane	Dibabaa	38	dh	3	oromifa	kirtana	19-93		22 4		Da Jane
33	Gamaochu	Gaalataa	80	dh	-	oromifa	kirtana	19-85		22 2		Da Jane
34	Gurmuu	Gaalataa	55	dh	2	oromifa	kirtana	19-85		22 3		Da Jane
35	Girmaa	Gamaochu	50	dh	5	oromifa	kirtana	19-85		22 2	092494377	Da Jane
36	Gurmuu	Ejruu	40	dh	8	oromifa	kirtana	19-85		21 1		Da Jane
37	Geexee	Tulluu	50	dh	-	oromifa	kirtana	19-85		21 2		Da Jane
38	Geetacho	Dibbaa	24	dh	12	oromifa	kirtana	19-85		22 1	09 -	Geetacho
39	Geethid	Taalaa	50	dh	-	oromifa	Muslima	19-85		22 1		Geetacho
40	Gaabi	Kaadir	50	dh	2	oromifa	Muslima	19-85		22 2		717 705
41	Gaaba	Saaddo	55	dh	-	oromifa	Muslima	19-85		22 2		717 705
42	Geetacho	Ul maram	54	dh	1	oromifa	kirtana	19-85		22 2		717 705
43	Gaabi	Haajii	38	dh	10	oromifa	Muslima	19-93		22 1		Gaabi Haajii
44	Gutamaa	Taalaa	23	dh	10	oromifa	kirtana	2007		22 2		Gutamaa
45	Faatiisee	Dinbaa	45	dh	-	oromifa	kirtana	19-85		22 2		Faatiisee
46	Haamid	Tuimoo	38	dh	3	oromifa	Muslima	19-85		22 1		Hamid Tuimoo
47	Huuseen	Ibraayim	30	dh	7	oromifa	Muslima	19-90		22 1		Huuseen
48	Haajii	Baadhacisoo	65	dh	-	oromifa	Muslima	19-85		22 2		Haajii
49	Ibraayim	Ibraayim	55	dh	2	oromifa	Muslima	19-85		22 3		Ibraayim
50	Ibraayim	Ibraayim	27	dh	9	oromifa	Muslima	19-93		22 1		Ibraayim
51	Indalaa	Taajamaa	40	dh	5	oromifa	kirtana	19-93		He 1	0912295390	Indalaa
52	Samaal	Ibraayim	40	dh	6	oromifa	Muslima	19-85		Sanga 2	0912295390	Samaal
53	Samaal	Baathir	28	dh	7	oromifa	Muslima	2007		2		Samaal
54	Kaadir	Tuimoo	27	dh	5	oromifa	Muslima	19-93		2		Kaadir
55	Kaabadoo	Ejruu	50	dh	4	oromifa	Muslima	19-85		He 1	0915988909	Kaabadoo
56	Kaadir	Simee	50	dh	3	oromifa	Muslima	19-85		He 1		Kaadir
57	Kamsiio	Simee	65	dh	-	oromifa	Muslima	19-85		Sanga 3		Kamsiio
58	Kuubaa	Waqajhuu	40	dh	10	oromifa	kirtana	19-93		22 1		Kuubaa



Waldha Bonaya

PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arsi Woreda DI Kibbo Gandaa Araabbi Goxi Gaalama

No.	Name of household	Age	Sex	Education	Ethnicity	Language	Religion	Year of residence	Disability (physical)	and holding(he)	Address (gandaa, goxi, and phone)	Signature
59	Baacao Eshuu	23	Phi	8		aramifa	kiristana	19-93		Sanga 2	0970409692	[Signature]
60	kaalii Ibrahim	22	Phi	10		aramifa	Muslima	19-98				[Signature]
61	Kaadir Sherehaaji	25	Phi	10		aramifa	Muslima	20-08				[Signature]
62	beencoo Kaadir	50	Phi	11		aramifa	Muslima	19-85		3	0940953071	[Signature]
63	kaami Jaatee	45	Du	-		aramifa	Kiristana	2003		2		[Signature]
64	muuxafa muhamad	32	Phi	6		aramifa	Muslima	19-89		2		[Signature]
65	maangistu Didhaa	27	Phi	7			Kiristana	1995		2	026633548	[Signature]
66	meqabtu Raqabee	65	Du	-			Kiristana	19-85		3		[Signature]
67	maajistu Gnalataa	55	Phi	4			Kiristana	19-92		2		[Signature]
68	maajista Naagajhu	38	Phi	3			Kiristana	19-92		1		[Signature]
69	manzaa Bekaree	42	Phi	5			Muslima	19-85		1	092305743	[Signature]
70	muhamad Bekaree	38	Phi	-			Muslima	19-85		1	0945783778	[Signature]
71	muusaa Kaadir	65	Phi	-			Muslima	19-85		1		[Signature]
72	muujadin Minener	70	Phi	-			Muslima	19-85		2		[Signature]
73	muhamad mujadin	30	Phi	5			Muslima	19-89		2		[Signature]
74	muuxafaa muusaa	38	Phi	4			Muslima	19-85		1	0924551517	[Signature]
75	muhamad muusaa	32	Phi	9			Muslima	19-93		1	0941738732	[Signature]
76	muhanam Tunaa	28	Phi	7			Muslima	19-95		1		[Signature]
77	mitaki Gudessa	35	Phi	5			Kiristana	19-92		2		[Signature]
78	naajaa Wami	40	Phi	8			Kiristana	19-92		1		[Signature]
79	muqabtu Diribaa	27	Phi	9			Kiristana	19-93		2	0910412038	[Signature]
80	naajim muhamad	28	Phi	5			Muslima	19-93		2	09272565570	[Signature]
81	Bayimaa Tibbeu	27	Du	3			Muslima	19-93		3		[Signature]
82	Shunee Tunaa	60	Du	-			Muslima	19-85		2		[Signature]
83	Suuksaan Kaadiraa	25	Phi	2			Muslima	19-93		3		[Signature]
84	Shek Jama muhamad	45	Phi	4			Muslima	19-93		2		[Signature]
85	Shimelis Taalaa	32	Phi	2		Amanifa	Kiristana	2007		1		[Signature]
86	Tamuu Daadhi	70	Phi	-		Amanifa	Kiristana	19-92		2		[Signature]
87	Tunungoo	40	Du	-		Amanifa	Kiristana	19-92		3		[Signature]



Wajda Bonayaa

PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone ARSII Woreda D/ Xiifaa Gandaa D/ Arabki Goxi Caalamo

3/2
2/1

No.	Name of household	Age	Sex	Education	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
	<u>Magna misleemotaa</u>											
88	<u>Balossaa Egeuu</u>	<u>25</u>	<u>Dhi</u>	<u>5</u>		<u>Oromifa</u>	<u>Kiristana</u>	<u>1998</u>		<u>1/2</u>		<u>[Signature]</u>
89	<u>Tuusuu Kirsitaa</u>	<u>30</u>	<u>Dhi</u>	<u>-</u>		<u>Amarifa</u>	<u>Muslima</u>	<u>1988</u>		<u>1/2</u>		<u>[Signature]</u>
90	<u>Tufaa Kaafaa</u>	<u>52</u>	<u>Dhi</u>	<u>-</u>		<u>Amarifa</u>	<u>Muslima</u>	<u>1988</u>		<u>Sanga 3</u>		<u>TURISHAMU</u>
91	<u>Tuumii Shimukaw</u>	<u>40</u>	<u>Dhi</u>	<u>3</u>		<u>Oromifa</u>	<u>Muslima</u>	<u>2007</u>		<u>2</u>		<u>Tg. MP</u>
92	<u>Tashamaa Waagaayee</u>	<u>40</u>	<u>Dhi</u>	<u>4</u>		<u>Oromifa</u>	<u>Kiristana</u>	<u>1999</u>		<u>2</u>		<u>Tashamaa</u>
93	<u>Tafanaa Janyissa</u>	<u>28</u>	<u>Dhi</u>	<u>4</u>		<u>Oromifa</u>	<u>Kiristana</u>	<u>1989</u>		<u>2</u>		
94	<u>Tadabaa Tanaa</u>	<u>53</u>	<u>Dhi</u>	<u>5</u>		<u>Amarifa</u>	<u>Kiristana</u>	<u>1999</u>		<u>3</u>		<u>[Signature]</u>
95	<u>Tarsitii Kiflee</u>	<u>38</u>	<u>Dhi</u>	<u>3</u>		<u>Amarifa</u>	<u>Kiristana</u>	<u>1976</u>		<u>2</u>		
96	<u>Tabsuu Biraanu</u>	<u>25</u>	<u>Dhi</u>	<u>6</u>		<u>Oromifa</u>	<u>Kiristana</u>	<u>2007</u>		<u>1</u>		<u>Tabsuu</u>
97	<u>Warguu Dikkaa</u>	<u>38</u>	<u>Dhi</u>	<u>4</u>		<u>Amarifa</u>	<u>Kiristana</u>	<u>1998</u>		<u>1</u>		<u>[Signature]</u>
98	<u>Warguu Yabatee</u>	<u>35</u>	<u>Dhi</u>	<u>5</u>		<u>Amarifa</u>	<u>Kiristana</u>	<u>1998</u>		<u>2</u>		<u>[Signature]</u>
99	<u>Walaayamaa Abbuu</u>	<u>30</u>	<u>Dhi</u>	<u>5</u>		<u>Oromifa</u>	<u>Muslima</u>	<u>1997</u>		<u>1</u>		
100	<u>Walaayamaa Tufaa</u>	<u>30</u>	<u>Dhi</u>	<u>6</u>		<u>Oromifa</u>	<u>Kiristana</u>	<u>2007</u>		<u>1</u>		<u>Walaayamaa</u>
101	<u>Walaayamaa addaa</u>	<u>60</u>	<u>Dhi</u>	<u>3</u>		<u>Amarifa</u>	<u>Kiristana</u>	<u>1997</u>		<u>3</u>		<u>[Signature]</u>
102	<u>Wagaayee Gaalataa</u>	<u>35</u>	<u>Dhi</u>	<u>2</u>		<u>Oromifa</u>	<u>Kiristana</u>	<u>1998</u>		<u>0</u>		<u>[Signature]</u>
103	<u>Wagaayee Ceelaa</u>	<u>25</u>	<u>Dhi</u>	<u>5</u>		<u>Oromifa</u>	<u>Muslima</u>	<u>2007</u>		<u>1</u>		<u>[Signature]</u>
104	<u>Walaayamaa Kidaanee</u>	<u>60</u>	<u>Dhi</u>	<u>-</u>		<u>Amarifa</u>	<u>Kiristana</u>	<u>1988</u>		<u>2</u>		<u>[Signature]</u>
105	<u>Zanaa Tufaa</u>	<u>52</u>	<u>Dhi</u>	<u>-</u>		<u>Amarifa</u>	<u>Muslima</u>	<u>2007</u>		<u>2</u>		<u>[Signature]</u>
106	<u>Zamadeu Kayadlaa</u>	<u>45</u>	<u>Dhi</u>	<u>12</u>		<u>Oromifa</u>	<u>Kiristana</u>	<u>1985</u>		<u>Hcc 1</u>	<u>09 10404857</u>	<u>[Signature]</u>
107	<u>Zamadeu Gumpuu</u>	<u>30</u>	<u>Dhi</u>	<u>7</u>		<u>Oromifa</u>	<u>Kiristana</u>	<u>1993</u>		<u>Sanga 1</u>		<u>[Signature]</u>
108	<u>Zimaa Shibanee</u>	<u>42</u>	<u>Dhi</u>	<u>12</u>		<u>Oromifa</u>	<u>Kiristana</u>	<u>1993</u>		<u>Sanga 2</u>		<u>[Signature]</u>
109	<u>Zirannu Dabatee</u>	<u>50</u>	<u>Dhi</u>	<u>6</u>		<u>Oromifa</u>	<u>Kiristana</u>	<u>1985</u>		<u>2</u>		<u>[Signature]</u>
110												
111												
112												
113												
114												
115												



Annex 3.2: Cafaa Water Users Association Application


Godina Arsiitiif Aanaa Di/Xijoo
Ganda Di/Araabbii Waldaa
Cafaa
በርሰ ለገሰ ለገሰ ለገሰ ለገሰ ለገሰ
ለገሰ ለገሰ ለገሰ ለገሰ ለገሰ
ገሰ ገሰ ገሰ ገሰ ገሰ

Lakk _____
Guyyaa 3-1-2007

**Abba Taayitaa Misooma Jallisi A/D/Xijootiif
Saguree**

Dhimma: Gaaffii Qorannoo Piroojektii Misooma Jallisii
Dhiyeeffachuu Haala

Nuti maqaa fi mallattoon keenya armaan gaditti kan mul'atu jiraattotni
Godina Digalu/Araabbii Aanaa Di Xijoo
Bulchiinsa Gandaa Di Araabbii bishaan/lolaa/burqaa/ Laga
Laga Abshika humnaa fi ogummaa aadaan qabnuun jallisnee
misooma jallisii irra oolfachuuf yaalii goonu iyyuu jallsiin kun humnaa fi
ogummaa dandheetii keenyaa ol ta'e waan nu gaafateef gargaarsi
barbaachisaa ta'e karaa keessan nuu godhamee qorannoon isaa akka
nuu gaggeeffamu gaafachuuf dirqamnee jirra.

Kanaaf nuti gama keenyaan hojii qorannoo, dizaayinii fi ijaarsa
piroojektichaa keessatti qooda fudhachuuf akkasumas seeraa fi
qajeelfama mootummaa irratti hundaa'uun lafa misooma jallisii jala oolu
walii qooduuf waadaa seenaa qorannoon piroojektii kanaa karaa keessan
akka nuu gaggeeffamu ni gaafanna.



Mulatu Ataddoo
Nagaa Wajjin

Ga'ee Arsiifir Aanaa Du'Xiloo
 Ganda Dir Araabbii Waldaa
 Misensoota Koree
 Lakkaa Magaa

fayyadamtoota bishaan jallisi

		Ga'ee hojii	mallattoo	ibsa
1	Umat Gish'ee	duktaa-waldu	0-000.915	
2	Biluu Gamaduu	itana	E-Abu-2mE	
3	Muatauu Akaddoo	Bat'isa	Muatauu Akaddoo	
4	Ganana Mashilaa	mat'aba	Ga'ee 255mE	
5	Laalaa Badhot	ko'ee Abotga	& caalaa	
6	Haliyyee Ayyaa	ko'ee Thoo	ko'ee Thoo	
7	Kabbaa Mahmadi Bulaxaa Badho	missa ko'ee Batsa ko'ee Thoo	47000-000	

Guyyaa Misensoota Koree fayyadamtoota bishaan jallisi itti dhabbate 2008. 16.11.08



maldaa caafaa.

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PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arsi Woreda Dixifjoo Gandaa D/Arabbii Goxi Caalamaa

No.	Name of household	Age	Sex	Educ ation	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
1	Muzafiqi Araddoo	40	dh	5		oromoo	Kiristana	1985	-	1/2	09272533	[Signature]
2	Umat Gisho	55	dh	4		oromoo	Kiristana	1985		4		[Signature]
3	Caalaa Badhee	36	dh	10		oromoo	Kiristana	1985		1	092392567	[Signature]
4	Biruu Gamachuu	42	dh	5		oromoo	Kiristana	1985		1	092867434	[Signature]
5	Alamuu Dasafuu	75	dh	-		oromoo	Kiristana	1985		4	-	[Signature]
6	Tulluu Alamuu	20	dh	5		oromoo	Kiristana	1985		1	-	[Signature]
7	Badhee Galataa	68	dh	-		oromoo	Kiristana	1985		4	-	[Signature]
8	Balaxaa Badhoo	40	dh	4		oromoo	Kiristana	1985		1	-	[Signature]
9	Alisatuu Badhoo	37	dh	2		oromoo	Kiristana	1985		1	0932250423	[Signature]
10	Kubaa Balaxaa	17	dh	8		oromoo	Kiristana	1985		1		[Signature]
11	Ganara Badhee	18	dh	7		oromoo	Kiristana	1985		1		[Signature]
12	Ayyane Guyyumu	33	dh	3		oromoo	Kiristana	1985		1/2	0927857312	[Signature]
13	Gishuu Badhadha	40	dh	6		oromoo	Kiristana	1985		1/2		[Signature]
14	Taxafaa horodorka	50	dh	3		oromoo	Kiristana	1985		1		[Signature]
15	Dawaa Guyyumu	22	dh	6		oromoo	Kiristana	1985		1		[Signature]
16	Amidii Tikmaa	40	dh	2		oromoo	muslimaa	1985		2		[Signature]
17	Guure Lencoo	18	dh	7		oromoo	muslimaa	1985		1/2		[Signature]
18	Saxifaa hasii	45	dh	2		oromoo	muslimaa	1985		1		[Signature]
19	Jifaree Asakaa	52	dh	-		oromoo	Kiristana	1985		4		[Signature]
20	Taduu Alafashi	20	dh	3		oromoo	Kiristana	1985		1/2		[Signature]
21	Zanaba Araddoo	50	dh	12 ³		oromoo	Kiristana	1985		1	0910762079	[Signature]
22	Takaruu Araddoo	39	dh	3		oromoo	Kiristana	1985		1		[Signature]
23	Asafaa Zanaba	25	dh	10		oromoo	Kiristana	1985		1/2	0923350998	[Signature]
24	Zarihun Zanaba	20	dh	12		oromoo	Kiristana	1985		1/2	0919603123	[Signature]
25	Abakaa Zanaba	18	dh	7		oromoo	Kiristana	1985		1	0966439335	[Signature]
26	Kabboo mhamaddii	50	dh	2		oromoo	muslimaa	1985		1		[Signature]
27	Garex Bifatu	51	dh	1		oromoo	muslimaa	1985		1		[Signature]
28	Kadiirii mhamaddii	20	dh	5		oromoo	muslimaa	1985		1		[Signature]
29	Abadiyadiri mhamaddii	36	dh	2		oromoo	muslimaa	1985		1		[Signature]

Godina Arshif Aana Dirxijoo
 Ganda D/Araabbi Waldaa
 Caafaa
 BAGA, No. 08704 MLR MLR 970
 M.A. MM
 097

PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arsi Woreda Dirxijoo Ganda D/Araabbi Goxi Caafaa

No.	Name of household	Age	Sex	Education	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
30	Bhanuiddii Jarsoo	68	Phi	1		Oromoo	Muslimaa	1985		1		AMM 9-3511
31	Sulxaan Bhanuiddii	32	Phi	7		Oromoo	muslimaa	1985		1/2		SULXAAN BAHND
32	Muxxara Bhanuiddii	30	Phi	5		Oromoo	muslimaa	1985		1/2		MUSTAFA
33	Useen Mhamaddi	29	Phi	3		Oromoo	muslimaa	1985		1/2		USEEN MHAMMAD
34	Useen Tulluu	43	Phi	2		Oromoo	muslimaa	1985		2		USEEN TULLU
35	Bona Umari	30	Phi	10		Oromoo	muslimaa	1985		1/2		BONA UMARI
36	Kadiri Umari	39	Phi	10		Oromoo	muslimaa	1985		2		MUFTI MHAMMAD
37	Mufti Mhamaddi	20	Phi	6		Oromoo	muslimaa	1985		1/2		MUFTI MHAMMAD
38	Zeynaba naboo	45	Phi	2		Oromoo	muslimaa	1985		1		Zeynaba naboo
39	Gaqqoo Hussein	40	Phi	2		Oromoo	muslimaa	1985		1/2		Gaqqoo Hussein
40	Shallew Afamaddi	40	Phi	3		Oromoo	muslimaa	1985		1/2		Shallew Afamaddi
41	XaxyoD Afamaddi	37	Phi	3		Oromoo	muslimaa	1985		1/2		XaxyoD Afamaddi
42	Shumbaye Galattoo	60	Phi	3		Oromoo	muslimaa	1985		1/2		Shumbaye Galattoo
43	Daffoo Afamaddi	30	Phi	4		Oromoo	muslimaa	1985		1/2		Daffoo Afamaddi
44	Abadiir Maliki Afamaddi	19	Phi	6		Oromoo	muslimaa	1985		1/2		Abadiir Maliki Afamaddi
45	Kadiri Afamaddi	32	Phi	3		Oromoo	muslimaa	1985		1/2		Kadiri Afamaddi
46	Moxoniini Tararraa	60	Phi	4		Oromoo	Kiristana	1985		5		Moxoniini Tararraa
47	Waxsuu Moxoniini	27	Phi	5		Oromoo	Kiristana	1985		1		Waxsuu Moxoniini
48	Tashomaa Abara	35	Phi	3		Oromoo	Kiristana	1985		1	0936253950	Tashomaa Abara
49	Abara Baqallaa	55	Phi	2		Oromoo	Kiristana	1985		3		Abara Baqallaa
50	Abayinoo Abara	32	Phi	12		Oromoo	Kiristana	1985		1		Abayinoo Abara
51	Baqalla Tulluu	40	Phi	-		Oromoo	Kiristana	1985		3		Baqalla Tulluu
52	Zayyice Baqallaa	35	Phi	7		Oromoo	Kiristana	1985		1		Zayyice Baqallaa
53	Malasaa Baqallaa	10	Phi	2		Oromoo	Kiristana	1985		1		Malasaa Baqallaa
54	Abitii Baqallaa	51	Phi	6		Oromoo	Kiristana	1985		3		Abitii Baqallaa
55	Minishu Abitii	20	Phi	6		Oromoo	Kiristana	1985		1/2		Minishu Abitii
56	Tasamaa Gizaa	65	Phi	-		Oromoo	Kiristana	1985		1	0933650155	Tasamaa Gizaa
57	Gertuu Tasamaa	39	Phi	10		Oromoo	Kiristana	1985		1	022142855	Gertuu Tasamaa
58	Asaraa Tasamaa	30	Phi	10		Oromoo	Kiristana	1985		1	091109906	Asaraa Tasamaa



2

Godina Arsiid Anna Dirkiboo
 Ganda Di Arasba Walden
 Caalaa
 MCA 13 04/10/19 M.C. 024 810
 M.A. 104 104/10/19
 091-9990

Waldna Caalaa

PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arsi Woreda Dirkiboo Gandaa Dirrabbi Goxi Galamaa

No.	Name of household	Age	Sex	Educ ation	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
59	mashilaa matafariyaa	70	dh	-	oromoo	oromoo	kiristaan	1985		3		mashilaa
60	Galamaa mashilaa	42	dh	7	oromoo	oromoo	kiristaan	1985		3/2	0927281556	Galamaa
61	Salaaman mashilaa	33	dh	10	oromoo	oromoo	kiristaan	1985		3	092305584	Salaaman
62	Damisii mashilaa	28	dh	12	oromoo	oromoo	kiristaan	1985				Damisii
63	Fanuu kabaa	40	dh	1	oromoo	oromoo	kiristaan	1985		2		Fanuu kabaa
64	Asiraat magosee	33	dh	10	oromoo	oromoo	kiristaan	1985		1	0928038939	Asiraat
65	magosee matafariyaa	70	dh	-	oromoo	oromoo	kiristaan	1985		4		magosee
66	Alamaallo magosee	30	dh	10	oromoo	oromoo	kiristaan	1985		1		Alamaallo
67	Ayyala Ballaxee	75	dh		oromoo	oromoo	kiristaan	1985		4		Ayyala
68	Asinajaa Ayyalaa	33	dh	10	oromoo	oromoo	kiristaan	1985		1	0921089022	Asinajaa
69	Abaabu Ayyalaa	30	dh	10	oromoo	oromoo	kiristaan	1985		1	0923682425	Abaabu
70	Baayy Ayyalaa	50	dh	8	oromoo	oromoo	kiristaan	1985		1		Baayy
71	Hayiliiyee Ayyalaa	40	dh	3	oromoo	oromoo	kiristaan	1985		1	0945064304	Hayiliiyee
72	Dawiti Hayiliiyee	20	dh	4	oromoo	oromoo	kiristaan	1985		1		Dawiti
73	Abiyooti Ballaxaa	35	dh	10	oromoo	oromoo	kiristaan	1985		3	0920769692	Abiyooti
74	Dajaanee kabaxee	30	dh	10	oromoo	oromoo	kiristaan	1985		1		Dajaanee
75	Fayee mangisitu	25	dh	4	oromoo	oromoo	kiristaan	1985		2		Fayee
76	Gammalhu magashii	30	dh	2	oromoo	oromoo	kiristaan	1985		1		Gammalhu
77	MUSULMI AFimadii	25	dh	7	oromoo	oromoo	MUSULMI	1985		1		MUSULMI
78	Ha Sao Umaar	78	dh	7	oromoo	oromoo	MUSULMI	1985		1		Ha Sao
79	Shallo malaatu	18	dh	7	oromoo	oromoo	kiristaan	1985		1		Shallo
80	Abidulaxiifi Jamaal	25	dh	7	oromoo	oromoo	MUSULMI	1985		1		Abidulaxiifi



Annex 3.3: Hariro Kula Water Users Association Application


Lakk _____
Guyyaa 4/12/09

**Abba Taayitaa Misooma Jallisi A/D/Xijootiif
Saguree**

Dhimma: Gaaffii Qorannoo Piroojektii Misooma Jallisii
Dhiyeeffachuu Haala

Nuti maqaa fi mallattoon keenya armaan gaditti kan mul'atu jiraattotni
Godina Arsi Aanaa D/Xijoo
Bulchiinsa Gandaa D/Ararshii bishaan/lolaa/burqaa/ Laga
Abshika humnaa fi ogummaa aadaan qabnuun jallisnee
misooma jallisii itra oolfachuuf yaalii goonu iyyuu jallsiin kun humnaa fi
ogummaa dandeetti keenyaa ol ta'e waan nu gaafateef gargaarsi
barbaachisaa ta'e karaa keessan nuu godhamee qorannoon isaa akka
nuu gaggeeffamu gaafachuuf dirqamnee jirra.
Kanaaf nuti gama keenyaan hojii qorannoo, dizaayinii fi ijaarsa
piroojektichaa keessatti qooda fudhachuuf akkasumas seeraa fi
qajeelfama mootummaa irratti hundaa'uun lafa misooma jallisii jala oolu
walii qooduuf waadaa seenaa qorannoon piroojektii kanaa karaa keessan
akka nuu gaggeeffamu ni gaafanna.


Nagaa Wajjin

Collochia Arsi Aana D/Tijoo Ganda

Qo'balaa D/Arxabi Walda

Maree Kalfaa

Miseensoota koree itti fayyadamtoota bishaan jallisi

sofharirra kullaa

Lakk	Ata qawwan:	Ga'ee hojii	mallattoo	ibsa
1	Tusaa Wafsoo		Tusaa Wafsoo	
2	Kadiir Jamaa		Kadiir Jamaa	
3	Haadii Alqoodo		Haadii Alqoodo	
4	Ammaano Abdo		Ammaano Abdo	
5	Muhammad Hussen		Muhammad Hussen	
6	Tajuu Xabaa		Tajuu Xabaa	
7	Shihason Umar		Shihason Umar	

Guyyaa Miseensoota koree fayyadamtoota bishaan jallisi itti dhabbate _____



Hawiro

PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arssi Woreda Al D/Kirido Ganda D/Arabbis Goxi Arabbis

No.	Name of household	Age	Sex	Educ ation	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
2	Kadir Samaa	28	Shi	10		Oromiya muslima		1990		1/4	0915938084	
3	Amaree Abidoo	73	dh	4				1988		1/4	0910761369	
3	Hassie Alfoodiy	45	dh	4				1988		1/4		
4	Shi Amara Abimad	67	22	-				1988		1/4		
5	Jamaal Atemad	60	22	1				1988		1/4		
6	Tusaa Inashoo		22	-				1988		1/4		
7	Muhammad Hhussien		22	-				1988		1/4		
8	Kashoo Abidoo	70	22	-				1988		1/4		
9	Muhammad Kumer	54	22	1				1988		1/4		
10	Abdallaa Atimad	52	22	2				1988		2		
11	Manjaa Hhussien		22	-				1988		1/4		
12	Guboo Abidoo	54	22	1				1988		1/4		
13	Gannaa Hamdaa	56	22	3				1988		1/4	0965358011	
14	Shimustee Adam	39	22	5				1988		1/4	0928697386	
15	Shihaseen Umar	48	22	0				1988		1/4		
16	Xahiraa Hamdaa		22	-				1988		2	0927296513	
17	Tadiu Xahaa		22	-				1988		1/4	0924079037	
18	Muhammad Shi Amara		22	-				1988		1/4		
19	Leencoo Manjaa	29	22	5				1988		1/4	0986439464	
20	Aldaramoon Hhussien	35	22	7				1988		1/4	0938948268	
21	Aljabbar Hhussien	48	22	3				1988		1/4	0922296202	
22	Jibirrii Abidallaa		22					1988		1/4	093785208	
23	Edaluu H Manjaa		22					1988		1/4		
24	Gannalee Edaa	58	dh	2				1988		1/4	0910217680	
25	Abidallaa Tuhee		22					1988		1/4		
26	Albakor Amaraa	36	22	10				1988		1/4	0910759562	
27	Abuu Alfoodiy	35	22	0				1988		1/4		
28	Zenabaa Hhussien	45	dh	-				1988		1/4	0972985291	
29	Kinisoa Alfoodiy	28	dh	2				1988		1/4	092724432	

2

PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arsi Woreda Al Digalu Ganda'a D/Arabbu Goxi Arabbu

No.	Name of household	Age	Sex	Educ ation	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
30	Alduramaan Amaara	40	dh	7		oremite	musilima	2005		1/4	0922704690	[Signature]
31	Albaxar HIAbidulah	20	dh	6		oremite	musilima	2005		3/4	0924586004	[Signature]
32	Yusuf HIAbidulah	23	dh	1				1995		3/4	-	[Signature]
33	Abuu HIAbidulah	40	dh	4				1986		3/4	-	[Signature]
34	Xahaa HImuhammad	60	dh	2				1994		3/4	-	[Signature]
35	Jibiril Umar	30	dh	3				1994		3/4	0924586005	[Signature]
36	Hawulo Faysal	40	dh	-				1994		3/4	-	[Signature]
37	Abuus Hussein	30	dh	3				1997		3/4	-	[Signature]
38	Makidoo Abidulshah	35	dh	2				2005		3/4	-	[Signature]
39	Bakara Odoo	48	dh	5				1988		3/4	0927295830	[Signature]
40	Osaa Abida	54	dh	7				1980		3/4	0931253620	[Signature]
41	Aljabbar Hamda	30	dh	4				2002		3/4	0923042236	[Signature]
42	Huseen Tazuree	50	dh	4				1980		3/4	-	[Signature]
43	Shimssen Kumer	41	dh	-				2004		3/4	0946822241	[Signature]
44	Aljabbar Alqadir	42	dh	9				2005		3/4	0934286986	[Signature]
45	Huseen Alqadir	55	dh	1				1985		3/4	-	[Signature]
46	Yusuf HImuhammad	30	dh	1				1989		3/4	-	[Signature]
47	Amaara Kadu	55	dh	-				1987		3/4	-	[Signature]
48	Abiduroo Dubee	60	dh	-				1983		3/4	-	[Signature]
49	Fayuma Unsoo	45	dh	-				1988		3/4	-	[Signature]
50	Kumal Alqadir	38	dh	-				1988		3/4	-	[Signature]
51	Ibrahim HImuhammad	39	dh	2				1988		3/4	-	[Signature]
52	Hussaan HImuhammad	40	dh	3				1988		3/4	-	[Signature]
53	Alduramaan HImuhammad	28	dh	10				1988		3/4	-	[Signature]
54	Zarihun Mamma	30	dh	2		Ameranya	Kiristen	1988		3/4	-	[Signature]
55	Damee Mamma	31	dh	3		Ameranya	Kiristen	1988		3/4	-	[Signature]
56	Hasafoo Halyee	39	dh	1		Ameranya	Kiristen	1988		3/4	-	[Signature]
57	Mamma Halyee	28	dh	2		Ameranya	Kiristen	1988		3/4	-	[Signature]
58	Buruk Hasaa	31	dh	2		Ameranya	Kiristen	1994		3/4	0944757152	[Signature]

W/H/Kulloo Harino

3

PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arsi Woreda A/D/Kulloo Ganda DIAYRabbii Goxi Arabbii

No.	Name of household	Age	Sex	Educ ation	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
59	Nadash Tafarraa	38	dh	5		Oromota	Kiristaan	1988		VA	-	M
60	Suteeman Himmammad	36	dh	4		Oromota	Muslima	1988		VA	-	S
61	Faxumaa Abidalla	40	du	-				2008		VA	-	
62	Shahyaa Hhusaliyaa	40	du	-				2008		VA	-	
63	Indaak War7uu	35	dh	8		Amara	Kiristaan	2006		VA	979592529	Shahyaa
64	Ham7i7aa Amancee	30	du	2		Oromota	Muslima	1985		VA	-	Ham7i7aa
65	ShiAbidusamad ShiAmuun	34	dh	5				1983		VA	-	ShiAmuun
66	Gishuu Absenaa	30	du	-				1988		VA	-	Gishuu
67	Umur Haidii	33	dh	10		Oromota	Muslima	2002		VA	0919 62 2250	Umur
68	Amuun Hussaan	35	dh	8				2002		VA	-	Amuun
69	Issaa Nashaa	33	dh	7				1988		VA	0932176030	Issaa
70	Daadi Hussaan	38	dh	10				1988		VA	-	Daadi
71	ShiMuhammad HiAbidullah	30	dh	-				2005		VA	-	ShiMuhammad
72	Abbaas Qasoo	35	dh	8				2006		VA	-	Abbaas
73	Kahir Sa'idhuu	40	dh	-				2004		VA	-	Kahir
74	Aljabuur HiAbidulle	35	dh	3						VA	-	Aljabuur
75	Jibiruu Abidallaa Almuud	32	dh	8				2005		VA	094978407	Jibiruu
76	Dafoo Abayuu	36	dh	-				1988		VA	-	Dafoo
77	Ababuu Kibirate	30	du	2		Amara	Kiristaan	2008		VA	-	Ababuu
78	Kadiu Gaboo	30	dh	-				2008		VA	-	Kadiu
79	Jamaaree Labuu	40	du	-				2008		VA	-	Jamaaree
80	Tateer Botuu	30	dh	5		Amara	Kiristaan	1988		VA	-	Tateer
81	ShiJismai Hamdaa	36	dh	6		Oromota	Muslima	2008		VA	-	ShiJismai
82	Kudayaa Alfoodix	37	dh	6				1988		VA	-	Kudayaa
83	Shebaa Hhusaa	45	du	1				2008		VA	0922282268	Shebaa
84	Alfoodix Jamaal	35	dh	5				2008		VA	-	Alfoodix
85	Kamaal Edaao	38	dh	10				1988		VA	-	Kamaal
86	Umur Edaao	32	dh	4				2002		VA	-	Umur
87	ShiOgessaa Edaao	36	dh	3				1988		VA	-	ShiOgessaa

PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arsi Woreda A/D/Kurdoo Ganda'a D/Ararabbii Goxi Ararabbii

13

No.	Name of household	Age	Sex	Educ ation	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
88	Yusuf Imrafoo	37	dh		5	oromifa	MUSLIM	1988		1/1		[Signature]
89	Hussein Datoo	32	ms		4	"	"	2005		1/1		[Signature]
90	Abdulk Datoo	26	"		5	"	"	2005		1/1		[Signature]
91	Adam Niyisi	30	"		3	"	"	2005		1/1		[Signature]
92	Bashir Aliyisi	45	"		-	"	"	1988		1/1		[Signature]
93	Amama Umox	35	"		2	"	"	2005		1/1		[Signature]
94	Musa Umox	46	"		2	"	"	2005		1/1		[Signature]
95	Hadii Alkadir B.	28	"		-	"	"	2005		1/1		[Signature]
96	Isirahin Qasoo	32	dh		7	"	"	1988		1/1		[Signature]
97	Dibabaa Adunoo	39	dh		9	Ararifa	Kiristoon	2006		1/1		[Signature]
98	Jamaal Gubaroo	35	dh		5	oromifa	MUSLIM	2006		1/1		[Signature]
99	Sadii Umox	40	dh		10	"	"	1988		1/1		[Signature]
100	Muhammad Wazoo	25	dh		3	"	"	2005		1/1		[Signature]

Annex 3.4: Lukkoota Water Users Association Application

3/12/2008
Wajjiraa Abbaa Talitaa Misooma Anaa D/ Xiisoofo
IYYaataa Saguuree
Dhimmi IYYaannoo Nuuti: Miseensoonni Waldaa
Salusi: Lukkootaa Gandaa Digaluu Atrobba
Bishaan Salusi: Bara 1985 laGaa Abshigaa
Jedhamuu irraa kan Bahee Yoota'uu
kan itti fayyadama turre Maala Aduutiin.
Raakkeo hammaata kan ta'ee lafaa urree
Bolla Keessa Kejjadi ta'uun kan Nurakisee ha-
Feedhi Miseensoo waldaa Keenyaa Salusin
kun Gataa Ammayyaatti akka nuuf oijjiire
mu barbara.
Baayinni Miseensoo waldaa Salusi: Lukkootaa
Namaa 80 Yoota'u isin wajjirri
Misoomaa Salusi: GarGarsaa akka nuuf
Gootan Kabajaan isin beeksitna.
N/wajjirin.



Luxxoto

①

PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arsi Woreda Dixiso Gandaa Ararabbi Goxi Gaalama

No.	Name of household	Age	Sex	Education	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
1.	Abisost Ballaxaa	20	dh	20		Oromia	Kirsitan	1998		1	0910269682	[Signature]
2.	Saanuu Battee	62	dh	4			Muslima	1985		2	-	[Signature]
3.	Bakayee Gumbii	35	dh	5			Kirsitan	1985		1	0923222287	[Signature]
4.	Abbabaa Darsee						Kirsitan					[Signature]
5.	Demisse Darsee											[Signature]
6.	Kabbada Herdoofa											[Signature]
7.	Abdiraqaas	40	dh	2			Muslima	1985		1/3	-	[Signature]
8.	Tessa Gammachuu											[Signature]
9.	Hass Gammachuu											[Signature]
10.	Baddaada Herdoofa	20	dh	-			Kirsitan	1985		2	0923513238	[Signature]
11.	Sibir Amaan	42		4			Muslima	1985		1/2	0923695534	[Signature]
12.	Fubbee Sadoo	65		1				1985		2	-	[Signature]
13.	Goosa Tusuu	57	dh	5				1985		2	0949309645	[Signature]
14.	Shaloo Gaadu	30	dh	2			Kirsitan	2007		1/2	-	[Signature]
15.	Jamaal Amaan	43	dh	1			Muslima	1985		1/2	-	[Signature]
16.	Kadir Gunaa	30	dh	4				1985		1	091044052	[Signature]
17.	Muhammad Gumbii	30	dh	7				1985		1/2	-	[Signature]
18.	Muhammad Gooban	23	dh	9				2005		1/2	0923838287	[Signature]
19.	Gooban Sime	25	dh	-				1985		2.1/2	-	[Signature]
20.	Xahyoo Gooban	50	dh	4				1985		2	-	[Signature]
21.	Abisii Bashiroo	22	dh	7				2002		1/4	-	[Signature]
22.	Xahyoo Gammachuu	55	dh	4				1985		2	-	[Signature]
23.	Muhammad Gammachuu	25	dh	6				2005		1/2	094385270	[Signature]
24.	Jaboo Kenna	25	dh	5				2007		2	0923225270	[Signature]
25.	Gannale Basim	42	dh	-				1985		1/3	-	[Signature]
26.	Hass Saanuu	40	dh	6				1985		2	-	[Signature]
27.	Gammachuu Battee	70	dh	3				1985		2	-	[Signature]
28.	Abisii Gammachuu	36	dh	2				2002		1/4	-	[Signature]
29.	Alsabbaar Kaduu	44	dh	DiPP				1985		2	-	[Signature]



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PLANET INTEGRATED WATER RESOURCES DEVELOPMENT (Beneficiary households data)

Address:- Zone Arsi Woreda D/Xijee Ganda'a D/Artaabbi Goxi Gwalama

No.	Name of household	Age	Sex	Education	Ethnicity	Language	Religion	Year of residence	Disability (physical)	Land holding (he)	Address (phone)	Signature
30	Ayyalaa Zallafaa	45	dh	2	Oromia	Kiristaan	1988			1	-	G.P.H.H.E
31	Warkuu Dabalee	85	2				1985			2	-	D.G.P.P.O
32	Tsahay Zallafaa	47	dh	2			1988			1	-	D.H.P.H.H
33	Musaaafa Saaruu	39	dh	8		Muslim	1985			2	093494880	Musaaafa
34	Alamu Warkuu	27	dh	8		Kiristaan	1992			4/2	-	Alamu Warkuu
35	Girma Darsse	40	dh	9			1985			1-4/2	0934941265	Girma
36	Kasabee Kabbadaa	60	dh	-			1985			1	-	Kasabee
37	Baanaa Abbadaa	24	dh	10			1992			4/4	0915826782	Baanaa
38	Taddasaa Tamarissee	38	dh	3			1985			1-4/2	0932130821	Taddasaa
39	Masaaala Marji	28	dh	7			1997			1/2	0932102847	Masaaala
40	Sabbataa Shurru	30	dh	9			2001			200/2	0910408412	Sabbataa Shurru
41	Abarraa Kasabee	36	dh	5			1985			1/2	-	Abarraa
42	Asaffaa Zallafaa	40	dh	3			1985			1	0912828292	Asaffaa
43	Midhaksii Warkuu	25	dh	6			2004			4/4	0928034286	Midhaksii
44	Taddasaa Hardeefa	35	dh	3		Kiristaan	1985			1/2	0928530210	Taddasaa
45	Shurru Hardeefa	58	dh	-			1985			1	-	Shurru
46	Ahivu Kaduu	55	dh	4		Muslim	1985			2	0927325310	Ahivu
47	Abduwaddan Abbuu	24	dh	10			2000			1-4/2	0921729417	Abduwaddan
48	Shal Wabarii Baarrechuu	38	dh	10			1995			1/2	0924093097	Shal Wabarii
49	Allaahyi Bashiroo	18	dh	4			2008			1/2	-	Allaahyi
50	Allaahyi Tarsuu	60	dh	2			1985			2	-	Allaahyi
51	Shal Kamaal Kaduu	55	dh	5			1985			2	-	Shal Kamaal
52	Shal Abduwaddan Baarrechuu	27	dh	4			2007			1/2	-	Shal Abduwaddan
53	Kadiir Husein	25	dh	4			2008			4/2	-	Kadiir
54	Madihaa Warkuu	60	dh	-			2002			2	-	Madihaa
55	Buzinash Tamarissee	65	dh	-		Kiristaan	2008			1	-	Buzinash
56	Nuraddin Bumbii	25	dh	5		Muslim	2008			1/2	-	Nuraddin
57	Kamaal Kaduu	25	dh	5			2008			1/2	-	Kamaal
58	Asiiruu Kaduu	28	dh	5		Kiristaan	1995			1/2	-	Asiiruu



