

DESCRIPTION OF STUDY AREA

Ethiopia is one of the Sub Saharan countries found in the Eastern Africa commonly known as "The Horn of Africa". It has a total area of 1.1 million square KMs and have an estimated population of around 90 million with a growth rate of 2.9% which makes the country the second largest in total population number next to Nigeria (CSA, 2015). Topographically and geographically, the country is located in the tropics and is well famous for its diversity in natural resources mainly as a result of variations in the altitude and physical conditions. Large portion of the country is covered by high plateaus and mountain ranges, besides there are also wide ranges of rivers and lakes which are a major tributaries of famous rivers; like Blue Nile (Abay), Awash, Omo, Tekeze, Baro etc. Climatically, there are three prime climatic sets in the country; rainy, warm temperate and dry climates, where the minimum and maximum temperatures range temporally and spatially (EGP, 2015)

Historically, in the 1950's and 1960's in an era of African scramble and colonial times, Ethiopia was the only country which has kept its independence patriotically from colonial fascism rules of Italian expansionists. In the biography of Nelson Mandela (1994), he noted down;

" Ethiopia was the birthplace of African nationalism "...." Ethiopia has always held a special place in my own imagination and the prospect of visiting Ethiopia attracted me more strongly than a trip to France, England, and America combined. I felt I would be visiting my own genesis, unearthing the roots of what made me an African. Meeting the emperor himself would be like shaking hands with history"

The country is also well famous for its active role in African affairs, especially as a founding member of the United Nations and Organization of African Union (OAU). In concomitant to the above, its capital city Addis Ababa was serving as a seat for the OAU and is still serving for the newly established OAU, i.e. AU consisting of 54 African states except Morocco (EGP, 2015). Additionally, the current Prime Minister of Ethiopia; Hailemariam Desalegn is chairing the highest decision making organ of the Union which is the Assembly of the African Union (Tiina I., 2013).

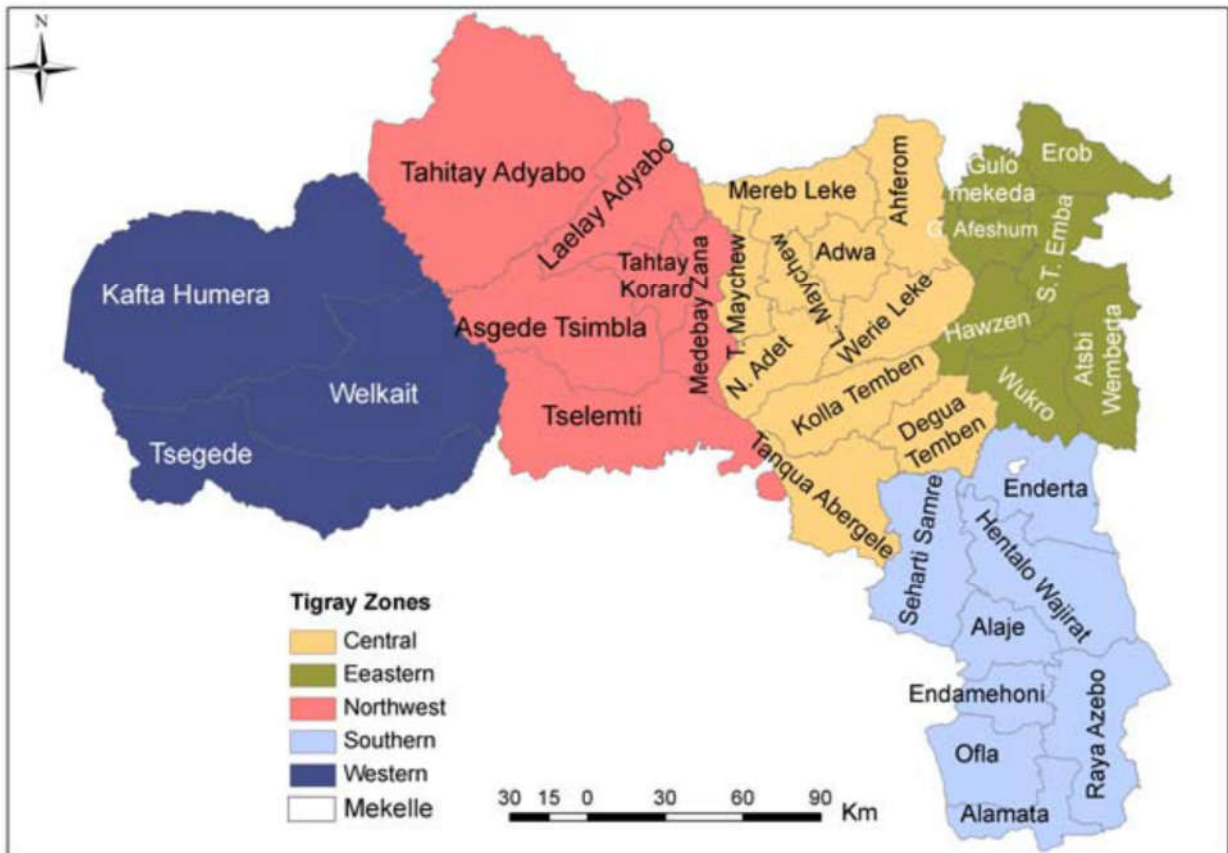
Moreover, in Ethiopia since the 1970's, there are three major changes in the administrative political boundaries within the country. In general, the country has been ruled by different successive authoritarian rulers and feudal kings till the mid of 1974. Following that year, a military government (Derg Regime) took over the power by force and led the country until May 1991. After the fall of the Derg regime in May 1991, the present federal system of government took over the power. The new structure of the government was made up of two well-built tiers of a parliament: The House of the Federations and The House of Peoples' Representatives.

In the year 2002, the country officially launched a District Level Decentralization Program (DLDP) with main objectives designed for the devolution of power, enhancing the democratization with a strategy of a broad based participation, institutionalization of viable centers for development and promotion of good governance and better service delivery (Mulugeta D., 2012). Currently, the country is structured administratively into nine regional states; Tigray, Amhara, Somali, Afar, Oromia, Benishangul-Gumuz, Harari, Southern Nations Nationalities and peoples and additional of two special zone city administrations; Addis Ababa and Dire Dawa Council Administrations.

Study Area Description

Tigray region is situated in the northern part of Ethiopia at 12° 15' N and 14° 57' N latitudes 36° 27' E and 39° 59' E longitude. The region approximately covers 53,638 Km² with an altitude varying from 500 meters in the northeast to 4000 meters above sea level in the southwest. The region shares borders with Sudan on the west and Eritrea on the north and Afar and Amahara regional states on the east and south respectively. The region is divided into 7 administrative zones, 48 Woredas, 550 Tabias and more than 3600 Kushets with 74 towns. The climate in the region varies from semi-arid (Kola) to warm temperature (Woina Dega) and temperate (Dega) with an average annual rainfall between 450 to 980mm (CSA³, 2013). The zones include Eastern, Southern, Central, North Western, Western, South-eastern and capital of the region: Mekelle city. *Kushets* are the lowest unit in the administrative hierarchy of the region. From the total population of the region, majority 3,471,733 live in the rural areas of the region whereas the rest 842,723 live in urban areas. Out of these population 444,651 female and 398,072 male are estimated to be urban inhabitants, whereas 1,744,952 female and 1,726,781 male of the population are estimated to be rural inhabitants (CSA, 2007).

Figure 3.1 Administrative map of Tigray regional state



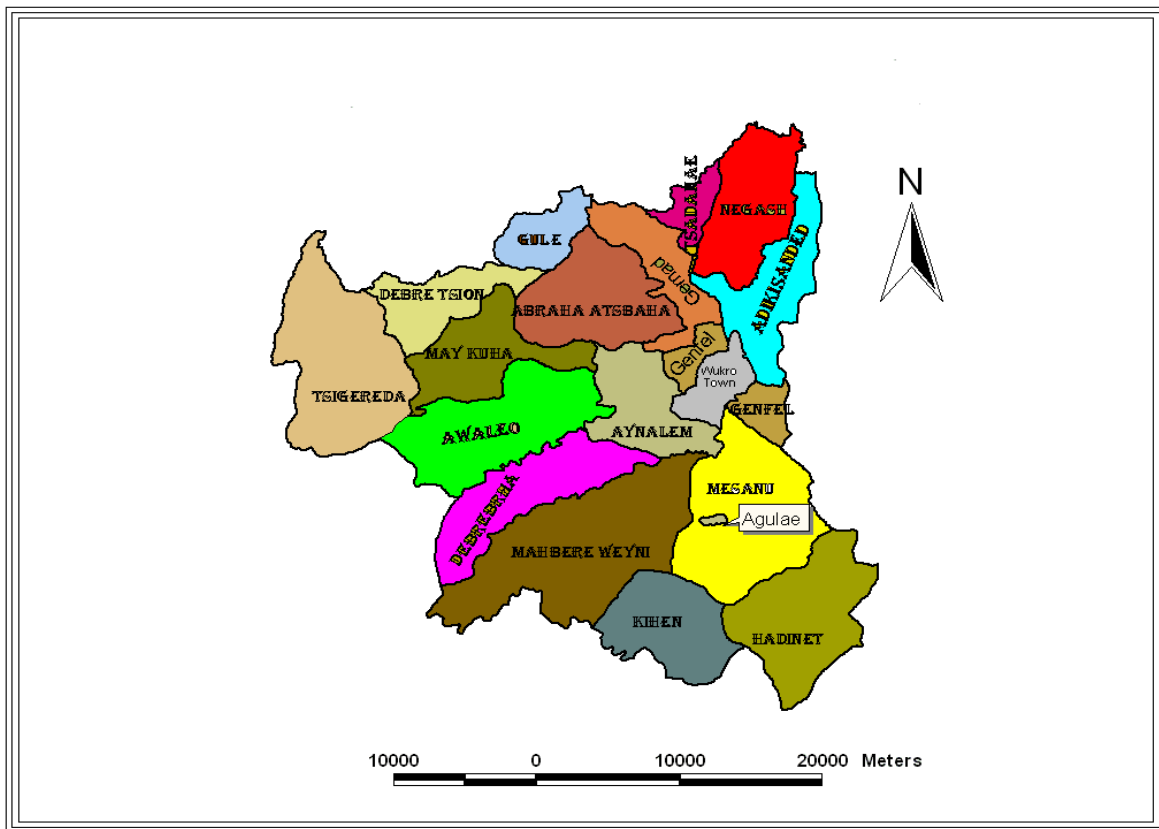
Source: Bureau of Planning & Finance Tigray Region (2015)

In the region, there has been witnessed a remarkable development in access to transport, education, credit facilities and extension services as compared to the pre-1991 situation. Furthermore, communities and local NGOs play an important role in developing resource for infrastructural development of the region. Economically, agriculture is the backbone of the region's economy where about 85% of the population depend on rain fed subsistence agriculture. Crop production is majorly done by employing oxen as sources of drafting power for ploughing. Except in some areas that produce surplus in times of good rainfall, the rest produce either enough or subsistence during good rainfall seasons or face food deficit. The major causes for structural food deficit consist low soil fertility, environmental degradation, inadequate rainfall, lack of appropriate

technology, high exposure to pests, fragmented and small size farmland holding, lack of oxen, lack of economic activities diversification and limited use of modern inputs (Arega B., et. al., 2013)

The study's focal area Kilte Awlalo woreda is located at a distance of 825 km north of Addis Ababa (the capital city of Ethiopia) and 45 kms North of Mekelle, the capital of Tigray. According to the CSA (2013), the *Woreda's* population is estimated to be 114,001 of which 51% are female and 49% male.

Figure 3.2 Map of Kilte Awlalo Woreda



Source: Bureau of Planning & Finance Tigray Region (2015)

Topographically, the *Woreda* has a relatively better and comfy land form with undulating gentle slopes with ranging altitudes of 1919 to 2390 meters above sea level. The area of land under cultivation covers about 21620ha, grazing land 7930.8ha and area closure 44134ha. Protected

forest land in the *Woreda* has reached 42% in coverage. Agro-ecologically, the *Woreda* is classified as mid land (*Weina Dega*) with a temperature ranging between 17.25c° and 28c° and annual average rainfall of 350-450 mm where in most cases the main rainy seasons extends from June-August. The *Woreda* is comprised of 18 *Kebeles*, with a total of 24,583 households of which 40% are female headed and the rest are male headed households (Bureau of Planning & Finance Tigray Region (2015)).

Agriculture is the main economic source of the community; about 95% of the population of the *Woreda* depend on agriculture practicing mixed farming; livestock husbandry and crop production simultaneously. The existing farming system is dominantly dependent on rain fed production, which is unreliable and erratic. The situation is more aggravated by limited use of improved agricultural inputs and high dependence on limited types of crop productions. The major crops grown in the *Woreda* are wheat, Barley and *Teff*, and vegetables like tomatoes, potatoes, carrots, onions and pepper.

Table 3.1 Dominant crops and their coverage in Kilte Awelalo

No.	Dominant crops	Coverage (%)
1	Wheat	34.2
2	Sorghum	26.8
3	Barley	14.49
4	Teff	7.27

Source: Bureau of Planning & Finance Tigray Region (2015)

The total area of Kilte Awlaelo Woreda is estimated to be 101,757.63 ha, out of which 21% is cultivable. The land tenure system in Kilte Awelalo (locally known as Wukro) is based on the new Ethiopian constitution of the 1994 which states all land is a property of the state and it may neither be mortgaged nor sold. Moreover, the constitution guarantees rights of individuals for the

improvements they do on the land including the right to transfer, use, claims for compensation and removals. In addition to this, the government has put into practice a long term and short term strategies to decrease pressures on land and for land fragmentation. The short term strategies mainly provide vocational and technical trainings for the landless youth to enhance their off-farm employability and to encourage voluntary resettlements.

In the region, the new land policy was implemented in 1997 which states that there would be no further land redistributions except in cases where major infrastructural developments like irrigation and others necessitates it. After all the efforts exerted by the government, yet there are notable number of households who are landless or holding undersized lands in the *Woreda*. Besides, the average farmland holding size per household is 0.62ha which is relatively small as compared to the regions average farmland holding size. About a total of 4230 households; male headed 3244 and female headed 986 are currently landless in the *Woreda*. The *Woreda* has potentials and opportunities including coble stone production and installation, selling sand and other types of stones, irrigation works etc. majorly for the landless youth (Bureau of Planning & Finance Tigray Region, 2015).

In addition to this, agricultural extension workers and development agents have been assigned by the Agricultural and Rural Development Office of Kilte Awelalo *Woreda* and the general rule is that there should be at least one development agent in each *Kushet*. In the study areas, there are three development agents each and one Food security and Early Warning coordinator for the *Woreda*. In addition to this, there are extension workers who are engaged in the fields of crop production, home economics and livestock production to assist smallholding farmers. According to the Agricultural and Rural Development Office of the *Woreda*, it has been noted that over grazing, over use of farmland, erratic rainfall and traditional farming techniques as

major dilemmas faced. Moreover, it was noted that crop and livestock production dominate other economic activities in the area. Especially in case of livestock, cattle, goats and sheep predominate the area coupled with some poultry and apicultural activities.

Livestock rearing in the *Woreda* has been an integral component, yet its productivity has been largely constrained by various factors like shortage of grazing land, livestock diseases and limited breeding technologies. Shortage of feed mainly arose from the absence of an improved livestock feed management, overgrazing and inadequacy of veterinary clinics. The major animal diseases include black leg, foot and mouth diseases, fowl pox, new castle diseases and the epidemic diseases include bovine and ovine and rabbis. The major animal health service challenges include shortage of materials like medicine and drugs, lack of experts, lack of qualified health service constructions and lack laboratory. Currently, there are about 61,854 cattle, 22,803 sheep, 27,746 goats, 118 horses, 357 camels, 55,442 hen and 12,673 donkeys (Bureau of Planning & Finance Tigray Region, 2015).

Regarding markets, market centers are places where the traders and smallholding farmers meet in a chosen open place with goods exhibited on the ground in most instances. The major market center is located in the center of the town in Kilde Awelalo coupled with smaller markets in the villages. The major products supplied by the smallholding farmers include staple crops and livestock products. In addition, dairy and apicultural products, wood, potato, tomato and others are supplied majorly to the main market in the town. In return, the smallholding farmers take back consumable products such as foods, oil, soap, kerosene etc.

With regard to other infrastructural facilities in the *Woreda*, although there are improvements that are taking place in the development of public infrastructures supplies such as

schools, roads, drinking water, health centers, credit service, power supply etc. and their fundamental situation is by far from adequate. Worsened situations like this are more witnessed in cases like safe drinking water supply, health services and power supplies. Due to limitedness of safe drinking water supply, several smallholding farmers are forced to use nearby rivers and unprotected ponds for household use which has been persistent mainly due to shortage of ground water and springs. This has also led women and children to travel an average of 3 hours to get to the nearest protected water supply, if any. Currently there are about 1 municipal hospital, 4 clinics and 6 veterinary health posts. Regarding road infrastructure, the coverage and access of road in the *Woreda* has reached approximately 68.8% which is about 568.85Kms including all weather roads.

With respect to the educational sector, there are 24 elementary, 34 mid-school (grade 5 to 8) and 3 high schools in the *Woreda*.

Table 3.2 School Enrollment and drop outs in the *Woreda*

No.	Year	Enrollment rate			Drop out		
		Male	Female	Total	Male	Female	Total
1	2010	13508	13367	26875	467	285	752
2	2011	8796	14174	22670	535	392	927
3	2012	15132	15202	30334	137	106	243

Source: Bureau of Planning & Finance Tigray Region (2015)

In the *Woreda*, there has been seen uneven distribution of schools, aging of most schools and lack of school furniture bearing an adverse effects on the quality of education & enrollment rate of school age children. Furthermore, most of the schools are at midlevel (grade 5 to 8) which discourages students from poor background families to pursue further education. In similar lines,

Bureau of Planning & Finance Tigray Region (2015), revealed that there is a high shortage of educational materials, overcrowding of classrooms & shortage of teachers.

In addition to this, there are about 17 service cooperatives in the *Woreda* who are engaged in providing various services for the smallholding farmers majorly related with storage, market linkages and provision of agricultural inputs. There are about 3728 female and 9721 male beneficiaries under the 17 service cooperatives. Moreover, there are about 12 micro institutional service cooperatives with 428 beneficiary members. The major challenges faced by the service cooperatives include lack of awareness by the smallholding farmers and lack of market access. In line with this, limitedness of storage units is also a challenge. It was found that there were only 3 service cooperatives with storage units. Accordingly, the *Woreda's* administrative unit of planning and finance is working to scale up the services provided by the cooperatives through awareness creation, credit facilities and strengthening and establishing unions (Kilte Awelalo Planning and Finance, 2015).

Moreover, there various non-governmental organizations working with the cooperation of the *Woreda* administration under various areas. The following are the major NGOs which are actively engaging for the better welfare of the smallholding farmers in the *Woreda*.

Table 3.3 NGOs and their major activities in Kilte Awelalo

No.	NGOs	Area of intervention	Major activities
1	World Vision	Health	Improving health status of Community
		Education	Improving Education status of Community
		ARD	Increasing Agricultural production
		Water mining energy	Water and sanitation
2	Orthodox	ARD	Natural resources management
			Improving Agricultural productivity

		Education	Improving Education status of Community
		Health	Improving health status of Community
3	St. Marry	ARD	Gully Rehabilitation
4	Elshaday Relief	Orphanage	Protection of orphans

Source: Bureau of Planning & Finance Tigray Region (2015)

As can be seen from the above table, the major nongovernmental organizations who are engaged in various activities to develop the Woreda has been engaging in their works for more than a decade. Their services coupled with the concerned bodies of the government have been changing the lives of the needy as well as the smallholding farmers positively.

Conclusion

Tigray regional state is one of the regional states in the Federal Democratic Republic of Ethiopia. The region has a full autonomy to administer the overall social, economic and political development of the five Administrative zones North Western, Western, Central, Southern and Eastern zones. The region is one of the highly food insecure areas in the country where the number of food insecure *Woredas* has increased from 16 to 31 from 1995 E.C onwards. Various initiatives have been taken by governmental and nongovernmental bodies such as integrated family based packages and rigorous works of afforestation to transform the situation faced by the region. Major challenges such as climatic conditions, population pressures, infertile land, hindrances with governmental policies and implementation of programs stand as a huge dilemma in the food security and livelihood condition of households in the *Woreda*.