



# GOVERNING CLIMATE MOBILITY: A SCOPING STUDY OF TWO LOCALITIES IN ETHIOPIA

Dessalegn Rahmato, Zerihun Mohammed, and Neil Webster with support  
from Kefyalew Sahle, Andnet Gizachew, and Adane Alemayehu

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## **LIST OF ABBREVIATIONS, ADMINISTRATIVE UNITS AND LAND TYPES**

Awraja	Sub-provincial administrative region
Belg/Meher	The short rainfall season in March and April
Dega	Highland
Derg	Government (military) under Mengistu Haile Mariam, 1974-1991
FSS	Forum for Social Studies, Addis Ababa. (GCM research partner)
GEE	Google Earth Engine
GMC	Governing Climate Mobility research programme
Kebele	Sub-district administrative unit
Khat	Also spelt Qat, an addictive plant grown and consumed as a stimulant
Kirent	The long rainfall season from June to early September
Kolla	Lowland
Meslene	Sub-woreda administrative unit
MoA	Ministry of Agriculture
NGO	Non-government organisation
PSNP	Productive Safety Net Programme
Woreda	District administrative unit
Woyna dega	Mid-level land

## **ABSTRACT**

Climate change is widely expected to produce new and/or intensified mobility patterns, including migration and displacement. However, research on the relationship between climate change and human mobility is limited, especially regarding the roles of governance and interventions in shaping mobility responses. The Governing Climate Mobility (GCM) Research Programme seeks to address this gap by examining the relationships between climate change, mobility and governance in Ghana and Ethiopia. This DIIS Working Paper is a scoping study of the programme's case-study areas in the South Wollo and West Arsi Zones in Ethiopia. It provides data and analysis on a range of relevant environmental, socio-economic, governance and mobility characteristics that are present in each locality. This includes multi-decadal analyses of changes in temperature, rainfall and vegetation, links between them and how they are experienced locally, and existing contexts of governance and mobility. It builds on a previous GCM working paper on the historical links between climate, mobility and governance in Ethiopia (DIIS WP 2020: 05) and identifies the key dynamics of mobility, climate change and governance that can be taken up in forthcoming studies within the GCM programme.

## **INTRODUCTION**

The Governing Climate Mobility research programme (GCM) is undertaking field research in two locations in Ethiopia, Shashemene Woreda in West Arsi Zone of Oromia Regional State and Tehuledere Woreda in South Wollo Zone of Amhara Regional State. Initially a scoping report was prepared separately for each of the two sites. In this DIIS Working Paper, the two scoping reports have been consolidated into one.

The Working Paper is structured according to the main geographical, administrative, social, climatic and environmental characteristics that are of importance to GCM's work. Grouping characteristics in this way is designed to aid future comparative work across the two study sites. At this stage, however, there is no specific attempt at comparison between the two localities.

FSS-affiliated researchers, who have existing detailed knowledge of both areas, led the work in both field sites. Relevant government and non-government organisations were consulted, key informants interviewed and data assembled from both primary and secondary sources. Examples of organisations visited include woreda and town administrations and a range of government offices, including those for Agriculture, Land Administration, Labour and Social Affairs, and Job Creation. NGOs active in the localities were also interviewed where possible. Secondary materials provide the main empirical basis for the Working Paper.

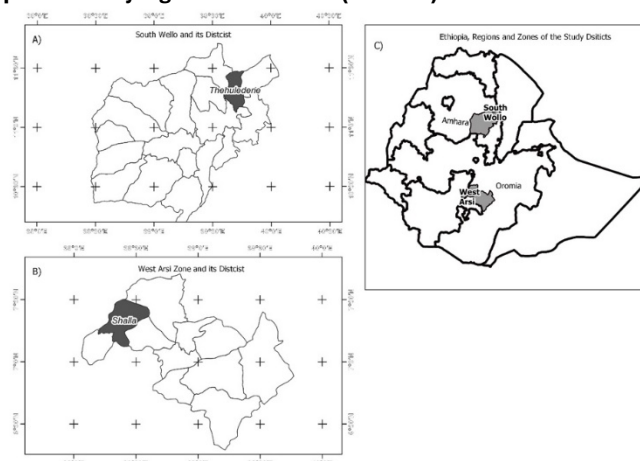
The Covid-19 pandemic has affected the work undertaken for this scoping study in the two field sites. In addition, political instability and conflict, primarily in the north of Ethiopia, has seriously restricted access to the Tehuledere field site. Despite this, the objective of the scoping study covering the two field sites remains one of mapping out the contexts in which the Governing Climate Mobility research programme collects survey data and conducts qualitative interviews. The Working Paper is therefore being published despite these difficulties, in order to provide contextual information and a point of reference for further studies currently under preparation.

## **GEOGRAPHY AND TOPOGRAPHY**

As stated in the introduction above, the GCM programme is being implemented in the Shashemene and Tehulederes Woredas of the West Arsi Zone (Oromia Regional State) and South Wollo Zone (Amhara Regional State) respectively. Figure 1 below shows the relative location of the two sites in relation to their regions and the country as a whole.



**Figure 1. Map of Ethiopia with study regions and districts (woredas)**

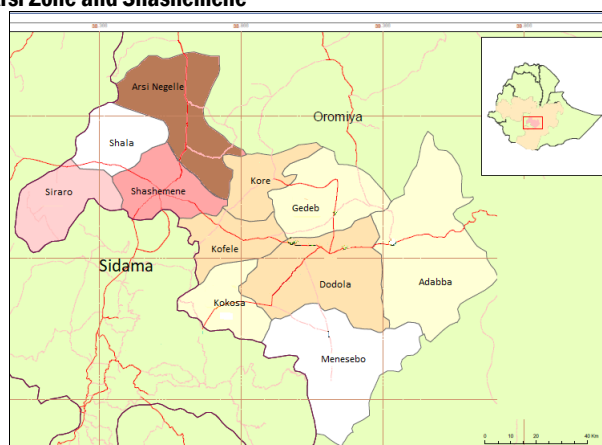


Source: Kefyalew, based on government sources.

## Shashemene

Shashemene<sup>1</sup> is located approximately 250 km south of Addis Ababa. It is situated on the road to Hawassa, the capital of Southern Nations Nationalities and People's (SNNP)<sup>2</sup> Regional State, and falls under West Arsi Zone of Oromia Regional State.<sup>3</sup> The total land size of the woreda is 59,586 hectares, of which the rural and urban parts of Shashemene measure 46,718 ha and 12,868 ha respectively (Berisa, 2012). It is bordered by Arsi Negele woreda to the north, Shalla and Siraro woredas to the west, Kore woreda to the east, Kofele woreda to the southeast and the newly formed Sidama Regional State to the south.

**Figure 2. Map of West Arsi Zone and Shashemene**



Source: adopted from Reliefweb<sup>4</sup>.

<sup>1</sup> For the purposes of this study, the name 'Shashemene' is used for both Shashemene town and Shashemene *woreda*.

<sup>2</sup> The Sidama Regional State, recently agreed to by the Ethiopian government after a referendum held in November 2019, will have Hawassa as its capital and SNNP will find an alternative capital.

<sup>3</sup> It is situated at latitude 7°12' north and longitude 38°36' east (7°08' N and 38°53') (Getahun, 1988).

<sup>4</sup> <https://reliefweb.int/map/ethiopia/ethiopia-acute-water-borne-disease-prevalence-west-arsi-zone-5-jun-2-aug-2006>.

Topographically, Shashemene is located in the Central Rift Valley, which is part of the Great African Rift Valley. The Central Rift Valley contains three large lakes called Ziway, Abyata and Langano. While the altitude of the Central Rift Valley falls between 1,600 and 3,000 metres above sea level, the elevation of Shashemene ranges from 1,672 to 2,722 metres (Tafero et al., 2006), its average altitude being around 1900 metres (Getahun, 1988).

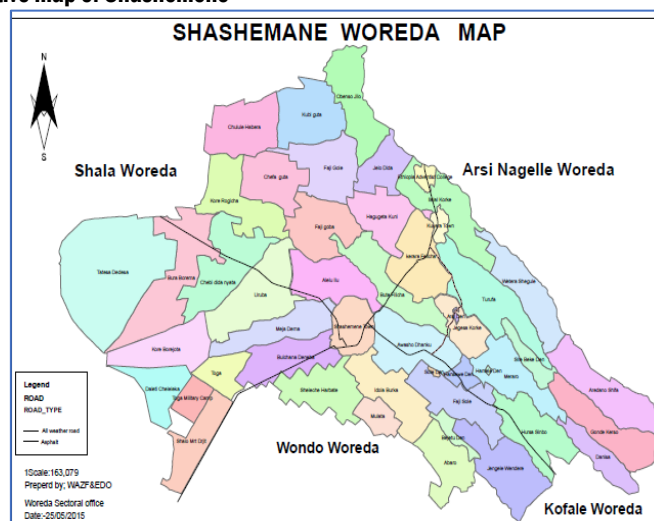
The majority of the mid-altitude and lowland parts of the woreda are flat and suitable for agriculture and farming. The highland areas are characterised by slopes of varying degrees. Table 1 provides a breakdown of land in the woreda by degree of slope.

**Table 1. Land slope categories in Shashemene woreda**

No	Slope (%)	Name	Area	
			(ha)	(%)
1	0 – 2	Level/flat	13489.26	17.33
2	2 - 5	Gently sloping	26828.65	34.46
3	5 - 10	Sloping	21223.88	27.26
4	10 - 15	Strongly sloping	7288.50	9.36
5	15 - 30	Moderately steep	7295.74	9.37
6	30 - 60	Steep	1525.09	1.96
7	> 60	Very steep	200.71	0.26

Source: Hunduma et al., 2016.

**Figure 3. Administrative map of Shashemene**

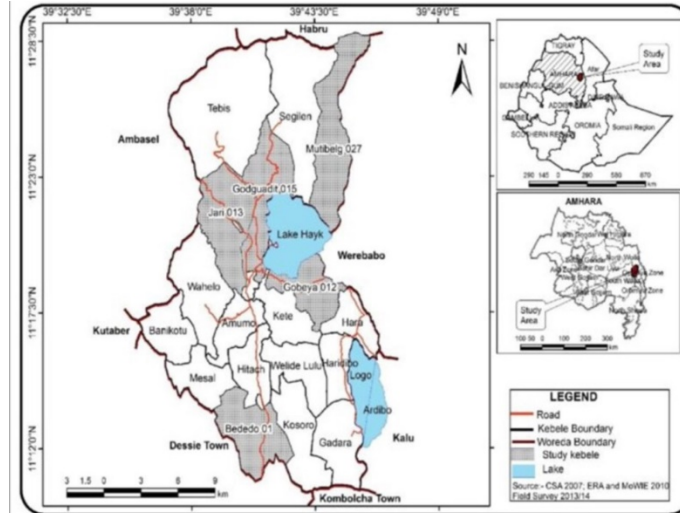


Source: Shashemene Woreda Department of Agriculture (2020) unpublished document.

## Tehuledere

Tehuledere woreda is one of the 21 administrative woredas of South Wollo Zone, bordered by Dessie Zuria to the south, Kutaber to the southwest, Mille River to the northwest and the north, Werebabo to the northeast and Kalu to the southeast. The area covered by the woreda includes the two lakes of Haiq and Ardibbo, which lie to the south of Haiq and form part of the border with Kalu (Workie et al., 2018: 4; see Figure 4).

**Figure 4. Map of Tehuledere woreda administrative area**



Source: Kahissay et al. (2018).

Topographically, Tehuledere woreda possesses quite diverse land types, ranging from mountains (26.4% of land area) and hills (48%) to plains (13.3%) and valleys (12.3%).

## POPULATION

### Shashemene

According to the 2007 census, the total population of Shashemene was 350,084, of whom 102,062 (29.2%) were inhabitants of Shashemene town, the remaining 248,022 (70.8%) residing in rural areas (CSA, 2008). Currently, the population of Shashemene town is estimated to be more than 339,981 (Tebarek, 2018). This significant increase in urban population has been the result of three interrelated factors. The first is the expansion of the town of Shashemene, which brought a substantial area under urban jurisdiction that had previously been rural. Secondly, increasing population growth in the region and the resulting shortage of farmland have contributed to a high rate of rural–urban migration. Thirdly, the relatively better service provision, infrastructure and opportunities that the urban environment offers has also attracted many better-off families from further afield, including from woredas in the Bale, Arsi and West Arsi zones to the town.

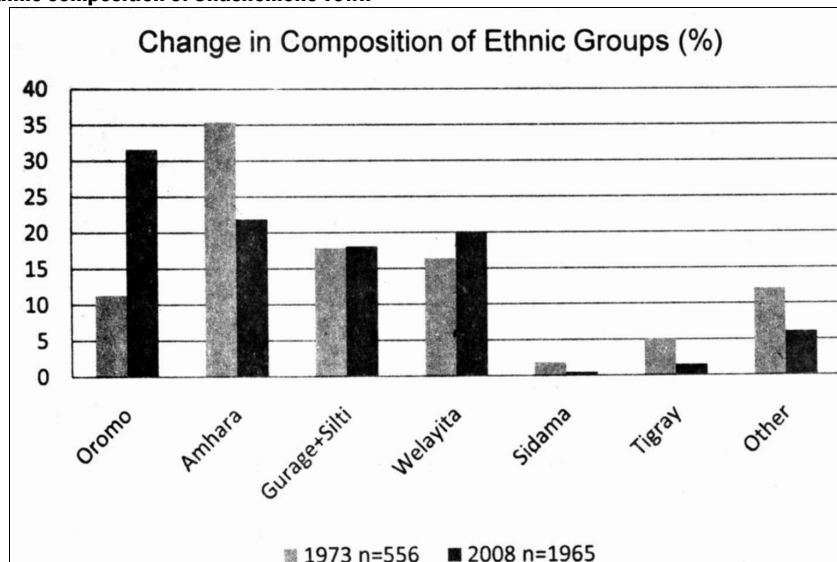
In fact, since 1960 Shashemene, particularly its urban section, has experienced significant demographic change in terms of both population size and ethnic composition. In 1965 the population of Shashemene town was around 7,500, growing to 11,900 in 1970 (Bjerén, 1985). This indicates an increase in the population of the town of 37% within five years. Bjerén’s study also found that the population growth rate of Shashemene in the 1970s was 9.8% per annum.

Similarly, the 1990s experienced a significant level of demographic increment, with the town experiencing population growth of 6% (Berisa, 2012). Accordingly, the

growth rates of the rural and urban areas have been 2.9% and 4.1% per annum respectively. In the case of the urban area, migration is identified as a major factor determining population growth in Shashemene town. In addition, the recent inclusion of some semi-urban areas under the town's administration has also played a part.

The other major feature of the population of the town of Shashemene is its ethnic diversity. The major ethnic groups that inhabit Shashemene are the Oromo, Wolayta, Sidama, Kembata, Hadiya, Amhara, Gurage, Siltie and Tigre. As the study conducted by Bjerén and Beyene (2009) shows, the ethnic composition of the town remained almost the same, though the numbers for each ethnic group showed significant changes. While the Oromo and Wolayita populations showed increases, the Amhara, Tigre and Sidama populations fell (Bjerén and Beyene, 2009). Most importantly, the demographic change regarding the Amhara and Oromo implies that the ethnic federalism introduced in 1991 has significantly impacted on the ethnic composition of Shashemene town, with the main shift occurring during the socio-political and economic developments that took place in the 2010s.

**Figure 5. Ethnic composition of Shashemene Town**



Source: Bjerén and Beyene (2009).

In addition to the town's highly complex ethnic composition, Shashemene also has a substantial Eritrean community. They were given land at Melka Oda as reward for their contribution to the struggle for the unification of Eritrea with Ethiopia in the 1940s. The late Emperor Haile Selassie also granted land to Rastafarians, who migrated to Ethiopia mainly from Caribbean countries, on the outskirts of the town. The size of the community has continued to increase ever since.

### **Tehuledere**

There has been considerable population growth in this woreda, but unfortunately it is difficult to show the growth rate over the years because the woreda boundary has been redrawn on several occasions. For example, the 1984 census data for Tehuledere shows a rural population of 152,508, with Haiq, the main town,

containing 5,000 inhabitants (Rahmato, 1991: 71). On the other hand, the 2007 census puts the total population of the woreda at 117,877, of whom 59,300 were men and 58,577 women. A recent report by the Amhara Regional Office estimates Tehuledere's population at 174,000 inhabitants, with a population density of 351 per km<sup>2</sup>, making it one of the most densely populated woredas in the Amhara Region (Adugna 2018, CSA 2011).

The growth of Haiq town provides a better picture of the demographic changes. According to the information provided by the town's planning office, Haiq town now has a population of 49,389, but ten years earlier the figure was 35,000, and in the 1980s it was considerably lower. Like all small towns in the country, Haiq is both rural and urban in nature and attracts migrants from other parts of the woreda or the zone, as well as further afield.

In terms of religion, the population of the woreda is predominantly Muslim (over 90%), with Christians making up a small minority (less than 10%). Some reports indicate that the woreda experiences a high degree of migration to the Gulf states, particularly Saudi Arabia. Many informants believe that religious affinity is one of the main factors for the high degree of migration from the woreda to the Arab countries, which has been going on for quite some time.

## **ADMINISTRATIVE STRUCTURES AND ECONOMIC ACTIVITIES**

### **Shashemene**

Historically, the emergence of Shashemene is associated with political developments that took place in the late nineteenth century (Getahun, 1988). The subjugation of the Aris Oromo in the late 1880s paved the way for the establishment of Shashemene as a political and later commercial centre for the newly created state structure. In the beginning, Shashemene served as a garrison town for the expanding army of Menelik II and subsequently developed as an important centre for commerce and trade.

Shashemene fell under several different administrative regions after its incorporation into the modern Ethiopian Empire. Initially, it was a part of Kembata Awraja in Arussi province and had the status of a meslene (sub-woreda). Then, in the post-1941 period, it was moved to Chilalo Awraja in the then Arussi province. After a further two decades (in 1959/60), Shashemene was upgraded to woreda status and became part of Hyqoch and Buttajira Awraja under the then Showa Province (Getahun, 1988).

During the brief restructuring period of the Derg in 1987, which divided the country into five autonomous and twenty-five administrative regions, Shashemene was put under South Showa Administrative Region. Later, following the new ethnic- and linguistic-based restructuring of the federal regions, Shashemene became part of East Showa Zone of Oromia Regional State. Currently, it comes under West Arsi

Zone of Oromia Regional State, the town of Shashemene serving as the Zone's headquarters.

Since 2003, Shashemene has been divided into two administrative entities, namely Shashemene town municipality and Shashemene woreda. As the name indicates, the town administration is led by the municipality and is responsible for the urban part of the woreda. It is organised into eight sub-cities, namely Awasho, Abosto, Dida Boke, Bulchana, Burqa-Gudina, Arada, Alelu and Kuyera. Each sub-city is further divided into kebeles. Kuyera derives from a rural peasant association recently incorporated as a sub-city, and currently there are eight more rural kebeles that are in the process of being transferred from Shashemene woreda to the town administration. The town is administered by a mayor and its own elected Council of Representatives, a court and a cabinet, the latter forming the executive. The three government organs are also duplicated at the sub-city and woreda levels, though the name of this administrative organisation differs as the level changes. Despite being located within West Arisi zone, unlike Shashemene woreda, the town administration is accountable to the Oromia Regional State, while Shashemene woreda comes under West Arisi Zone. The woreda is divided into 37 rural kebeles, and its administration is organised into sector offices.

Economic activities in Shashemene can mainly be grouped into three major categories: agriculture, trade and the service sector. The urban economy is dominated by trade and service-sector activities, while agriculture is the primary economic activity in the rural area.

Much of Shashemene is located along the main Addis Ababa–Hawassa road, and the town's economic activities have long been centred on the presence of a good road infrastructure. This is directly linked to the strategic location of Shashemene at a junction for routes to Bale, Arsi, Sidama and Wolayita localities. The town can be regarded as the gateway to and centre of a significant region for the production of cash crops. Since the construction of the major road linking Addis Ababa to Moyale in 1932, the economic significance of Shashemene has grown even more. Currently, Shashemene serves as a route not only to Moyale but also to Hawassa, the political and economic capital of SNNP and of the newly established Sidama Region. As such, Shashemene town is seen as a centre of rapid economic growth due to its location and importance to the region's economy.

In rural Shashemene, more than 80% of the total labour force is engaged in agriculture, producing a variety of crops, including maize, potato, teff, wheat, barley and haricot beans. In some parts of the woreda where there is sufficient water, farmers produce vegetables such as beetroot, carrot and cabbage using small-scale irrigation.

In both the urban and rural parts of Shashemene, youth unemployment has become a recurrent problem, leading to economic, social and political pressures on many households, on the woreda administration and on the government generally. According to the Central Statistics Agency (2018), the unemployment rate in

Shashemene town is 30.2%, one of the highest in the country.<sup>5</sup> The data show that only 38,807 were registered as employed in 2014 and 48,074 in 2018. Most importantly, the percentage of the employed population, which was around 32.9% in 2004, has fallen dramatically to 17%, the majority active in the formal sector.<sup>6</sup>

In both urban and rural areas, at least in theory, the government is still considered to be the institution with responsibility for the creation of jobs for the young unemployed. As in other parts of the country, the Office of Small- and Medium-Scale Business Development is responsible for facilitating job creation by organising micro- and small-scale enterprises and cooperatives, facilitating loans for new start-ups and establishing market links. This scheme has helped considerable numbers of unemployed youth to start their own small enterprises in the area, for example, in carpentry and metalwork, hairdressing and the production of construction materials. Given the magnitude of the problem, however, the scheme has not solved the unemployment crisis in Shashemene. The scheme has been criticised for its rigidity in the way it requires young people not to engage in businesses outside a predetermined list of jobs, a list applied to both urban and rural areas. The Office of Small- and Medium-Scale Business Development, on the other hand, has complained that young people are abusing the funds that have been provided by the government. Due to a lack of commitment and experience, there is a higher than normal rate of business failures among the beneficiaries of this scheme.

**Table 2. Employment status of Shashemene town's population (2014 and 2018)**

	Activity status		
	All persons	Employed	Unemployed
<b>2014</b>			
Total	97,053	46,315	10,540
Male	45,512	27,111	4,199
Female	51,541	19,204	6,340
<b>2018</b>			
Total	135,771	56,603	24,517
Male	64,939	34,808	8,945
Female	70,833	21,795	15,572

Source: CSA (2014, 2018).

Officers in the Shashemene Town Office of Small and Medium-Scale Business Development divide the young unemployed into four categories. The first category is of unemployed graduates who have completed their university or TVET education. The second category is composed of young people who were either born in Shashemene town or lived there for a long period of time but did not have a chance to join higher education institutions. The third group consists of young people who have migrated from either the rural part of Shashemene or other parts of Oromia. The fourth group includes people who migrated from other regions,

<sup>5</sup> These data do raise a number of questions. For example, how is unemployment being defined and registered, how long does one need to be present to be registered, and is it the responsibility of the individual to register? Women in the informal sector are not captured, nor is under-employment.

<sup>6</sup> This is based on official data, but who is registering and who is being registered remain issues.

mainly from SNNP, in search of economic opportunities. The government's job-creation scheme appears to be marginalising the fourth group, who, as a result, are generally engaged in casual day-labour.

Until recently, the government's programme, which provides young people with training and seed money to start their own businesses, was used to promote allegiance to the ruling party. Recently the package has been made available to many more, though still with evidence of young Oromo being prioritised for it.

As an urban area, the pattern of employment is relevant for explorations of mobility practices and their effects. Tables 3 and 4 present the most recent data available for employment and unemployment in the town by age and gender, and by formal and informal sectors.

**Table 3. Employed population in Shashemene town by age (2014 and 2018)**

Age group	Total working-age population 10+			Total employed population			Employment to population range		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>2014</b>									
All ages	97,053	45,512	51,541	46,315	27,111	19,204	47.7	59.6	37.3
10-14	14,781	6,248	8,533	803	84	719	5.4	1.4	8.4
15-19	15,310	6,894	8,416	3,800	1,714	2,086	24.8	24.9	24.8
20-24	16,277	6,676	9,601	7,702	4,205	3,497	47.3	63.0	36.4
25-29	15,921	8,132	11,013	7,790	6,974	4,039	69.2	85.8	51.9
30-34	9,531	4,922	4,608	6,797	4,193	2,604	71.3	85.2	56.5
35-39	6,587	3,360	3,226	4,957	3,075	1,882	75.3	91.5	58.3
40-44	5,109	2,580	2,530	3,713	2,209	1,504	72.7	85.6	59.4
45-49	3,729	1,778	1,951	2,463	1,457	1,006	66.0	81.9	51.6
50-54	3,177	1,701	1,476	2,201	1,466	735	69.3	86.2	49.8
55-59	1,858	693	1,164	1,199	551	648	64.6	79.5	55.7
60-64	1,782	989	793	923	677	246	51.8	68.5	31.0
65+	2,991	1,540	1,451	744	506	238	24.9	32.9	16.4
<b>2018</b>									
All ages	137,629	65,683	71,946	56,603	34,808	21,795	41.1	53.0	30.3
10-14	18,426	8,118	10,308	811	250	561	4.4	3.1	5.4
15-19	20,232	9,062	11,169	2,251	874	1,377	11.1	9.6	12.3
20-24	18,761	8,608	10,153	6,538	3,741	2,797	34.9	43.5	27.6
25-29	20,746	9,647	11,099	11,404	6,852	4,553	55.0	71.0	41.0
30-34	14,626	7,754	6,872	8,942	6,129	2,813	61.1	79.0	40.9
35-39	11,961	5,168	6,793	8,600	4,485	4,114	71.9	86.8	60.6
40-44	8,609	4,612	3,997	6,545	4,238	2,308	76.0	91.9	57.7
45-49	6,357	3,421	2,936	4,358	3,111	1,247	68.6	90.9	42.5
50-54	5,740	2,309	3,431	3,073	1,937	1,136	53.5	83.9	33.1
55-59	2,936	1,619	1,317	1,568	1,126	443	53.4	69.5	33.6
60-64	3,233	1,987	1,246	1,181	1,058	124	36.5	53.2	9.9
65+	6,003	3,377	2,626	1,329	1,008	321	22.1	29.8	12.2

Source: CSA (2014, 2018).



**Table 4. Employment distribution found in Shashemene town, 2014 & 2018**

	Sector					Percentage
	Total	Formal job	Informal job	Not identified	Not stated	
<b>2014</b>						
Total	38,807	25,893	12,780	133	-	32.9
Male	23,699	17,629	5,981	89	-	25.2
Female	15,108	8,264	6,800	44	-	45.0
<b>2018<sup>7</sup></b>						
Total	48,074	39,232	8,154	688		17.0
Male	30,017	25,189	4,449	378		14.8
Female	18,058	14,043	3,705	310		20.5

Source: CSA (2014, 2018).

### **Tehuledere**

Tehuledere is one of the 21 woredas of South Wollo Zone, all of which are highly vulnerable to drought and other climate-related hazards and are classified as areas with food deficits. The woreda governance structure consists of the Woreda Council, an elected body which elects the woreda's chief administrator. The administrator is supported by what may be loosely compared to a 'cabinet', consisting of the heads of the main government agencies located in the woreda, such as agriculture, education, health, etc.

Tehuledere has nineteen rural kebeles (sub-districts), each of which has a governance structure similar to a woreda, with elected councils to which kebele managers are held accountable. In both the woreda and the kebeles, the main actors are the executive authorities: the administrator in the case of the woreda and the manager of the kebele. Some of the rural kebeles are located in the rugged mountain areas and tend to be neglected by the local administration for that reason. The kebeles in the mid-altitude areas and closer to the main highway possess clear advantages in terms of economic activities, public services and market opportunities.

Haiq is the central town in the woreda and the base for its administrative and economic activities. It attracts many seasonal migrants from the surrounding areas and further afield. The town is where all government service-providers are based, and as a result there is a good deal of movement to Haiq from the rural areas of the woreda by those seeking services, public assistance or information, or attending court cases.

The economic activities of the Tehuledere woreda vary in rural and urban areas. Agriculture is the major economic activity in the rural areas. In fact, according to information from the Woreda Administration Office, most of the population (95.5%) live in rural areas and depend directly on agriculture. Sorghum, teff, wheat and maize are the major crops produced in the woreda. However, agriculture is increasingly affected by various natural and man-made challenges, including erratic rainfall and even recurrent failures of the rains, pest and animal diseases, a

<sup>7</sup> Central Statistical Agency. 2018. Statistical Report on the 2018 Urban Employment Unemployment Survey. Addis Ababa, Ethiopia.

shortage of agricultural land, a decline in soil fertility and poor market access for agricultural products.

Partly as a response to these challenges, in recent decades farmers have increasingly taken up the production of *khat* (*Catha edulis*) where the climatic conditions and water availability permit. In fact, *khat* has been produced for household consumption in home gardens for many decades, but now, with the increasing demand for the crop and consequent high prices, *khat* has become the dominate crop in areas where there is enough water available for its production. As a result, Tehuledere has become one of the major *khat*-producing woredas in the Wollo Zones in a relatively short period of time.

Owing to a lack of medium and small-scale industries in the woreda, the service industry and the informal sector are the major sub-sectors absorbing the majority of workforce in the urban part of the woreda. Retail trade, hotel, cafes and restaurants, barbers' shops and beauty salons are among the main service sectors in Haiq town. As a result, unemployment is one of the main economic challenges for many of the town's young people.

As a response to the economic challenges in both rural and urban areas, migration, both local and international, has become a widely practised phenomenon in the woreda. Many young people are reported to migrate to the nearby towns of Dessie and Kombolcha, an industrial town, in search of job opportunities. Equally, large numbers of people undertake international migration, mainly to the Gulf states, as an opportunity to escape from unemployment and poverty.

## **LAND SYSTEMS AND CULTIVATION**

Prior to the late 1880s, the land tenure system in Shashemene and Tehuledere was communal. The land was collectively owned by the community, clan or ethnic group, with all members having the right to use it. In the case of Shashemene all land used to be owned by the Arsi Oromo. However, the incorporation of these areas by the Ethiopian state brought about a change in land tenure, with all the land being registered as belonging to the Ethiopian royal family and its administration.<sup>8</sup> This major shift in the tenure system caused the alienation of the local community from their collective property. Three land-tenure systems were now introduced by the administration, known as *rist*, *gult* and *gebbar*. Local communities became merely tenants, with revenue and administration controlled by the nobility and the Church under the emperor.

In the northern parts of the country, including in Wollo, the *rist* system, in which land was owned by descent groups, was more prevalent. In this system, land was claimed and transferred in the lines of both parents. In the southern parts of the

<sup>8</sup> The move still left cultivators with usury rather than ownership rights with consequences for investment, transfer, loans, and much more.

country the *gult* system was more dominant. Here, the *gult* owner had only the right to extract surplus from the people for the 'administrative' and 'judiciary' services he provided had no right over the land. The *gult* system was theoretically abolished in the 1940's by the state following Ethiopia's independence from the brief Italian occupation as people providing such services increasingly became salaried government officials. The *gebbar* system was the more dominant type of land tenure in those southern parts of the country that had been incorporated into the Ethiopian state at a later stage. In this system, although the state was the *de facto* owner of all the land, the local people were given to the northern soldiers and officers as *gebbars* (tenants) in lieu of salary.

After four decades of what was quite arbitrary land management, land measurement was introduced in the 1920s (Bjerén, 1985). The measurement process involved classifying the land into three categories, namely infertile, semi-fertile and fertile, which were then used as a basis for taxation.

In Shashemene woreda, following the proclamation of the Land Distribution Decree by the Emperor in 1953, local residents were granted half a hectare of land. However, the latter's rights over these plots of land fell short of full ownership and remained as usury rights. With the Land Reform of 1975 that all rural land was nationalised, with the woredas assuming local administrative responsibility for it.

### **Shashemene**

Rural Shashemene was divided into eight one-kebele peasant associations, and land was distributed to rural residents in those kebeles. Though the land remained under the control of the state, the land reform emancipated the peasants from the tenancies they held of the nobility and other landlords.

In the post-1991 period, land still remained under the control of the state. As in other parts of the country, the right to farm was a usury right only. The buying and selling of land are prohibited by law, though they are widely practised, disguised through different forms of legal arrangements such as contracts, leasing and sharecropping. These indicate the continuation of the previous practice of using usury rights to control access to land and to determine the distribution of value generated by its cultivation.

One of the major developments regarding land in the late 1990s was the introduction of land registration and certification to locate, measure and register farm plots belonging to rural households and provide them with title certificates. The first round of land registration and certification was completed in Shashemene, and the second round is currently taking place.<sup>9</sup> According to the Woreda Office of Land Management and Administration, of the total of 42,000 rural landholding households living in the woreda, 30,000 have received their second certificates.<sup>10</sup> The certificate is issued to farmers owning a minimum of half a hectare of land.

<sup>9</sup> 2021

<sup>10</sup> Interview with Shashemene Woreda Office of Land Management and Administration officials.

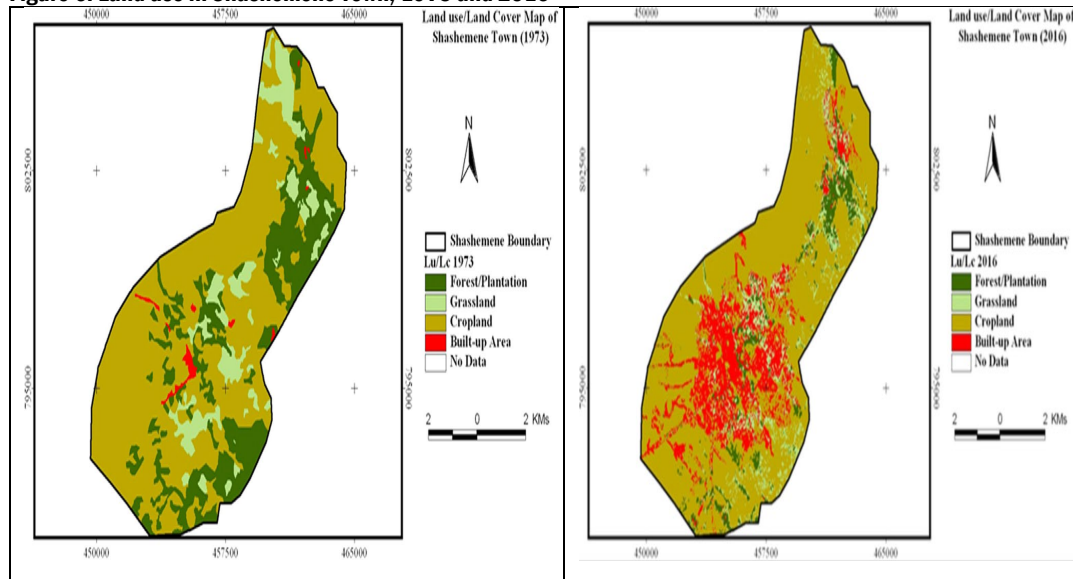
Land scarcity has become a severe problem in the woreda, particularly for those of the younger generation who want to form their own households. According to experts in the Woreda Agricultural Office, the official way of obtaining land from Kebele peasant associations has long been abandoned due to a lack of free land available for distribution. Currently, there are three major ways that land can be accessed in Shashemene. The first and most common form is a gift or inheritance from one's parents or family members. Especially in rural Shashemene, this is the primary source of land for many young people. It is locally called *kutaa*, which, following cultural norms, sons are allowed to request from their parents once they reach a certain age. However, as land scarcity is getting worse, the land that parents are able to pass on to their children as a gift or inheritance is decreasing in size. As well as generating smaller holdings through land fragmentation, the process has become one of the major factors behind young men taking the decision to migrate to urban Shashemene.

The second way of obtaining access to land is by leasing it. Households with a shortage of labour, capital or both often lease out their farmland to those who need land. According to information from the local people, households that lease out their farmland often prefer to lease it to close relatives or someone they trust. The lease period varies from one to three years. As the land is suitable for producing high yields of cereals, fewer perennial crops tend to be cultivated. As a result, the long-term leasing of land tends not to be very common in Shashemene. In the instances where long-term leases exist, it can take the form of a land transaction disguised as a lease, thus avoiding the government's *de jure* ownership of lands.

The third way of securing access to land is through sharecropping. In fact, sharecropping was widely practised by poor households, particularly female-headed households. Previously, the sharecropper provided labour, oxen and half of the costs of seed and inputs (fertiliser and other costs such as weedkiller). Then both parties shared the crop equally. As land is becoming very scarce, currently the sharecropper covers all the costs and gives half of the harvest to the landowner.

It is reported that Shashemene has undergone significant changes in land use, particularly in recent decades. Rapid population growth is a major factor in this change in the urban part of the woreda. In 2006 residential land use was around 12,800 m<sup>2</sup>, and by 2016 this had increased to 31,115 m<sup>2</sup>. This means that the town has expanded almost one and half times within just one decade. Commercial land use has also experienced significant enlargement in recent times, commercial lands increasing from 12,510 m<sup>2</sup> to 26,098 m<sup>2</sup> between 2006 and 2016 (Gemedo et al., 2020). A study conducted by Girma et al. (2018) shows that, while residential and commercial land areas have increased, the area of land used for agriculture and forest cover has significantly declined (see Figure 6).

**Figure 6. Land use in Shashemene Town, 1973 and 2016**



Source: Girma et al. (2018).

In rural Shashemene, out of the total land area of 46,718 hectares, around 30,683 hectares are under cultivation. Here, pastoral land and forestry occupies 2,300 ha and 2,138 ha respectively (see Table 5).

**Table 5. Land use in Shashemene Woreda (rural Shashemene)**

Land Use	Land area (in Hectares)
Agriculture	30,683.0
Pasture	2,300.0
Forest land	2,138.0
Marshland	461.0
School	392.0
Sport fields	89.0
Organisations	61.5
Reserved land	136.5
Total	46,718.0

Source: Shashemene Woreda Office of Agriculture (2020).

As in the urban area, land use in rural Shashemene is being affected by rapid population growth and urbanisation. Scarcity of farmland due to rapid population growth is resulting in the area of forest cover declining, though the cultivation of trees on small woodlots is increasing. Land in the rural kebele close to the town is steadily turning into residential areas. Currently, there is a proposal to incorporate seven rural kebele fully and two kebele partially into the urban administrative area.

Agriculture nevertheless remains the primary economic activity in the Shashemene field site, involving 80% of the rural labour force and nearly 70% of the land area of rural Shashemene. The major agricultural crops produced in the woreda include

maize, potatoes, barley, wheat, teff and haricot beans. Agricultural production is mainly reliant on water provided during the two rainy seasons, namely *belg/meher* (short rain season) and *kiremt* (long rain season). The *belg* season, which stretches from March to April, is suitable for the cultivation of teff, haricot beans, maize, finger millet (*dagusa*), potatoes and vegetables of different kinds. Likewise, vegetables, cereals and pulses are produced during the *meher* season. During the *kiremt* season (June to early September), vegetables and crops like maize, sorghum, haricot beans, millets and broom-corn are produced.

In addition to the availability of rainfall, agricultural production in rural Shashemene is determined by the micro agro-ecological environment of the kebeles. In kebeles located in the *dega*, including Abaro, Jengela Wondere, Hursa Simbo, Danisssa, Gonde and Aredemoshifa, maize, wheat and barley are cultivated. In kebeles in the *weyyna dega*, the main crops are teff, maize, barley and wheat. In the *kolla*, with its relatively higher temperatures and lower rainfall, the main cultivation is of maize, potatoes, finger millet and haricot beans.

Over time, one of the most notable changes has been to the production of maize. Once well known for its maize production, experts in the Office of Agriculture state that maize is no longer a crop favoured by Shashemene's farmers, because it is seen as taking too long to grow. Nowadays, farmers in the area prefer crops with a shorter cultivation time, enabling adjustments to take into account the unpredictable rainfall and the increasing shortage of land available for cultivation. This is mainly the case in the *belg* season, when farmers want to clear the farm and make it ready for the *kiremt* season in short period of time.

In the *dega* and *weyyna dega* agro-ecological zones, the average size of a household farm is one hectare. Household farmlands in the *kolla* areas are comparatively larger, with some farmers owning up to 15 ha. However, agricultural productivity in this area is severely affected by the lower soil fertility, environmental degradation and low precipitation.

### **Tehuledere**

It has been over a decade since the first round of land registration and certification was carried out in Tehuledere woreda, and the second round is still to be undertaken. The authorities had hoped that the programme of registration and certification would minimise land disputes among land-holders and reduce land-related court cases. However, according to the woreda land administration office, this has not happened: on the contrary, the programme seems to have fuelled more land disputes. Many of these disputes are between and within households and families, revolving around land-boundary issues, inheritance disputes and disagreements arising from divorce and family break-ups.

Access to rural land today is along similar lines to that in Shashemene, namely through the inheritance of family cultivation rights for a piece of land, often leading to the fragmentation of holdings, the leasing of new plots of land and sharecropping.

As may be true in the South Wollo Zone as well, land values in the woreda have increased considerably in the last decade or so, due in large measure to improved infrastructure, better service provision and a general growth in economic activity. These have in turn had an impact on the value of land in the woreda and the *de facto* practice of land management in the absence of the legal privatisation of property (see the discussion of Shashemene above). In discussing the changes that are underway with informants, attention was drawn to the following local factors: the woreda now has electricity, though with frequent outages; more affluent families possess mobile phones and can benefit from the social and economic changes these bring; and new roads linking the woreda to neighbouring woredas have facilitated better economic opportunities, as has the improvement of the original inter-zonal and inter-regional highway to Haiq.

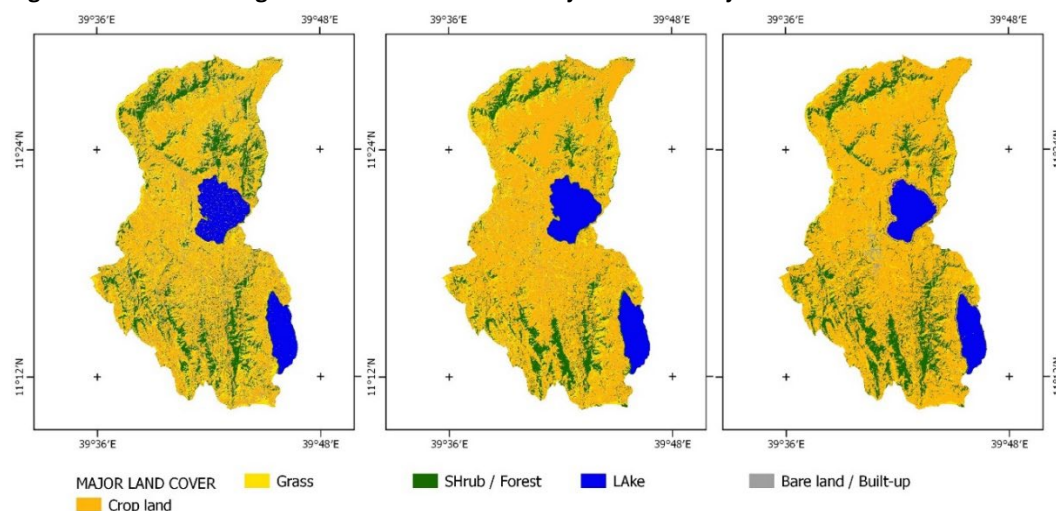
Urban expansion has increased the demand for residential land, and the construction of a railway to the north of the woreda has brought new employment opportunities. *Khat (qat)* cultivation has increased considerably in recent years, and the local *khat* market attracts buyers from many parts of the South Wollo Zone and beyond. Other significant developments include the improvements in telecommunications, with many of the more affluent villagers now owning mobile phones.

As in South Wollo generally, Tehuledere woreda is a food-deficit area that has been seriously affected by climate change. Officials who were interviewed associate climate change with drought, insufficient rainfall and land degradation, all of which are said to be endemic in the Zone as well as the woreda. The frequency of drought in the area is reported to have increased, with serious drought now expected once every five years. According to the head of the woreda office of the Ministry of Agriculture (MoA), seven of the nineteen kebeles in the woreda suffer from serious land degradation. While a variety of government-initiated programmes to promote natural resource conservation have been going on for several decades, and still constitute an important component of the extension programme provided to farmers, both soil and vegetation loss, as well as the loss of water resources, remain serious concerns. In addition, population growth and the limited opportunities for employment outside agriculture has meant greater pressure on the land and natural resources and thus greater resource degradation.

Agriculture is the dominant source of livelihood for a great majority of the people. About 94% of the woreda's land area is occupied by farms. Such is the shortage of arable land and the high degree of landlessness that what used to be pastoral land has been parcelled up and distributed to needy peasants. Pasture is now in short supply, making raising livestock a difficult undertaking for peasants, who are now turning to small stock such as goats and sheep instead of cattle. Landlessness is widespread, the main victims being young people, but the woreda authorities we talked to were unable to provide us with concrete data on the extent and severity of the problem. The MoA reports average holdings to be half a hectare per household, but in the semi-arid *kolla* areas individual holdings are larger, though the quality of the land is much poorer. The woreda's forest cover is small, a little over 1% of the

land area, and almost all of it is on steep hillsides, gorges and other inaccessible areas.

**Figure 7. Land cover changes in Tehuledere woreda January 1985 to January 2020**



Source: Keyfalew Sahle, based on several government data sets.

Tehuledere has two seasons for cultivation, from January to March, and from May to September. The rainy season from January to March is one of erratic and inadequate rainfall. The rains from May to September are also erratic in amount and distribution. The mean annual rainfall is about 700 to 800mm. Of the three agro-ecological zones, the shortage of rainfall is more severe in the hot lowlands than in the other areas. The farming system is predominantly a sedentary, mixed-farming system consisting of both crop and livestock production. The major food crops produced are sorghum and maize in the *woyna dega* areas and barley and wheat in the *dega* areas; haricot beans are a dominant crop grown in all agro-ecological zones. Goats are the major livestock reared in the area and are one of the major sources of income for households. Productivity of both crops and livestock is very poor, and many farmers experience crop failures and production losses due to erratic rainfall, poor soil fertility, feed shortages and other related problems (PANE, 2010, 2008 cited in Enyew et al., 2014: 25-26). Pests and crop disease are other causes of low productivity and crop loss. Table 6 below gives yield figures (in quintals per hectare) for major crops in the woreda for the last five years.

**Table 6. Yields for major crops, 2014 to 2018 (quintals per hectare)**

Crop	2014	2015	2016	2017	2018
Teff	22	17.6	12.6	6.9	13
Wheat	30	28.7	22	13.9	16.7
Oats	25	18	20	15.2	16
Maize	35	44	30	6.7	32
Sorghum	32.5	40	31	38	36.7

Source: Tehuledere MoA office (2020).

The production and marketing of *khat* has spread rapidly in the area since the late 1990s and is now grown widely in the woreda. It used to be rare to see *khat* growing



in open fields or home gardens in the 1980s and much of the 1990s,<sup>11</sup> but the crop is now a major source of income for farming households, especially in the *woyna dega* areas. Indeed, its high market value has enabled small farmers to improve their incomes and livelihoods considerably. Many *khat* farmers have prospered and now own modern houses built of stone, brick, or cement. An official at the land administration office stated that *khat* cultivators now possess much higher incomes and have better economic conditions than the highest paid civil servants in the *woreda*, and when public agents meet *khat* farmers in the course of their duties, both sides are conscious of the disparities of income between them. In the *dega* areas *khat* is grown alongside eucalyptus trees, which also have high market value, but individual plots in these areas are smaller than those in the lower ecological zones. According to information from the MoA office, at present *khat* cultivation covers 50% of farmland in the *woyna dega* areas, 20% in the *dega* areas and 5% in the dry *kolla* lowlands.

It is important to note that there are several negative factors associated with *khat* cultivation. In particular, the cultivation of *khat* is replacing the cultivation of food crops and thereby compounding the problem of food deficiency in Tehuledere *woreda* and in other *woredas* in the area. Another negative impact is the high levels of *khat* consumption observed in the locality, not least among the farmers cultivating the plant. *Khat* is a mildly addictive stimulant, and many young people in the area, as well as government civil servants, are regular consumers; its harmful effects are being noted with growing concern.

## ENVIRONMENTAL DEGRADATION AND CLIMATE CHANGE

### Shashemene

The Central Rift Valley in general and Shashemene in particular are subject to a high degree of deforestation and resulting environmental degradation. Previously Shashemene was recognised as being endowed with high-quality forests based on a range of tree species. The highland parts of the *woreda*, including Mount Abaro, were covered by dense forests with predominantly *zigba* (*Podocarpus*) species, used extensively by the two sawmills located at Jigessa and Sole since the early 1930s. *Acacia* is the dominant species in the *woreda*'s lowland areas.

Today the forest resources in both the highland and lowland areas of the *woreda* are declining rapidly, being used for firewood, charcoal-making and timber production. Increasing pressure on the land is also forcing people to clear forests to create additional farmland. Experts in the *woreda* office of the land administration claim that illegal logging is happening in the remaining forest resources of the *woreda*, aided by the poor enforcement and control of forest regulations because of the unstable political situation in the country currently. Remaining pockets of forest

<sup>11</sup> Desalegn Rahmato (personal memoir).

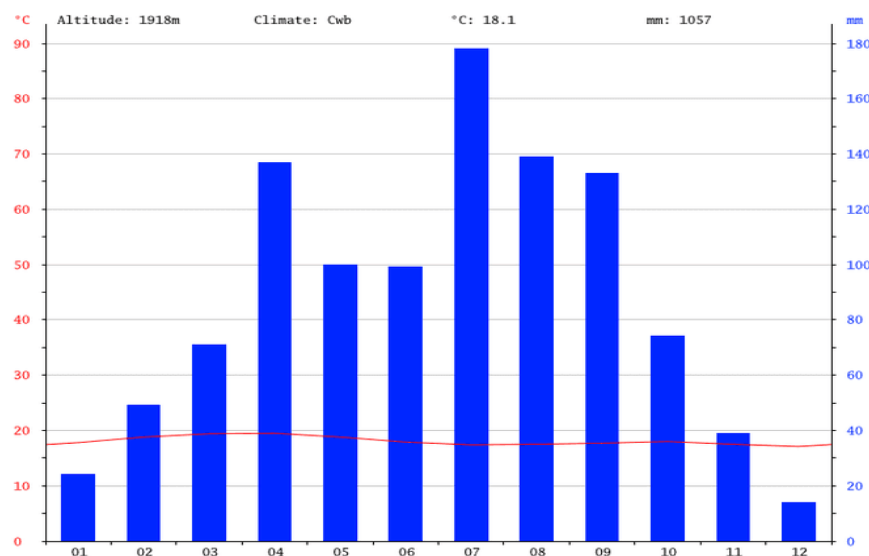
near the town of Shashemene have disappeared with the town’s expansion, contributing significantly to the ongoing land degradation in the area.

Shashemene’s climate is characterised as temperate, with annual temperatures of between 12°C and 27°C. Data from the Woreda Office of Agriculture shows Shashemene as having three main agro-ecological zones, namely *dega* or highland (29.6%), *woyna dega* or mid-land (51.4%) and *kolla* or lowland (19%) (Bukul, 2018).

This classification is closely related to altitude, with direct implications for the rainfall and temperature patterns found in each category. As Shashemene is located on the escarpment of the Great Rift Valley, the kebeles on the western and north-western parts of the woreda bordering Kofele and Kore woredas largely consist of *dega* and receive high annual rainfall, have different crop patterns and produce different varieties of crops. Conversely, the kebeles in the eastern, southern and north-eastern parts of the woreda bordering Shalla, Siraro and Hawassa woredas are largely characterised as lowland and often have shortages of rain and water.

As is the case for most of Ethiopia, the hottest month in Shashemene is May, while October and December are the coldest months. Shashemene has two rainy seasons, namely *belg* (March to April) and *kiremt* (June to early September). Average annual rainfall in Shashemene varies from 1,500 to 2,000 mm. (Tafere et al., 2006). The woreda receives 70% of its annual rainfall between early June and early September, with August being the wettest month.

**Figure 8. Average rainfall and temperature in Shashemene**



Source: Climate-data.org, 2020. <sup>12</sup>

In addition to rainfall, Shashemene has four major rivers, namely the Laftu, Melka Oda, Essa and Dhedhaba. These descend from the rich highland area of Arsi and flow through Shashemene town into Lake Shalla. The rivers are rarely used as a

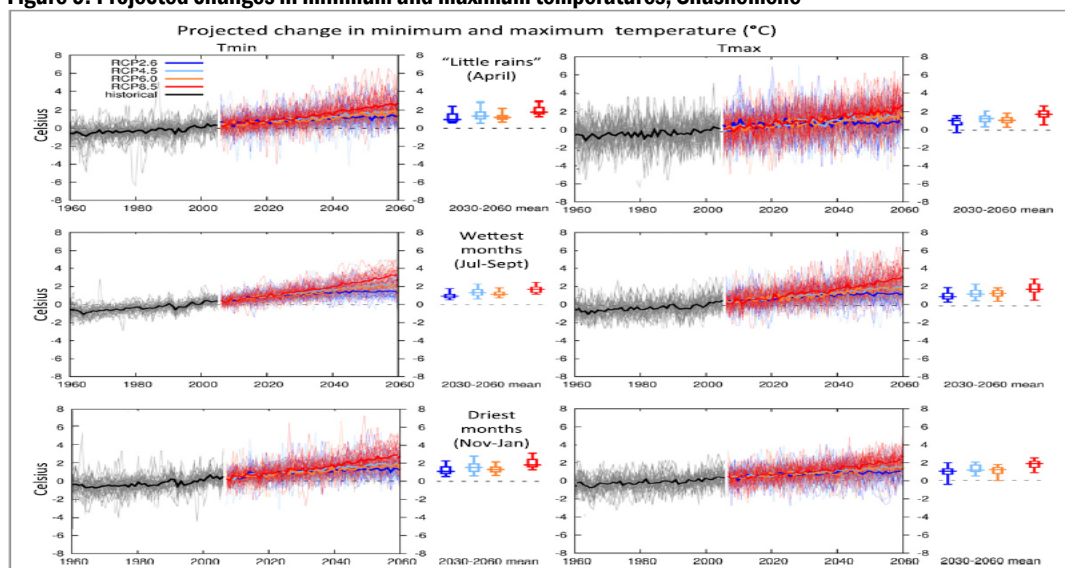
<sup>12</sup> Climate-data.org, 2020. Shashamane Climate', available at <https://en.climate-data.org/africa/ethiopia/oromia/shashamane-3655/>, accessed on April 15,2020.

main source of irrigation due to their limited size, the high fluctuations and unpredictability in the flow of water, and the topography of the areas they pass through.

For the most part, Shashemene is considered to possess good agricultural land though varying in types and quality across the district. In the eastern and north-eastern areas, which have a relatively high altitude and bi-modal rainfall, the soil is more fertile and very suitable for agricultural production. In the western and south-western areas, the soil is often containing sand close to the surface. While cultivation is practised these lands are not so suitable and, given the topography and soil consistency, erosion is often serious problem in these areas.

The Central Rift Valley is one of the hot spots of climate change. The area is also identified as drought-prone. As Shashemene is located within this region, it is vulnerable to climate change-related hazards. According to Bambrick et al. (2015), the maximum and minimum temperatures in Shashemene in both the wettest and driest seasons are projected to increase in the near future. Similarly, it is estimated that between 2030 and 2060 the amount of rainfall in Shashemene will decrease from 10% to 20% (Bambrick et al., 2015). Their study also indicated that there is a wider consensus among community members that climate change is affecting their livelihoods and that climate variability is causing health hazards. Moreover, the local community also identified the increase in temperature and the recurrent floods as attributes of climate change.

**Figure 9. Projected changes in minimum and maximum temperatures, Shashemene**



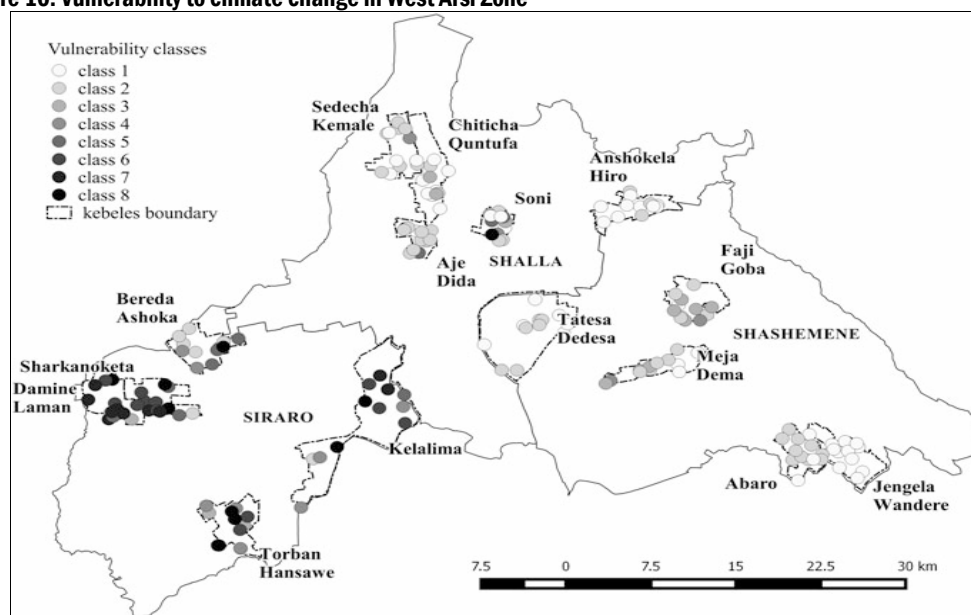
Source: Bambrick et al, 2015.

Data obtained from the Office of Agriculture also indicate that the impact of climate variability is already being severely felt in rural areas of the woreda. Above all, the unpredictability and fluctuation of rainfall has resulted in crop failures and the destruction of cultivated crops. In addition, flooding has become a common phenomenon in rural and urban Shashemene. During fieldwork, residents of urban Shashemene and experts working in agriculture and climate change stated that there had been an increase in temperature in recent years. Most importantly, experts

from the Office of Agriculture reported that the increase in temperature is causing and spreading various kinds of cattle and crop diseases, including mosaic virus, fall armyworm and yellow fungus (*bicha wag* in Amharic).

The cumulative impact of the above problems is that the productivity of farmers in the woreda is declining. As a result, many rural households are gradually becoming recipients of food support from the government and NGOs. For instance, ten kebeles, namely Bura, Chebididgnata, Qorea Borojota, Daleti Cheleleka, Toga, Jolo Dida, Faji Golea, Faji Goba, Kubi Guta and Chefa Guta, are already under short- and sometimes long-term programmes of support. According to Belcore et al. (2017), Faji Goba, Meja Dema, Tatesa Dedesa, Abaro and Jengela Wandere kebeles of rural Shashemene are highly vulnerable to climate variability (see Figure 10 below).

**Figure 10. Vulnerability to climate change in West Arsi Zone**



Source: Belcore et al (2017).

As a coping mechanism, rural communities have already started to employ a flexible cultivation calendar. Moreover, in order to minimise the risk of crop failure, they are increasingly focusing on cash crops that grow rapidly. However, because these sorts of decisions are not backed up by systematically generated climate data, it is common to see the peasants being misled by short-lived rainfall, which in turn disrupts their annual cultivation calendar and incurs financial costs.

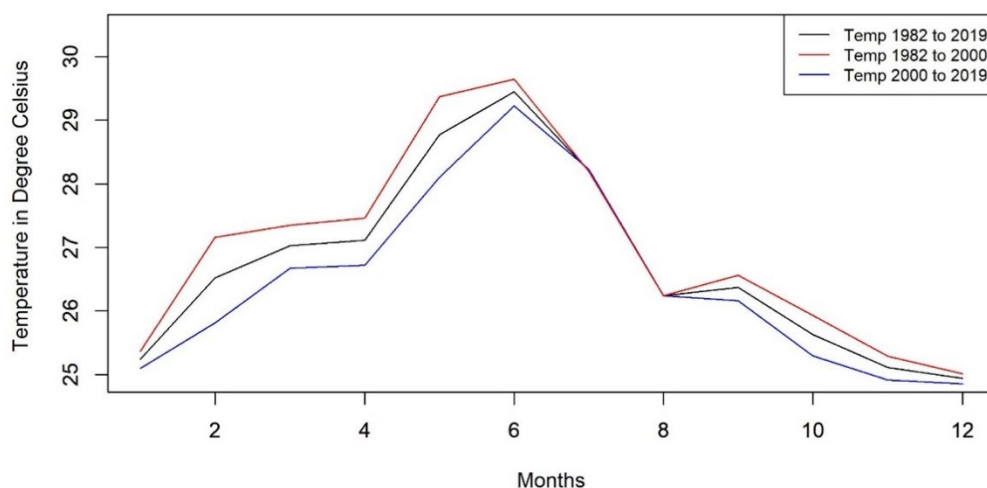
The Environmental Protection and Climate Change Authority, Agriculture Bureau and Office of Shashemene Woreda Administration are the three leading government offices responsible for climate change-related activities. In addition, two informal structures have been established at the woreda and kebele levels for the purpose of addressing emergencies and failed crop production arising from climate variability. At the woreda level, a task force consisting of the Heads of the Woreda Administration and the Bureaus of Education, Health, and Women and Children Affairs exists to deal with climate change and related problems. This structure has also been established at the kebele level. At the same time, a technical

committee, headed by the Head of the Woreda Administration, follows and coordinates the activities of the task force. Despite the mainstreaming of climate-change adaptation in the Woreda, there seems to be a lack of capacity and of political commitment to find lasting solutions to some of the challenges of climate change. This is illustrated by the fact that the position of Head of the Environment Protection and Climate Change Authority remained vacant for a year and the office faces continuing manpower and other resource shortages.

### Tehuledere

As with Shashemene, the climate in Tehuledere is closely tied to the topography of the area. With the woreda consisting of mountains, hills and plains, there are three main agro-ecological land-types in the woreda, namely *dega* (high altitude and cold areas), *woyna dega* (mid-altitude temperate areas) and *kolla* (hot and semi-arid lowlands). Figure 11 provides an overview of the mean maximum temperatures in the woreda, the trend being a slow increase over the years.

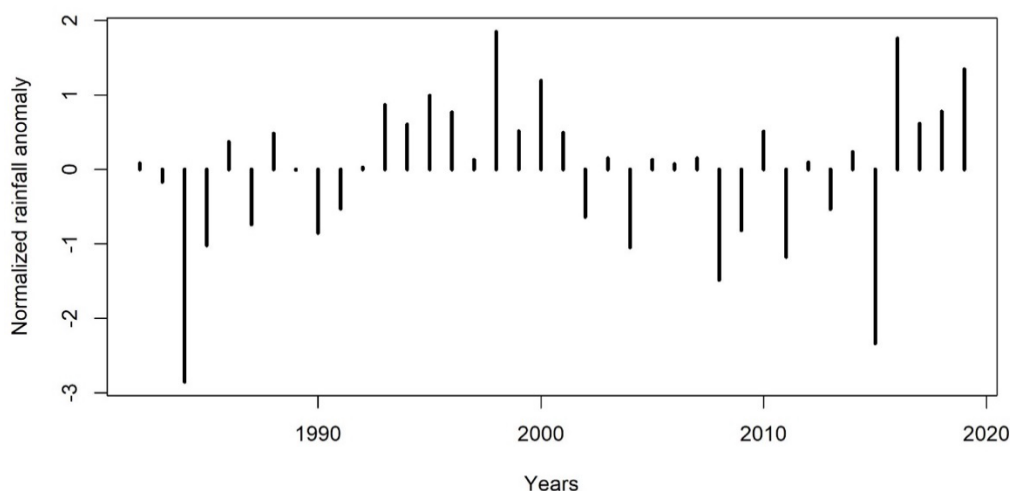
**Figure 11. Mean monthly maximum temperature for Tehuledere woreda 1982-2019**



Source: Figure constructed on the basis of data from GEE.

Similarly, the data for annual rainfall since 1982 suggests a recent growing tendency for irregular rains, but not a clear trend in any specific direction (excess or shortage) in the longer term of more than a few years.

**Figure 12. Normalised rainfall for Tehuledere woreda 1982-2019**



Source: Figure constructed on the basis of data from GEE.

Table 7 below gives a breakdown of the land and rural population within these ecological zones. As is clear from the table, the majority of the rural population and the greater part of agricultural production are concentrated in the *woyna dega* zone.

**Table 7. Area and population by agro-ecological zones**

Agro-ecological zone	Area (% of woreda)	Population (%)
Dega	13	13.4
Woyna dega	72	74.1
Oolla	15	12.5

Source: TWARD0, 2005, cited in Chalachew (2007).

## MOBILITY AND /MIGRATION

### Shashemene

As explained earlier, the history and growth of Shashemene is directly related to migration and trade. Since its establishment in the early twentieth century, Shashemene has been a destination for migrants from other areas both near and far. Shashemene town emerged as commercial settlement due to its strategic location and has continued to grow by attracting migrants for the same reason (Getahun, 1988). Bjerén (1985) notes that between the mid-1960s and early 1970s, 90% of the town’s population were migrants, of whom some 50% came from locations within a 200 km radius of the town. While 60% of all migrants were from rural areas, the remaining 40% came from more than sixty other urban centres, illustrating the greater economic opportunities that were seen to exist in Shashemene town during this period (Getahun, 1988). It should also be noted that the expansion of commercial farming led to increased inflows of labour migrants from the then neighbouring *awrajas* of Wolayita, Sidama, Kembata and Hadiya. Other groups, such as the Gurage and Silete, came to the town as traders, while the migrants from Amhara and Tigre were primarily engaged in the civil and military services (Bjerén,

1985). This was an ethnic pattern that continued under the Derg government after the overthrow of Haile Selassie in 1974.<sup>13</sup>

The introduction of a constitution based on ethnic federalism in 1991 changed the pattern of inward and outward migration in Shashemene. The constitution of ethnically based regional states and the increased politicisation of ethnicity created a hostile environment for many groups of migrants in localities such as Shashemene. In Shashemene there was on the one hand a decline in the numbers of non-Oromo migrants, and on the other hand a dramatic increase in those from rural parts of Oromia, particularly from neighbouring woredas such as Arsi Negelle and other nearby Oromia zones like Bale and Arsi.

Currently, mobility in Shashemene is being shaped by several push and pull factors. Regarding push factors, young migrants point to poverty, land scarcity and landlessness, and high rates of unemployment as the major driving factors leading them to migrate to Shashemene. Pull factors include better economic opportunities in the form of casual work and petty trade and the generally higher living standards that Shashemene can support. The presence of relatives and friends and the success stories of migrants circulating in rural communities also play a significant role in shaping inward migration to the town. The construction and improvement of roads and the expansion of telecommunication services are facilitating these dynamics (Bezu and Holden, 2014; Tafere et al., 2006).

These forms of mobility are often linked to the migrants' origins and where they continue to have their families. Those from rural Shashemene and neighbouring woredas tend to commute to town and back on a regular basis. Migrants from further afield in the Oromia and Sidama regions tend to be present for longer periods. In addition, strong seasonality is involved, with many moving from the Wolayita area to Shashemene during the farming seasons (mainly in the months from April to June), finding work on the potato farms around Shashemene (Tafere et al., 2006). Most recently, the establishment of Hawassa Industrial Park has been a major destination for female workers from neighbouring localities.

Currently, inward mobility is greater than outward mobility, the former mainly rural and local, the latter inter-regional and sometimes international. In the case of international migration, Shashemene is a departure point for both formal and informal migrants, the latter involving brokers smuggling people illegally, while the former consists of licensed agencies sending people to the Gulf states.

The governance of mobility involves both government organisations and non-government actors. On the government side, the Labour and Social Affairs Offices in the woreda and city administrations are responsible for administering migration. Their roles include registering and licensing agencies that facilitate international migration, documenting patterns of mobility and engaging in awareness-raising

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<sup>13</sup> No data on migration during the period of the Derg government (1974-1991) were found.

activities. However, the offices at in both the woreda and city administrations are poorly organised and understaffed.

Non-government actors include private recruitment agencies, illegal brokers and NGOs. In Shashemene, more than thirty private agencies recruit labour migrants for formal international migration. Recently, the government has introduced a scheme requiring international labour migrants to complete school grade 8 and to receive certificate-based training in the basics of housekeeping and a language. The government expects the private agencies to facilitate the required basic training courses, with the Labour and Social Affairs Offices monitoring their work. The Labour and Social Affairs Office provides each labour migrant with a support letter for the Immigration Office, necessary for obtaining the requisite travel documents. The challenge is that the administrative requirements designed to tackle illegal migration are serving to push would-be migrants to opt for the illegal channels. Unable to meet the government's criteria, would-be migrants are often forced to seek the 'services' of illegal brokers operating in Shashemene town. NGOs such as Oxfam run awareness-raising programmes and community support schemes in an attempt to counter the illegal brokers, but how successful they are is difficult to determine.

### **Tehuledere**

Tehuledere is one of several woredas in South Wollo with high rates of outward migration, mostly cross-border migration to the Arab countries involving both male and female young people, and often using illegal channels. It is also a destination for local and seasonal migrants from the nearby *dega* areas and from as far afield as Tigray in the north. These two forms of migration, local and cross-border, may also be considered from an agro-ecological perspective. Migration to the Arab countries is favoured by those in the *kolla* or lowland areas, while local and very often seasonal migration is preferred by those from *dega* or highland areas.

There are many reasons why young people in the woreda and the Zone are attracted to cross-border migration despite the high risks of failure and of threats to one's life. As noted above, the woreda is resource-poor, offering very few opportunities to the young. Land shortages and landlessness are high, unemployment is increasing, and the industrial parks in the area pay very low wages and provide no accommodation for those coming from far-off areas. People smugglers are numerous and very active in the area. The main chosen destinations for would-be migrants are Lebanon, the Emirates and Saudi Arabia. There is also family pressure: parents, not least in the *kolla* lowlands, expect their children to go abroad so that they can send back remittances. It was not possible to find hard facts on the flow of migration to the Arab countries, though it is reported to be very high. Nor is there any written evidence indicating how much such migration has impacted on the local economy or society. Figures for school enrolment obtained from the woreda Education Office show a high dropout rate from high school when children reach the age of fourteen or fifteen. The officials involved felt that this was due to students becoming involved in migration efforts. On the other hand, it does appear that the success rates of migrants or would-be migrants were not high. Several government and



non-government agencies have set up programmes to help returnee migrants with, for example, vocational training, rehabilitation, including counselling in 'life skills', support for medical treatment and small loans to those planning to start new micro-enterprises.

The internal migration noted above involves those from rural households, both young and not-so-young, who come to towns such as Haiq, Dessie and Kombolcha (the latter are the two largest towns in South Wollo, and Kombolcha is an important industrial centre) on a seasonal basis to seek work. Much of the work available in the last few years has been in construction, thanks to the building of the railroad, industrial construction in Kombolcha, and housing and office construction in Dessie. Most of these migrants return to their home areas as soon as the farming season begins.

Government involvement in areas that might directly or indirectly shape mobility patterns are many. Not least, there is a wide range of social protection programmes designed to benefit rural households and communities in the country. The most important of these is the Productive Safety Net Programme (PSNP), which has been implemented in Tehuledere, as elsewhere, since 2005, and which is said to be the largest such programme in Africa. The programme is a multi-annual commitment by international donors to transfer resources to food-insecure households. This is undertaken in two ways: first, through employment on public works for a period of six months of the year; and secondly, through what is known as direct support, which is provided to vulnerable households whose members are unable to work due to old age, sickness, childcare responsibilities, etc. PSNP was meant to be a shift to a more predictable and timelier productive and development-oriented programme. Food-insecure households were to become eligible to receive resources to become more resilient, and communities were to gain basic assets through the public works scheme to help improve services. Initially beneficiaries employed in public works were paid in kind, but this was abandoned because it was found to be too cumbersome to implement efficiently. Over the years the programme has been revised and expanded, but it continues to be implemented by the Ministry of Agriculture. All rural woredas in South Wollo, including Tehuledere, are designated as being 'food-insecure' and are included in the social protection programme.

The information obtained from the woreda MoA office shows a total of 17,706 households as beneficiaries of the PSNP, of which a little over 12% are on direct support. However, interviewees noted that there are far more needy households in the woreda than the number of beneficiaries currently receiving support.

The PSNP is frequently unable to meet the needs of rural households, especially during times of severe drought and environmental stress. In these circumstances a programme of emergency food aid is initiated, the objective being the distribution of food and other resources to needy households. Many households in the woreda are, not infrequently, the beneficiaries of such emergency support when severe environmental crises occur.

All farming households are expected to benefit from the agricultural extension programme, the most important activity of the MoA in Tehuledere, as elsewhere in the country. The programme is implemented in different ways in different localities, but in Tehuledere woreda it had two main components: improving agricultural production, and soil and water conservation.

The agricultural component consists of the distribution of inputs, such as fertilisers and improved seeds, training farmers in new farming methods and training in increasing crop production. Conservation work involves in the main watershed-based land and natural-resource management. Residents in each kebele where conservation work is needed are expected to work without payment in such programmes under the direction of the experts from the extension office. Work here involves reforestation and repairing or building physical infrastructure to prevent erosion.

MoA is also responsible for organising farmers to make use of the water made available through an irrigation scheme recently constructed in the woreda. The main drivers of the extension programme under the MoA are development agents (about 80 of them in Tehuledere) based at the community level and having frequent contact with farming households.

Another public support programme is for loans and employment generation. Job creation involves the follow processes:

- identifying self-employment opportunities, particularly for young people
- technical and skills training through the Technical and Vocation Education Training colleges established in many woredas, including training in enterprise management
- access to seed money and loans
- enabling the would-be self-employed to obtain working or business premises
- monitoring and supervision

In Tehuledere, the Technical and Skill Enterprise Office oversees these activities. Job training through the Technical and Vocational Education and Training college in Haiq involves training in various disciplines, including manufacturing enterprise, urban agriculture, wood- and metalwork, garment work and 'electronics'. Eligible young candidates are provided with seed money to start their businesses with loans from the government's Youth Revolving Fund. The same Office also works with returnees from migration. For those returnees with financial resources, the training focuses on enterprise training and finding them work premises.

There are, of course, a host of challenges in this endeavour. Job-seekers are often choosy about employment opportunities: according to the officials here, many young people are reluctant to try urban agriculture (poultry and livestock raising), and there has been a high rate of loan defaults, so much so that the loan scheme in the woreda has now been temporarily suspended. On the other hand, critics note that access to loans for young men and women venturing into small or micro-

enterprises is very difficult and time-consuming because of the many bureaucratic hurdles.

Information on other social protection programmes has not been discussed here due to the shortage of time available in the field. However, one of the areas in which the government has been credited for achieving success is health services. The health extension service under the Woreda Health Office and community-based health insurance schemes are among the instruments whereby this success has been achieved. The government has also implemented an anti-malaria programme, one of the measures of which is the free distribution of treated mosquito nets to beneficiaries.

A recent initiative is the drought insurance scheme for communities with frequent droughts, but because of the many challenges associated with it, the scheme is not as widespread as it should be. Finally, micro-finance institutions providing small loans to peasants have been serving rural communities for several decades. While their achievements may not be considered remarkable, they continue to be an important source of financial support for a good number of poor farmers.

## **IN SUMMARY**

The Covid-19 pandemic and the political situation in Ethiopia have made field-based research challenging. This is particularly so in the South Wollo Zone, an area that in 2021 became directly affected by conflict. Nevertheless, this scoping study provides a level of detail and focus that is not often found in Ethiopia and can contribute to work on governance and climate-induced mobility in the country. One very important finding of the study is that the governance practised by the government and other local institutions has a major presence in shaping the contexts of and decision-making by the households in these localities. This fact is frequently missed in discussions of the ways in which climate change affects mobility practices. This in turn leads to failures in the study of agency in mobility, in the analysis of forms of mobility and immobility, and in the search for ways to aid adaptation to slow-onset climate change.

While Tehuldere in South Wollo Zone is a rural locality with a predominantly agrarian economy, Shashemene in West Arsi Zone is peri-urban and near Hawassa Industrial Park, as well as the commercial and production enterprises and activities found in the important urban centres of Sheshemene Town and Hawassa. As such, they offer important insights into a range of livelihood strategies on the part of different socio-economic groups in the two contexts. Young women seek work in Hawassa Industrial Park, while others seek opportunities overseas, and farmers grow trees for commercial purposes in Shashemene, while their counterparts in Tehuledere turn to *khat* cultivation on a commercial basis. The government appears to be more present in Shashemene in service provision and infrastructural development, yet as in Tehuledere it appears to lack a coherence rooted in a focus addressing the livelihood challenges that households are facing today, not least

because of climate change. While broader development needs are being addressed through central and regional government policies and programmes, these tend to have a top-down approach and often exist in 'sector' silos with too little inter-sector collaboration. The solutions that are applied appear to be transactional rather than transformative, administrative driven rather than based on engagements involving greater reciprocity between people and their institutions of government. This would in turn point to the measures that households themselves are undertaking in response to their changing livelihood conditions, measures occurring under the radar of formal policy-making and programme design and implementation, and which might be understood best within the analytical framework of climate-change adaptation. For example, is the PSNP being approached from the perspective of promoting and facilitating climate-change adaptation by households? There is little evidence to suggest that it is, but further investigation is required.

Initial analysis of the survey data and interviews undertaken during the preparation of this scoping study suggest that there are many links between governance, climate change and mobility patterns, and that many of these have not been clearly documented previously, and certainly not explored in depth. Multiple and diverse forms of mobility are being practised, and not just international migration, on which there has been a considerable focus. Even with international migration, this tends to be seen in somewhat standard categories, with more nuanced analyses rooted in strong empirical evidence lacking. Preliminary comparison of materials and data from the two field sites points to a rich field of enquiry for understanding mobility practices, the ways in which climate change might be shaping the spaces and types of household and individual agency at present, and, not least, the presence and role of governance in these dynamics.

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