

# Ethiopia Socioeconomic Survey (ESS) 2018/19

## SURVEY REPORT

Central Statistics Agency of Ethiopia | World Bank



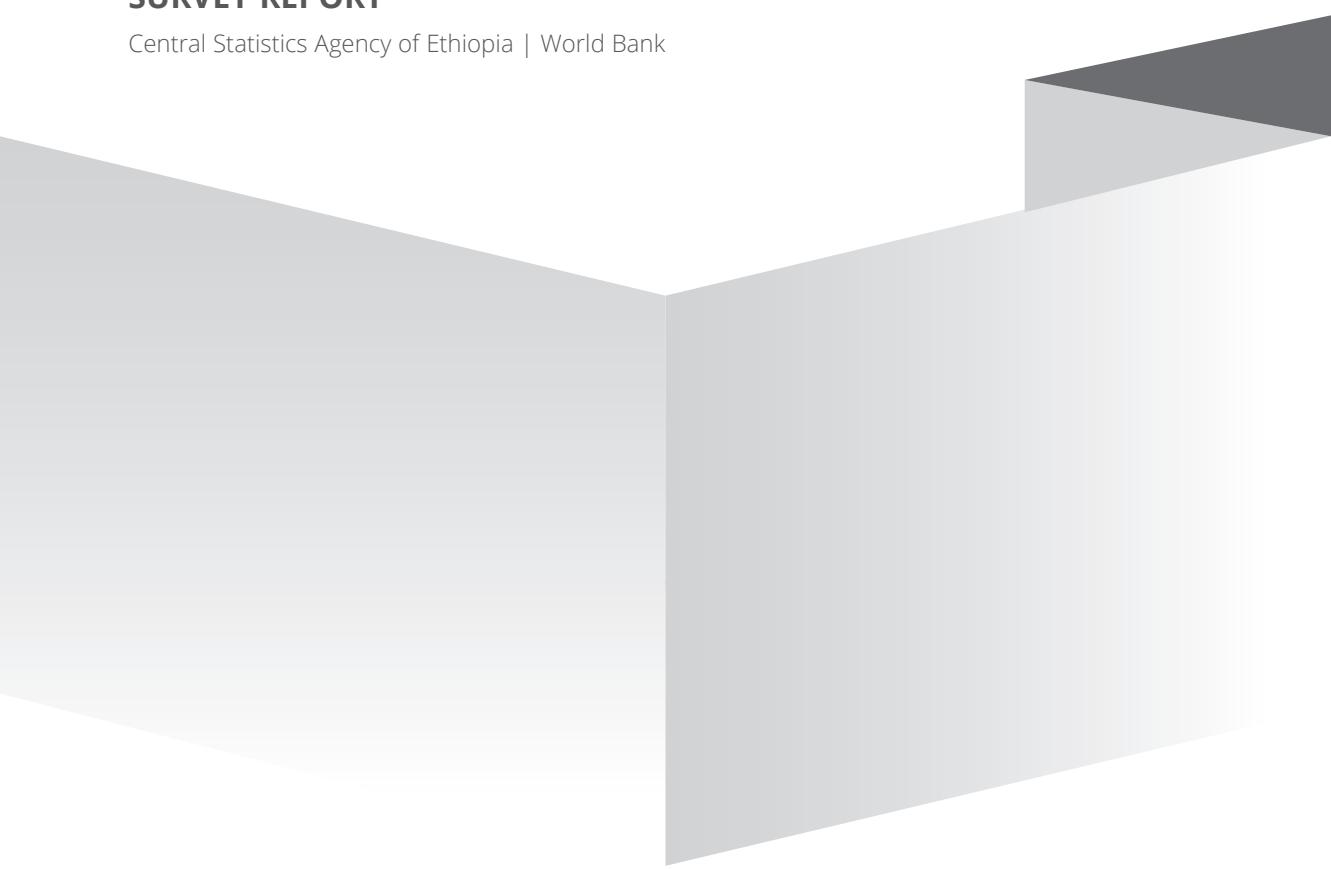


---

# Ethiopia Socioeconomic Survey (ESS) 2018/19

## **SURVEY REPORT**

Central Statistics Agency of Ethiopia | World Bank



# Contents

<i>Acknowledgments</i>	<i>vi</i>
<i>Acronyms</i>	<i>vii</i>
<b>1. Survey Objectives, Design and Implementation</b>	<b>9</b>
1.1 Objectives	9
1.2 Survey Design	10
1.3 Questionnaires, Training, and Fieldwork	12
1.4 Organization of the Report	14
<b>2. Demography, Education, and Health</b>	<b>17</b>
2.1 Household Demography	17
2.1.1 Average Household Size, Age Distribution, and Dependency Ratio	17
2.1.2 Religious Affiliation	19
2.1.3 Marital Status	20
2.1.4 Parental Characteristics: Education and Occupation	20
2.2 Education	22
2.2.1 Literacy	22
2.2.2 School Enrollment	23
2.2.3 School Types and Proximity	24
2.2.4 Reasons for Absenteeism	25
2.2.5 School Expenses	26
2.3 Health	27
2.3.1 Prevalence of Illness	27
2.3.2 Disability	28
2.3.3 Health Consultations and Type of Facility Visited	30
<b>3. Housing Characteristics and Household Assets</b>	<b>33</b>
3.1 Housing Ownership, Structure, and Facilities	33
3.1.1 Housing Ownership	33
3.1.2 Housing Structure: Number of Rooms and Floor, Wall and Roof Characteristics	33
3.1.3. Utilities	34
3.2 Household Assets	38
3.2.1 Farm Implements	38
3.2.2 Household Furniture	38
3.2.3 Entertainment and Communication Equipment	41

<b>4. Agriculture</b>	<b>43</b>
4.1 Agricultural Households	43
4.2 Crop Farming	45
4.2.1 Land Tenure	45
4.2.2 Fields and Field Size	46
4.2.3 Use of Inputs	48
4.2.4 Crop Yield	50
4.2.5 Crop Disposition	51
4.3 Livestock	52
4.3.1 Livestock Types Owned	52
4.3.2 Livestock Vaccination Coverage	54
4.3.3 Livestock Disposition: Sale, Slaughter, Death, and Offering	55
4.4 Natural Resource Management	57
4.4.1 Soil and Water Conservation	57
4.4.2 Management of Agricultural Water	58
<b>5. Nonfarm Enterprises, Other Income, and Assistance</b>	<b>61</b>
5.1. Nonfarm Enterprises	61
5.1.1. Types of Nonfarm Enterprises	61
5.1.2. Barriers to Establishing NFEs	63
5.2. Other Income Sources	64
5.3. Assistance from Government and Nongovernmental Organizations	66
<b>6. Time Use and Labor</b>	<b>69</b>
6.1 The ESS Time Use Data	71
6.2 Time Spent on Collecting Water and Fuel Wood	71
6.3 Time Spent on Agricultural Activities	72
6.4 Time Spent on Nonfarm Enterprise Activities	73
6.5 Time Spent on Casual, Part-time and Temporary Work	75
6.6 Time Spent on Work for Salary and Wages	76
6.7 Time Spent on Apprentice and Unpaid Work	106
<b>7. Consumption, Food Security, and Shocks</b>	<b>79</b>
7.1 Consumption and Expenditure	79
7.1.1 Food Consumption: Past 7 days	79
7.1.2 Nonfood Spending: One Month	81
7.1.3 Nonfood Expenditures: One Year	82
7.2 Food Security	84
7.3 Shocks and Coping Mechanisms	86
7.3.1 Shocks	86
7.3.2 Coping Mechanisms	87

# Acknowledgments

The Central Statistical Agency of Ethiopia and the World Bank Living Standards Measurement Study (LSMS) team would like to thank the Bill and Melinda Gates Foundation for financial support.

# Acronyms

<b>BMGF</b>	Bill and Melinda Gates Foundation
<b>LSMS</b>	Living Standards Measurement Study
<b>LSMS-ISA</b>	Living Standards Measurement Study – Integrated Surveys on Agriculture
<b>CAPI</b>	Computer Assisted Personal Interviewing
<b>CSA</b>	Central Statistics Agency
<b>ESS</b>	Ethiopian Socioeconomic Survey
<b>ERSS</b>	Ethiopia Rural Socioeconomic Survey
<b>AgSS</b>	Annual Agricultural Sample Survey
<b>EA</b>	Enumeration Area



Photo: LSMS

# 1. Survey Objectives, Design and Implementation

## KEY FINDINGS

- The Ethiopia Socioeconomic Survey (ESS) is a collaborative project of the Central Statistics Agency, Ethiopia (CSA) and the World Bank.
- The project is generously supported by the Bill and Melinda Gates Foundation through the Living Standards Measurement Study—Integrated Surveys on Agriculture (LSMS-ISA) project.
- ESS objectives include development of an innovative model for collecting agricultural data, interinstitutional collaboration, and comprehensive analysis of welfare indicators and socioeconomic characteristics.
- The survey is integrated with the CSA's Annual Agricultural Sample Survey (AgSS); the rural households surveyed in the ESS are a subsample of the AgSS sample households.
- ESS 2018/19 (ESS4) is a new panel survey. It covers a nationally representative sample of over 6,700 households living in both rural and urban areas. The sample is also regionally representative.
- This report describes the results of the fourth survey wave.

### 1.1 OBJECTIVES

The Ethiopian Socioeconomic Survey (ESS) is a collaboration of the Central Statistics Agency of Ethiopia (CSA) and the World Bank. It is financially supported by the Bill and Melinda Gates Foundation (BMGF) through the Living Standards Measurement Study—Integrated Surveys on Agriculture (LSMS-ISA) project. The objective of the LSMS-ISA is to collect multi-topic, household-level panel data in order to improve agriculture statistics and generate a clearer understanding of the link between agriculture and other sectors of the economy. The project also aims to build capacity, share knowledge across countries, and improve survey methodologies and technology.

Specifically, the ESS is designed to:

- Develop an innovative model for collecting agricultural data in conjunction with household data;
- Build capacity to generate a sustainable system for producing accurate and timely information on households in Ethiopia;
- Inform a model of interinstitutional collaboration between the CSA, relevant federal and local government agencies, and national and international research and development partners; and

- Generate a comprehensive analysis of the income, well-being, and socioeconomic characteristics of households in Ethiopia.

Innovations in the ESS include:

- Integrating household welfare and agricultural data;
- Creating a panel data set that can be used to study, e.g., welfare dynamics, the role of agriculture in development, and changes over time in health, education, and work activities;
- Collecting information on the network of buyers and sellers of goods with which a household interacts;
- Expanding the use of GPS units to measure agricultural land areas;
- Involving multiple actors from government, academia, and the donor community in drafting and implementing the survey and analyzing the results;
- Applying computer-assisted personal interviewing (CAPI); and
- Creating publicly available micro datasets for researchers and policy makers.

## 1.2 SURVEY DESIGN

The ESS is designed to collect in both rural and urban areas panel data on a range of household and community characteristics linked to agricultural activities. The first wave was implemented in 2011–12, the second wave in 2013–14, and the third wave in 2015–16. The first wave (originally referred to as the Ethiopia Rural Socioeconomic Survey [ERSS], but since retitled ESS1), covered only rural and small-town areas<sup>1</sup>. The second and the third waves, ESS2 and ESS3, added samples from large town areas<sup>2</sup>. ESS2 and ESS3 are nationally representative.

Because the ESS panel was refreshed in the 2018/19 round, ESS4 is the first wave or baseline of a new panel. Sampling for ESS4 was based on the CSA 2018 pre-census cartographic update of enumeration areas (EAs). The ESS4 sample is a two-stage stratified probability sample. Rural ESS4 EAs are the subsample of the AgSS<sup>3</sup> EA sample. Thus, the first stage of sampling in rural areas entailed using simple random sampling to select EAs—the primary sampling units—from the 2018 AgSS EA sample. The first stage of sampling for urban areas was selecting EAs directly from the urban EAs in each region using probability proportional to size (PPS) systematically. This is designed to automatically produce a proportional allocation of each region’s urban sample by zone. Once

---

<sup>1</sup> The ESS rural sample is integrated with the CSA’s Annual Agricultural Sample Survey (AgSS). The 316 ESS rural Enumeration Areas are subsamples of the AgSS.

<sup>2</sup> The CSA defines small towns based on estimates from the 2007 Population Census; a town with fewer residents than 10,000 is categorized as small; all others are considered large. The small and large town classification used in this survey is due to the expansion of the sample size between Waves 1 and 2.

<sup>3</sup> The AgSS EAs were selected based on probability proportional to the size of population (PPS) from rural EA sample, which is stratified by zone.

the sample EAs were selected, they were categorized as urban or rural using power allocation, which is closer to proportional allocation.

The second stage of sampling was to use systematic random sampling to select households to be surveyed in each EA. From the rural EAs, a subsample of 10 agricultural households was selected from the households selected for the AgSS<sup>4</sup>, and 2 nonagricultural households were selected from the non-agriculture households in each EA. Note that in ESS4, 10 agricultural households per EA were sampled even if there was only one non-agriculture household or none<sup>5</sup>.

For urban areas, a total of 15 households were selected per EA regardless of the households' economic activity. The households were selected using systematic random sampling from the total households listed in that EA.

**TABLE 1.1A**  
**ESS4 Sampled EAs and Households by Region and by Urban and Rural**

	Urban		Rural		Total	
	Sample EAs	Sample Households	Sample EAs	Sample Households	Sample EAs	Sample Households
Tigray	19	285	35	420	54	705
Afar	15	225	31	372	46	597
Amhara	19	285	43	516	62	801
Oromia	20	300	45	540	65	840
Somali	17	255	36	432	53	687
Benishangul gumuz	16	240	30	360	46	600
SNNP	18	270	42	504	60	774
Gambella	20	300	22	264	42	564
Hareri	24	360	18	216	42	576
Addis Ababa	53	795	-	-	53	795
Dire Dawa	28	420	14	168	42	588
<b>Ethiopia</b>	<b>249</b>	<b>3,735</b>	<b>316</b>	<b>3,792</b>	<b>565</b>	<b>7,527</b>

<sup>4</sup> For AgSS, random systematic sampling was used to pick 20 agriculture households, defined as households that are involved in farming, livestock activities, or both.

<sup>5</sup> In previous waves, if there are less than only one or no non-agriculture households in an EA, two more agricultural households were interviewed instead. This means the number of agriculture households surveyed per EA varies with the number of non-agriculture households in the EA.

TABLE 1.1B

ESS4 Completed Interviews of EAs and Households by Region and by Urban and Rural

	Urban		Rural		Total	
	EAs	Households	EAs	Households	EAs	Sample
Tigray	19	283	35	398	54	681
Afar	15	225	29	321	44	546
Amhara	18	271	43	487	61	758
Oromia	20	300	45	486	65	786
Somali	17	255	35	356	52	611
Benishangul gumuz	13	195	19	207	32	402
SNNP	18	269	40	423	58	692
Gambella	20	300	19	209	39	509
Hareri	24	360	18	191	42	551
Addis Ababa	52	778	-	-	52	778
Dire Dawa	28	419	14	161	42	580
<b>Ethiopia</b>	<b>244</b>	<b>3,655</b>	<b>297</b>	<b>3,239</b>	<b>541</b>	<b>6,894</b>

ESS4 planned to interview 7,527 households from 565 enumeration areas (EAs). Table 1.1a shows the distribution of sample EAs and households by region and urban and rural strata: 316 EAs were sampled from the rural AgSS, 249 from the urban. A total of 6770 households from 535 EAs were interviewed for both the agriculture and household module. However, there are additional eight EAs and 124 households from rural areas who were only administered during the agriculture survey (Table 1.1b).

### 1.3 QUESTIONNAIRES, TRAINING, AND FIELDWORK

#### Questionnaires

The ESS4 survey consisted of five questionnaires. *The household questionnaire* was administered to all households in the sample; several modules were administered to each eligible household member. The *community questionnaire* was administered to a group of community members to collect information on the socioeconomic indicators of the EAs where sample households reside<sup>6</sup>. The three *agriculture questionnaires—post-plan-*

<sup>6</sup> Because the community questionnaire does not collect sociological information, the data cannot be used to represent communities in Ethiopia. It simply collects information that is common to the EA households selected for inclusion in the survey.

*ting, post-harvest, and livestock questionnaires*—were administered to all members of households engaged in agricultural activities. An agricultural *holder* is a person who exercises management control over the operations of a holding and makes the major decisions about use of the resources available. Holders have technical and economic responsibility for the holding, which they may operate as owner or as manager. Thus, it is possible to have more than one holder in a single household—the owner and the manager; in those cases, the agriculture questionnaire is administered to both.

The household questionnaire elicits information on education; health (including anthropometric measurement for children); time use and labor; financial inclusion; ownership of and user rights in assets; food and nonfood expenditures; household nonfarm activities and entrepreneurship; food security and shocks; safety nets; housing conditions; physical and financial assets; credit; tax and transfer; and other sources of household income. Household location is georeferenced so that later ESS data can be added to other geographic data sets.

The community questionnaire elicits information on infrastructure; community organizations; resource management; changes in the community; key events; community needs, actions, and achievements; and local retail prices.

The post-planting and post-harvest questionnaires were completed in those households where at least one member was engaged in crop farming on land, whether owned or rented. Both solicited information on land ownership and use; farm labor; inputs use; GPS land area measurement and coordinates of household fields; agriculture capital; irrigation; and crop harvest and utilization.

The livestock questionnaire interviews were used in households where at least one member was engaged in raising livestock. It collected information on animal holdings and costs; and the production, cost, and sales of livestock byproducts.

## Training

Seven training sessions were held: three (in July 2018, December 2018, and April 2019) for training of trainers (TOT) and four (in August 2018, October 2018<sup>7</sup>, January 2019, and May 2019 for field staff enumerators and supervisors. All seven reviewed the content of the questionnaires and the *Survey Solutions* CAPI application used in data collection and supervision.

## Fieldwork

Fieldwork consisted of multiple visits at different times from September 2018 to August 2019. In rural areas, the first visits, in September and October 2018<sup>8</sup>, adminis-

<sup>7</sup> This staff training was arranged for Afar, Somali, and Gambela, areas well known as pastoralist. However, due to security problems, enumerators from Somali could not attend and the agricultural information was not collected in that area.

<sup>8</sup> For the Afar and Gambela EAs, the first visit was in November and December 2018.

tered the post-planting and the livestock questionnaires. It also included crop-cutting exercises that ran from September to December 2018. The second visits, in February and March 2019, were post-harvest and again in rural areas only. The final visits, in June–August 2019, covered both rural and urban areas. The fieldwork incorporated the final household and community questionnaires. The interviews were carried out using CAPI.

## **1.4 ORGANIZATION OF THE REPORT**

This report is a statistical abstract that describes the results related to socioeconomic variables covered in the survey. It is organized as follows: Chapter 2 covers demographic information and education and health outcomes, Chapter 3 housing characteristics and household assets, Chapter 4 agricultural activities, Chapter 5 nonfarm economic activities, Chapter 6 time use and labor, and Chapter 7 consumption, food security and shocks. This report is supplemented by two reports based on the ESS4 data that cover financial inclusion and the tax and transfer modules.





Photo LSMS

## 2. Demography, Education, and Health

### KEY FINDINGS

- Average household size: 5.2 persons in rural areas and 3.6 in urban.
- Dependency ratio: 92 percent in rural areas and 59 percent in urban.
- Self-reported literacy (for reading and writing in any language): 57 percent for males and 43 percent for females (inequality in literacy is common to all age groups and all regions).
- School attendance: about 35 percent of boys and girls aged 7–18 years are not in school. Primary school enrollment: about 60 percent of males and 59 percent of females. Secondary school enrollment: about 5 percent of males and 7 percent of females.
- Self-reported illness for the 4 weeks preceding the survey: 4 percent for males and 5 percent for females.
- Disability—difficulty hearing, seeing, walking, or climbing, remembering or concentrating, performing self-care such as washing, dressing and feeding, and communicating or understanding: higher for those aged 51 and above, with females exhibiting more disabilities than males.
- Healthcare utilization for treatment or checkup in the preceding 4 weeks: about 9 percent for males and 11 percent for females.

### 2.1 HOUSEHOLD DEMOGRAPHY

#### 2.1.1 Average Household Size, Age Distribution, and Dependency Ratio

Table 2.1 presents information about household size, dependency ratio, and age distribution by place of residence. Ethiopian average household size is 4.7 – 5.2 persons in rural areas and 3.6 persons in urban areas. By region, average household size is highest in Somali at 5.8 persons, followed by SNNP at 5. The smallest average size of households is 3.8 persons in Addis Ababa.

Although there are some differences by place of residence, the population is young: Ethiopians 15 years and younger account for more than 42 percent and those 65 and older or only 3.8 percent. Those of working age, 15–64 years, make up 54.3 percent.

The rural dependency ratio, 92 percent, is much higher than the urban, 59 percent<sup>9</sup>. Most dependents in rural areas are at the lower end of the age distribution, probably driven by higher fertility in rural areas. By region, the dependency ratio ranges from 41 percent in Addis Ababa city to 119 percent in Somali.

<sup>9</sup> Total dependency ratio is defined as the population not of working age (<15 and >64) divided by the number of working-age persons (15–64 years). The value is then multiplied to express it in percent. Households with no working persons were excluded in the dependency ratio computation. A dependency ratio that is above 100 means that there is, on average, more than one dependent (young or elderly person) in the household for each prime-age adult member to support.

TABLE 2.1  
**Demographic Characteristics**

**Average Household Size, Dependency Ratio and Age Group by Place of Residence,  
Ethiopia, 2018/2019**

	Average HH Size	Dependency Ratio	Percentage of Population by Age Group				
			0-5	0-9	0-14	15-64	65+
Tigray	4.2	0.77	15.8	26.0	39.4	55.8	4.8
Afar	4.6	0.93	20.3	34.0	46.4	51.6	2.0
Amhara	4.2	0.69	14.2	24.7	37.4	58.4	4.2
Oromia	4.9	0.89	16.8	30.0	44.4	52.4	3.2
Somali	5.8	1.19	17.0	34.0	52.4	45.4	2.2
Benishangul gumuz	4.5	0.76	14.7	27.0	39.8	56.1	4.2
SNNP	5.0	0.91	15.1	29.5	45.4	52.0	2.6
Gambella	4.6	0.76	15.9	27.5	41.6	56.6	1.7
Hareri	4.0	0.78	16.0	28.4	40.8	55.4	3.8
Addis Ababa	3.8	0.41	11.9	17.6	25.3	70.4	4.3
Dire Dawa	4.0	0.66	14.9	25.5	37.2	59.8	3.0
Rural	5.2	0.92	16.1	29.8	44.9	51.6	3.5
Urban	3.6	0.59	14.0	23.3	34.5	62.5	3.0
<b>Ethiopia</b>	<b>4.7</b>	<b>0.82</b>	<b>15.6</b>	<b>28.1</b>	<b>42.3</b>	<b>54.3</b>	<b>3.4</b>

### 2.1.2 Religious Affiliation

Table 2.2 shows religious affiliations of household members aged 10 years and above. About 42 of the respondents are Orthodox Christians, followed by Muslims at 29 percent and Protestants at 21 percent. Orthodox Christians are the majority in Tigray (92 percent), Addis Ababa (75 percent), and Amhara (72 percent). Muslims are the majority in Somali, Afar, Harari, Dire Dawa, and Oromia regions; Protestants have a slight majority in SNNP (55 percent) and Gambela (51 percent).

TABLE 2.2  
Religious Affiliation

	Percent of Population by Religion				
	Orthodox	Catholic	Protestant	Muslim	Other
Tigray	92.2	2.1	0.0	1.7	4.0
Afar	8.2	0.0	2.2	83.5	6.1
Amhara	71.7	0.2	0.5	21.1	6.6
Oromia	27.8	1.8	24.9	36.6	9.0
Somali	0.6	0.0	0.1	98.0	1.3
Benishangul gumuz	36.3	0.7	11.2	45.5	6.3
SNNP	21.6	0.7	54.6	15.7	7.4
Gambella	29.8	6.1	51.1	8.8	4.2
Hareri	23.6	0.2	3.8	69.4	3.0
Addis Ababa	74.9	0.5	9.3	15.0	0.3
Dire Dawa	35.5	0.5	4.2	58.1	1.8
Rural	37.2	1.3	20.9	31.4	9.2
Urban	54.5	0.4	21.8	22.9	0.4
<b>Ethiopia</b>	<b>41.9</b>	<b>1.0</b>	<b>21.2</b>	<b>29.1</b>	<b>6.8</b>

### 2.1.3 Marital Status

Table 2.3 summarizes findings on marital status for respondents aged 10 years and older. About 45 percent have never been married, 45 percent are in a monogamous marriage, 4 percent are widowed, 3 percent are divorced, and 1 percent separated.

### 2.1.4 Parental Characteristics: Education and Occupation

Table 2.4 presents findings on the education and occupation of biological parents for all household members younger than 18 years. For most, both bio-

TABLE 2.3  
Marital Status

Percent of Population by Region and Place of Residence (Ages 10+), Ethiopia, 2018/2019

	Percent of Population by Marital Status						
	Never Married	Married (Mono-gamous)	Married (Poly-gamous)	Divorced	Separated	Widowed	Cohabiting
Tigray	43.3	43.5	0.5	6.1	1.2	5.3	0.2
Afar	40.3	48.5	2.0	3.8	1.7	3.6	0.1
Amhara	40.6	47.4	0.3	5.4	1.2	5.1	0.1
Oromia	45.7	46.0	1.4	2.1	0.7	3.9	0.1
Somali	51.8	39.8	2.5	1.5	0.9	3.4	0.0
Benishangul gumuz	45.7	45.6	1.8	3.4	0.9	2.7	0.0
SNNP	48.5	43.7	1.9	0.8	0.6	4.4	0.1
Gambella	44.6	45.0	1.6	2.8	0.6	5.2	0.1
Hareri	40.2	49.6	1.3	2.9	1.0	5.0	0.0
Addis Ababa	49.6	40.0	0.1	4.0	1.6	4.8	0.0
Dire Dawa	43.3	46.6	0.8	2.3	1.9	5.1	0.0
Rural	44.9	46.1	1.4	2.4	0.6	4.4	0.1
Urban	46.4	42.7	0.7	4.3	1.6	4.2	0.1
<b>Ethiopia</b>	<b>45.4</b>	<b>45.1</b>	<b>1.2</b>	<b>3.0</b>	<b>0.9</b>	<b>4.4</b>	<b>0.1</b>

logical parents either have no education or only some primary schooling (Table 2.4A). Mothers have much less education than fathers: about 54 percent of fathers but only 30 percent of mothers have completed at least primary school. As expected, parents have more education in urban than in rural areas. In rural areas agriculture is the main occupation for both fathers (97 percent) and mothers (56 percent). It is also the most important occupation for parents of urban respondents, over half of whom cited agriculture as their father's main occupation.

TABLE 2.4  
Education and Occupation of Biological Parents

	Country		Place of Residence			
			Rural		Urban	
	Father	Mother	Father	Mother	Father	Mother
<b>Panel A: Education</b>						
No education	46.2	70.0	52.1	78.4	24.7	39.4
Primary	41.5	23.4	41.9	20.0	39.7	35.7
Secondary	7.5	4.5	4.2	1.3	19.6	16.0
Above secondary	4.9	2.2	1.8	0.3	15.9	9.0
<b>Panel B: Occupation</b>						
Agriculture	86.1	47.6	96.9	55.5	56.3	25.9
Mining	0.2	0.1	0.1	0.1	0.2	0.1
Manufacturing	0.5	0.2	0.1	0.1	1.5	0.4
Professional/scientific	1.6	0.4	0.3	0.0	5.2	1.3
Electricity	0.2	0.1	0.1	0.0	0.6	0.2
Construction	1.5	0.1	0.5	0.0	4.3	0.1
Transportation	0.9	0.0	0.0	0.0	3.3	0.1
Buying and selling	3.1	2.7	0.5	0.9	10.6	7.7
Financial services	0.3	0.1	0.1	0.0	0.9	0.4
Personal services	0.9	0.6	0.1	0.1	3.1	1.9
Education	0.9	0.4	0.4	0.2	2.4	1.2
Health	0.3	0.3	0.2	0.1	0.7	0.7
Public administration	1.2	0.2	0.1	0.0	4.1	0.7
Other	0.7	0.6	0.1	0.2	2.2	1.8
Unemployed	1.1	1.2	0.2	0.9	3.5	1.9
Don't know	0.5	0.4	0.3	0.3	1.2	0.8
Household chores, housewife	-	45.1	-	41.5	-	54.9

## 2.2 EDUCATION

### 2.2.1 Literacy

Information on literacy, the ability to read and write in at least one language, was collected for all household members 5 years and older (Table 2.5). Because the ability of respondents to read or write was not tested, the percentages in Table 2.5 are based on self-reports.

One important observation in Table 2.5 is the substantial gender inequality in literacy across age groups and regions. At the national level, more than half (57 percent) of males are literate, compared to 43 percent of females. The youngest (5–9-year-olds) and the oldest (30 or older) groups are less literate than the groups between them.

TABLE 2.5  
Literacy

Literacy by Age Group, Place of Residence, and Region, Ethiopia, 2018/2019, Percent												
	Male						Female					
	Age Category						Age Category					
	Total	5-9	10-14	15-19	20-29	30+	Total	5-9	10-14	15-19	20-29	30+
Tigray	69.3	27.5	91.4	92.7	89.7	64.9	52.3	31.6	88.9	92.2	73.8	24.7
Afar	42.3	24.1	58.5	66.5	63.1	30.7	31.3	21.3	54.6	61.2	38.6	12.5
Amhara	55.7	25.0	72.7	80.6	76.0	45.9	42.7	20.2	82.1	88.4	55.9	15.6
Oromia	54.1	15.3	65.2	82.8	79.3	51.7	38.8	18.1	62.3	72.4	56.0	18.2
Somali	41.6	24.5	57.1	64.1	61.8	30.5	29.7	17.4	57.5	68.4	33.8	7.6
Benishangul gumuz	62.6	(23.7)	76.7	91.9	89.3	54.1	43.5	(18.4)	73.7	86.5	68.7	16.1
SNNP	57.8	18.2	70.8	83.1	84.1	55.9	42.4	18.7	68.8	86.8	62.3	18.1
Gambella	71.4	37.9	85.3	92.7	91.8	67.6	57.8	35.0	83.8	94.4	79.9	30.2
Hareri	65.5	29.1	76.7	88.7	87.2	66.2	54.9	36.5	76.4	78.8	63.5	45.9
Addis Ababa	91.7	73.3	96.6	99.1	97.6	92.4	85.9	79.0	94.9	97.1	93.4	77.9
Dire Dawa	75.9	44.8	91.7	96.2	93.8	73.0	61.4	40.1	88.9	77.6	78.1	51.2
Rural	50.3	16.5	67.5	79.6	74.0	42.8	33.9	16.2	66.8	75.5	46.6	9.6
Urban	77.0	38.7	78.8	91.2	92.6	80.5	66.9	38.5	82.6	93.2	81.8	51.5
<b>Ethiopia</b>	<b>57.0</b>	<b>20.7</b>	<b>69.6</b>	<b>82.2</b>	<b>80.7</b>	<b>53.1</b>	<b>43.3</b>	<b>20.7</b>	<b>70.4</b>	<b>81.2</b>	<b>60.5</b>	<b>21.1</b>
Poorest	48.1	18.5	63.8	77.3	69.0	39.1	34.3	14.9	67.0	76.8	42.7	10.0
Poorer	52.0	16.8	71.3	76.7	75.4	45.5	36.6	19.1	73.1	80.5	44.2	13.7
Middle	56.5	19.8	69.3	87.2	76.0	54.9	41.5	22.5	71.2	79.5	54.3	19.1
Richer	66.1	26.3	73.1	88.4	89.0	63.1	51.0	24.9	66.0	84.9	71.2	28.6
Richest	73.0	32.6	85.1	90.7	91.6	71.0	63.6	36.6	80.4	89.3	78.8	47.1

Note: Values in parentheses are based on less than 100 observations.

By region, literacy is highest for both males (92 percent) and females (86 percent) in Addis Ababa; literacy is lowest (about 42 percent for males and 30 percent for females) in the Afar and Somali regions. As expected, literacy is higher in urban than rural areas. Differences in literacy rates are also seen by consumption quintiles; not surprisingly, literacy is higher the higher the consumption quintile.

## 2.2.2 School Enrollment

Among the school-age population (ages 7–18), enrollment for boys and girls in primary and secondary schools is about 65 percent, but that is mainly at the primary level—only about 5 percent are in secondary school. Interestingly, enrollment of boys and girls is comparable in both primary and secondary school. Enrollment, again, is higher in urban areas and higher consumption quintiles (see Table 2.6).

TABLE 2.6  
School Enrollment

**School Enrollment by Gender, Level, Region, and Place of Residence (ages 7-18), Ethiopia 2018/2019, Percent**

	Male			Female		
	Not Enrolled	Primary	Secondary	Not Enrolled	Primary	Secondary
Tigray	28.1	63.7	8.2	24.9	66.6	8.5
Afar	51.8	43.3	4.9	56.1	39.2	4.7
Amhara	34.7	60.1	5.1	30.4	63.2	6.3
Oromia	35.6	60.6	3.7	35.8	58.0	6.3
Somali	43.4	53.2	3.4	46.2	50.0	3.8
Benishangul gumuz	29.4	65.2	5.4	28.6	61.1	10.3
SNNP	34.6	59.8	5.6	36.4	57.4	6.2
Gambella	18.0	73.4	8.6	22.6	71.6	5.8
Hareri	29.2	64.6	6.2	34.1	57.5	8.3
Addis Ababa	16.0	58.2	25.8	31.9	53.2	14.9
Dire Dawa	23.3	64.3	12.3	34.5	54.8	10.6
Rural	37.4	59.6	2.9	38.0	58.7	3.3
Urban	24.4	61.0	14.6	24.8	58.5	16.6
<b>Ethiopia</b>	<b>34.9</b>	<b>59.9</b>	<b>5.2</b>	<b>34.8</b>	<b>58.7</b>	<b>6.5</b>
Poorest	42.8	54.8	2.4	40.6	56.6	2.9
Poorer	36.2	60.5	3.3	34.6	59.7	5.7
Middle	30.6	62.1	7.3	31.5	61.4	7.1
Richer	26.0	65.9	8.1	30.4	58.2	11.4
Richest	26.3	61.7	12.0	31.5	57.1	11.5

### 2.2.3 School Types and Proximity

In all regions, both rural and urban, almost all current students attend government schools (Table 2.7). However, nongovernment schools are relatively important in urban areas, where 19 percent of primary and secondary students are enrolled in private, NGO, and other private schools. The proportion is highest in Addis Ababa (45 percent). Nongovernment schools are also more important for children from households in higher consumption quintiles. Proximity to school for current students is measured in minutes, regardless of the mode of transportation used (Table 2.7).

TABLE 2.7  
School Types and Travel Time to School

Enrolled Students (ages 7-18), Ethiopia, 2018/2019, Percent										
School Type		Travel Time (minutes)								
		Primary School				Secondary School				
Gov.	Non gov.	0-15	16-30	31-60	61+	0-15	16-30	31-60	61+	
Tigray	96.2	3.8	41.8	29.2	21.6	7.4	36.2	28.4	30.6	4.9
Afar	97.5	2.5	40.4	26.8	29.3	3.6	60.8	23.0	5.7	10.5
Amhara	97.7	2.3	27.0	31.7	34.9	6.4	45.0	29.9	13.7	11.4
Oromia	96.1	3.8	39.1	36.5	20.2	4.2	40.3	36.3	21.3	2.1
Somali	94.3	5.7	58.6	32.1	6.7	2.6	41.2	32.8	24.8	1.1
Benishangul gumuz	99.4	0.6	45.0	38.1	15.6	1.4	48.8	29.1	15.4	6.7
SNNP	94.7	5.3	32.5	40.6	20.6	6.3	32.5	30.2	35.4	1.9
Gambella	94.5	5.5	60.0	32.2	7.3	0.5	46.3	49.1	4.7	0.0
Hareri	86.9	13.1	41.5	47.9	9.3	1.3	41.9	52.4	5.7	0.0
Addis Ababa	55.4	44.6	49.8	40.1	9.3	0.8	38.1	46.8	12.5	2.7
Dire Dawa	81.8	18.2	48.4	35.1	16.2	0.3	42.9	41.6	11.4	4.1
Rural	99.5	0.5	30.4	36.3	27.0	6.4	25.7	20.9	44.9	8.5
Urban	81.1	18.7	59.6	33.7	6.1	0.6	48.7	42.6	7.3	1.3
<b>Ethiopia</b>	<b>94.8</b>	<b>5.1</b>	<b>36.8</b>	<b>35.7</b>	<b>22.4</b>	<b>5.1</b>	<b>39.3</b>	<b>33.7</b>	<b>22.7</b>	<b>4.3</b>
Poorest	99.7	0.3	30.2	34.2	28.9	6.7	35.9	26.5	32.6	5.0
Poorer	97.5	2.3	36.3	36.9	20.4	6.3	39.9	31.4	21.8	7.0
Middle	96.3	3.7	40.1	34.5	22.5	2.9	33.9	29.0	32.6	4.5
Richer	89.6	10.4	41.1	37.2	18.4	3.3	40.0	42.2	14.1	3.7
Richest	78.4	21.6	44.8	38.1	12.1	5.0	49.0	37.2	12.5	1.3

For the country as a whole, about 72 percent of primary and 73 percent of secondary students can reach the nearest school in less than 30 minutes.

Also, as expected, urban school children and those in higher consumption quintiles are closer to both their primary and secondary schools.

#### 2.2.4 Reasons for Absenteeism

When students were asked if they had missed classes for more than a week during the month preceding the survey, about 10 percent of those enrolled had done so. Table 2.8

TABLE 2.8  
Reasons for Absenteeism

<b>Reasons for Absenteeism, Students (Ages 7-18) by Gender, Region and Place of Residence, Ethiopia 2018/2019, Percent</b>				
<b>Enrolled Students Absent</b>	<b>Reason for Being Absent</b>			<b>Other</b>
	<b>Work</b>	<b>Illness or Death in the Family</b>		
Tigray	11.1	14.3	62.1	23.6
Afar	2.6	20.5	51.8	27.8
Amhara	16.3	24.0	60.5	15.5
Oromia	6.9	48.8	44.9	6.2
Somali	6.9	40.3	54.8	4.9
Benishangul gumuz	14.4	40.6	29.8	29.5
SNNP	8.5	52.0	34.3	13.7
Gambella	10.4	32.1	7.8	60.1
Hareri	5.6	40.0	56.4	3.6
Addis Ababa	5.3	75.5	13.0	11.5
Dire Dawa	9.3	23.4	22.2	54.4
Rural	10.2	34.4	55.5	10.0
Urban	7.6	50.4	23.7	25.9
<b>Ethiopia</b>	<b>9.6</b>	<b>37.7</b>	<b>49.1</b>	<b>13.2</b>
Poorest	11.5	40.8	46.7	12.5
Poorer	10.7	31.3	53.1	15.6
Middle	9.3	32.0	55.5	12.5
Richer	5.9	54.5	38.1	7.4
Richest	7.9	40.0	41.9	18.1

summarizes reasons for absenteeism. Death or illness in the family was the most common reason (49 percent), followed by work (38 percent); 13 percent mentioned other reasons.

## 2.2.5 School Expenses

In the academic year preceding the survey, about 40 percent of those in primary schools paid less than 150 Birr on average (Table 2.9). Secondary schools cost more; 97 percent paid more than 150 Birr a year. School fees increase with urban density: primary school fees are higher in Addis Ababa than anywhere else in the country—perhaps because there are more private schools in Addis Ababa than in all other regions.

TABLE 2.9  
School Expenses

	School Expenses, (Ages 7-18) by Level of Education, Region and Place of Residence, Ethiopia, 2018/2019, Percent									
	Primary School					Secondary School				
	<50	50-100	101-150	151-500	500+	<50	50-100	101-150	151-500	500+
Tigray	1.6	11.5	18.0	50.4	18.6	0.0	0.0	1.7	40.4	57.9
Afar	2.1	34.3	21.1	31.5	10.9	0.0	8.0	2.2	26.3	63.4
Amhara	9.7	22.8	12.0	41.4	14.2	0.0	1.2	0.0	25.6	73.2
Oromia	7.6	23.5	8.3	39.6	21.1	1.3	0.0	1.3	22.7	74.7
Somali	1.2	12.8	7.7	47.5	30.9	2.5	2.6	6.4	29.2	59.4
Benishangul gumuz	4.5	19.1	12.1	44.6	19.6	1.5	0.0	2.8	52.0	43.7
SNNP	6.5	28.0	13.7	37.7	14.2	1.7	0.0	0.4	35.7	62.1
Gambella	4.9	11.7	7.4	45.5	30.5	1.7	1.0	0.0	36.5	60.8
Hareri	1.9	6.3	7.4	39.5	44.9	2.0	0.0	4.6	41.2	52.2
Addis Ababa	1.9	1.2	0.9	15.7	80.3	3.1	0.0	0.0	6.7	90.2
Dire Dawa	4.0	6.1	5.1	36.1	48.6	1.6	0.0	0.0	11.4	86.9
Rural	8.0	26.2	11.8	41.7	12.2	1.0	1.0	0.5	37.1	60.4
Urban	2.7	8.4	6.9	34.4	47.6	1.4	0.0	1.3	20.0	77.3
Ethiopia	<b>6.8</b>	<b>22.3</b>	<b>10.7</b>	<b>40.1</b>	<b>20.0</b>	<b>1.2</b>	<b>0.4</b>	<b>1.0</b>	<b>27.0</b>	<b>70.4</b>
Poorest	10.0	29.8	12.0	38.6	9.6	2.8	2.2	0.8	61.1	33.2
Poorer	6.9	22.8	11.1	43.3	15.9	1.0	0.6	0.1	39.9	58.4
Middle	3.7	17.4	13.1	44.2	21.7	2.3	0.0	0.3	21.2	76.2
Richer	6.9	19.6	9.3	34.7	29.6	0.0	0.0	0.0	17.0	82.9
Richest	3.7	12.6	2.0	35.3	46.4	0.2	0.0	4.7	7.9	87.2

## 2.3 HEALTH

### 2.3.1 Prevalence of Illness

Table 2.10 presents information on self-reported health problems. Nationally, self-reported illness in the 4 weeks preceding the survey was about 4 percent for both men and women (Table 2.10), but it differs by region and age. For women, health problems were least prevalent in Afar and most prevalent in Amhara; for men, prevalence was lowest in Afar and highest in SNNP. There are considerable age-group differences: For both men and women, the proportion of those in the oldest age group (60 years and older) who have health problems is much higher than the average in all other age groups.

TABLE 2.10  
Health Problems in the Past 4 Weeks

Population Reporting by Gender, Age Group, Region, and Place of Residence, Ethiopia, 2018/2019, Percent										
	Male					Female				
	Age Group					Age Group				
	All	0-9	10-17	18-59	60+	All	0-9	10-17	18-59	60+
Tigray	3.1	3.7	0.0	2.9	(11.4)	3.0	0.9	1.8	3.5	(13.0)
Afar	1.6	1.7	1.3	1.7	(1.5)	2.3	0.7	1.0	4.3	(0.0)
Amhara	4.5	5.1	3.5	3.9	(9.8)	6.3	4.9	2.6	7.6	(14.6)
Oromia	2.4	2.0	1.0	2.6	(9.8)	3.5	3.4	2.3	3.6	(11.3)
Somali	4.2	5.3	2.6	4.6	(2.6)	4.1	3.0	4.0	4.3	17.2
Benishangul gumuz	2.3	1.8	0.0	2.6	(10.1)	3.9	1.2	0.9	5.3	(19.4)
SNNP	6.0	4.5	4.5	6.8	(18.3)	5.6	5.2	2.9	6.0	(23.6)
Gambella	3.7	6.3	1.0	3.2	(10.4)	2.6	0.8	1.8	3.7	(7.9)
Hareri	1.7	2.4	0.6	1.1	(8.2)	2.5	1.3	1.5	2.9	(8.8)
Addis Ababa	2.8	3.4	3.1	1.8	(13.3)	2.7	2.8	0.7	2.8	(8.4)
Dire Dawa	2.2	3.1	1.1	2.4	(0.0)	2.6	2.9	0.5	2.3	(11.2)
Rural	4.1	3.8	2.6	4.3	10.2	5.4	4.4	3.0	6.2	17.1
Urban	2.8	2.8	1.5	2.4	14.8	2.1	1.4	0.8	2.6	6.7
Ethiopia	<b>3.7</b>	<b>3.6</b>	<b>2.4</b>	<b>3.8</b>	<b>10.9</b>	<b>4.5</b>	<b>3.8</b>	<b>2.5</b>	<b>5.0</b>	<b>14.7</b>
Poorest	4.7	4.3	3.2	4.9	14.8	4.5	4.0	2.2	4.7	25.4
Poorer	4.7	4.2	2.6	5.4	11.8	4.8	2.2	2.4	7.1	14.5
Middle	2.7	2.6	2.0	3.0	4.6	5.4	5.5	3.2	5.8	12.0
Richer	2.9	3.4	1.7	2.4	9.1	4.3	4.5	2.8	4.1	10.0
Richest	2.8	2.5	0.0	2.6	13.9	3.1	2.1	1.7	3.1	12.1

Note: Values in parentheses are based on less than 100 observations.

### 2.3.2 Disability

Information on health difficulties was collected from all members of the household aged 5 and older. Questions pertain to disabilities in six areas: hearing, seeing, walking or climbing, remembering or concentrating, self-care (washing, dressing, and feeding), and communicating or understanding. Table 2.11 summarizes the prevalence of disability for three age groups.

Approximately 1 percent of male and females in the youngest age group had some disability (Table 2.11 Panel A). Prevalence was similar for the next age group (18–50 years old) (Table 2.11 Panel B). However, health disabilities appeared to be more common among the oldest age group (51 and older) (Table 2.11 Panel C).

**TABLE 2.11**  
**Health difficulty/disability**

**Respondents with any Disability by Type, Gender, Age, Region and Place of Residence, Ethiopia, 2018/19**

	Hearing		Seeing		Walking/ climbing		Remembering/ Communicating		Self-care		Communicating/ understanding	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<b>PANEL A: AGED 5-17</b>												
Tigray	0.5	0.5	0.3	0.2	0.9	0.0	0.7	0.0	0.5	0.5	1.7	0.0
Afar	0.9	0.5	0.6	1.7	2.0	0.6	0.7	2.7	2.9	2.3	0.5	1.1
Amhara	0.9	1.1	0.7	0.2	1.9	0.8	1.8	1.8	1.6	0.7	1.4	1.1
Oromia	1.4	0.5	1.6	0.4	1.1	1.3	1.0	1.0	0.7	1.6	1.6	1.8
Somali	0.5	0.6	0.6	1.4	0.9	0.8	0.1	0.7	1.3	1.1	2.0	1.0
Benishangul gumuz	1.8	1.7	1.3	0.2	0.2	0.8	0.5	1.5	0.5	0.6	1.1	1.3
SNNP	1.7	2.3	1.9	1.7	1.1	0.9	1.3	1.9	1.2	1.5	1.8	0.8
Gambella	1.6	1.2	0.6	0.0	1.6	0.7	0.3	0.7	1.4	0.4	0.5	2.0
Hareri	3.1	2.1	1.5	1.4	2.5	1.5	2.3	1.6	3.2	2.9	2.4	1.7
Addis Ababa	0.8	0.5	0.7	2.2	1.2	0.6	0.4	1.2	0.4	1.3	0.0	0.9
Dire Dawa	0.5	0.0	0.3	0.2	0.3	0.0	1.0	0.1	0.5	0.4	0.8	0.6
Rural	1.4	1.2	1.4	0.8	1.3	1.2	1.3	1.5	1.2	1.6	1.8	1.4
Urban	0.4	0.6	1.1	0.6	1.0	0.2	0.2	0.6	0.7	0.4	0.7	0.9
<b>Ethiopia</b>	<b>1.2</b>	<b>1.1</b>	<b>1.3</b>	<b>0.8</b>	<b>1.2</b>	<b>1.0</b>	<b>1.1</b>	<b>1.3</b>	<b>1.1</b>	<b>1.3</b>	<b>1.6</b>	<b>1.3</b>

*continued*

**Respondents with any Disability by Type, Gender, Age, Region and Place of Residence, Ethiopia, 2018/19**

	Hearing		Seeing		Walking/ climbing		Remembering/ Communicating		Self-care		Communicating/ understanding	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<b>PANEL B: AGED 18-50</b>												
Tigray	1.0	1.7	2.5	3.6	3.4	4.1	1.8	1.7	0.9	1.4	2.0	1.0
Afar	2.3	1.5	1.7	1.6	1.4	1.0	2.8	0.5	0.5	0.6	0.6	0.9
Amhara	2.4	1.1	1.4	2.5	1.5	2.7	2.2	2.6	1.0	1.2	2.3	1.8
Oromia	0.9	1.9	3.2	2.2	2.5	2.8	1.7	1.5	1.6	1.4	1.3	1.3
Somali	0.9	2.6	2.6	3.9	2.6	3.4	1.4	1.7	1.7	2.4	1.4	3.0
Benishangul gumuz	1.7	3.1	2.3	6.9	2.2	4.7	1.7	5.6	0.1	0.1	1.4	3.1
SNNP	3.3	3.1	3.1	6.3	4.2	4.6	3.7	2.8	0.8	1.5	2.0	2.0
Gambella	1.7	1.4	5.7	2.4	1.9	1.7	3.4	1.3	1.3	0.7	1.0	0.7
Hareri	2.4	1.7	1.7	1.6	2.9	2.4	3.8	0.6	2.9	0.6	2.8	2.4
Addis Ababa	1.2	0.9	2.0	2.9	2.2	1.7	1.0	2.1	0.8	0.6	0.8	1.0
Dire Dawa	0.8	0.8	1.1	0.9	1.2	1.3	2.0	0.6	1.2	0.7	1.2	0.6
Rural	2.2	2.1	2.7	3.4	3.2	3.7	2.7	2.3	1.5	1.5	2.1	1.9
Urban	0.9	1.5	2.3	3.2	1.3	2.2	1.1	1.6	0.7	0.9	0.8	1.0
<b>Ethiopia</b>	<b>1.8</b>	<b>1.9</b>	<b>2.6</b>	<b>3.3</b>	<b>2.6</b>	<b>3.2</b>	<b>2.2</b>	<b>2.1</b>	<b>1.2</b>	<b>1.3</b>	<b>1.7</b>	<b>1.6</b>
<b>PANEL C: AGED 51+</b>												
Tigray	14.1	22.9	18.7	38.0	21.4	32.6	9.8	21.5	14.2	16.0	8.3	11.2
Afar	(3.1)	(17.2)	(16.2)	(23.5)	(20.0)	(36.0)	(3.7)	(10.2)	(8.4)	(2.5)	(3.9)	(1.6)
Amhara	8.8	15.8	15.8	24.6	11.4	23.1	5.5	10.1	2.2	10.2	1.2	3.1
Oromia	9.3	18.3	21.5	28.5	15.4	26.1	8.0	20.1	5.5	16.0	1.7	9.4
Somali	17.5	(20.4)	20.3	(28.1)	19.8	(22.6)	14.2	(14.8)	10.1	(16.0)	11.7	(10.7)
Benishangul gumuz	(13.4)	(14.1)	(18.6)	(15.8)	(8.9)	(24.1)	(12.4)	(22.3)	(2.3)	(5.5)	(0.7)	(1.5)
SNNP	14.5	19.9	25.0	30.8	19.2	23.3	7.8	6.9	6.5	5.1	1.8	7.6
Gambella	(5.5)	(13.7)	(13.8)	(22.3)	(16.1)	(22.5)	(5.1)	(13.5)	(5.3)	(7.7)	(5.9)	(9.3)
Hareri	(6.0)	(10.4)	(7.4)	(17.3)	(18.8)	(27.5)	(6.5)	(13.3)	(5.7)	(10.4)	(4.6)	(3.8)
Addis Ababa	12.9	12.2	22.8	21.9	19.2	23.4	12.5	13.4	11.7	6.6	2.6	4.7
Dire Dawa	(3.8)	11.4	(10.0)	17.1	(10.3)	24.6	(6.8)	11.9	(3.9)	(10.4)	(0.9)	(5.7)
Rural	10.7	19.5	20.0	28.9	13.9	25.2	7.4	14.2	5.3	11.5	2.3	7.3
Urban	12.0	12.3	21.5	24.6	23.2	23.8	10.2	13.1	8.3	11.6	4.3	5.8
<b>Ethiopia</b>	<b>11.0</b>	<b>17.8</b>	<b>20.3</b>	<b>27.9</b>	<b>15.8</b>	<b>24.9</b>	<b>8.0</b>	<b>14.0</b>	<b>5.9</b>	<b>11.5</b>	<b>2.7</b>	<b>7.0</b>

Note: Values in parentheses are based on less than 100 observations

### 2.3.3 Health Consultations and Type of Facility Visited

All respondents were asked if they went to a modern health facility or a traditional place for treatment or checkup in the past 4 weeks regardless of illness (Table 2.12).

About 9 percent of men and 11 percent of women had done so, and the majority of those were aged 60 and above. For men, health facility utilization ranged from 6 percent in Somali to 13 percent in Gambela. For women, health facility utilization ranged from 8 percent in Somali to 19 percent in Benishangule-Gumuz. For both men and women, utilization is higher in urban than in rural areas and in the higher consumption quintiles, which indicates that utilization is driven by proximity and affordability.

TABLE 2.12  
Consultation for Treatment

	Male					Female				
	Age Group					Age Group				
	All	0-9	10-17	18-59	60+	All	0-9	10-17	18-59	60+
Tigray	8.0	9.6	6.6	6.7	(13.6)	12.0	10.7	1.9	15.5	(20.8)
Afar	12.9	13.9	8.9	13.7	(15.4)	15.7	12.1	7.7	21.0	(32.5)
Amhara	8.6	9.8	5.3	7.9	(19.0)	10.6	7.5	3.5	14.7	13.1
Oromia	8.8	8.1	5.7	9.3	(20.8)	9.6	5.9	2.6	14.7	(21.5)
Somali	6.0	6.2	4.9	5.6	(13.2)	7.6	6.2	2.5	11.4	(18.1)
Benishangul gumuz	12.0	14.7	6.1	13.0	(13.4)	19.1	17.7	5.0	25.1	(19.1)
SNNP	11.5	10.0	9.0	13.3	(17.8)	13.9	10.3	6.5	20.7	(9.7)
Gambella	13.0	13.0	8.3	15.5	(15.3)	15.1	17.4	8.9	16.3	(18.4)
Hareri	8.7	10.2	7.8	6.6	(23.8)	10.8	8.8	7.1	11.7	(23.8)
Addis Ababa	10.3	12.3	8.0	8.1	(28.6)	12.8	14.8	7.2	12.5	(25.6)
Dire Dawa	7.2	6.9	2.5	8.0	(21.4)	10.6	9.6	2.7	13.0	(14.4)
Rural	8.2	7.5	5.8	8.9	16.3	9.9	6.4	3.0	15.6	13.9
Urban	12.3	14.8	9.0	10.7	31.2	14.2	13.8	6.3	16.2	26.3
<b>Ethiopia</b>	<b>9.2</b>	<b>9.1</b>	<b>6.4</b>	<b>9.4</b>	<b>19.1</b>	<b>11.1</b>	<b>8.0</b>	<b>3.9</b>	<b>15.8</b>	<b>17.1</b>
Poorest	7.2	6.6	5.7	7.9	14.4	8.2	5.6	4.1	12.8	9.6
Poorer	7.8	7.6	6.2	7.3	18.5	9.7	6.5	1.7	16.2	10.6
Middle	8.3	8.4	6.9	7.9	16.3	10.7	6.1	4.8	15.5	23.6
Richer	11.2	13.8	7.4	11.2	11.5	13.2	10.4	4.9	17.5	15.5
Richest	14.6	12.6	6.9	14.0	38.4	16.2	16.9	4.6	17.7	26.7

Note: Values in parentheses are based on less than 100 observations

Table 2.13 summarizes the type of health facility visited by individuals who reported at least one such visit in the past 4 weeks. Most individuals sought services at health centers (44 percent), followed by clinics (19 percent) and hospitals (16 percent). People also visited pharmacies (7 percent), health posts (6 percent), traditional healers (3 percent), and others (1 percent). About 4 percent reported that the consultation was in their homes.

As expected, hospitals seem more accessible for urban than for rural residents; the reverse holds true for health posts. The type of health facility visited also varies by region: hospitals were utilized more frequently in Addis Ababa, Harari, Dire Dawa, and Tigray than in the other regions.

**TABLE 2.13**  
**Health Facility**

**Visitors by Health Facility Type, Region, and Place of Residence, Ethiopia, 2018/2019, Percent**

	Hospital	Health Center	Health Post	Clinic	Pharmacy	Traditional Healer	Patient's Home	Other
Tigray	23.9	46.1	7.8	9.1	8.5	3.8	0.2	0.5
Afar	10.6	49.8	14.8	11.4	6.5	4.3	2.7	0.0
Amhara	12.4	52.9	6.7	15.5	2.9	4.5	1.7	3.3
Oromia	17.9	37.8	5.7	26.2	10.1	2.2	0.0	0.0
Somali	16.3	35.7	20.9	7.5	7.7	8.4	3.5	0.0
Benishangul gumuz	13.5	38.3	18.2	14.9	10.4	3.4	0.0	1.2
SNNP	10.7	47.0	4.0	16.3	5.2	2.0	14.4	0.3
Gambella	12.6	53.8	3.0	22.0	5.5	2.4	0.2	0.5
Hareri	45.5	30.8	1.6	17.2	0.9	2.3	1.2	0.5
Addis Ababa	33.7	41.5	1.4	20.6	1.3	0.9	0.3	0.3
Dire Dawa	38.8	42.1	6.0	9.7	2.6	0.4	0.4	0.0
Rural	11.7	45.3	8.4	16.0	7.7	3.5	6.4	1.0
Urban	23.8	42.4	2.0	24.4	4.4	1.9	0.6	0.5
<b>Ethiopia</b>	<b>15.8</b>	<b>44.3</b>	<b>6.2</b>	<b>18.9</b>	<b>6.6</b>	<b>3.0</b>	<b>4.4</b>	<b>0.9</b>
Poorest	11.5	42.1	8.8	8.5	5.5	3.4	18.7	1.5
Poorer	10.6	46.6	8.5	19.2	8.3	3.6	1.8	1.4
Middle	15.5	42.6	5.7	22.5	9.3	2.6	0.8	0.9
Richer	15.5	48.3	4.9	22.9	5.3	2.5	0.2	0.4
Richest	26.0	41.7	3.2	21.1	4.5	2.8	0.6	0.1



# 3. Housing Characteristics and Household Assets

## KEY FINDINGS

- About 77 percent of households live in houses they own. The rest live in rented houses (18 percent) or houses obtained through other arrangements (5 percent).
- The houses tend to be congested, with poor-quality flooring, walls, and roofing, structure, and lacking basic utilities. Housing quality is higher in urban than in rural areas.
- Nationally, over 74 percent of households report having access to improved water during both rainy and dry seasons.
- About 69 percent of households do not have an improved toilet facility and 59 percent do not have a hand-washing facility.
- Firewood is still the most important source of fuel for cooking in both rural and urban areas; about 77 percent of households depend on firewood for cooking.
- Farm implements are common assets in rural areas; furniture and electronic items are more common in urban households.
- Over 55 percent of households report owning of mobile phone. Mobile phones are more likely to be found in urban than rural areas.

## 3.1 HOUSING OWNERSHIP, STRUCTURE, AND FACILITIES

### 3.1.1 Housing Ownership

More than 77 percent of Ethiopian households live in their own houses (Table 3.1). Except for Addis Ababa, where only 31 percent of households own their house, variation in housing ownership is minimal between regions. However, the data highlight considerable differences between rural and urban areas. For example, 50 percent of urban households rent their houses compared with only 3 percent in rural areas.

### 3.1.2 Housing Structure: Number of Rooms and Floor, Wall and Roof Characteristics

Table 3.2 presents information on the quality of housing infrastructure. For instance, about 44 percent of dwellings have a single room; 33 percent two rooms; and 23 percent have three or more rooms.

A traditional kitchen separate from the main dwelling house is characteristic of 43 percent of household-owned dwellings, but about 42 percent of rural and 30 percent of urban households have no kitchen. Nationally, fewer than 4 percent of households

**TABLE 3.1**  
**Housing Ownership**

<b>Ownership by Region and Place of Residence, Ethiopia 2018/2019</b>			
	<b>Self-owned</b>	<b>Rent-Free</b>	<b>Rented</b>
Tigray	65.2	5.3	29.5
Afar	76.7	4.1	19.2
Amhara	76.7	4.3	19.0
Oromia	81.0	4.0	15.0
Somali	77.4	18.2	4.4
Benishangul gumuz	78.7	4.5	16.8
SNNP	85.0	4.1	10.9
Gambella	71.4	9.8	18.7
Hareri	63.0	3.8	33.3
Addis Ababa	30.7	11.3	58.0
Dire Dawa	58.7	5.7	35.6
Rural	93.5	3.9	2.6
Urban	41.7	8.0	50.3
<b>Ethiopia</b>	<b>76.7</b>	<b>5.2</b>	<b>18.1</b>

have a modern kitchen inside or outside the main dwelling, but the figure rises to about 9 percent in urban areas.

For a large majority of houses in both rural and urban areas, wall materials are mud and wood. For flooring about 42 percent of urban households but only 2 percent of rural have a cement floor. More than 91 percent of urban houses are roofed with corrugated iron sheeting. Most houses in rural areas are roofed with either corrugated iron sheeting (55 percent) or thatched (35 percent).

### 3.1.3 Utilities

#### *Sources of Drinking Water*

Table 3.3 summarizes results for source of drinking water in both rainy and dry seasons. Although respondents were asked about their water source and time taken to collect water for both seasons, only 20 percent of households reported different sources, and almost the same percentage of households in rural and urban areas reported seasonal differences—meaning the proportion of improved water sources is more or less the same for both seasons. Nationally, 74 percent of households have self-reported

**TABLE 3.2**  
**Characteristics of Housing**

<b>Characteristics of Housing by Place of Residence, Ethiopia 2018/2019, Percent</b>			
	<b>National</b>	<b>Place of Residence</b>	
		<b>Rural</b>	<b>Urban</b>
<b>Number of rooms</b>			
One	44.4	43.9	45.6
Two	32.8	35.4	27.4
Three or more	22.8	20.7	27.0
<b>Place for cooking</b>			
No kitchen	38.0	41.7	30.1
Traditional kitchen inside	15.9	19.2	8.9
Traditional kitchen outside	43.1	38.5	52.7
Modern kitchen inside	2.3	0.3	6.4
Modern kitchen outside	0.9	0.3	2.1
<b>Flooring material</b>			
Mud/dung	80.9	95.2	51.0
Cement screed	15.1	2.3	41.8
Other	4.0	2.5	7.2
<b>Wall material</b>			
Wood and mud	81.7	84.7	75.5
Wood and thatch	3.0	4.2	0.4
Stone and mud	4.8	5.4	3.5
Other	10.5	5.7	20.6
<b>Roofing material</b>			
Corrugated iron sheet	66.9	55.3	91.2
Thatch	24.6	35.0	3.0
Wood and mud	3.1	4.4	0.4
Other	5.3	5.3	5.4

access to improved water sources for both. However, access to improved water is approximately 33 percentage points higher in urban areas than in rural areas.

Table 3.3 also shows time taken to collect water in minutes; it includes travel time to the source, waiting to collect water, and return travel time. Nationally, 71 percent of households reported that it takes less than 30 minutes to collect drinking water, though average times vary greatly: about 90 percent of urban households reported 30 minutes or less compared with 67 percent of rural households.

TABLE 3.3  
Household Drinking

Water source	Water Source by Place of Residence			Dry Season		
	Rainy Season			National		Rural
	National	Rural	Urban	National	Rural	Urban
Water piped into dwelling	2.8	0.1	8.3	2.9	0.1	8.7
Water piped into yard / plot	15.5	1.2	45.4	16.3	1.2	47.6
Water piped to neighbor	6.0	1.3	15.8	6.1	1.2	16.2
Water piped to public tap standpipe	29.2	34.6	18.1	29.3	34.8	17.8
Tube well / borehole	1.3	1.6	0.7	1.2	1.4	0.7
Protected dug well	7.9	10.7	2.1	8.1	11.1	1.8
Piped water kiosk/ retailer	0.6	0.1	1.6	0.2	0.1	0.5
Protected spring	9.0	11.6	3.5	8.6	11.4	2.7
Bottled water/ SACHET	0.4	0.2	1.0	0.4	0.2	1.0
Rainwater	0.9	1.3	0.1	1.4	2.0	0.2
<b>Total improved</b>	<b>73.5</b>	<b>62.5</b>	<b>96.5</b>	<b>74.4</b>	<b>63.5</b>	<b>97.1</b>
Unprotected dug well	5.3	7.4	0.9	4.9	6.9	0.8
Unprotected spring	12.0	17.4	0.9	11.7	17.0	0.7
Tanker truck/ cart with small tank	0.3	0.2	0.6	0.3	0.1	0.5
Surface water	8.6	12.3	1.0	8.6	12.4	0.6
Other	0.2	0.2	0.2	0.1	0.1	0.2
<b>Total unimproved</b>	<b>26.5</b>	<b>37.5</b>	<b>3.5</b>	<b>25.6</b>	<b>36.5</b>	<b>2.9</b>
< 15 min	42.9	30.7	75.7	46.9	32.5	82.2
15–30 min	28.4	35.0	10.7	26.9	34.5	8.1
31–45 min	11.0	14.1	2.7	10.3	13.9	1.6
46–60 min	7.5	9.0	3.4	7.4	9.2	2.9
61–90 min	4.7	5.1	3.9	4.6	5.4	2.7
91–120 min	2.2	2.6	1.4	2.3	2.8	1.0
> 120 min	3.2	3.5	2.2	1.7	1.7	1.5

### **Sanitation Facilities**

In Table 3.4, flush toilet, ventilated pit latrine, pit latrine with any type of slab, and composting toilet are considered improved toilet facilities. Nationally, about 31 percent of households have access to an improved facility: of these 18 percent of rural and 59 percent of urban households have access.

The majority of households (59 percent) have no hand-washing facility. Of the rest, only 5 percent have hand-washing facilities in their dwelling, 11 percent have one

TABLE 3.4  
Household Toilet

	National	Rural	Urban
<b>Toilet Facility</b>			
Flush to piped sewer system	1.2	0.0	3.8
Flush to septic tank	2.9	0.1	8.6
Flush to pit latrine	5.1	1.1	13.4
Flush to open drain	0.5	0.3	1.0
Flush to do not know where	0.4	0.3	0.5
Pit latrine with slab	20.6	15.9	30.5
Twin pit with slab	0.6	0.2	1.4
Composting toilet	0.1	0.1	0.0
<b>Any improved</b>	<b>31.4</b>	<b>18</b>	<b>59.3</b>
Pit latrine without slab	16.0	15.1	-
Twin pit without slab	0.3	0.3	0.3
Open pit	20.3	23.1	14.7
Bucket	0.5	0.7	0.2
Container-based sanitation	0.0	0.0	0.0
Hanging toilet/latrine	0.2	0.2	0.0
No facility/field/forest	31.2	42.5	7.5
Other	0.1	0.1	0.1
Shared toilet facility	29.0	18.9	50.0
<b>Hand-washing Facility</b>			
In dwelling	4.9	1.5	-
In yard / plot	11.2	9.2	13.3
Mobile object	24.9	18.6	31.5
<b>None</b>	<b>59.0</b>	<b>70.7</b>	<b>46.7</b>

within their compound, and about 25 percent use mobile objects for hand washing. As with other amenities, hand-washing facilities are more common in urban than in rural areas.

### **Source of Light and Fuel**

Table 3.5 summarizes statistics for sources of light, electricity payments, electricity interruptions, and sources of fuel for cooking. In urban areas, about 87 percent of households use electricity as their primary source of lighting. In rural areas, solar energy, kerosene lamps, dry cell batteries, and fuelwood together comprise 90 percent of light sources.

Households with electricity were asked about their monthly payments: nationally, about 79 percent pay less than 100 Birr (less than US\$3) per month. Households were also asked about any outages in electricity in the 7 days before the survey. About 98 percent reported at least one disruption, with disruptions about equal in rural and urban areas.

Firewood remains the most important source of fuel for cooking in both rural and urban areas, although the source varies; while 84 percent of rural households collect their firewood, only 19 percent do the same urban areas. Comparatively, 31 percent of urban households and 6 percent of rural households purchase their firewood for fuel cooking.

## **3.2 HOUSEHOLD ASSETS**

Table 3.6 summarizes household ownership of certain assets. Asset ownership is considered an important measure of welfare; the acquisition of assets can signal improving living standards; the depletion of assets can indicate shrinking household wealth and thus a decline in welfare. Information on ownership of selected assets, including modern and traditional farm implements, home furniture, communication and entertainment equipment, household durables and a few other items such as automobiles, bikes, and jewelry, was collected.

### **3.2.1 Farm Implements**

Because subsistence agriculture is a primary economic activity in almost all of the rural areas surveyed, most rural households own traditional farming tools such as sickles, axes, traditional plough set (*Mofer, Kenber*). Less than 2 percent of rural households have modern plows or improved farming equipment and machinery such as carts and water pumps.

**TABLE 3.5**  
**Household Light Source**

<b>Electricity Cost and Disruptions, and Source of Fuel for Cooking by Place of Residence, Ethiopia 2018/2019, Percent</b>			
	National	Rural	Urban
<b>Main source of light</b>			
Private electric meter	13.9	2.2	38.3
Shared electric meter	20.3	6.9	48.2
Solar	21.5	30.2	3.5
Dry cell light with switch	13.5	18.8	2.5
Kerosene lamp	19.2	26.8	3.5
Firewood	10.4	14.0	3.0
Other	1.1	1.1	1.1
<b>Monthly payment for electricity</b>			
None	24.8	13.1	27.3
1–50 Birr	44.1	71.9	38.0
51–100 Birr	10.0	5.3	11.1
101–500 Birr	18.9	9.7	21.0
> 500 Birr	2.2	0.1	2.7
<b>Electricity interruptions (last 7 days)</b>			
None	2.5	0.2	3.1
One	1.9	0.2	2.2
Two	3.8	1.1	4.4
Three	6.2	4.3	6.7
Four or more	85.5	94.3	83.6
<b>Source of fuel for cooking</b>			
Collected firewood	62.9	84.3	18.6
Purchased firewood	14.1	6.1	30.6
Charcoal	8.5	1.9	22.1
Crop residue/leaves	0.3	0.4	0.2
Dung/manure	4.2	6.1	0.3
Electricity	7.6	0.1	23.2
None	1.5	0.3	3.9
Other	0.9	0.9	1.1

TABLE 3.6  
Household Assets

Household Assets Owned by Place of Residence, Ethiopia 2018/19, Percent			
	National	Rural	Urban
<b>Farm implements</b>			
Sickle	62.1	83.1	18.5
Plough (traditional)	49.8	69.8	8.1
Pick axe	36.1	47.9	11.5
Axe	28.7	36.4	12.6
Plough (modern)	0.7	1.0	0.2
Water storage pit	1.7	1.9	1.3
<b>Furniture</b>			
Blanket/gabi	87.9	85.8	92.3
Mattress or bed	59.1	50.3	77.5
Shelf for storing goods	16.8	9.2	32.5
Mitad <sup>12</sup> -power saving (modern)	6.9	2.2	16.8
Kerosene stove	3.9	2.4	6.9
Wardrobe	10.5	4.0	24.1
Sofa set	7.3	0.7	21.0
Refrigerator	7.2	0.4	21.3
Electric stove	9.7	0.2	29.6
Biogas stove (pit)	0.0	0.0	0.0
Butane gas stove	0.6	0.2	1.5
Mitad-electric	6.7	0.1	20.3
<b>Electronics</b>			
Radio/radio and tape/tape	23.5	22.4	25.9
Television	17.8	2.1	50.5
CD/VCD/DVD/video deck	5.3	0.6	15.0
Satellite dish	16.0	1.8	45.7
Fixed-line telephone	10.2	9.4	11.9
Mobile Phone	55.5	40.4	87.0
<b>Personal items</b>			
Wristwatch/clock	13.8	11.2	19.2
Silver	10.5	5.4	20.9
Gold	8.1	3.7	17.3
<b>Other assets</b>			
Solar device	15.3	20.2	5.1
Water pump	0.3	0.3	0.3
Bicycle	1.2	0.2	3.2
Motorcycle	0.9	0.4	1.9
Private car	0.9	0.0	2.8
Cart (animal-drawn)	1.9	2.0	1.7
Cart (hand-pushed)	0.7	0.6	0.9
Sewing machine	0.5	0.3	1.1
Weaving equipment	1.7	1.1	3.1

<sup>12</sup> Mitad-electric is like electric oven and usually used for baking Enjira (Traditional Bread).

### 3.2.2 Household Furniture

About 76 percent of urban households and 50 percent of rural households own a mattress. Other household durables often owned, particularly in urban areas, are shelves, sofa sets, wardrobe, and such kitchen items as refrigerators, electric *mitads* and kerosene stoves.

### 3.2.3 Entertainment and Communication Equipment

Although the data suggest ownership of communication-based assets has been rising, there is still a significant urban-rural gap. While 51 percent of urban households owned television only 2 percent of rural households did; 12 percent of urban households have land lines, but only 9 percent of rural households. Radios or tape recorders are owned by 26 percent of urban and 22 percent of rural households. Not surprisingly, satellite dishes and CDs are much more likely to be found in urban than in rural areas.



# 4. Agriculture

## KEY FINDINGS:

- Agriculture (farming or livestock) is practiced by 96 percent of rural households.
- On average, rural households own 1 hectare of land, but while on average male-headed households own 1.12 ha, female-headed households own 0.6 ha.
- Fertilizer is applied in about 66 percent of maize, wheat, barley, and teff fields but only 35 percent of sorghum fields. Except for maize and wheat, improved seed usage is very low.
- According to self-reports of crop yield by field, average productivity for major crops in the 2018/19 *meher* season was: maize, 34.4 quintals per hectare (q/ha), sorghum 17.6 q/ha, wheat 14.7 q/ha, barley 13.3 q/ha, and teff 10.9 q/ha.
- Some 62–77 percent of major cereal crop production is for consumption; sales account for 9–25 percent. Farm households tend to sell teff and other higher-value crops and consume lower-value cereal crops like sorghum.
- Cattle are raised by about 84 percent of households that own livestock.
- About half of livestock-owning households reported using immunization services in the 12 months preceding the survey.
- Nationally, more than half of rural households use soil water conservation methods. Terracing and plowing along plot boundaries are among the most common erosion-control methods.

### 4.1 AGRICULTURAL HOUSEHOLDS

The ESS4 sections on agriculture cover farming and livestock rearing in rural areas. The questions in the agriculture modules closely follow the AgSS, with some adaptations to the content and scope of the survey. A comprehensive overview of agricultural innovations adopted in Ethiopia that rely on the ESS is available in SPIA (2020).<sup>13</sup>

---

<sup>13</sup> Standing Panel on Impact Assessment (SPIA), 2020. *Shining a Brighter Light: Comprehensive Evidence on Adoption and Diffusion of CGIAR-related Innovations in Ethiopia*. Rome: SPIA.

Like the AgSS, the ESS data provide information at the holder level. A holder, in CSA surveys, is a person who exercises management control over the operations of the agricultural holdings and makes the major decisions regarding the utilization of the available resources. S/he has technical and economic responsibility for the holding. S/he may operate the holding directly as an owner or as a manager. Because households may have more than one holder, where appropriate the agriculture modules were administered to each holder in the household.

Table 4.1 shows that nationally about 90 percent of households cultivate land, 82 percent rear livestock, and 76 percent do both; and that 95 percent of households practice at least one of the two activities; 5 percent neither farm nor rear livestock.

By gender, about 97 percent of male-headed households engage in agricultural activities and 91 percent of female-headed households.

**TABLE 4.1**  
**Farming and Livestock Activities**

	Number of Households	Any Farming	Any Livestock	Both	Farming Only	Livestock Only	Farming or livestock	Neither
Tigray	382	82.0	68.3	62.6	19.4	5.6	87.7	12.3
Afar	321	13.1	88.8	12.2	0.92	76.6	89.7	10.3
Amhara	475	92.4	81.4	79.2	13.3	2.3	94.7	5.3
Oromia	474	88.6	83.3	75.9	12.7	7.5	96.1	3.9
Somali	56	(15.6)	(98.9)	(15.6)	(0)	(83.4)	(98.9)	(1.1)
Benishangul gumuz	207	96.8	75.9	75.4	21.37	0.5	97.3	2.7
SNNP	423	96.3	85.5	83.1	13.1	2.4	98.6	1.4
Gambella	209	83.9	74.1	63.1	20.8	10.9	94.8	5.2
Hareri	191	90.2	75.3	73.4	16.8	1.9	92.1	7.9
Dire Dawa	161	63.1	72.7	61.5	1.61	11.2	74.3	25.7
<b>Ethiopia</b>	<b>2,899</b>	<b>89.7</b>	<b>82.3</b>	<b>76.4</b>	<b>13.3</b>	<b>6.0</b>	<b>95.6</b>	<b>4.4</b>
Male-headed households	2,065	92.2	86.3	81.4	10.9	5.0	97.2	2.8
Female-headed households	710	81.1	70.9	61.5	19.6	9.4	90.5	9.5

Note: Values in parentheses are based on less than 100 observations.

## 4.2 CROP FARMING

### 4.2.1 Land Tenure

Households were asked if the fields they managed were owned or rented or used by other arrangements, such as sharecropping. They were also asked if they rented out their own fields to other households. The results are summarized in Table 4.2.

About 94 percent of farm households own at least some of the land they cultivate; 12 percent of these reported renting out some of their land in the last 12 months. About 6 percent of households reported borrowing land from others at no cost, 10 percent rented land, and 18 percent cultivated land through other land tenure arrangements.

Land rental is most common in Amhara (24 percent of farm households rent out and 15 percent of households rented in) followed by Tigray (10 percent rent out and 23 percent rent).

TABLE 4.2  
Rural Household Land Tenure

Rural Household Land Tenure by Tenure Type, Region, and Gender of the Household Head, Ethiopia 2018/19, Percent										
	Owned		Rented out <sup>14</sup>		Free Use		Rented in		Other	
	% of HH	Size (ha)	% of HH	Size (ha)	% of HH	Size (ha)	% of HH	Size (ha)	% of HH	Size (ha)
Tigray	86.2	0.1	9.6	0.0	1.9	0.0	23.2	0.0	7.3	0.0
Afar	27.5	0.0	0.7	0.00	62.1	0.0	2.7	0.0	12.3	0.0
Amhara	96.0	0.1	23.7	0.0	4.5	0.0	15.0	0.0	34.3	0.0
Oromia	95.2	0.1	10.3	0.0	6.7	0.0	8.8	0.0	15.7	0.0
Somali	(63.3)	(0.0)	(0.0)	(0.0)	(51.6)	(0.0)	(2.2)	(0.0)	(7.5)	(0.0)
Benishangul gumuz	91.2	0.1	11.4	0.0	10.7	0.0	16.8	0.0	11.4	0.0
SNNP	96.7	0.1	2.5	0.0	4.1	0.0	2.4	0.0	6.4	0.0
Gambella	81.9	0.0	3.4	0.0	15.0	0.0	7.0	0.0	9.1	0.0
Hareri	93.0	0.1	0.0	0.0	3.2	0.0	8.3	0.0	1.8	0.0
Dire Dawa	90.8	0.0	0.0	0.0	4.5	0.0	6.1	0.0	2.2	0.0
<b>Ethiopia</b>	<b>94.2</b>	<b>0.1</b>	<b>12.0</b>	<b>0.0</b>	<b>6.1</b>	<b>0.0</b>	<b>10.0</b>	<b>0.0</b>	<b>17.9</b>	<b>0.0</b>
Male-headed households	95.4	0.1	9.6	0.0	5.0	0.0	11.0	0.0	21.3	0.0
Female-headed households	90.1	0.1	19.2	0.0	10.2	0.0	6.2	0.0	5.7	0.0

Note: Values in parentheses are based on less than 100 observations.

<sup>14</sup> Rent-out and rent-in arrangements include share cropped out and share cropped in.

## 4.2.2 Fields and Field Size

Table 4.3 provides field information by place of residence and gender of the household head. The computation covers all the fields cultivated during the 2018/2019 major season, whether owned or rented.

Rural households cultivate an average of 9 fields, each about 0.12 ha. Average land holding is 1 ha; of which about 0.75 ha is cultivated. This figure is much lower in Afar region.

Table 4.3 also shows that male-headed households have larger holdings than female-headed households; on average, male-headed households cultivate 9 fields, and female-headed households 6; the former owns an average of 1.1 ha of cultivated land and the latter only 0.4 ha.

TABLE 4.3  
Rural Fields

### Average Holdings and Size by Region and Gender of Household Head, Ethiopia 2018/19, Percent

	Measured Fields	Average fields per household	Average field size (ha)	Average HH land holding (ha)	Average cultivated holding (ha)
Tigray	2,001	5.3	0.2	1.0	0.7
Afar	422	1.3	0.1	0.2	0.1
Amhara	4,420	9.9	0.1	1.2	1.0
Oromia	3,379	7.4	0.1	1.1	0.8
Somali	109	(2.1)	0.2	(0.4)	(0.0)
Benishangul gumuz	1,711	8.7	0.2	1.4	1.2
SNNP	4,614	11.4	0.1	0.7	0.4
Gambella	1,095	5.4	0.1	0.6	0.5
Hareri	1,035	5.5	0.1	0.5	0.4
Dire Dawa	553	3.6	0.1	0.4	0.4
<b>Ethiopia</b>	<b>19,339</b>	<b>8.7</b>	<b>0.1</b>	<b>1.0</b>	<b>0.8</b>
Male-headed households	15,356	9.3	0.1	1.1	0.9
Female-headed households	3,343	6.4	0.1	0.7	0.4

Note: Values in parentheses are based on less than 100 observations.

Table 4.4 summarizes information on how fields are used. Respondents were asked whether the fields they managed were used for crop cultivation, pasture, forest, or other. Nationally in rural areas, on average 70 percent of the fields were used for crops—from 82 percent in Benshangul Gumuz to 74 percent in Tigray, 73 percent in Hareri, and 70 percent in Amhara and 14 percent in Afar and about 8 percent in Somali.

Table 4.5 shows share of plots per crop and plot pure-stand (intercropping) status. Most barley, teff, wheat, and horse beans were planted as a pure-stand status but intercropping is common in khat, coffee, enset, and haricot-bean fields.

TABLE 4.4  
Rural Fields

	Cultivated	Pasture	Fallow	Forrest	Prepared for short rainy season (belg)	Homestead	Other
Tigray	73.2	1.1	2.3	1.41	0.0	19.6	2.4
Afar	13.8	0.2	0.5	0.31	2.0	81.3	1.9
Amhara	70.7	8.1	2.2	3.57	2.9	10.3	2.3
Oromia	69.6	6.5	2.4	1.53	1.9	14.8	3.2
Somali	7.6	15.3	1.1	0.00	0.0	69.6	6.4
Benishangul gumuz	81.5	0.1	5.0	0.39	0.0	10.5	2.4
SNNP	69.3	9.1	1.9	3.39	1.5	9.8	5.0
Gambella	64.9	1.9	1.5	0.47	3.0	22.0	6.2
Hareri	73.7	1.4	2.0	1.0	0.0	18.9	2.9
Dire Dawa	65.7	4.9	0.0	0.4	0.2	28.1	0.8
<b>Ethiopia</b>	<b>69.9</b>	<b>7.4</b>	<b>2.2</b>	<b>2.7</b>	<b>2.0</b>	<b>12.3</b>	<b>3.4</b>
Male-headed households	70.6	7.4	2.1	2.7	2.1	11.6	3.6
Female-headed households	65.0	9.0	2.1	2.9	2.0	16.2	2.7

TABLE 4.5  
**Crop Field**

<b>Crop Field Share and Field Status Crop Plot Coverage and Pure Stand Status, Ethiopia, 2018/19, Percent</b>		
	<b>Plots covered</b>	<b>Pure-stand Crops</b>
Barley	4.7	91.9
Maize	11.7	65.6
Sorghum	5.7	62.8
Teff	8.5	98.0
Wheat	5.1	94.2
Chickpea	0.9	87.9
Haricot beans	0.8	39.0
Horse beans	3.3	79.6
Lentils	0.8	83.0
Potato	1.0	85.9
Sweet potato	1.3	59.8
Khat	3.7	36.9
Coffee	6.7	47.8
Enset	6.3	51.6

#### 4.2.3 Use of Inputs

Table 4.6 summarizes use of traditional and modern inputs in cultivating the top five major grains (barley, maize, sorghum, teff, and wheat). Among the inputs considered are seeds, fertilizers, herbicides, and insecticides. Because information on inputs is collected at the field level, the table refers to fields in which at least one of the five grains is grown.

Traditional seeds are used for almost all sorghum, barley, and teff fields. Improved seeds are used in 43 percent of fields with maize, 31 percent with wheat, 11 percent with teff, and 4 percent with barley. While data rely on farmer's self-report, these sometimes diverge from DNA fingerprint findings for a variety of crops (Kosmowski et al. 2018, Wineman et al. 2020, and Jaleta et al., 2020).<sup>15 16 17</sup> SPIA (2020) presents results of a DNA fingerprinting exercise for barley, maize, and wheat conducted with ESS4.

**TABLE 4.6**  
**Input Use**

<b>Input Use by Type and Crop, Ethiopia, 2018/19, Percent of Farming Households</b>								
	<b>Seeds*</b>		<b>Fertilizers</b>			<b>Pesticides</b>	<b>Herbicides</b>	<b>Fungicides</b>
	<b>Traditional</b>	<b>Improved</b>	<b>Any</b>	<b>Inorganic</b>	<b>Organic</b>	<b>Pure-stand Crops</b>	<b>Plots covered</b>	<b>Pure-stand Crops</b>
<b>Barley</b>	96.6	4.4	69.3	53.0	34.3	0.8	16.0	3.7
<b>Maize</b>	65.6	43.3	79.8	53.1	53.7	10.6	3.5	0.7
<b>Sorghum</b>	99.8	0.7	45.5	22.3	34.6	6.3	7.2	0.3
<b>Teff</b>	91.1	11.1	80.3	78.6	9.8	4.2	42.9	2.3
<b>Wheat</b>	75.6	30.8	85.0	77.7	22.0	5.0	39.9	9.2

\* Values under seed traditional and seed improved do not add to 100 as households may use traditional for one plot of a crop, and improved for another.

Fertilizer of any type is applied in over 80 percent of teff, maize, and wheat fields. Inorganic fertilizer is applied in about 78 percent of wheat and 77 percent of teff fields, respectively. Inorganic fertilizer is also used on about 53 percent of maize and barley fields. Organic fertilizers are used on over half of maize fields (54 percent) and 12–28 percent of the other major crops.

Use of herbicides to control weeds, fungi, pests, and insects is also common. Herbicides are used in 40 percent of wheat, 43 percent of teff, 16 percent of barley fields, about 4 percent of maize fields, and 7 percent of sorghum fields.

<sup>15</sup> Kosmowski F., A. Aragaw, A. Kilian, A. Ambel, J. Ilukor, B. Yigezu et al. (2018). "Varietal Identification in Household Surveys: Results from Three Household-based Methods against the Benchmark of DNA Fingerprinting in Southern Ethiopia." *Exp Agr* 55: 371–385.

<sup>16</sup> Wineman, A., T. Njagi, C. L. Anderson, T. W. Reynolds, D. Y. Alia, O. Wainaina, E. Njue, P. Biscaye, and M. W. Ayieko. (2020), "A Case of Mistaken Identity? Measuring Rates of Improved Seed Adoption in Tanzania Using DNA Fingerprinting." *J Agric Econ.* 71: 719-74.

<sup>17</sup> Jaleta, M., K. Tesfaye, A. Kilian, C. Yirga, E. Habte, H. Beyene, et al. (2020). "Misidentification by Farmers of the Crop Varieties They Grow: Lessons from DNA Fingerprinting of Wheat in Ethiopia." *PLoS ONE* 15(7): e0235484.

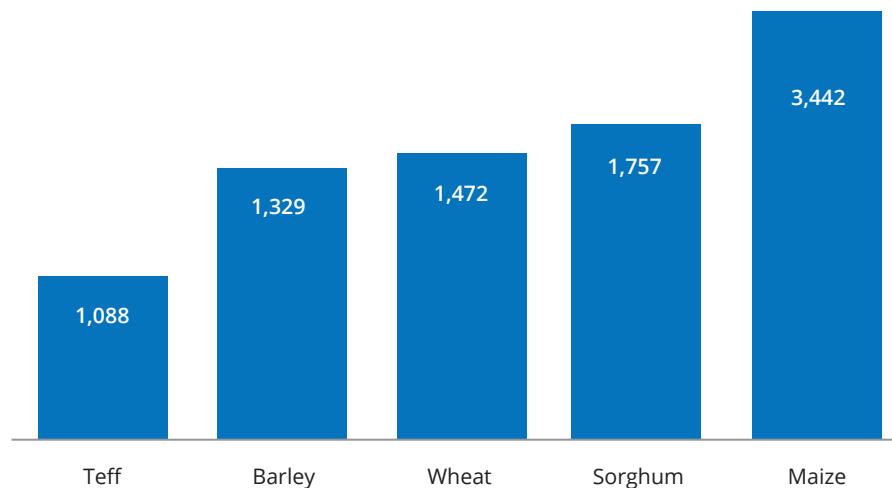
#### 4.2.4 Crop Yield

In the post-harvest interview, farmers who reaped any crop during the 2018/19 main production season (meher) were asked to estimate the amount harvested by field. These self-reports were not verified by the enumerator but still provide important information about yield.

Figure 4.1 shows self-reported yield in kilograms (kg)/ha. On average, yields per ha of maize were about 3,442 (34.4 quintals [q]), sorghum 1,757 (17.6 q), wheat 1,472 (14.7 q), barley 1,329 (13.3 q), and teff 1,088 (10.9 q).

**FIGURE 4.1  
Yield for Major Crops, Kg/ha, Ethiopia 2018/19**

---



*Note:* Though the estimates respondents provided of the amount harvested by field could not be verified by other means, the land area informing this calculation was measured by either GPS or rope and compass.

#### 4.2.5 Crop Disposition

Most of the harvests of the five main crops is used for home consumption—62 percent of wheat, 59 percent of teff, 65 percent of barley, 70 percent of maize and 77 percent of sorghum harvested (Table 4.7)

Very little of the harvest is used for in-kind wages or animal feed. Depending on the crop, what is left is saved for seed (7–21 percent) or sold (6–21 percent). Farmers are more likely to sell-high value food grains like teff and consume grains like sorghum.

TABLE 4.7  
**Five Top Crops**

<b>Disposition of the Five Top Crops, 2018/19 Meher Season, Ethiopia, Percent</b>				
	<b>Household Consumption</b>	<b>Sales</b>	<b>Reimbursements for Land, Labor, or Inputs</b>	<b>Other Use (e.g., Seed, Gift, Animal Feed)</b>
Barley	64.8	9.1	0.5	25.7
Maize	70.3	10.5	1.3	17.9
Sorghum	77.2	9.7	1.5	11.6
Teff	59.4	24.6	2.6	13.5
Wheat	62.2	16.6	1.4	19.8

## 4.3 LIVESTOCK

### 4.3.1 Livestock Types Owned

Table 4.8 shows the proportion of livestock households own by type.<sup>18</sup> The most popular type is cattle; about 84 percent of households that own any livestock reported having at least one head. Donkeys are the second most commonly owned animal type.

TABLE 4.8  
Livestock-owning Households

	Cattle	Sheep	Goats	Camels	Poultry	Horses	Donkeys	Mules	Bees
Tigray	78.3	23.5	32.8	1.4	67.9	0.0	47.4	1.1	11.0
Afar	45.7	66.8	91.1	48.5	8.2	0.0	54.3	0.0	1.3
Amhara	86.2	38.4	29.2	0.6	70.2	3.9	56.6	1.8	12.3
Oromia	83.0	39.0	32.2	1.8	59.8	11.8	39.2	1.3	11.1
Somali	(35.2)	(68.9)	(100.0)	(26.2)	(2.3)	(0.0)	(84.5)	(0.0)	(0.0)
Benishangul gumuz	65.3	6.4	31.3	0.0	63.0	0.0	25.8	3.2	9.4
SNNP	89.9	43.4	30.2	0.0	57.9	9.2	20.4	1.7	7.6
Gambella	53.0	14.3	32.8	0.0	62.1	3.2	3.6	3.6	9.9
Hareri	78.0	6.9	67.8	1.4	28.0	0.0	26.7	0.0	1.3
Dire Dawa	74.8	44.7	77.7	16.2	67.2	0.0	43.5	0.0	7.8
Ethiopia	<b>84.1</b>	<b>38.9</b>	<b>32.2</b>	<b>1.7</b>	<b>61.7</b>	<b>8.1</b>	<b>40.4</b>	<b>1.5</b>	<b>10.4</b>
Male-headed households	86.9	39.2	32.8	1.7	62.9	8.7	43.6	1.6	11.3
Female-headed households	74.6	42.4	30.2	1.9	55.1	6.3	28.8	1.2	5.2

Note: Values in parentheses are based on less than 100 observations.

<sup>18</sup> The percentages are based on reported ownership of one or more livestock.

Although most cattle and poultry raised are local or indigenous breeds, about 4 percent of cattle are exotic or hybrid; 10.8 percent of the poultry raised in the country is crossbred (Table 4.9).

**TABLE 4.9**  
**Animal Crossbreeds**

**Animal Crossbreeds Raised by Region and Gender of Household Head, Ethiopia 2018/19, Percent**

	Share of household		Share of total animal	
	Any Exotic or Hybrid Cattle Owned	Any Exotic or Hybrid Poultry Owned	Any Exotic or Hybrid Cattle Owned	Any Exotic or Hybrid Poultry Owned
Tigray	3.4	48.4	1.5	34.7
Afar	0.2	(9.0)	0	(4.9)
Amhara	7.6	19.9	3	11.4
Oromia	9.9	19.1	5.4	8.2
Somali	(0.0)	(0.0)	(0.0)	(0.0)
Benishangul gumuz	1	(8.2)	1.2	(3.6)
SNNP	5.8	19.7	1.8	9.5
Gambella	(0.0)	(19.6)	(0.0)	(3.5)
Hareri	4.8	(7.0)	(4.1)	(7.9)
Dire Dawa	(0.0)	(28.0)	(0.0)	(14.1)
<b>Ethiopia</b>	<b>7.8</b>	<b>21.2</b>	<b>3.5</b>	<b>10.8</b>
Male-headed households	8.2	21.5	3.5	10.8
Female-headed households	6.7	18.8	3.5	10.8

Note: Values in parentheses are based on less than 100 observations.

### 4.3.2 Livestock Vaccination Coverage

About half of livestock-owning households (49 percent) reported their livestock had been vaccinated against at least one disease in the 12 months preceding the survey (Table 4.10). While some differences in vaccination coverage are observed by region, comparisons would be misleading because disease risk profiles differ from one region to another. Among diseases livestock are vaccinated against, anthrax, brucellosis, and anthelmintics (treatment against internal parasites, like deworming) are more common.

TABLE 4.10  
**Livestock Vaccinations**

**Livestock Vaccinations and Other Preventive Care by Region and Gender of Household Head,  
Ethiopia 2018/19, Percent**

	Any Vaccination	Brucellosis	CBPP	Lumpy Skin Disease	FMD	Anthrax	BQ	Other Vaccines	Anthelmintics	Ticks and Other External Threats
Tigray	61.4	36.4	34.1	29.9	10.0	28.0	27.3	18.7	18.9	34.3
Afar	16.5	(87.0)	(5.5)	(1.1)	(4.5)	(0.0)	(0.0)	(3.2)	6.7	14.5
Amhara	43.4	42.1	15.5	6.2	6.4	31.1	32.2	25.8	19.7	20.4
Oromia	48.6	31.0	16.9	28.4	9.7	43.3	26.9	6.8	31.5	26.7
Somali	(2.2)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(100.0)	(0.0)	(0.0)
Benishangul gumuz	38.3	(39.8)	(15.8)	(22.1)	(2.9)	(19.8)	(24.3)	(4.6)	36.8	41.2
SNNP	57.9	19.5	24.4	7.1	1.0	45.8	28.5	11.0	23.3	14.1
Gambella	5.6	(46.2)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(53.8)	40.0	12.7
Hareri	15.7	(22.9)	(5.6)	(5.1)	(0.0)	(63.4)	(65.8)	(6.7)	24.3	32.3
Dire Dawa	7.6	(45.6)	(0.0)	(0.0)	(18.0)	(30.8)	(15.3)	(19.4)	19.4	34.5
<b>Ethiopia</b>	<b>49.0</b>	<b>31.2</b>	<b>19.7</b>	<b>17.3</b>	<b>6.5</b>	<b>39.6</b>	<b>28.5</b>	<b>13.3</b>	<b>25.5</b>	<b>22.4</b>
Male-headed households	51.4	31.2	20.2	17.7	5.2	37.9	27.7	14.3	24.9	23.6
Female-headed households	42.9	34.7	19.4	16.4	4.9	42.4	35.1	9.9	29.5	19.2

Note: Values in parentheses are based on less than 100 observations.

### 4.3.3 Livestock Disposition: Sale, Slaughter, Death, and Offering

Table 4.11 illustrates livestock disposition in the 12 months preceding the survey. More than half of households (56 percent) sold at least some livestock. As reported below in Chapter 7, sale of livestock is a major mechanism for coping with shocks. Also, 33 percent of households reported slaughtering livestock.

TABLE 4.11  
Livestock Acquisition

	Born on Holding	Buying	Receiving as Gift	Giving Away	Losing	Selling Alive	Slaughtering
Tigray	80.1	55.2	2.3	3.5	62.9	56.6	57.4
Afar	96.2	23.8	7.4	16.3	85.9	79.3	69.6
Amhara	87.8	63.9	6.3	9.0	71.4	75.4	57.3
Oromia	85.0	51.4	9.0	7.7	49.7	45.3	20.6
Somali	95.5	6.7	4.5	0.0	44.0	94.4	46.3
Benishangul gumuz	82.4	44.1	6.0	5.3	77.4	52.5	26.7
SNNP	82.7	55.3	17.6	7.7	52.5	50.7	16.8
Gambella	80.0	50.7	0.7	4.3	52.6	33.9	24.3
Hareri	65.8	16.2	5.6	3.2	15.2	13.5	14.6
Dire Dawa	86.6	33.3	22.3	16.9	65.0	58.9	17.6
<b>Ethiopia</b>	<b>85.1</b>	<b>55.1</b>	<b>9.7</b>	<b>7.8</b>	<b>57.6</b>	<b>56.0</b>	<b>32.5</b>
Male-headed households	86.4	56.6	9.3	7.1	57.6	57.0	34.3
Female-headed households	82.7	49.0	10.9	10.4	59.0	56.7	24.8

\* Households that owned animals currently or had owned or dealt in them (buying, selling) at some point in the previous 12 months.

Selling is the most common disposition for cattle, sheep, goats, and poultry (Table 4.12). Slaughtering is less common than selling, but is still reported by 24 percent of households owning sheep, 22 percent owning goats, and 30 percent owning poultry. It is also not uncommon to lose these types of livestock.

**TABLE 4.12**  
**Livestock Acquisition**

**Livestock Acquisition and Disposition by Livestock Type, Ethiopia 2018/19, Percent**

	Born on Holding	Buying	Receiving as Gift	Giving Away	Losing	Selling Alive	Slaughtering
Cattle	79.4	26.0	5.3	6.7	22.9	36.2	2.4
Sheep	70.4	22.6	3.6	2.3	26.3	38.9	23.9
Goats	74.6	23.8	4.1	1.7	29.0	39.1	22.1
Camels	41.8	7.2	0.0	0.4	25.3	28.8	0.9
Poultry	59.0	42.9	3.1	2.5	55.2	30.2	29.8
Horses	14.8	11.9	2.8	1.6	6.5	4.6	NA
Donkeys	21.0	12.9	0.6	0.5	8.7	9.8	NA
Mules	17.2	11.0	4.6	0.0	13.2	2.9	NA
Bees	28.0	5.5	4.0	2.2	22.7	1.6	NA

\* Households that owned animals currently or had owned or dealt in them (buying, selling) at some point in the previous 12 months.

## 4.4 NATURAL RESOURCE MANAGEMENT

### 4.4.1 Soil and Water Conservation

Adoption of soil and water conservation (SWC) structures is detailed in Table 4.13. In 2019 such erosion prevention methods had been adopted by 56.6 percent of households. Nationally, physical terracing of land was the choice of 40 percent of households, followed by plowing along the plot boundaries (27 percent). The use of SWC methods is more common in Dire Dawa, Harari, Tigray, and Amhara. More than 70 percent of rural households use this method in each of these regions.

TABLE 4.13  
Erosion Prevention

	Total HH Using Any Erosion Prevention	Common Erosion Prevention Mechanism							
		Terrac- ing	Water Catch- ments	Affor- estation	Ploughing along Contour	Plant-ing Grass	Moving Livestock into the Field	Keeping Livestock out	Other
Tigray	77.6	31.1	16.8	1.3	49.0	0.0	1.8	0.0	0.0
Afar	(64.1)	(29.7)	(22.1)	(0.0)	(48.2)	(0.0)	(0.0)	(0.0)	(0.0)
Amhara	70.9	41.8	12.8	2.0	24.2	1.0	1.1	0.0	17.1
Oromia	54.8	33.2	4.9	6.4	25.2	0.2	2.7	0.5	26.9
Somali	(54.4)	(33.3)	(0.0)	(0.0)	(0.0)	(58.3)	(8.3)	(0.0)	(0.0)
Benishangul gumuz	54.3	15.0	16.0	0.9	63.0	0.4	3.4	0.5	0.9
SNNP	40.7	50.8	5.3	7.3	28.8	0.2	2.8	1.1	3.7
Gambella	7.2	(0.0)	(12.1)	(7.6)	(15.3)	(0.0)	(52.1)	(0.0)	(12.8)
Hareri	80.4	81.3	5.8	0.4	9.1	2.5	1.0	0.0	0.0
Dire Dawa	85.2	85.7	13.9	0.0	0.4	0.0	0.0	0.0	0.0
<b>Ethiopia</b>	<b>56.6</b>	<b>40.1</b>	<b>8.9</b>	<b>4.5</b>	<b>27.1</b>	<b>0.5</b>	<b>2.1</b>	<b>0.4</b>	<b>16.4</b>
Male-headed households	57.4	39.2	9.2	3.9	27.4	0.6	2.3	0.5	17.0
Female-headed households	53.4	49.3	8.5	5.2	20.5	0.5	1.5	0.0	14.5

Note: Values in parentheses are based on less than 100 observations.

#### 4.4.2 Management of Agricultural Water

Table 4.14 shows techniques used to manage agricultural water. Nationally, in 2019, only 2.5 percent of fields were irrigated, mostly in regions with limited rainfall had. The most common irrigation methods were river dispersion (58.8 percent of irrigated plots), hand pull (17.3 percent), and motorized pumps (14.5 percent).

TABLE 4.14  
Management of Agricultural Water

**Management of Agricultural Water by Arrangement, Method, Region, and Gender of HH Head, Ethiopia 2018/19, Percent**

	Arrangement			Method				
	Any Field Irrigated	Irrigation Only	Irrigation Supplementing Rainwater	River Diversion	Pressure Treadle Pump	Motorized Pump	Hand Pull	Other
Tigray	3.6	(7.1)	(92.9)	(45.1)	(0.0)	(13.1)	(17.3)	(24.4)
Afar	(55.7)	(100.0)	(0.0)	(77.8)	(0.0)	(21.3)	(1.0)	(0.0)
Amhara	5.1	12.0	88.0	56.6	0.7	8.3	23.1	11.3
Oromia	1.7	(21.7)	(78.3)	(63.8)	(0.0)	(31.1)	(5.1)	(0.0)
Somali	(28.3)	(0.0)	(100.0)	(0.0)	(0.0)	(100.0)	(0.0)	(0.0)
Benishangul gumuz	2.6	(8.1)	(91.9)	(97.3)	(0.0)	(0.0)	(2.7)	(0.0)
SNNP	0.3	(11.4)	(88.6)	(72.9)	(0.0)	(0.0)	(14.2)	(12.9)
Gambella	0.5	(25.0)	(75.0)	(0.0)	(0.0)	(75.0)	(0.0)	(25.0)
Hareri	17.4	0.8	99.2	29.1	0.6	67.6	2.7	0.0
Dire Dawa	21.4	(0.0)	(100.0)	(98.3)	(0.0)	(1.4)	(0.2)	(0.0)
<b>Ethiopia</b>	<b>2.5</b>	<b>14.3</b>	<b>85.7</b>	<b>58.8</b>	<b>0.4</b>	<b>14.5</b>	<b>17.3</b>	<b>9.0</b>
Male-headed households	2.5	13.2	86.8	58.9	0.5	13.6	16.9	10.1
Female-headed households	3.3	19.0	81.0	58.4	0.0	18.4	19.0	4.2

Note: Values in parentheses are based on less than 100 observations.





*Photo: Arne Hoel / World Bank*

# 5. Nonfarm Enterprises, Other Income, and Assistance

## KEY FINDINGS:

- Nationally, at least 23 percent of households have at least one nonfarm enterprise (NFE).
- The three main barriers to establishing NFEs are lack of financial services (33 percent) and access to transportation (18 percent) and markets (14 percent).
- Asked about income other than their main livelihood, about 10 percent of households reported cash transfers in the last 12 months, with median income received amounting to Birr 4,000.
- 5 percent of rural households received assistance from the Productive Safety Nets Program (PSNP), which targets chronically food-insecure *Weredas*.

## 5.1 NONFARM ENTERPRISES

### 5.1.1. Types of Nonfarm Enterprises

Detailed information was collected on household NFE activity during the 12 months preceding the survey (Table 5.1). Nationally, 23 percent of households have at least one NFE, which are more common in urban than rural areas: About 38 percent of urban households but only 15 percent of rural households reported having one or more.

The three most common NFE activities are nonagricultural businesses or services from home (10 percent), trading by, e.g., selling goods on the street or in a market (4 percent), and selling processed agricultural products like food and local beverages (3 percent).

Not surprisingly, nonagricultural businesses are most common in Addis Ababa and almost no NFEs in the capital are agricultural.

TABLE 5.1  
Types of Nonfarm Enterprises

**Types of Nonfarm Enterprises by Region and Place of Residence, Ethiopia 2018/19, Percent**

	Any NFE	Non-agricultural Business/ Services from Home/ Shop	Processed Agricultural Products (flour, tella, enjera...)	Trading on a Street or in a Market	Services and Goods Sold	Professionals	Taxi/ Pickup Truck	Bar/ Restaurant	Other Small Business
Tigray	26.5	12.8	4.1	3.2	0.7	1.7	1.9	1.4	4.0
Afar	13.6	6.1	2.2	1.8	0.5	0.3	0.2	0.3	2.6
Amhara	20.8	8.7	3.7	2.5	2.2	0.1	0.9	0.5	3.6
Oromia	24.5	11.2	3.7	4.0	1.4	0.5	1.2	0.2	3.9
Somali	13.1	5.3	0.5	1.6	1.0	0.3	0.6	1.0	3.2
Benishangul gumuz	17.0	9.4	2.7	3.1	0.1	-	0.5	-	2.6
SNNP	22.7	9.0	3.2	4.6	2.4	0.8	0.9	1.1	3.5
Gambella	27.2	8.2	7.0	3.4	3.1	0.7	0.8	1.9	5.9
Hareri	29.4	13.7	2.4	7.3	1.0	0.7	2.7	0.1	3.5
Addis Ababa	29.2	14.9	0.9	4.1	1.1	2.0	2.6	1.7	6.1
Dire Dawa	22.7	13.6	1.2	3.6	0.5	-	2.7	0.3	1.9
Urban	38.0	18.9	4.2	6.9	1.3	1.2	2.3	1.4	5.7
Rural	15.7	5.9	2.9	1.9	1.9	0.3	0.6	0.3	2.9
<b>Ethiopia</b>	<b>23.0</b>	<b>10.1</b>	<b>3.3</b>	<b>3.5</b>	<b>1.7</b>	<b>0.6</b>	<b>1.2</b>	<b>0.7</b>	<b>3.8</b>

### 5.1.2. Barriers to Establishing NFEs

Households planning to establish an NFE in the next 12 months were asked to identify what might prevent them from doing so (Table 5.2). The top three barriers relate to financial services (33 percent), transportation (18 percent), and markets (14 percent). However, there is considerable variation by place of residence. The main constraint in rural areas relates to transportation (32 percent) whereas financing (35 percent) is the top obstacle in urban areas. Electricity is the third main constraint in both rural (15 percent) and urban (10 percent) areas.

TABLE 5.2  
Constraints on Opening an NFE

	Ethiopia	Urban	Rural
Financial services	32.9	35.1	30.4
Transportation	17.5	5.7	31.6
Markets	13.9	21.5	4.7
Electricity	12.1	9.7	14.9
Technology	1.4	0.6	2.2
Water	1.7	2.2	1.2
Registration and permits	5.7	7.1	4
Safety	1.3	0.2	2.5
Government	2.5	4.7	0
Telecommunication	2	1.7	2.4
Taxation	4.1	5	3
Other	2.5	3.8	0.9
None	2.4	2.7	2

## 5.2 OTHER INCOME SOURCES

As shown in Table 5.3, cash transfers are the most common form of nonagricultural income, with 10 percent of households having receiving cash transfers and gifts in the 12 months preceding the survey. The average amount received as a cash transfer or gift is 4,000 Birr. Food was received by 5 percent of households and nonfood (in-kind) transfers by 3 percent.

Selling agricultural assets is the second main source of nonagricultural income, with 8% of households reporting income from that source, with the average (median) amount Birr 6,500.

TABLE 5.3  
Other Income

**Other Income by Source in the Last 12 Months and Median Income by Source, Ethiopia 2018/19**

	Households Received Other Income (%)	Median Income Received (Birr)
<b>Incoming Transfers/Gifts</b>		
Cash	10.3	4,000
Food	5.2	500
Nonfood in-kind	2.5	800
<b>Pension and Investment Income</b>		
Interest or other investment	0.2	(520)
Pension income	1.4	7,000
<b>Rental Income Sources</b>		
Shop, store, house, car, truck	2.5	6,000
Land	4	4,000
Agricultural tools	0.2	(2,500)
Transport animals	0.7	(600)
<b>Sales of Assets</b>		
Real estate	0.2	(2,880)
Nonagricultural assets	1	(3,500)
Agricultural and fishing asset	7.9	6,500
Sale of other assets (e.g., business, shares)	0.9	4,600
<b>Other income</b>		
Inheritance, lottery, gambling	0.2	(12,000)

Note: Values in parentheses are based on less than 100 observations.

The main sources of other income are shown in Table 5.4. Private transfers are more important in urban areas (22 percent) than in rural (11 percent). Revenue from sale of assets is most common in SNNP (16 percent) and Somali (12 percent); rental income is more common in Amhara and Addis Ababa (12 percent in each). About 10 percent of households in Addis report income from pensions and investment, compared to 2 percent nationally.

**TABLE 5.4**  
**Other Income**

**Other Income by Source, Region, and Place of Residence, Ethiopia 2018/19, Percent**

	Incoming Transfers and Gifts	Pension and Investment Income	Rental Income	Sales of Assets	Other Income
Tigray	15.7	2.2	7.0	4.4	0.1
Afar	15.2	1.0	3.3	6.5	0.3
Amhara	13.2	0.8	12.2	7.4	0
Oromia	12.0	1.4	5.3	9.8	0.3
Somali	23.6	0.1	1.9	11.9	0.2
Benishangul gumuz	8.4	0.7	8.6	5.8	0
SNNP	17.0	0.9	4.4	15.7	0.3
Gambella	12.4	0.6	2.5	8.5	0
Hareri	14.5	6.5	7.4	7.0	0
Addis Ababa	20.2	10.1	11.6	0.4	0.1
Dire Dawa	19.3	8.2	6.7	5.4	0
Urban	21.5	4.3	10.2	2.5	0.4
Rural	11.1	0.4	5.7	12.9	0.1
Ethiopia	14.5	1.6	7.2	9.5	0.2

### **5.3 ASSISTANCE FROM GOVERNMENT AND NONGOVERNMENTAL ORGANIZATIONS**

Household receipt of assistance from government and nongovernmental agencies is shown in Table 5.5. The PSNP, one of the largest nationwide programs, targets chronically food-insecure Weredas. Households may also receive free assistance from NGOs.

Free food is the most common form of assistance; 6 percent of households reported receiving food—more than the number receiving help from PSNP and other supports. In rural areas 7 percent of households received free food support, as did 3 three percent in urban areas. This assistance is most common in Somali (20 percent), Gambela (15 percent), and Afar (14 percent).

Nationwide, 4 percent of households reported PSNP support—5 percent in rural and 2.1 percent in urban areas. PSNP assistance is significant in Somali (14 percent) and Tigray (11 percent), but minimal in Benshangul Gumuz and Gambela.

TABLE 5.5  
**Assistance Received**

<b>Assistance Received by Type and Place of Residence, Ethiopia 2018/19, Percent</b>			
	<b>PSNP Direct Support</b>	<b>Free Food Support</b>	<b>Other Assistance</b>
Tigray	10.7	5.1	1.1
Afar	5.4	14.1	0.9
Amhara	5.7	5.5	0.6
Oromia	1.6	4.9	0.2
Somali	14.1	19.9	0.7
Benishangul gumuz	0.2	1.6	0.6
SNNP	2.5	5.4	0.2
Gambella	0.2	14.7	1.9
Hareri	6.1	1.1	0.6
Addis Ababa	2.7	1.1	1.3
Dire Dawa	4.4	2.2	0.4
Urban	2.1	3.2	0.6
Rural	5.0	6.9	0.4
<b>Ethiopia</b>	<b>4.1</b>	<b>5.7</b>	<b>0.5</b>





Photo: Stephan Bachenheimer / World Bank

# 6. Time Use and Labor

## KEY FINDINGS:

- The time-use data demonstrate the diversity of the rural economy, where households spend time on both agricultural and nonagricultural activities.
- Women are much more likely than men to spend time collecting water and fuel wood; about 49 percent of female household members engage in these activities daily, compared with only 25 percent of male members.
- As expected, agricultural activities are more important in rural than in urban areas; male household members do somewhat more agricultural work than female.
- Household nonfarm businesses are more important in urban than in rural areas.

### 6.1 THE ESS TIME USE DATA

Time-use surveys show how different individuals—women and men, girls and boys, rural and urban residents—spend their time on different activities. The time-use activities in the ESS4 reflect the period, June to August 2019, when the interviews were carried out: the timing matters to the results. For example, rural individuals spend more time on agricultural work during the planting and harvesting seasons. The season can also affect other activities, such as temporary jobs, unpaid work, or apprentice activities.

The survey collected information on time use for all household members aged 7 and above (Table 6.1). Each eligible member was asked to recall the time spent on the activity in a given period. Engagement in productive activities varies within households by age and gender. The following sections present time-use information on different activities disaggregated by age, gender, and place of residence. 6.2 Time Spent on 6.2

**TABLE 6.1**  
**ESS Time**

<b>ESS Time Use Data: Activities, Recall Period, and Time Unit</b>			
<b>Activity Type</b>	<b>Activity Detail</b>	<b>Recall Period</b>	<b>Time Unit</b>
Fetching water and fuel wood	Time spent by each eligible member	One day: the day before the interview date	Hours & Minutes
Agricultural work	Time spent on farming, livestock, fishing, etc. for consumption or sale	7 days preceding the survey date	Hours
Nonfarm work	Nonagricultural, nonfishing business for the member or for the household	7 days preceding the survey date	Hours
Casual part-time/temporary work	Time spent on any casual, part-time, or temporary work by each eligible household member	7 days preceding the survey date	Hours
Work for wage, salary, or commission	Any work for a wage, salary, commission, or any payment in kind, excluding temporary by eligible household member	7 days preceding the survey date	Hours
Apprentice and unpaid work	Unpaid or apprenticeship type of work by eligible household member	7 days preceding the survey date	Hours

## 6.2 TIME SPENT ON COLLECTING WATER AND FUEL WOOD

Table 6.2 summarizes the proportion of household members 7 and older who spent time collecting water and fuel wood the day before the interview. About 49 percent of female members engage in these activities every day, compared to only 25 percent of males. This gender disparity holds in both rural and urban areas in all regions.

TABLE 6.2

### Time Spent Collecting Water and Fuelwood

**Time Spent Collecting Water and Fuelwood per Day by Gender, Region, Place of Residence and Wealth Status, Ethiopia 2018/19, Minutes**

	Male				Female			
	Age group				Age group			
	All	7-14	15-64	65+	All	7-14	15-64	65+
Tigray	24.9	25.7	24.9	(22.1)	46.8	39.7	50.2	(31.8)
Afar	21.3	22.8	20.7	(17.9)	61.1	38	71.1	(35.3)
Amhara	15.3	15.6	15.6	(11.3)	44.5	41.7	46.8	(24.3)
Oromia	30.5	41.7	25.6	(18.7)	59	42.3	67.3	(42.4)
Somali	31.1	22.4	38.4	(12.9)	65.2	29.5	87.6	(43.5)
Benishangul gumuz	35.3	34.3	36.1	(32.4)	67.3	43.7	76.8	(31.6)
SNNP	27.1	31.3	25.7	(11.4)	46.7	47.7	46.4	(41.9)
Gambella	10.7	10.2	10.9	(10.4)	29.9	13.2	37	(4.0)
Hareri	19.9	20.1	19.8	(20.8)	26.5	20.6	29.3	(19.7)
Addis Ababa	1.0	0.7	1.1	(0.2)	1.3	1	1.4	(0.5)
Dire Dawa	5.0	7.7	4.2	(1.9)	19.2	21.9	19	(6.5)
Urban	13.8	17.6	13.1	3.4	23.6	25.2	23.6	13.5
Rural	28.3	33.6	26.3	17.7	60	45.4	68	40.4
<b>Ethiopia</b>	<b>24.6</b>	<b>30.6</b>	<b>22.4</b>	<b>15</b>	<b>49.4</b>	<b>41.1</b>	<b>53.7</b>	<b>32.9</b>
Top 60%	22.3	29.4	20.2	15.5	45	37.1	48.1	34.6
Bottom 40%	26.9	31.5	25.1	14.3	54.4	44.1	60.9	29.9

Note: Values in parentheses are based on less than 100 observations.

## 6.3 TIME SPENT ON AGRICULTURAL ACTIVITIES

Table 6.3 summarizes the proportion of individuals aged 7 years and older who reported working on agricultural activities, including farming, livestock, and fishing, in the 7 days preceding the survey, whether the product was for sale or for home consumption.

As expected, agricultural activities are more important in rural than in urban areas. In rural areas they are much more commonly carried out by male (71 percent) than female (47 percent) household members though in urban areas, these tasks fell to about 13 percent of males and 7 percent of females. Among males, participation in agricultural activities is highest in Amhara; among females, in SNNP. Participation in Addis Ababa is almost nonexistent for both males and females.

TABLE 6.3  
**Time Spent on Agricultural Activities**

Time Spent on Agricultural Activities in the Previous 7 Days by Gender, Region, Place of Residence and Wealth Status, Ethiopia 2018/19, Percent								
	Male				Female			
	Age group				Age group			
	All	7-14	15-64	65+	All	7-14	15-64	65+
Tigray	44.7	41.1	46.5	(41.2)	23.8	24	24.2	(15.9)
Afar	42.8	42.1	44.3	(18.9)	28.1	27.6	28.7	(14.9)
Amhara	69.5	67.2	70.9	(63.9)	39.3	43.4	39.4	(17.2)
Oromia	58.3	46.6	64.1	(59.4)	35.8	30.4	38.4	(32.9)
Somali	42.1	28.2	52.9	(27.8)	28	26.9	28.6	(28.3)
Benishangul gumuz	43.2	25.4	50.6	(52.3)	33.6	18.7	39.6	(13.3)
SNNP	60.6	43.3	70.2	(56.6)	47.6	35.8	52.6	(59.4)
Gambella	36.4	17.6	43.7	(57.2)	21.3	7.6	26.7	(16.9)
Hareri	25.7	17.1	28.8	(26.6)	9.6	6.5	11.2	(4.4)
Addis Ababa	0.4	0	0.1	(4.7)	0.5	0.5	0.4	(1.6)
Dire Dawa	20.4	25.7	18.9	(11.7)	13.5	19.5	12.4	(0.0)
Urban	12.7	11.3	12.7	21	7.3	6.5	7.8	1.4
Rural	71.7	54.9	81.6	61.9	47.4	39.7	51.5	39
<b>Ethiopia</b>	<b>56.6</b>	<b>46.8</b>	<b>61.4</b>	<b>54.1</b>	<b>35.8</b>	<b>32.6</b>	<b>37.5</b>	<b>28.4</b>
Top 60%	48.9	42.7	50.7	55.1	31	30.9	31.3	26
Bottom 40%	64.5	49.8	74.2	52.9	41.1	33.9	45.3	32.6

Note: Values in parentheses are based on less than 100 observations.

## 6.4 TIME SPENT ON NONFARM ENTERPRISE ACTIVITIES

Table 6.4 presents information on the proportion of household members aged 7 and older who reported spending time on NFE activities in the 7 days preceding the survey. In rural areas, about 4 percent of males and females did so, but in urban areas the proportion reaches as high as 14 percent for male and 13 percent for female. Such participation is highest among 15–64-year-olds regardless of gender.

TABLE 6.4  
**Time Spent on NFE Activities**

Time Spent on NFE Activities in the Previous 7 Days by Gender, Region, Place of Residence and Wealth Status, Ethiopia 2018/19, Percent								
	Male				Female			
	Age group				Age group			
	All	7-14	15-64	65+	All	7-14	15-64	65+
Tigray	6.9	1.5	10	(0.0)	8.7	0.9	11.5	(4.8)
Afar	4.6	1.1	6.5	(0.0)	4.7	0.3	6.4	(4.9)
Amhara	6.3	0.9	8.9	(0.0)	5.6	0.8	7.5	(1.0)
Oromia	6.2	1.4	8.7	(4.8)	6.8	2.2	9.1	(2.8)
Somali	2.5	1.2	3.6	(0.0)	2.6	0	4.2	(0.0)
Benishangul gumuz	5.4	3.2	7.1	(0.0)	4.7	4.1	4.7	(9.7)
SNNP	7.7	1.8	11	(6.0)	7.8	3.3	9.9	(9.2)
Gambella	7.6	0.3	10.6	10.5	7.7	1.9	10.1	(3.6)
Hareri	9.5	2.3	12.6	(0.0)	8.4	1.4	11.1	(8.1)
Addis Ababa	11.5	0.6	13.8	(6.2)	8.4	0.5	10	(3.1)
Dire Dawa	5	2.5	6.1	(2.8)	8.2	2	10.2	(4.6)
Urban	14.3	1.8	18.4	7.7	13.1	3.1	16.2	6.9
Rural	3.9	1.3	5.5	1.9	4	1.6	5.3	2.2
<b>Ethiopia</b>	<b>6.6</b>	<b>1.4</b>	<b>9.2</b>	<b>3</b>	<b>6.7</b>	<b>1.9</b>	<b>8.8</b>	<b>3.5</b>
Top 60%	9.8	1.2	13.3	4.7	9.4	3.2	11.6	5.3
Bottom 40%	3.2	1.5	4.4	1	3.6	0.9	5.2	0.4

Note: Values in parentheses are based on less than 100 observations.

## 6.5 TIME SPENT ON CASUAL, PART-TIME AND TEMPORARY WORKS

Table 6.5 shows the proportion of household members aged 7 and older who allocated at least some of their time to casual, part-time, or temporary work in the 7 days preceding the survey. Time spent on these activities is slightly more common for men than women, and more common in urban than in rural areas. Regionally, they are most common in Addis Ababa and Oromia.

TABLE 6.5

### Time Spent on Casual, Part-Time, or Temporary Work

	Time Spent on Casual, Part-Time, or Temporary Work in the Past 7 Days by Gender, Region, Place of Residence and Wealth Status, Ethiopia 2018/19, Percent							
	Male				Female			
	All	7-14	15-64	65+	All	7-14	15-64	65+
Tigray	1.8	0	2.8	(0.0)	0.8	0.5	0.9	(0.0)
Afar	1.5	0	2.2	(0.0)	0.8	0	1.1	(0.0)
Amhara	1.8	0	2.4	(3.3)	0.9	0	1.2	(0.0)
Oromia	3.8	1.9	4.8	(4.6)	1.5	0.8	1.9	(0.0)
Somali	0.7	0	1.2	(1.1)	0	0	0.1	(0.0)
Benishangul gumuz	1.8	1.2	2.2	(0.0)	0.4	0	0.5	(0.0)
SNNP	1.2	0	2	(0.0)	0.9	0	1.3	(0.0)
Gambella	1.1	0	1.6	(0.0)	0.2	0	0.2	(0.0)
Hareri	2.9	0	4	(2.3)	0.8	0	1.1	(0.0)
Addis Ababa	4.9	0	6.1	(0.0)	1.6	0	1.9	(1.3)
Dire Dawa	2.4	0	3.3	(0.0)	1.7	0	2.3	(0.0)
Urban	5.3	0	6.9	4.4	2	0	2.6	0.3
Rural	1.6	0.9	1.9	2.3	0.7	0.4	0.9	0
Ethiopia	<b>2.5</b>	<b>0.8</b>	<b>3.4</b>	<b>2.7</b>	<b>1.1</b>	<b>0.3</b>	<b>1.4</b>	<b>0.1</b>
Top 60%	3.3	0.8	4.2	3	1.1	0.2	1.4	0.1
Bottom 40%	1.8	0.7	2.3	2.3	1.1	0.4	1.5	0

Note: Values in parentheses are based on less than 100 observations.

## 6.6 TIME SPENT ON WORK FOR SALARY AND WAGES

Table 6.6 summarizes the proportion of household members aged 7 and older who spent time on salary-, wage-, or commission-based work in the 7 days preceding the survey, excluding temporary jobs. These activities include informal jobs that do not offer a contract or benefits.

Salaried jobs are more common in urban than in rural areas; and participation is higher for men than women. In urban areas about 19 percent of men and 9 percent of women earn a salary. Regionally, salaried jobs are most common in Addis Ababa (29 percent of men and 21 percent of women).

TABLE 6.6

### Time Spent Working for Salary or Wages

**Time Spent Working for Salary or Wages in the Past 7 Days by Gender, Region, Place of Residence and Wealth Status, Ethiopia 2018/19, Percent**

	Male				Female			
	Age group				Age group			
	All	7-14	15-64	65+	All	7-14	15-64	65+
Tigray	7.4	0	11	(2.9)	3	0.7	4	(0.0)
Afar	10.9	0	16.3	(3.9)	2.8	0	4	(0.0)
Amhara	6.1	0	9	(0.0)	2.1	0	2.7	(2.3)
Oromia	5.3	0.5	8.1	(0.0)	2	0	3.1	(0.0)
Somali	2.9	0	5.1	(0.0)	0.6	0	1	(0.0)
Benishangul gumuz	5.7	0	9.1	(0.0)	3	0	4.1	(0.0)
SNNP	4.3	0.1	6.9	(0.0)	1.6	0	2.4	(0.0)
Gambella	9.2	0	13.6	(0.0)	4.8	0.3	6.6	(0.0)
Hareri	11.8	0	16.3	(9.1)	7.3	0	10.6	(0.0)
Addis Ababa	28.6	0.6	34.6	(12.1)	21.3	0.9	25.8	(2.9)
Dire Dawa	22.6	0	31.4	(11.5)	11.9	0.4	15.9	(0.0)
Urban	19	0.1	25.3	3.8	9.1	0.2	11.9	0.6
Rural	2	0.2	3.2	0.2	0.5	0	0.7	1
<b>Ethiopia</b>	<b>6.4</b>	<b>0.2</b>	<b>9.7</b>	<b>0.9</b>	<b>3</b>	<b>0.1</b>	<b>4.3</b>	<b>0.9</b>
Top 60%	10.3	0.1	14.7	1.4	4.8	0.1	6.5	1.1
Bottom 40%	2.3	0.3	3.6	0.4	1	0	1.5	0.5

Note: Values in parentheses are based on less than 100 observations.

Since salaried jobs are a form of formal employment, they are by definition a viable option only for the economically active population (15–64 years old), so almost no individuals aged 7–14 years or 65 and above have salaried jobs.

## 6.7 TIME SPENT ON APPRENTICE AND UNPAID WORK

Table 6.7 presents information on the proportion of household members aged 7 years and older who spent time on apprentice or unpaid work in the 7 days preceding the survey; hardly any did so. This pattern holds for rural and urban areas and all regions.

TABLE 6.7

**Time Spent on Apprentice/Unpaid Work**

**Time Spent on Apprentice/Unpaid Work the Past 7 Days by Gender, Region, Place of Residence and Wealth Status, Ethiopia 2018/19, Percent**

	Male				Female			
	Age group				Age group			
	All	7-14	15-64	65+	All	7-14	15-64	65+
Tigray	0.3	0	0.5	(0.0)	0.1	0	0.2	(0.0)
Afar	0.1	0	0.2	(0.0)	0	0	0	(0.0)
Amhara	0.5	0	0.7	(0.0)	0	0	0	(0.0)
Oromia	0.6	0	1	(0.0)	0.2	0	0.3	(0.0)
Somali	0.1	0	0.2	(0.0)	0.1	0	0.1	(0.0)
Benishangul gumuz	1.7	1.1	2.2	(0.0)	1	0	1.4	(0.0)
SNNP	0.3	0	0.5	(0.0)	0.2	0	0.2	(0.0)
Gambella	0.2	0	0.3	(0.0)	0.2	0	0.2	(0.0)
Hareri	0.4	0	0.5	(0.0)	0.2	0	0.3	(0.0)
Addis Ababa	0.4	0	0.4	(1.6)	0.1	0	0.1	(0.0)
Dire Dawa	0.5	0	0.8	(0.0)	0.3	0	0.4	(0.0)
Urban	0.7	0	1	0.4	0.3	0	0.3	0
Rural	0.4	0	0.6	0	0.1	0	0.1	0
<b>Ethiopia</b>	<b>0.5</b>	<b>0</b>	<b>0.7</b>	<b>0.1</b>	<b>0.1</b>	<b>0</b>	<b>0.2</b>	<b>0</b>
Top 60%	0.5	0	0.8	0.1	0.2	0	0.3	0
Bottom 40%	0.4	0	0.7	0	0.1	0	0.1	0

Note: Values in parentheses are based on less than 100 observations.





Photo: LSMS

# 7. Consumption, Food Security, and Shocks

## KEY FINDINGS:

- Cereals (rice, sorghum, barley, wheat) are the food items most commonly consumed; 92 percent of households reporting consuming on average of at least one of these in 5.4 of the last 7 days.
- Consumption of teff enjera was reported by 49 percent of households for about 6 days a week; about 76 percent of urban households did so but only 35 % of rural.
- Urban households consume a more diverse diet than rural.
- Clothing and shoes are the most important nonfood items bought. Households also spend substantial amounts on ceremonies, laundry soap, kerosene, fuel wood, charcoal, transport, taxes, and levies. Average household expenditure is higher in urban than in rural areas.
- Food is scarcer in the major planting season, April to September. Rural households tend to be the most affected by seasonal food shortages.
- Major shocks that affect households negatively are, in order of importance, illness of a household member, unexpected rises in food prices, drought, and higher prices of inputs. To cope with major shocks, households mainly deplete savings or sell livestock.

## 7.1 CONSUMPTION AND EXPENDITURE

### 7.1.1 Food Consumption: Past 7 days

Table 7.1 presents household consumption patterns over the one-week period preceding the survey and the average number of days the item was consumed. Household consumption was defined by whether at least one member in the household consumed the item in the seven-day period.<sup>19</sup>

Cereals (rice, sorghum, barley, wheat) are the food items most commonly consumed, with 92 percent of all households on average reporting consumption of at least one of these in any form on 5 of the 7 days, followed by teff (enjera), with 48.5 percent of households reporting consumption of enjera for 6 days a week on average.<sup>20</sup>

<sup>19</sup> Information was collected during the months of June-September 2019.

<sup>20</sup> Teff is an important ingredient in a main local staple food, enjera.

TABLE 7.1  
**Household Food Consumption**

**Household Food Consumption on Number of Days in the Past Seven by Place of Residence,  
Ethiopia 2018/2019, Percent**

	National		Rural		Urban	
	Consumed (%, HHs)	# of Days	Consumed (%, HHs)	# of Days	Consumed (%, HHs)	# of Days
Spices, condiments, and beverages	99.3	5.8	99.4	5.8	99.0	5.7
Vegetables	96.5	3.8	96.0	4.0	97.7	3.3
Cereals (rice, sorghum millet, barley, wheat)	92.2	5.4	95.0	5.7	86.3	4.7
Pulses, nuts, and seeds	83.7	4.3	81.0	4.5	89.3	3.9
Oils, fats, and butter	80.3	6.2	76.0	6.0	89.2	6.5
Roots and tubers	71.5	3.7	65.6	4.0	83.8	3.3
Sweets (sugar or sugar products)	60.0	5.3	49.7	5.3	81.3	5.4
Teff	48.5	6.0	35.2	5.7	76.2	6.3
Pasta, macaroni, and biscuits	36.2	2.5	21.4	2.3	66.9	2.6
Fruits (mangos, bananas, oranges)	33.3	2.4	24.1	2.4	52.3	2.3
Milk, yogurt, cheese, other dairy products	33.0	4.3	34.6	4.4	29.8	4.0
Kocho, bula	15.7	4.7	18.5	5.1	9.7	3.1
Beef, sheep, goat, or other red meat	14.9	2.2	8.1	2.1	29.0	2.2
Eggs	12.5	2.1	6.8	1.9	24.4	2.3
Poultry	1.8	1.5	1.2	1.3	2.9	1.6
Fish and seafood	0.9	3.2	0.9	3.6	0.8	2.2

Note: Average number of days is reported for those households who reported consumption of that item.

A substantial proportion of households (80.27 percent) also reported consumption of edible oils, fats, or butter six days a week, and about 84 percent consumed beans, lentils, or nuts on average four days a week. Other important food items consumed by over a third of households, in order of importance, were spices, vegetables, root crops, sugar and sugar products, milk, yogurt and cheese, and meat products.

Household food consumption in the week before the survey supports three observations: (1) The typical Ethiopian meal is dominated by three food categories: cereals, edible oil and fat, and legumes (beans, lentils, and nuts). (2) The data show significant differences in dietary diversity by place of residence. Urban households consume a greater variety of items than rural, and for a greater number of days. For example, 76 percent of urban households eat teff enjera almost every day, but only 35 percent of rural households eat it that often. (3) For a number of foods, the proportion of households consuming a food item at least once in the past 7 days is 15 to 30 percentage points higher in urban than in rural areas, among them enjera, sugar and sugar products, root crops, meat, fruits, eggs, and semiprocessed items like pasta, macaroni, and biscuits.

### 7.1.2 Nonfood Spending: One Month

Table 7.2 presents information on household spending on selected nonfood items and services in the 30 days preceding the survey, among them matches, batteries, candles, soaps, firewood, charcoal, kerosene, cigarettes, and expenses for transport.

Nationally, more than 50 percent of households had purchased laundry soap, matches, and batteries in the previous month. While laundry soap and matches are bought equally, rural households bought more dry cell batteries (65 percent) than urban (29 percent).<sup>21</sup> Transport, the fourth most important nonfood item, is substantially more likely to be purchased by urban than rural households.

---

<sup>21</sup> Batteries are used for torch light and radio and tape recorders. The difference between rural and urban areas may be due to differences in access to electric power.

TABLE 7.2  
**Households Reporting any Spending on Nonfood Items**

	Households Reporting any Spending on Nonfood Items, and the Average Spent (Birr), Past Month, by Place of Residence, Ethiopia 2018/2019, Percent					
	Ethiopia		Rural		Urban	
	HHs (%)	Mean Expenditure (Birr)	HHs (%)	Mean Expenditure (Birr)	HHs (%)	Mean Expenditure (Birr)
Laundry soap	87.7	38.8	87.7	29.2	87.7	58.7
Matches	85.1	5.6	85.2	5.2	84.8	6.3
Batteries	53.3	16.0	64.9	19.9	29.1	7.9
Transport	43.7	79.1	38.9	48.1	53.8	143.5
Hand/body soap	40.3	10.3	26.4	5.0	69.2	21.3
Charcoal	26.5	40.7	6.9	8.4	67.1	108.0
Other personal care goods	23.9	14.9	17.4	6.4	37.4	32.7
Candles (tua'af), incense	21.0	6.8	9.0	1.3	46.1	18.2
Kerosene	19.9	6.0	24.5	6.2	10.5	5.7
Firewood	19.3	30.0	6.7	8.4	45.6	74.9
House rent	16.8	133.5	2.6	5.9	46.3	399.2
Cigarettes	3.4	4.5	4.1	5.6	1.8	2.3
Salary for servants, guards, baby-sitters	2.3	19.6	0.3	2.1	6.5	56.1

Note: The mean expenditure amount is reported for the total population.

### 7.1.3 Nonfood Expenditures: One Year

Table 7.3 summarizes average household spending on selected nonfood items in the 12 months preceding the survey, both nondurable goods like clothing and durable goods like equipment and furniture, plus taxes and levies, donations, and ceremonial expenses.

For both rural and urban households, clothing and shoes are a substantial element in nonfood spending; in the past year, urban households reported spending an average of Birr 3,040.80 (about US\$105.22) compared to rural household spending of Birr 1676.98 (about US\$58).

More than 60 percent of rural and urban households reported spending on such ceremonial activities as weddings, birthdays, and funerals; on average, rural households

<sup>22</sup> Exchange rate for the month of July 2019 was about US\$1 = 29 Birr.

TABLE 7.3  
Spending on Nonfood Items and Services

	Spending on Nonfood Items and Services and Average Expenditure (Birr) in the Previous Year by Place of Residence, Ethiopia 2018/19					
	Ethiopia		Rural		Urban	
	HHs (%)	Mean Expenditure (Birr)	HHs (%)	Mean Expenditure (Birr)	HHs (%)	Mean Expenditure (Birr)
<b>Clothing</b>						
Clothes, shoes, fabric for men	58.0	739.1	60.9	556.6	52.1	1118.7
Clothes, shoes, fabric for women	63.1	616.5	65.6	438.1	57.9	987.7
Clothes, shoes, fabric for boys	52.5	410.6	59.8	365.8	37.4	504.0
Clothes, shoes, fabric for girls	51.7	353.5	58.1	316.4	38.3	430.5
Linens (sheets, towels, blankets)	28.3	196.8	27.7	164.9	29.4	263.0
<b>Equipment and furniture</b>						
Kitchen equipment (cooking pots, etc.)	17.1	77.1	17.2	53.9	16.9	125.3
Furniture	7.9	159.7	6.8	65.8	10.2	354.9
Lamp, torch, solar power	27.9	68.0	35.3	87.4	12.6	27.5
<b>Donations and contributions</b>						
Ceremonial expenses	61.3	1338.0	60.9	1085.4	62.2	1863.6
Contributions to informal social security institutions (iddir, mahiber, etc.)	44.8	146.5	49.4	128.9	35.1	183.2
Donations to churches, mosques, and other religious institutions	40.7	161.4	43.7	121.8	34.6	243.7
Contribution to community development activities (road, school, health, water)	22.2	61.0	25.0	51.8	16.3	80.1
Contribution to social and political activities (Red Cross, sport, political parties, etc.)	15.2	11.8	19.1	11.8	7.1	11.9

Note: The mean expenditure amount is reported for the total population.

spent Birr 1085.39 (about US\$37) per year on ceremonies, and urban households Birr 1863.64 (about US\$64).

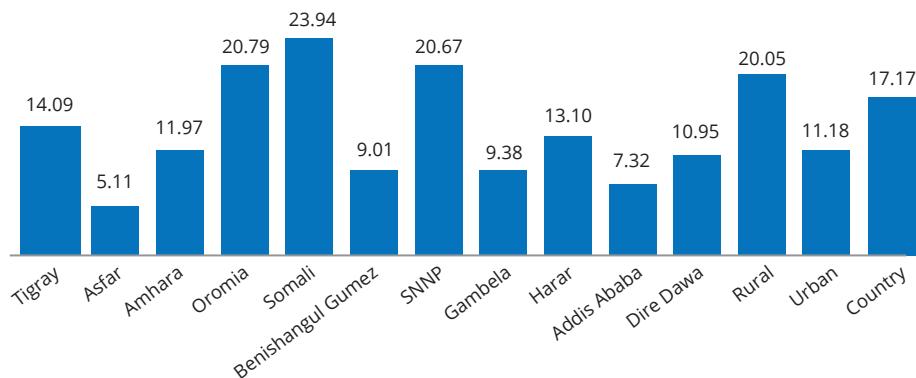
More than 44 percent of rural households contribute to religious establishments and about 49 percent contributed to informal social security institution like *iddir* in rural areas. In urban areas these figures dropped to 35 percent contributions to both religious establishments and informal social security institutions.

## 7.2 FOOD SECURITY

Respondents were asked to identify months during the past 12 when they faced food shortages (see Figures 7.1–7.3). Nationally, about 17 percent of households reported having done so. Exposure to any food shortage was considerably lower in urban areas (11 percent) than rural (20 percent), and there were regional differences (Figure 7.1): In Somali, 24 percent of households reported experiencing at least one food shortage, followed by Oromia (21%), SNNP (21%), and Tigray (14%). The lowest percentage of households reporting food shortage in any month were in Afar (5%), followed by Addis Ababa (7%), Benishangul Gumuz (9%), and Gambela (9%).

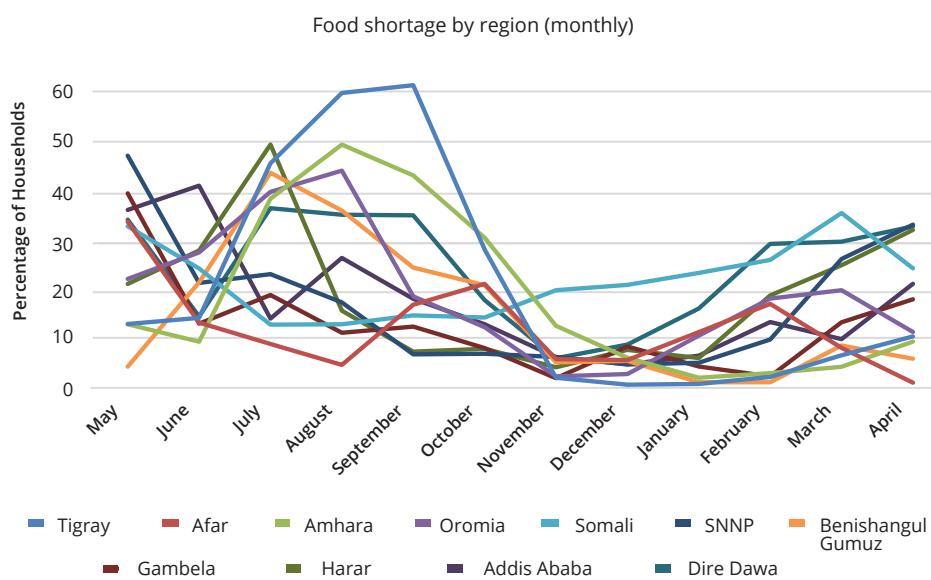
FIGURE 7.1

**Households Reporting Food Shortage in Any Month by Place of Residence, Ethiopia 2018/19, Percent**

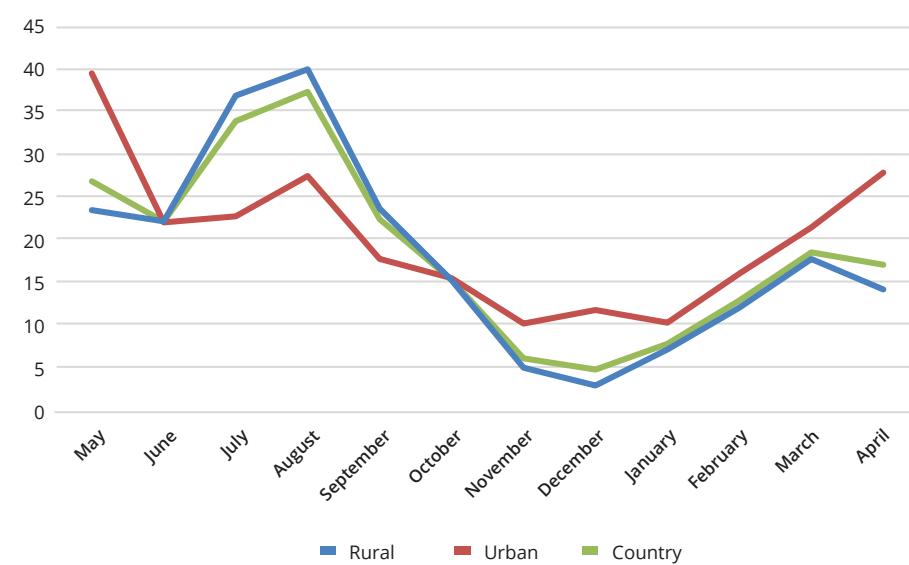


As Figures 7.2 and 7.3 show, food insecurity is seasonal. In almost all regions, food insecurity is worst in June, July, August, and September. While the seasonality of food insecurity is similar in both urban and rural areas, it differs in intensity (Figure 7.3). In urban areas, food shortages are very high in April and May; in rural areas, in June to August.

**FIGURE 7.2**  
**Households Reporting Food Shortage by Region, Ethiopia 2018/19, Percent**



**FIGURE 7.3**  
**Food Shortages by Month, Residence, and Region, Ethiopia 2018/19, Percent**



## 7.3 SHOCKS AND COPING MECHANISMS

### 7.3.1 Shocks

Table 7.4 summarizes the negative shocks households faced in the 12 months preceding the survey. The list includes both natural disasters and man-made occurrences. The most common shock, *illness of a household member*, was reported by about 16 percent of households. The second most common was an unusual *rise in food prices*, reported by about 12 percent of households. About 7 percent of households had to deal with *drought* and 6 percent were shocked by an increase in price of inputs (*seed, fertilizer*).

TABLE 7.4  
**Shocks Experienced**

Shocks Experienced by Households in the Previous 12 Months Ranking, Ethiopia 2018/19, Percent					
	Households Experiencing Shock	Households Experiencing as Most Severe	Among Those Who Reported Shock, Households Reporting It as:		
			Most Severe	2nd Most Severe	3rd Most Severe
Illness of household member	15.9	13.2	82.3	13.2	4.5
Unusual price rise, food items agriculture produces	11.6	7.9	66.4	24	9.6
Drought	6.9	5.5	79.3	16.5	4.2
Unusual Increase in price of inputs (seed, fertilizer)	6.1	2.3	28.2	50.1	21.7
Great loss/death of livestock	4.6	2.2	41.9	39	19.1
Death of a household member	3.6	3.1	84.3	13.8	1.9
Local unrest and violence	3.2	2	61.3	19.6	19.1
Heavy rains preventing work	2.3	1.3	(41.2)	(47.1)	(11.7)
Other crop damage	2.3	1.3	49.7	35	15.3
Death of main bread earner	1.9	1.8	91.4	6.2	2.5
Flood	1.9	1.4	(66.7)	(15.6)	(17.7)
Theft, robbery, and other personal violence	1.3	0.6	38	46.2	15.9
Other	1.1	0.9	(76.3)	(21.4)	(2.3)

Note: Values in parentheses are based on less than 100 observations.

**Shocks Experienced by Households in the Previous 12 Months Ranking,  
Ethiopia 2018/19, Percent**

	Households Experiencing Shock	Households Experiencing as Most Severe	Among Those Who Reported Shock, Households Reporting It as:		
			Most Severe	2nd Most Severe	3rd Most Severe
Unusual fall in prices of food items agriculture produces	0.7	0.3	(23.6)	(51.9)	(24.5)
Household member loss of nonfarm job	0.6	0.4	(65.8)	(23.5)	(10.8)
Death of a child under 5 including miscarriage or stillbirth	0.3	0.3	(78.3)	(21.7)	-
Landslides/ avalanches	0.3	0.3	(77.1)	(22.7)	(0.3)
Fire	0.2	0.1	(47.2)	(34.0)	(18.8)
Involuntary loss of house or land	0.2	0.1	(52.9)	(23.3)	(23.8)
Displacement due to government development projects)	0.1	0	(11.1)	(32.5)	(56.5)

### 7.3.2 Coping Mechanisms

Households cope with shocks in different ways (Table 7.5). The data show that a substantial share of households have mechanisms for coping with a shock.

The most common coping mechanisms used to address the top three shocks households faced were, in order of importance, using their own savings, selling livestock, and receiving unconditional help from relatives and friends. Among households that drew on savings, 27 percent reported doing so when a household member fell ill, 36 percent when food prices went up, and 22 percent when dealing with drought. Selling livestock was the second most important coping mechanism employed by 12–26 percent of households depending on the shock, and 5 to 6 percent received unconditional help from relatives and friends.

However, it is important to recognize that some households had no options. For example, 26 percent of households with an ill member, 21 percent of those who faced drought, and 25 percent of those who reported a rise in food prices had no way to cope.

TABLE 7.5  
**Mechanisms for Coping with Shock**

<b>Coping Mechanisms</b>	<b>Mechanisms for Coping with Shock</b>		
	<b>Most Prevalent Shock:</b> <b>Illness of Household Member</b>	<b>2nd Most Prevalent Shock:</b> <b>Unusual Rise in Prices of Food Items</b>	<b>3rd Most Prevalent Shock:</b> <b>Drought</b>
Drew upon savings	27.3	35.5	22.4
Sold livestock	13.7	11.6	25.7
Received unconditional help from relatives or friends	6.6	4.6	5.6
Obtained credit	6.4	3.2	4.5
Changed eating patterns	3.8	4.8	4.3
Sold crop stock	3.1	0.9	-
Received unconditional help from government	2.4	3.4	4.4
Engaged in spiritual efforts	2.4	0.6	1.8
Sold agricultural assets	2.2	5.5	0.9
Sold durable assets	1.5	0.9	1.9
Unemployed adult household members had to find work	1.4	0.6	1
Household members migrated	1.4	1.3	2.8
Spend less on health and education	0.5	0.1	-
Received unconditional help from an NGO or religious institution	0.4	0.7	3.3
Employed household members took on more work	0.3	0.9	-
Sold land or buildings	0.3	0.5	0.6
Other	0.3	0.1	-
Did not do anything	26.2	24.8	20.6



