RAISE-FS *woreda* profile #006

Hawassa Zuria *woreda* Food System Profile

Population

161,914

80,258 | 81,656

Altitude

1,850–1,934 m.a.s.l

Diets

Predominantly grains and pulses

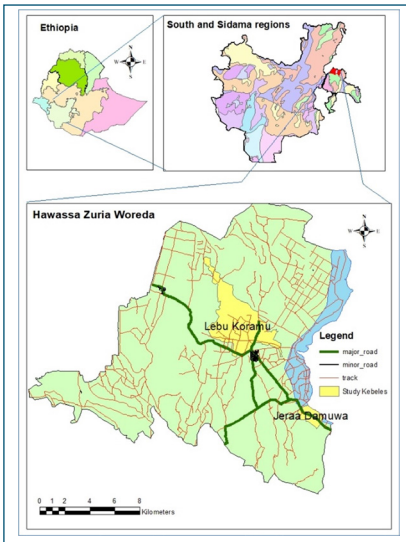
Food insecurity

58% FHH | 59% MHH

Food gap months

Jan ····· ▶

March to July



Hawassa Zuria *woreda*

Climate and soils

Shortage and irregularity of rainfall

Soil erosion

Land degradation

Top 4 crops produced

Maize | Haricot bean | Red pepper | Enset

Inclusion

Youth (18–35 yrs) | Women | Men

✕ No access | ⋰ Limited access | ✓ Access

High workload during the peak agricultural months

Access to credit

Job opportunities

Access to agri-inputs & extension services

Decision making

Cooperative membership

WAGENINGEN UNIVERSITY & RESEARCH

RAISE-FS Resilient Agriculture for Inclusive and Sustainable Ethiopian Food Systems

Introduction and methodology

This document gives an overview of the current status, dynamics, and behaviour of the local food system present in the Hawassa Zuria *woreda* and is called the *woreda* profile. The *woreda* profile was developed to support stakeholders' exercising evidence-based, bottom-up planning based on the existing reality of the *woreda*. The profile is meant to enable stakeholders to be on equal footing in understanding the complex challenges and realities of the *woreda*, and to use these insights as starting point for the *woreda* planning process. This document describes the current situation of the *woreda* in eight chapters. It endeavours to provide information and data on demography, agroecological conditions, production factors, markets and value addition, food and nutrition security, social inclusion as well as policies and government support.

This *woreda* profile has been generated based on insights obtained from the baseline survey and rapid food system appraisal (RFSA) that took place in two *kebeles* of Hawassa Zuria *woreda*. The two selected *kebeles*, Lebu Koramu and Jara Damuwa, represent the different agro-ecologies that can be found in this geographical area.

Activities conducted to construct the *woreda* profile were done in light of the RAISE-FS project. Hawassa Zuria is one of the selected implementation areas. A quantitative baseline survey and a qualitative RFSA were conducted in parallel, and together with secondary data, these are the main inputs for this *woreda* profile. Data collection was conducted in two of the *woreda*'s *kebeles* (Lebu Koramu (LK) and Jara Damuwa (JD)). These *kebeles* were purposefully chosen because of their potential for the project commodities (poultry, and pulse crops). A structured standard questionnaire and RFSA tools were developed to collect field data. Female-headed (FH), male-headed (MH), women in male-headed households (WMHH) and youth were proportionally selected randomly from a total of households living in the selected *kebeles*. Quantitative data were collected from 102 respondents of which 29 % women, 50% men and 21% youth (48% male and 52% female).

The RFSA comprised a sequence of steps and activities that consecutively build on one another to provide a diverse and integrated perspective on the current food system situation, key challenges and opportunities (see Figure 1). The applied RFSA tools were community mapping, activity calendar, in-depth dialogue and different plates activity[1].

[1] An extended description of the tools can be found here: https://doi.org/10.18174/590873.

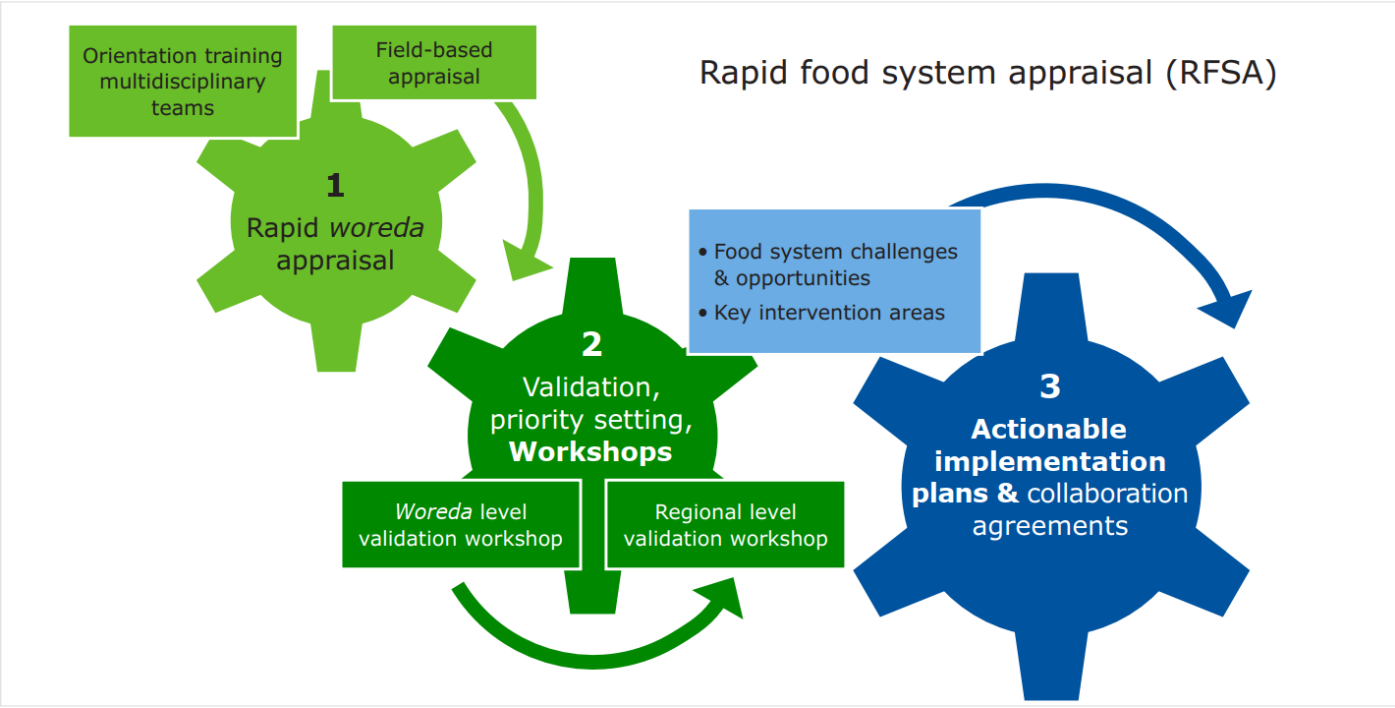


Figure 1: Steps of the rapid food system appraisal (RFSA) process

The activities were undertaken with female, male and institutional stakeholder groups separately. The female group consisted of 12 persons (5 youth, 4 middle-aged and 3 elderly people). Similarly, the male group was composed of 12 persons (5 youth, 4 middle-aged and 3 elderly people). The institutional stakeholder group comprised development agents (DAs), health extensionists, experts from the office of agriculture, cooperatives, finance, and, gender, women, children and social affairs, trade and development affairs, and job creation at *woreda* level and from the *kebele* administration.

The validation workshop was conducted with the *woreda* administrator, researchers of Hawassa University, and heads of different offices of the *woreda* (agriculture, cooperative, women, children and social affairs, job creation, trade and health). In addition, representatives of the men and women who participated in the RFSA were present. During the workshops, the key findings from the appraisal and baseline survey were discussed and validated, and additional priority topics were suggested. In addition, suggestions received by *woreda* official regarding the *woreda* profile (Figure 2) were taken into consideration and added in this document.

Summary of the content of the letter

From: Hawassa Zuria *woreda* Agricultural Office
To: RAISE-FS Project
Subject: Giving feedback on *woreda* profile document

As it is known RAISE-FS project undertook RFSA in two *kebeles* of Hawassa Zuria *woreda* (Lebu Koramu and Jara Damuwa *kebeles*) in col*labour*ation with experts of different sectors of the *woreda* and *kebele* level stakeholders. We reviewed the document and found out that the document fully provides a summarized overview into the current food system dynamics of the *woreda*.

With best regards,

Figure 2: Official communication from Hawassa Zuria woreda *Agricultural Development Office*

Community maps

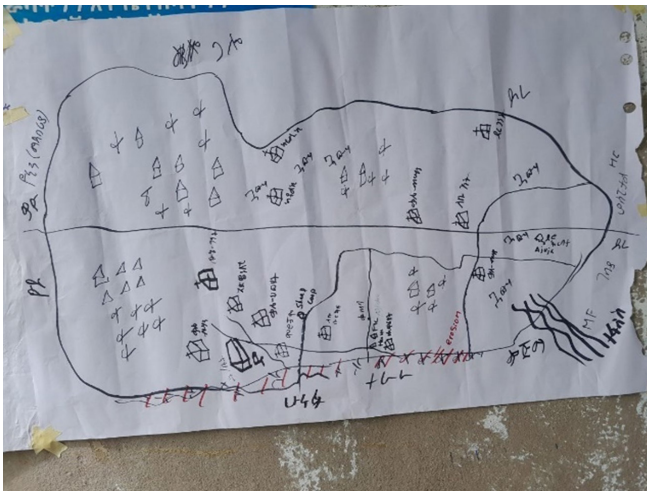


Figure 3: Community map from Lebu Koramu kebele from male focus group

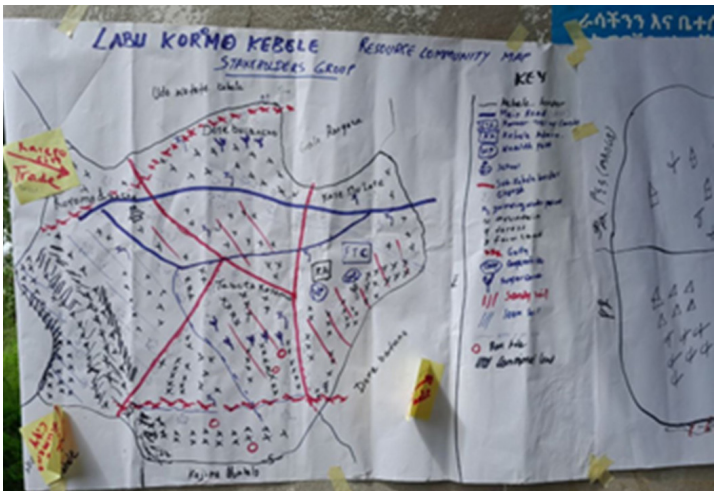


Figure 4: Community map from Lebu Koramu kebele female focus group

Figure 5:Community map from Jara Damuwa kebele from female focus group

Figure 6: Community map from Jara Damuwa kebele from male focus group

Seasonal calendar

Table 1: Seasonal calendar from Hawassa Zuria Choke Kebele from female focus group

No	List of activities	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug
1	Expenditures	X					X	X	X	X	X	X	X
2	Income		X	X	X	X				X	X		
3	Seasonal labour activities/			X	X	X			X				
4	High workload in different seasons												
5	The rainy seasons								X		X	X	X
6	Moments of critical drought		X	X	X	X							
7	Key cropping season for different crops	X	X	X				X	X	X	X	X	X
8	High Market price months										X	X	X
9	Low market price		X	X									
10	Busiest months for women			X	X	X							
11	Busiest months for men								X	X	X		
12	Pest and disease prevalence										X	X	
13	Prevailing livestock activities				X	X	X	X	X				
14	Local market demands for local products											X	X
15	Periods of food scarcity											X	

Table 2: Seasonal calendar from Burkusami Geba Robi Kebele from male focus group

No	List of activities	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug
1	Expenditures	X		X				X	X	X	X		
2	Income	X			X	X					X	X	X
3	Seasonal labour activities			X	X	X					X	X	X
4	Workload in different seasons			X	X	X					X	X	X
5	The rainy seasons	X							X		X	X	X
6	Moments of critical drought				X	X	X	X					
7	Key cropping season for different crops		X	X	X	X	X		X	X	X	X	X
8	High Market price months	X	X			X	X				X	X	X
9	low Market price months	X		X	X	X			X	X	X	X	X
10	Busiest months for women			X	X	X			X		X	X	X
11	Busiest months for men											X	X
12	Pest and disease prevalence	X	X	X	X	X	X	X	X	X	X	X	X
13	Prevailing livestock activities	X						X	X			X	X
14	Local market demands for local products	X									X	X	X
15	Periods of food scarcity	X						X	X	X	X	X	X

1 Demography

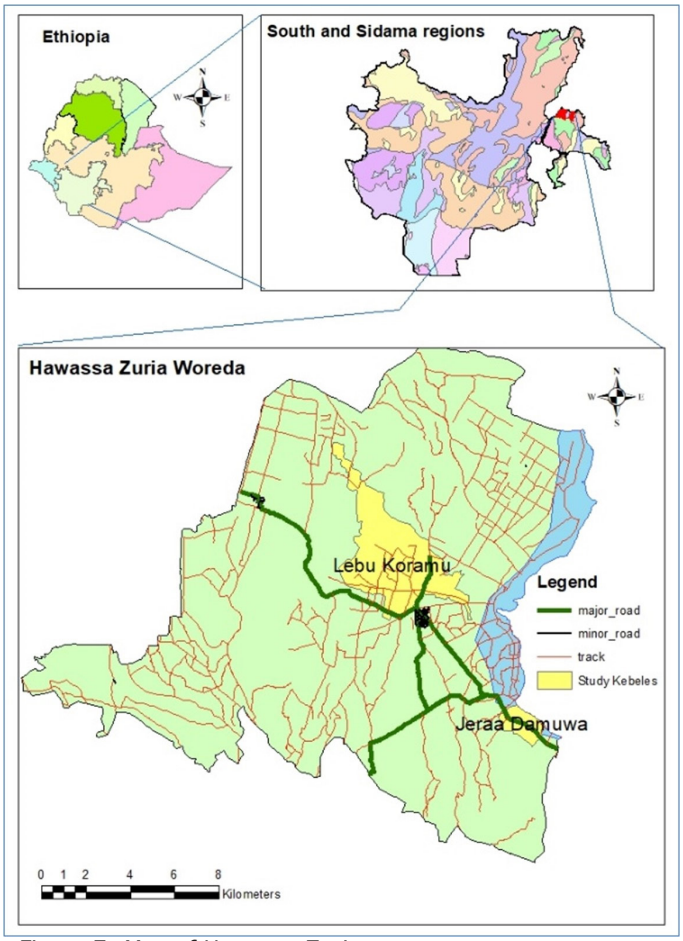


Figure 7: Map of Hawassa Zuria

Hawassa Zuria is a one of the *woredas* in Sidama regional state in southern Ethiopia. The *woreda* is located in the Great Rift Valley of Ethiopia at about 300 km from Addis Ababa. It is bounded by Oromia in the north and west, Lake Hawassa in the east and Tula Sub-city of Hawassa Town Administration and Shebedino District of Sidama region in the south east.

The largest town in the *woreda* is Dore Bafano (the capital city of the *woreda*), which is located at 21km distance from the regional capital Hawassa. The *woreda* covers a total area of 245 km2 and is divided into 23 rural and 3 urban *kebeles*. According to the National statistical service data, the total population of the *woreda* in 2022 was 161,914; among these 80,258 (49.5%) were women and 81,656 (50.43%) were men (SSE,2022).
The average population density is estimated to be 553.2 persons per square kilometre (Tukela, 2019). This indicates that the *woreda* is one of the most densely populated in the region (Sidama Zonal Finance and Economic Development report, 2016). Of the total population, more than 97% are estimated to live in rural areas.

Table 3: Education level of surveyed household head

Educational level	Male head %	Female head %	Total
Does not read and write	18	42	21
Adult and religious education	0	17	2
Primary school	56	42	54
Secondary school	17	0	15
Diploma and above	10	0	9

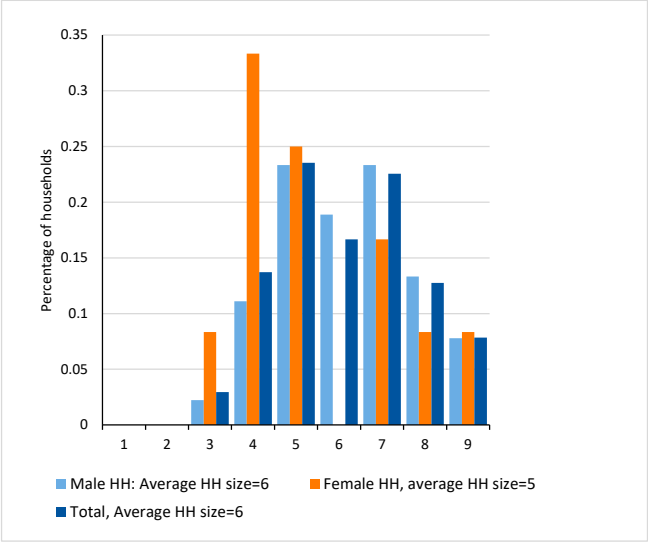


Figure 8: Family size of surveyed households

The result of the baseline survey shows that the overall average family size of the surveyed households is six. Male headed households (MHH) have more members when compared to female headed households (FHH) with an average number of members six and five, respectively (Figure 8). Most female headed households (33%) have four members while about 65% of male headed households have a family of five to seven individuals. About 8% of both MHH and FHH have a maximum of nine family members.

The baseline survey shows that, among all populations 40% are children (< 18 yrs of age), 39% are youth (between 18 and 35 yrs of age), 18% are adults (between 36 and 60 yrs of age) and 3% are elders (> 60 yrs of age). As illustrated in figure 9, children and youth dominate the population. Together both groups account for around 79% of the total population (47% M, 53% F) which indicates that a large proportion of the population falls within the working-age category. About 19% of the population are adults of which 49% male and 51% female. Elders constitute a very low proportion of the population.

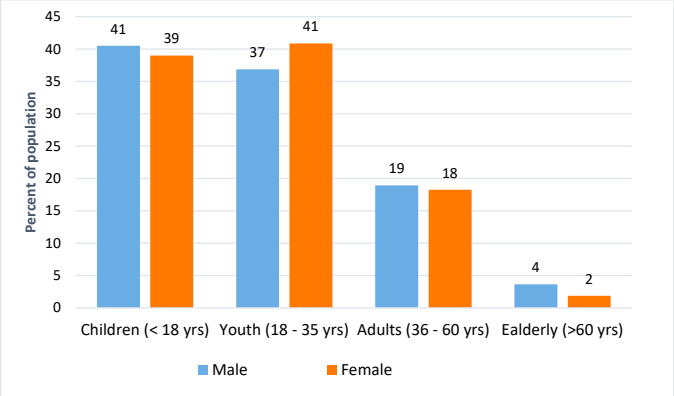


Figure 9: Age category of surveyed households

Regarding education level of household heads, the majority (54%) of the household heads surveyed have completed primary school. Out of the male headed HH, 56% and 17% of the respondents completed primary school and secondary school, respectively. About 42% of the surveyed FHHH had completed primary school. None had continued further education beyond primary school. About 42% and 18% of FHHHs and MHHHs respectively do not read and write. About 2% of all household heads followed adult and religious education. A total of 21% of the surveyed household heads does not read or write (Table 3).

Priority topics identified and validated by stakeholders

Lake Hawassa
Photo taken by: Andualem Tadesse

2 Agro-ecological and environmental conditions

The territory of Hawassa Zuria is predominantly characterized by two major agroecologies namely woina dega and kola. From the *woreda*'s 23 rural *kebeles*, 18 are found in kola (lowlands) and 5 in woina dega (midlands) agro-ecological zone, respectively (Tukela, 2019).

The *woreda* is located in an area that is increasingly facing climate change related problems including shortage and irregularity in rainfall, this was also highlighted during the FGD. Increasing numbers of the population are prone to food insecurity (Gezahegn, 2018; Atara et al., 2019). The soils of the area are primarily loamy soils (Ayalew et al. 2021). The vulnerability of the area to climate change has been also reported during the FGD. Especially in the Lebu koramu *kebele* erosion is among the problems identified. In the FGDs this erosion was linked to climate change and the topography of the area.

The *woreda* is geographically located at (60 57' N and 380 15' E to 70 10') with altitudes ranging from 1,850 to 1,934 m.a.s.l. The mean annual rainfall ranges between 800 and 1100 mm; the peak rainy months are April, July, August, and September. The mean annual minimum temperature is 12 0C and the maximum temperature is 26.7 0C (Sigaye et al. 2021). The agro-climatic conditions of the district encompass both warm sub-humid lowlands (85%) and sub-humid (15%) midlands. The farmers from Jara in the Damuwa *kebele* have access to irrigation water as lake Hawassa is near to their farms. Nevertheless, the use of irrigation facilities is limited due to the unaffordable cost of the required water pumping machines. The availability of drinking water is good in both *kebeles* but is not reaching all households. The distribution of of the water line does not support uniform access to water across all villages in the same *kebele*.

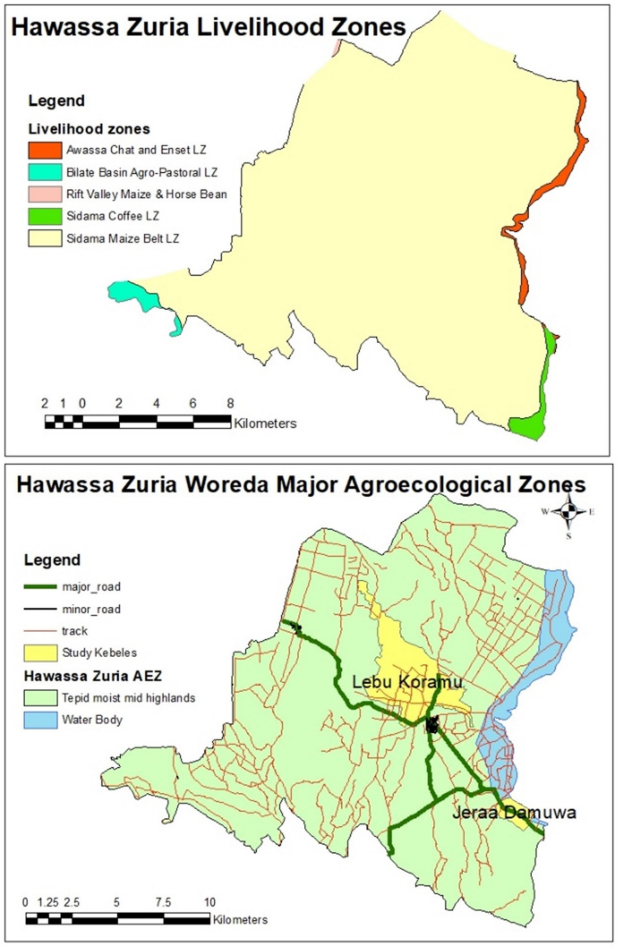


Figure 10: Livelihood and agro-ecological zones of

Priority topics identified and validated by stakeholders

- Enhance coping abilities to variability in rainfall (amount,timing and seasonality)
- Introduce management options for degraded land
- Improve utilization of the Hawassa lake for irrigation

3 Agricultural production system

The *woreda* has two production seasons which follow the rainy seasons. The main production season runs between June and October. the secondary and short production season is from March to May. Crop-livestock mixed farming systems are the dominant farming systems in the two *kebeles*.

The livelihood of the people in Hawassa Zuria is mainly based on mixed subsistence farming and crop production systems on intensively managed small family farms. *Enset* (Ensete ventricosum), maize, teff, haricot bean, sweet potato, and sugarcane are among the dominant crops grown in the study area (Yokamo et al. 2022). The baseline survey also confirmed the production of maize, haricot beans, potato and *enset*. In addition, the baseline survey highlighted that Ethiopian kale and red peppers are crops grown by most farmers in the surveyed *kebeles*.

The baseline survey results revealed that almost all farmers produce maize (99%). About 50% of the farmers produce haricot beans and enset is produced by approximately 15% of the farmers, as is the case for Ethiopian kale. Red peppers are produced by 13% of farming households (Table 4). The RFSA indicated that intercropping and crop rotation are commonly applied practices in both *kebeles*. Some households apply monocropping practices, especially in the case of commercially oriented crops such as tobacco, pepper and sugarcane. Some households engage in poultry production, fishing around the lake and home gardening (i.e. small scale production of enset, kale, tomato, and onion).

Cultivated land, forest land and communal grazing land are the most important land use types in the *woreda*. Forested areas are common in the mountainous part of the Lebu koramu *kebele*.

The RFSA results revealed that there is experience with using improved production technologies (seeds of improved varieties, fertilizers and pesticides) in the *woreda*. The main sources of these inputs are the *woreda* and region-based offices and cooperatives (Sidama Elito). Farmers also have access to inputs from nearby *kebeles*, and sometimes they access source seeds from private seed suppliers (eg. Pioneer hybrid for maize seed). However, according to the FGD, the farmers are seriously challenged in terms of their access to seed of improved varieties (shortage, limited diversity, not timely available, high cost) and the high cost of mineral fertilizers. This has resulted in farmers using suboptimal rates of inputs and in some cases, producing without using improved seeds and fertilizer.

The baseline survey results underscore the findings of the RFSA. As depicted in Table 4, only 14% of the farmers used improved varieties for haricot bean, and 54% for peppers. However, for maize production 99% of the farmers used improved varieties, which could also relate with the cross-pollinating nature of the maize crop and the focus on the extension system of maize production. Concerning fertilizer use, the majority of the farmers

Table 4: Inputs used for the major crops

Crop	% HHS Produce	%HHS used inputs				Productivity (t ha^{-1})	% Produce sold
		Improved Variety	Urea	NPS	Pesticide		
	%	%	%	%	%		
Barley	99	99	99	96	11	2.8	30
Wheat	50	14	67	67	2	0.9	28
Teff	15	0	0	0	0	3.9	13
Potato	15		33	33	7	2.7	28
Faba beans	13	54	92	100	0	1.3	93

Table 5: Experience in agronomic practices

Household head	Inter-cropping	Relay cropping	Crop rotation	Agro-forestry	Green manuring
	%	%	%	%	%
Male	91	13	34	9	1
Female	83	8	8		
Total	90	13	31	8	1

responded to use mineral fertilizers for pepper and maize, while only 33% of the farmers use mineral fertilizer for haricot bean. This could be explained by the understanding of the farmer regarding the N-fixing capacity of the pulse crop – haricot bean. Minimum pesticide application was reported for the three mentioned crops (maize, haricot bean, and pepper) (Table 4). In the *woreda* crop production is both for home consumption and market. The proportion brought to market and consumed differs among the crops, with 93% of pepper brought to market and 30% of maize and 28% of haricot bean being sold.

The large majority (90%) of the households surveyed practice intercropping. Crop rotation is practiced by 31% and relay cropping by 13%. Agroforestry and green manuring are practiced by 8% and 1%, respectively. Only the male HH were found to be practice agroforestry and green manuring (Table 5).

Priority topics identified and validated by stakeholders

- Improve the availability and cost of production inputs (including fertilizer, seeds)
- Improve crop diversity, and decrease dependency on a production of few crops
- Increase productivity and the proportion of produce that is sold on the market
- Enhance sustainable production practices with the use of biofertilizers sources available in the local set up of the farmers

Farmers and stakeholders visiting farm fields st Hawassa Zuria woreda
Photo taken by: Andualem Tadesse

4 Markets and value addition

Enjoying timely access to reliable market information is important for producers. It helps them understand what their customers want, what their competitors are doing and, it helps them track the current prices for the commodities they are producing. It enables them to make informed decisions about their marketing strategies.

According to the baseline survey, most farming households have access to market information (MI). Male HH enjoy relatively better access to MI than female HH. Households obtain MI through a variety of sources, predominantly through neighbours (32.2 %), peer farmers (26.5%), and traders (18.2%). Formal channels

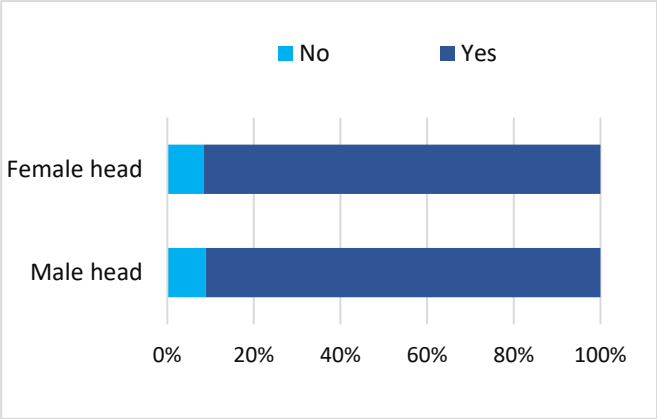


Figure 11: Proportion of access to market information

for information dissemination, including radio/TV, cell phone and DA are alternative and less utilized sources for market information (Figure 12).

The results from the baseline show that most farmers use pack animals (72%) and carts (15%) to take their

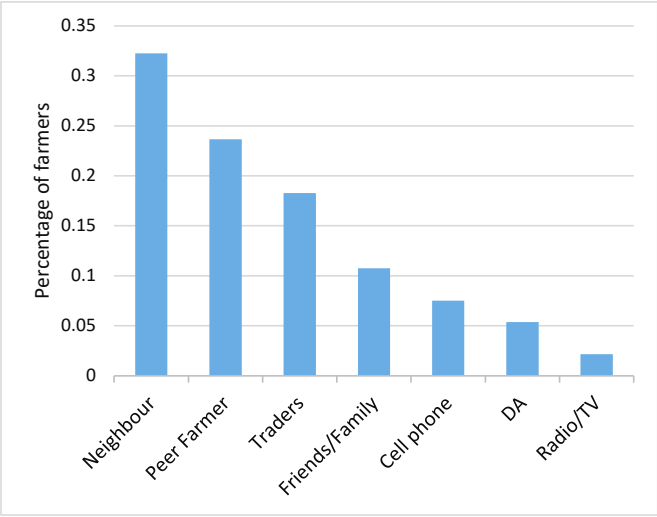


Figure 12: Source of market information

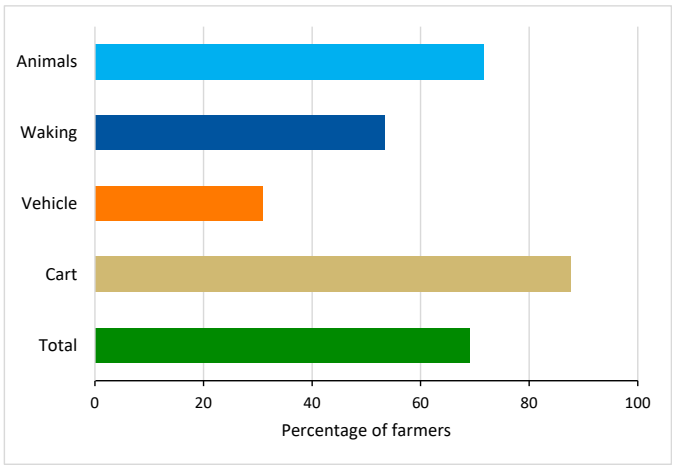


Figure 13: Means of transport to market

produce to market (Fig. 13). Some HH use vehicles and very few people walk to the market.

Results from the baseline survey indicate that households from Jara Damuma and Lebu Koromo *kebeles* respectively traveled on average about 120 minutes and 35 minutes to get to the market, using pack animals to transport their produce.

According to the rapid food system appraisal, the absence of a local marketplace in the *kebeles*, with exception of a small local daily market, remains one of the key challenges for farmers to easily buy and sell agricultural produce and production inputs. The unavailability of markets in the *kebeles* force farmers to travel longer distances, including to bordering *kebeles*, in adjacent *woredas* and regional towns. During the FGDs participants mentioned Hawassa, Shashemene and Kare Delaare as the major market towns that people travel to, to go sell and buy products.

Insights generated through the baseline survey and FGDs revealed that there are almost no medium or large-scale business enterprises that are operating in the area, adding value to agricultural produce. Farming households sell their produce directly to traders with no value addition, resulting in reduced profits.

The baseline survey results revealed various challenges for the farmers in relation to marketing. The top market related challenges for the households of Hawassa Zuria *woreda* include amongst others: long distances to markets, low prices for agricultural products, lack of transportation services, and limited availability of diversified products in the market (Figure 14).

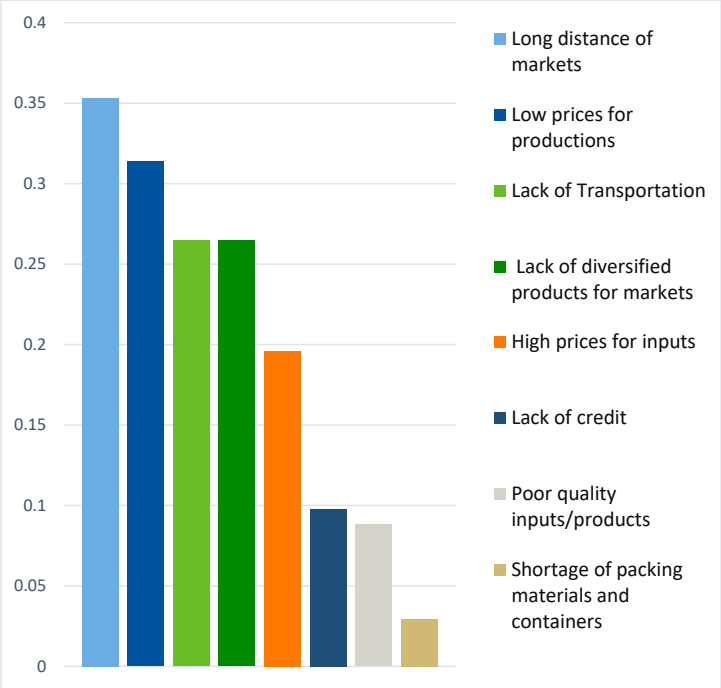


Figure 14: Challenges faced in marketing

Priority topics identified and validated by stakeholders

- Improve access to quality market information system
- Enhance market access for exchanging the produced commodities, and production inputs
- Enhance access to food processing and value addition

Baseline survey and RFSA findings validation workshop at Hawassa town
Photo taken by: Andualem Tadesse

5 Credit and financial services

The result of the FGD indicated that there are micro-finance institutions (MFIs) and Rural Saving and Credit Cooperatives (RuSACCOs) in the *woreda* including OMO Microfinance and SIDAMA micro finance institutions. These MFI operate from central offices that are located at the *woreda* level. Therefore, accessibility for the households who live in rural *kebeles* is limited. The experts of these MFI institutions mobilize themselves to the *kebele* periodically in order to provide services. Nevertheless, the available financial resources that are available to be distributed as credit are not sufficient to match the current demand.

The repayment of loans is also reported as a challenge for the MFIs, as households fail to repay their loans in a timely manner. Non-government employees face a challenge in accessing loans because MFIs prioritize giving loans to government employees. MFIs perceive government employees to offer more secure collateral. An additional requirement for people requesting a loan, is that they need to have savings in the MFIs in order to be considered for the loan. Additional MFIs that offer loans called 'Chalala' MFI are also available, nevertheless, these institutions are predominantly operating near the regional capital, Hawassa.

According to the baseline survey, households access credit from formal sources (Non-governmental organisation, micro-finance institutions including village saving and loan associations and rural savings and saving cooperative organisations) and also from informal sources (informal lenders, friends or relatives, informal credit/ savings groups, e.g. merry-go-rounds, funeral societies). Figure 15 illustrates that informal

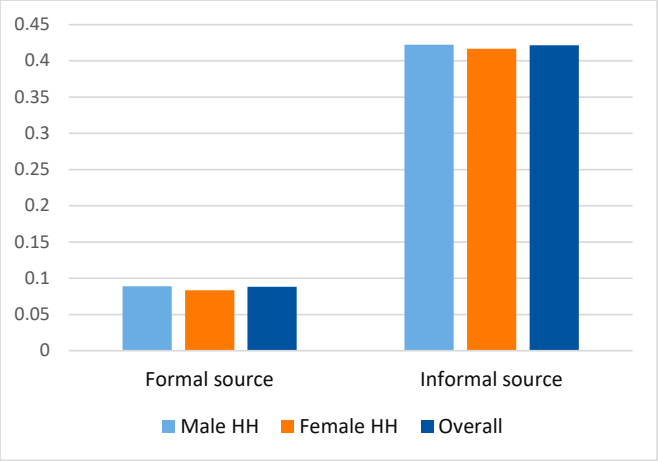


Figure 15: Access to credit

credit sources are the major source of credit in the *woreda*, around 42% of household heads access credit and loans through informal sources. The contribution of the formal sources is minimal (8.8%). There are a very small difference observed in terms of access to finance and credit from each source when comparing male and female heads of household (Figure 15).

Priority topics identified and validated by stakeholders

- Improve access to credit from the formal institutions
- Improve access to agri-finance
- Improve financial capital in the MFI to provide credit to larger number of households
- Increase accessibility of the MFI at *kebele* and *woreda* levels

6 Food and nutrition security

As observed during the FGD, diets in the *woreda* are influenced by wealth and income, age, gender, the culture of the community, and access to food. Those who are better-off in terms of wealth, eat more diverse and more nutritious foods; these people do not have to skip a meal. Diets of households with low-incomes, mainly consist of poor-quality food items. These households often only consume two meals a day. The limited diversification of agricultural production in the area influences dietary diversity in the *woreda*.

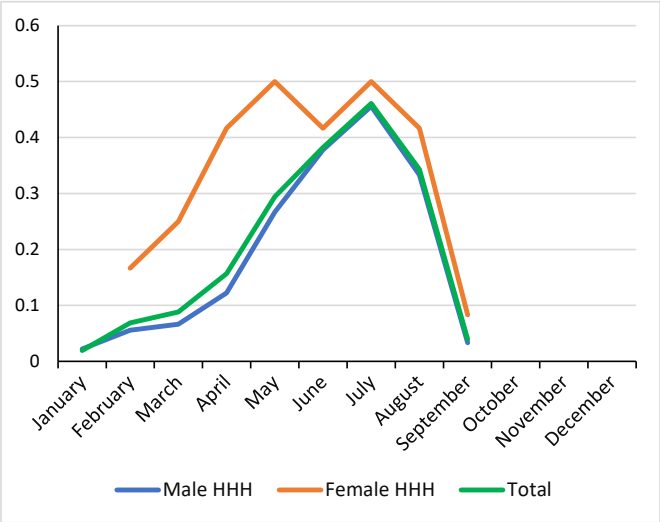


Figure 16: Proportion of households having insufficient food in different months of the study year (2022)

Evidence from the baseline survey also demonstrates that the dietary diversity is low in both *kebeles*. Food security is not stable throughout the year and a fair share of HHs experience food insecurity between May and August. Female-headed households experience more food insecurity when compared with male-headed households. the baseline survey and FGD results indicate that most HHs primarily depend on their own harvest for the food they consume.

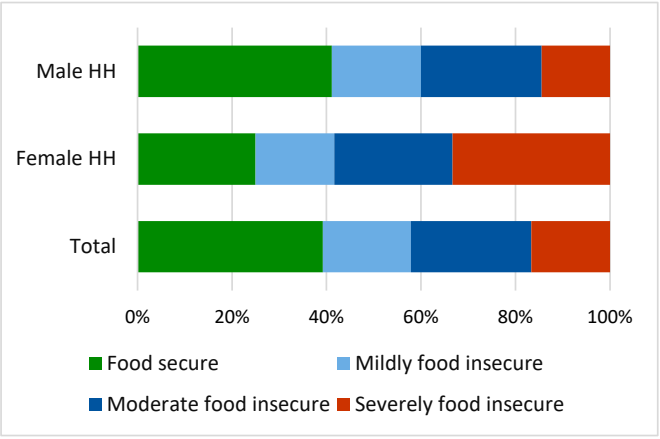


Figure 17: Proportion of households categorized in different stages of food security levels [2]

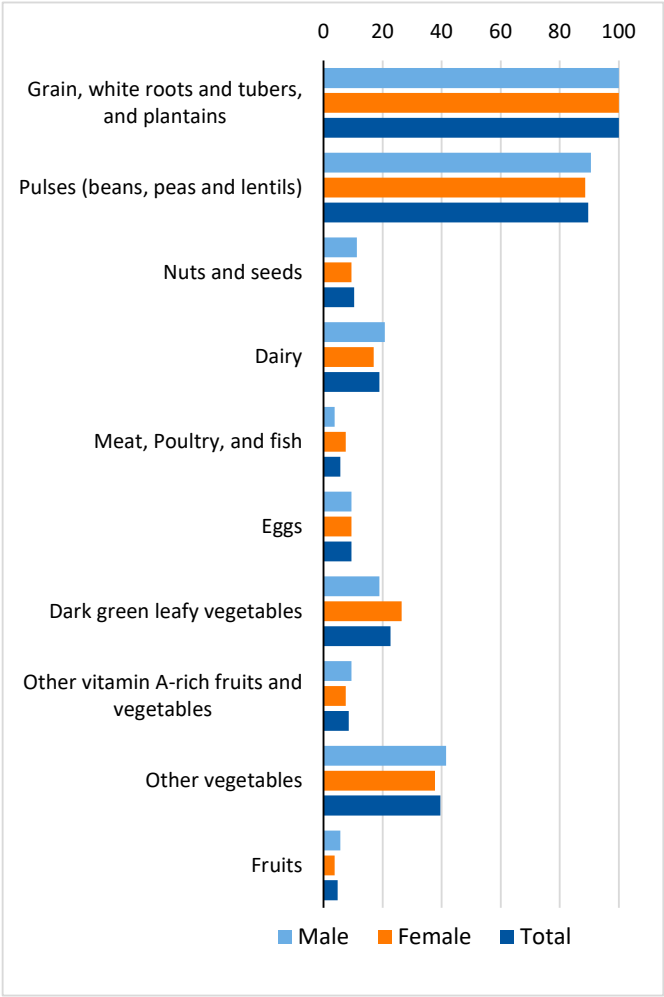


Figure 18: Food groups consumed in the two study kebeles of Hawassa Zuria within 24 hours

According to the baseline results, only 39% of the surveyed HH were food secure throughout the year. The remaining 61% of HH are food insecure and experience different levels of food insecurity. Female-headed HH experience more food insecurity when compared to male-headed HH of which 25% was food secure in the previous month. In addition, many more female headed HH experience severe food insecurity when compared to male-headed HH (Figure 17).

According to the individual dietary diversity score, the average number of food groups consumed is below the recommended minimum dietary diversity score of 5 or more food groups, for women of reproductive age. On average, only 3.8 different food groups are consumed, with a slight difference between men and women (3.8

[2] https://www.fantaproject.org/sites/default/files/resources/HFIAS_ENG_v3_Aug07.pdf

[3] https://www.fao.org/3/cb3434en/cb3434en.pdf

and 3.9, respectively). None of the surveyed female respondents reported to consume the recommended 5 or more food groups in the previous day. This implies that women in Hawassa Zuria *woreda* do not meet the minimum dietary diversity requirement for women of reproductive age (MMD-W) and are at risk of micronutrient deficiency .

In Hawassa Zuria *woreda*, the average households' diet consist mainly of grains, white roots, and tubers. These are the food groups consumed by almost all the respondents, followed by other vegetables, dark green leafy vegetables, diary products and pulses (Fig. 17). Nuts, seeds, meat, poultry, fish, eggs and vitamin A rich fruit and vegetables are consumed by less than 10% of the respondents. There is little difference in the diets between men and women except for the intake of meat, poultry and fish which was consumed by 14% of men although no women consumed these foods. Fruits are also consumed more by men than women (Figure 18). Focus group discussions revealed that the composition of standard meals vary from HH to HH in terms of the size of the meals and the ingredients utilized. HHs with a higher income consumed a wider variety of food groups than low-income HHs. According to FDG a meals that consist of cereals, milk, butter, and pulses is seen as healthy. Fruit, vegetables, fish and poultry meat are not always considered as food products that are part of a healthy diet.

Lack of awareness, low income, restricted access to diversified food (availability and affordability), and culturally enforced food taboos, were identified as key barriers for consuming a healthy diet.
The FDG participants noted that women receive nutrition information mostly form health extension workers, non-governmental organizations (specifically feed the future) and school clubs for students. On the other hand, male farmers and male headed households have limited nutrition information but get some from the DAs. All participants indicated that they have limited access to information related to food safety. Insights from focus group discussions indicated that food taboos are prevalent and strongly influence dietary behaviour. Most food taboos affect children and (pregnant) women. For kids under the age of two, butter and honey are prohibited because it is assumed that consumption of these food products at young age leads to digestion and verbal- speech problems. Eggs and butter are prohibited for pregnant women, based on the assumption that they might cause an increase in baby weight, which might be problematic during delivery. Similarly, fish and poultry meat are prohibited food products for the community's influential male adults due to culturally dictated norms. Influential men in the community will not consume foods that do not match the cultural norms and respect they receive from the community. For example, if a highly influential man eats chicken, the community will judge him as he is consuming poultry meat.

Priority topics identified and validated by stakeholders

- Enhance dietary diversity
- Promote diversified production and consumption of nutrient dense foods (nuts, pulses, eggs, fish, chicken, meat, Vitamin A-source foods, and fruits).
- Reduce food scarcity periods
- Strengthen capacity and awareness about healthy diets, food taboos and food safety.

7 Inequalities based on gender identity and age

In Hawassa Zuria *woreda*, women and youth experience the most disempowerment. Young people face most challenges due to their limited access to credit, limited control over and use of income, limited decision-making power regarding inputs and production, limited group membership, and limited ability to speak in public. Women are disempowered due to their limited access to credit, leisure, and their high workload. Lack of access to credit, limited leisure time, and limited group involvement are the main causes of men's disempowerment (Table 6, Figure 19).

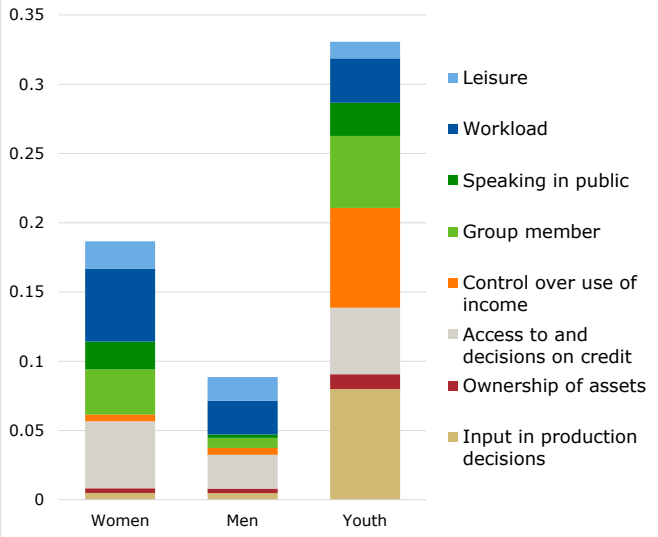


Figure 19: Women empowerment in agriculture (WEIA) score. Weighted score of the % of people classified as disempowered in specific domains[4].

Figure 19 displays the total score for disempowerment for women, men, and youth as well as the relative importance of the different domains that contribute to the overall score. Table 6 uses established cut-off markers to display the percentage of people in each WEIA domain that lack empowerment. As per the data depicted in Figure 19 and Table 6, once can conclude that, in general, women are less empowered than men. However, compared with both women and men groups, young people experience higher rates of disempowerment.

Women's disempowerment and ideal women

Women face the most challenges in accessing and making decisions on credit (86.7%). Furthermore, women also cope with high workload (43.3%) and limited leisure time (53.3%).

FGD revealed that there are cooperative associations that operate at the *woreda*. However, women and youths are unaware of the existence of these associations, which limits their participation in these cooperatives. Furthermore, the FGD highlighted that women have a heavier workload when compared to men, because they are responsible for the domestic and several agricultural/production related tasks. For example, women are responsible for weeding, hoeing, harvesting and other farm activities in addition to all the domestic tasks.

According to the same FGDs, in order for a woman to be deemed an ideal woman, she must respect others, be a good cook, be willing to follow commands from her family or spouse, and avoid crowds in most public places. A woman who possesses the traits listed above, but not limited to, is given the positive nickname "*Bilchata*" in her community.

Youth's disempowerment and ideal men

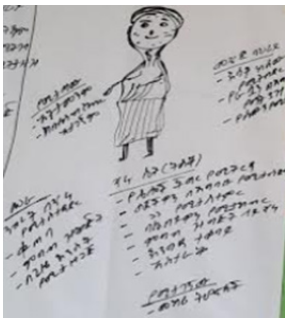
As depicted in Figure 18, young people experience the largest number of challenges, which results in more disempowerment when compared to women and men. Lack of access to and decisions on credit (100%) and limited or no control over the use of income (52.4%) are the domains in which most young people experience disempowerment (Table 6). The FGD indicated that young people are deprived from accessing sufficient land as the land holding size per household is progressively declining as a result of increasing population numbers. This is one of the underlying reasons why young people face challenges, their limited access to land and hence limited production

Table 7: Percentage of women, men, and youth classified as disempowered in different domains using the WEIA cut-off values[5] .

Respondent	Input in production decisions	Ownership of assets	Access to and decisions on credit	Control over use of income	Group member	Speaking in public	Workload	Leisure
	%	%	%	%	%	%	%	%
Women	10.0	3.3	86.7	3.3	20.0	20.0	43.3	53.3
Men	0.0	0.0	76.5	0.0	27.5	5.9	21.6	29.4
Youth	42.9	9.5	100.0	52.4	42.9	42.9	23.8	14.3
Overall	11.8	2.9	84.3	11.8	28.4	17.6	28.4	33.3

[4] https://www.ifpri.org/project/weai

[5] https://www.ifpri.org/project/weai



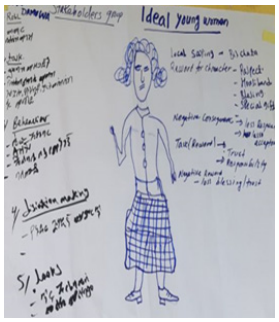


Figure 20: drawings of ideal women as described during FGD. Mentioned characteristics: respect others, a good cook, willing to follow commands from her family or spouse, and avoid crowds in most public places. A woman who possesses the traits listed above, but not limited to, is given the positive nickname "Bilchata" in her community.

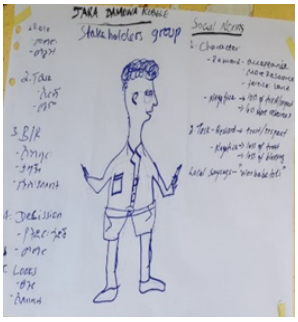


Figure 21:drawing of ideal men as described by FGD. Mentioned ideal characteristics of men: who takes care of his children, consults with families before making decisions, arbitrates disputes, can be trusted, is not addicted to drugs or alcohol, and respects others including his wife. Men who have these character traits receive the nick name 'worba beetto'.

capacity, restricts the youth from a livelihood based on agriculture and generation of income. Despite having a high disempowerment score, young people enjoyed higher degrees of empowerment in the areas of leisure time, workload, and speaking in public when compared to men and women.

Men's disempowerment and ideal men

Compared with women and youth, men were found to be more empowered although a significant proportion of men also face challenges in the domain of access to credit (76.5%), leisure time (29.4%), and group membership (27.5%) (Table 6). The FDG revealed that, the community's considerations of the ideal man is based on the following traits: being as a person who takes care of his children, consults with families before making decisions, arbitrates disputes, can be trusted, is not addicted to drugs or alcohol, and respects others including his wife. Men who have these character traits receive the nick name '*worba beetto*'. On the other hand, men who demonstrate unacceptable behaviour and character traits, will eventually lose trust from the community and tend to be disregarded when it comes to mediating disputes. In addition, these men are not able to get a loan from the community and receive the nickname '*durye*'.

Priority topics identified and validated by stakeholders

- Enhance access to credit for youths, and improved control over use of income.
- Enhance women access to credit, and leisure time.
- Create job opportunity for women and youth
- Reduce work burden of women
- Improve access to agricultural extension services (especially for women)

Female FGD participants
Photo taken by: Agdew Bekele

8 Policies and government support

The contribution of government support and policies in enhancing the food system is crucial. Policies should be considered and designed for all different levels of administration, including the *woreda* level.
The baseline survey and focus group discussions have revealed the importance of designing policies that are customised towards the *woreda*'s realities. The following thematic policy areas have been identified as key areas to bring sustainable and inclusive agro-economic development for Hawassa Zuria *woreda* and its inhabitants.

Sustainable intensification

Limited crop diversity, suboptimal use of mineral fertilizers, absence of organic production inputs and integrated soil fertility management practices in combination with climate change and ongoing soil degradation are factors contributing to the low agricultural yields, food insecurity, and overall, the limited economic capacity of the population in the *woreda*. The limited access to and high prices of production inputs remains a pressing challenge for the community, which is pushing them towards increased levels of food and nutrition insecurity.

Therefore, it is important for policy and government programmes to focus on introducing climate smart agriculture, nutrition dense crops, and adopting diverse crop types and varieties. The high costs of fertilizer can be mediated via the introduction, promotion and popularization of integrated soil fertility management measures that consider the use of, locally available, organic fertilizers in combination with mineral fertilizers. Awareness creation, and hands on training on biofertilizer preparation, use, and its role in alleviating soil fertility decline has to be taken as a priority intervention point by the government.

Strengthened the research extension linkage

Improved technology for crop husbandry: - though there is little experience in using technologies (machineries) for land preparation, the traditional method of crop husbandry is practiced by most of the smallholder farmers. The introduction of new farming technology will improve profitability and reduce farmers' workload. Their focus regarding the mechanization issue wasn't focused only on the large mechanizations but small and individual farmer-accessible technologies. Therefore, extension and knowledge delivery system need to extend beyond traditional thinking of the extension line, and look for new innovations, which demands the policy focus. Currently the extension service delivery system is predominantly focussed on Male household heads. In addition, it is suffering from ill-equipped and non-operational farmer training centres (FTCs). Government policies and programmes should consider inclusive and gender response approaches in the extension service delivery. The programmes also need to give attention towards strengthening the theoretical & practical capacity of the DAs assigned to support the farmers together with improving the actual facilities in the FTCs.

Diversified and nutritious food systems

Policies and programmes that support the production and consumption of a variety of nutritious food crops by integrating multisectoral coordination and social behaviour change communication at the local level have the potential to enhance the food system's resilience and the nutrition security of *Woreda*'s households.

Supporting producers to enhance their access to the market and market information and supporting entrepreneurship for post-harvest value addition practices can contribute to improved incomes, improved availability, accessibility and affordability of nutrition dense food products in the local market.

Strengthened social and economic policy support for improved, productivity, economic return, and livelihoods

Extension and advisory services need to extend beyond their traditional functions of distribution of agricultural inputs and dissemination of production recommendations. Policies, mechanisms and instruments are required that are able to create structural support for local agro-entrepreneurship. This encompasses support in areas such as, capacity strengthening in rural entrepreneurship, providing access to market information, enhancing access to financial support and seed capital for development of the agri-food sector and supporting the creation of non-agricultural jobs in the food system.

Overview of projects implemented in Hawassa Zuria

The *woreda* administration in collabouration with diverse partners, have deployed and implemented different national policies and support programmes at a local level.

Policies and programmes have worked on supporting agricultural development, nutrition and health, regenerative agricultural practices, soil and water conservation, watershed management and agroforestry.

Some noteworthy projects, programme's and interventions that have been implemented at the level of the *woreda* are:

- Soil and water conservation and watershed management programme (SLMP)
- Potato research supported by international center for potato (CIP)
- Natural resource activities supported by Rift Valley Project
- Push and pull project supported by Icipe
- Biogas program supported by SNV

Hawassa Zuria woreda baseline survey participants multi-disciplinary team of experts
Photo taken by: Agdew Bekele

Opportunities and challenges for Hawassa Zuria in a food system perspective

An overview of the most important opportunities and challenges, as identified through the RFSA and baseline surveys and validated by the stakeholders, are presented in figure 22. The challenges are formulated into goals, specific activities and interventions and placed into a food systems framework.

This overview illustrates how the identified opportunities and challenges are scattered throughout the different areas of the food system framework. In addition, it portrays how opportunities interlink and mutually contribute in specific ways to specific food system outcome areas.

Understanding and managing trade-offs and synergies in the food system

Food systems are by nature complex and dynamic and are characterised by interconnected, non-linear relations between the system elements and outcomes. When looking at any food system, one must be explicit and intentional to understand how certain activities affect different food systems outcomes, both positively and negatively.

An analysis of potential synergies and trade-offs is essential in understanding how food system outcomes at times compete and conflict with each other. For example, activities focussing on the production and productivity of staple crops have the potential to generate positive benefits in terms of yield increases with synergies that translate to the generation of income for farming households and contributions to improve food security at national level. Nevertheless, these activities might also generate negative trade-offs such as the soil degradation, climate change, water pollution due to excessive use of fertilizer. In addition, a focus on staple crops might negatively deteriorate household nutrition security and household dietary diversity (when farming households do not utilize the increased income to purchase healthy and nutrient dense food products). Another example of system behaviour is how activities to promote commercialization can improve the production of high value commodities with potential synergies to stimulate alternative livelihoods and employment opportunities for women and youth in sector related support activities (transport, value addition, distribution and others). The promotion of commercial production can also potentially generate trade-offs that have a negative impact on producers, consumers and the environment. For example, commercial production has the potential to lead to excessive use of mineral fertilizer, which in turn will contribute for climate change, residual effect to the consumer, and producers. Commercialization also leads to monocropping. Monoculture production practices, can in turn minimize crop diversity, limit dietary diversity, and, in addition, contribute to the soil degradation.

When designing any type of food system interventions, one must be explicit and intentional to try to understand and manage how specific interventions can affect different food system outcomes. Understanding how trade-offs and synergies affect the food system and being explicit about how certain interventions can create trade-offs and synergies can support the design of bundled intervention packages, that actively pursue integrated approaches, designed to address multiple systemic food system issues.

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List of abbreviations:

AEZ	Agroecological Zones
DA	Development Agent
FGD	Focus Group Discussions
FHH	Female Headed Households
HH	Household
IPM	Integrated Pest Management
ISFM	Integrated Soil Fertility Management
M.A.S.L.	Meters Above Sea Level
MHH	Male Headed Households
MFI	Micro-finance Institutions
RFSA	Rapid Food System Appraisal
RuSACCOs	Rural Saving and Credit Cooperatives
WEIA	Women empowerment in agriculture
Qt	Quintals (10 Quintals = 1 ton)

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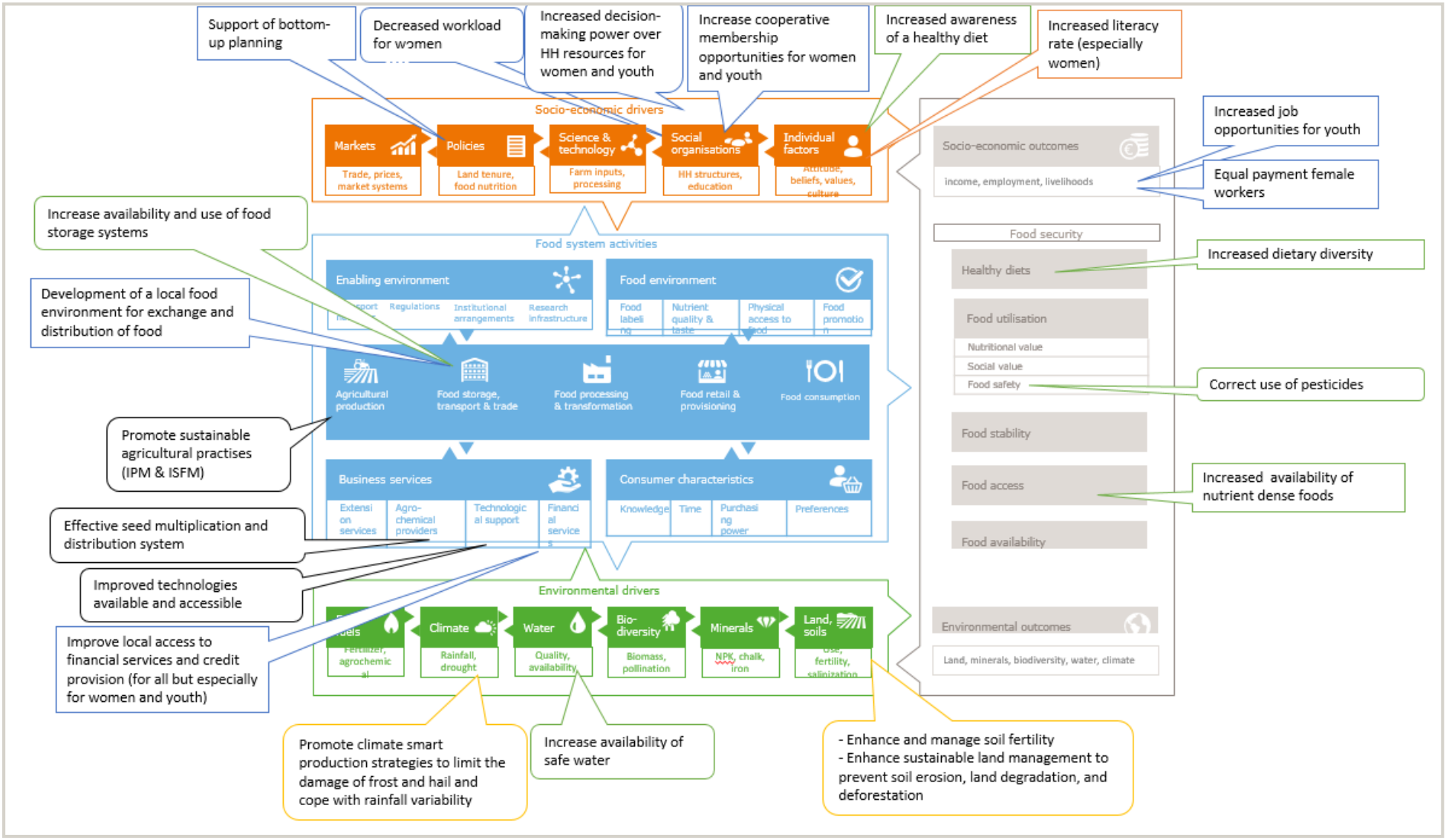

Figure 22: Identified priority topics in a food systems perspective (following van Berkum et al., 2018)

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