RAISE-FS *Woreda* profile #009

Ada'a *Woreda* Food System Profile

Population

182,162

87,699 | 94,463

Altitude

1,600 to 2,000 m.a.s.l

Diets

Predominantly grains and pulses

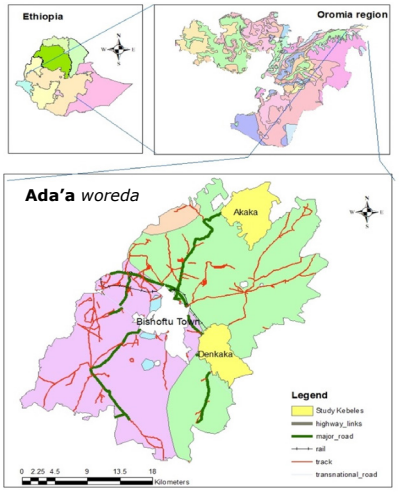
Food insecurity

36% FHH | **30%** MHH

Food gap months

Jan ..... ▶ Dec

June to October



Ada'a *woreda*

Climate and soils

Land degradation

Soil erosion

Water pollution

Top 4 crops produced

Teff | Wheat | Chick pea | Lentil

Inclusion

Youth (18–35 yrs) | Women | Men

✕ No access | ⋯ Limited access | ✓ Access

- High workload during the peak agricultural months
- Access to agri-inputs & extension services
- Access to credit
- Decision making
- Job opportunities
- 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 Ada'a *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 is generated based on insights obtained from the baseline survey and rapid food system appraisal (RFSA) studies thar were conducted in two selected *kebeles* of Ada'a *woreda*, Akako and Denkaka. These two *kebeles* are believed to 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. Ada'a *woreda* is one of the RAISE FS project implementing sites in Oromia region. A quantitative baseline survey study together with a qualitative rapid food system appraisal (RFSA) have been conducted to capture pertinent information, which was further supplemented with secondary data to produce this *woreda* profile document. Data collection was conducted in two selected *kebeles* of the *woreda*, Akako and Denkaka. The rationale behind the selection of these two *kebeles* was mainly the commodities produced, lentil and poultry, in the area. These two commodities are among the key commercial commodities in the RAISE-FS project. A structured standard questionnaire and RFSA tools with various participatory exercises (community mapping, activity calendar, in-depth dialogue and different plates activity) were developed to collect field data (Figure 1). From the total number of families residing in the *kebeles*, a proportionate number of female-headed, male-headed, women in male-headed homes, and youth (those <35 yrs) were randomly selected. A total of 100 respondents took part in the quantitative survey, of whom 54% were males, 46 % were women, and 23% were young people (54% young men, 46% young women). Multistakeholder teams from partner research centres and universities engaged in the data collection and report generation process.

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

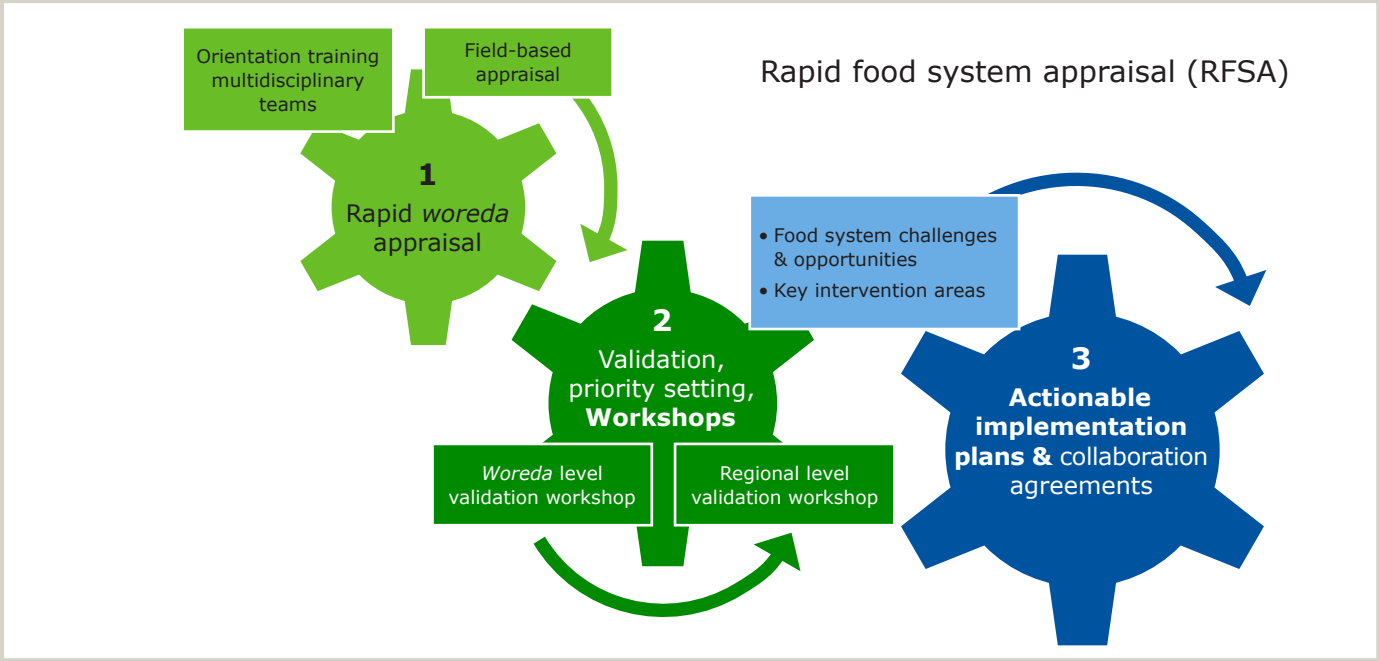


Figure 1: Steps of the rapid food system appraisal (RFSA) process

The RFSA activities have been undertaken involving female, male, youth and institutional stakeholder groups. The female group consisted of 12 persons (5 youth <35yrs of age, 4 adults between 35 and 60yrs of age and 3 elderly people > 60yrs of age). Similarly, the male group was composed of 12 persons (5 youth, 4 audults and 3 elderly people). The institutional stakeholder group comprised development agents (DAs), head of agricultural offices, health extension workers, cooperative managers, microfinance managers and land administration experts from *kebele* level and office of agriculture experts (extension, nutrition, natural resources and agronomy), cooperative promotion office, women, children and social affairs (trade and development office, microfinance, and job creation. After data collection process, two separate validation workshops were organized at *woreda* and regional level to verify and substanciate study results. At the *woreda* level validation workshop various stakeholders from local governmental offices, financial institutes, NGOs working in the area, experts and farmers took part. At the regional validation workshop, *woreda* administrator, researchers from Debre Zeit research centre, and head of different offices of the *woreda* (agriculture, cooperative, women, children and social affairs, job creation, health). In addition, representatives of the men and women who participated in the RFSA have participated. During the workshop s, key findings from the appraisal and baseline survey were discussed and validated. In addition, suggestions received by *woreda* officials regarding the *woreda* profile were taken into consideration to further enrich this document.

Waajjira Qonnaa Aanaa Ada'aa
አደኣ ወረዳ ግብርና ጽ/ቤት
Adea Woreda Agriculture Office

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Summary of the content of the letter

From: Ada'a *woreda* agricultural office
To: RAISE-FS Project
Subject: Giving feedback on *woreda* profile document

Review Question	Feedback and suggestions	Section / Paragraph	Page #
- What do you like about the document?	The document clearly demonstrates the overall situation of the woreda in a clear and precise manner.	-	-
- Do you consider the document provides a summarized overview into the current food system dynamics of Adaa Woreda?	Yes	-	-
- What topics are missing? Is there accompanying evidence and data on these topics?	-	-	-
- Is any information missing? Are there other data that are valuable to add?	Include September Include July and August	Table 1 S.N 3 S.N 15	Page 5
- Are there any items (text, graphs, illustrations) that you consider are not stated correctly?	The map doesn't represent the current demarcation of the woreda	Map	Page 6
- What sections (text, graphs, illustrations) are not clear at this moment? Kindly provide suggestions on how to improve and bring message across differently.	- The Woredas should be 11 - Annual Rainfall is 18 °C -28°C - Produce vs sale should be revisited - Lower price is from November-February	Table 4	Page 8 Page 11

The Ada'a *woreda* agriculture office stated the *woreda* profile clearly demonstrates the overall situation of the *woreda* and forwarded their detailed feedback

Figure 2: Official communication with Ada'a **woreda** *agricultural office*

Community maps

Figure 3: Community map from Denkaka kebele male and female groups

Figure 4: Community maps; Akako kebele male and female, and institutional stakeholder groups

Seasonal calendar

Table 1: Seasonal calendar from male focus groups Akako Kebele

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

Table 2: Seasonal calendar from Denkaka kebele female focus groups

No	List of activities	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug
1	Expenditures	xx				xx	xx	xx	xx		xx	xx	xx
2	Income	xxx			x					xxx	xxx	xxx	xxx
3	Labour activities	xxxx	xxx	xxx	xxx	xxx	xxx	xx	xxx	xxx	xxxx		xxx
4	High workload	xxx		xxx	xxx	xxx			xxx		xxx	xxx	xxx
5	The rainy seasons	xx									xx	xx	xx
6	Moments of critical drought							xx	xx	xx			
7	Key cropping season for different crops	xx	xx	xx	xx	xx						xx	xx
8	High market price	xx	xx	xx							xx	xx	xx
9	Low market price				xx	xx	xx	xx	xx	xx			
10	Busiest months for women	xx		xx	xx	xx			xx		xx	xx	xx
11	Busiest months for men				xx	xx	xx				xx	xx	xx
12	Pest and disease prevailing months												
13	Prevailing livestock activities over the year												
14	Local market demand for local products	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
15	Periods of food scarcity	xx									xx	xx	xx

The 'X' refers to the normal intensity level of the situation about the corresponding activity whereas XX and XXX represent strong and very strong intensity levels, respectively.

1 Demography

Ada'a is a *woreda* in Oromia Region, Ethiopia (Figure 6). It is part of the former Ada'a Chukala *woreda* that was divided between Ada'a and Liben *woredas*. Part of the East Shewa Zone located in the Great Rift Valley, Ada'a is bordered on the south by Dugda Bora, on the west by the West Shewa Zone, on the northwest by Akaki, on the northeast by Gimbichu, and on the east by Lume. According to the Central Statistics Service 2022 population projection, the *woreda* has a total population of 182,162 with 48.1% (87,699) being female and 51.9 (94,463) male.

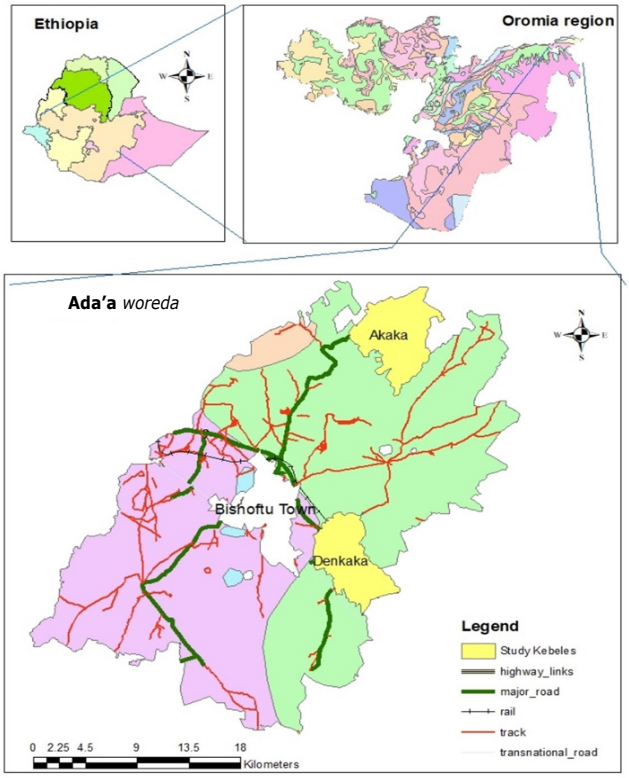


*Figure 5: Map of Ada'a**woreda***

The baseline study demonstrated that the median household size consists of 5 people in the two studied *kebeles* (Figure 6). Male-headed households have a size of five people on average while the median female headed households have a slightly smaller size of four people. About 36% of the population are children (< 18 years) and about 36% are youth (18 years to 35 years). Adults (36 years to 60 years) account for 23%. Elders (aged above 60 years) are less than 5%.

The educational level of household heads was assessed in the baseline survey with, 73% and 43% of female and male heads of households cannot read and write resp. (table 1). About 4% of both male and female heads of households read and write through adult and religious education. About 47% of male and 23% of female heads of households attended formal education and completed primary schools (grades 1 to 8). Only 5% of male heads

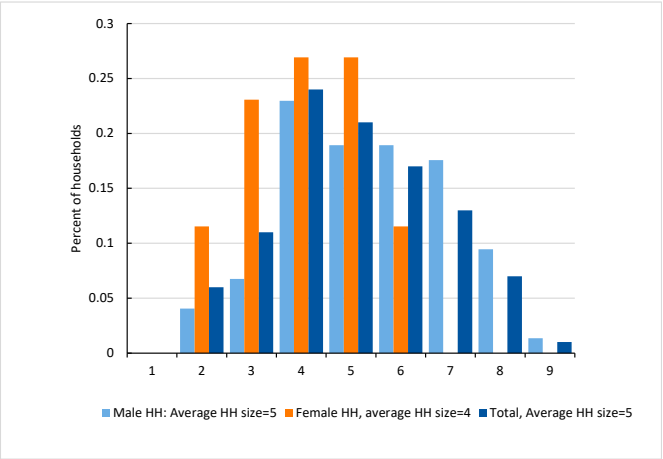


Figure 6: Family size of surveyed households

of households completed secondary school. No women heads of households completed secondary school.

About 47% of male heads and 23% of female heads attended formal education and completed primary schools (Grades 1 to 8). Only 5% of male heads completed secondary school. No women head completed secondary school.

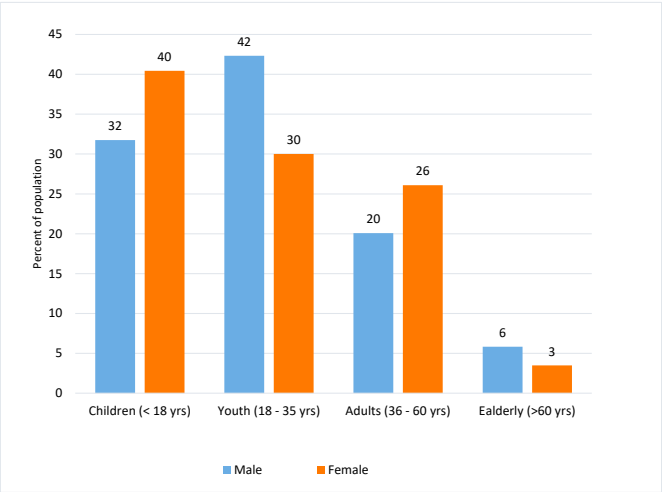


Figure 7: Age category of surveyed households

Table 3: Education level of surveyed household head

Educational level	Male head %	Female head %	Total
Does not read and write	43.2	73.1	51.0
Adult and religious education	47.3	23.1	41.0
Primary school	5.4	0.0	4.0
Secondary school	0.0	0.0	0.0
Diploma and above	4.1	3.8	4.0

Chapter 1. Priority topics identified and validated by stakeholders:

- Create employment opportunities to reduce mobility(migration) of youth to nearby towns

2 Agro-ecological and environmental conditions

Ada'a *woreda* is one of the 12 *woredas* in East Shoa zone and is located about 45 kms south-east of the capital Addis Ababa and is very close to the other major urban centres. The *woreda* lies between longitudes 38º51' to 39º04' East and latitudes 8º46' to 8º59' North covering a land area of 1,750 km^2 on east of Addis Ababa. Most of the land (90%) is plain highland ranging between 1,600 to 2,000 metres above sea level (m.a.s.l). The *woreda* is characterised by sub-tropical climate and receives 860 mm rainfall/annum.

In general, the main rainy season occurs between mid-June and September, followed by a dry season that might be intercepted by the short rainy season in February and March. Mean annual temperature ranges from about 8–28ºC. The long term (1,953-2,003) average rainfall recorded by International Livestock Research Institute (ILRI) Debre Zeit and Debre Zeit research stations was found to be 839 mm. Mean minimum and maximum temperatures recorded for 27 years ranged from 7.9^{0}c to 28^{0}c respectively. Mean annual temperature for the same period was 18.5^{0}c.

Black clay Vertisol is the dominant soil type, with good soil fertility but with water logging problems, and occurs in areas where the land slope is less than 8%. Household average farm size varies from 1 to 2.5 ha and the major farm operation is done by oxen power. The predominant farming system is mixed crops and livestock production.

The agro-ecology in the *woreda* is best suited for diverse agricultural production. There are a number of rivers and create lakes that are being used for irrigated agriculture, particularly for horticultural production.

The *woreda* is nationally known for its good quality teff production, which dominates the agricultural production system. Wheat is also grown in sizeable quantities in medium to high altitude areas. Pulses, especially chickpea, is grown at the lower altitudes and on residual moisture. Lentil is also grown to a lesser extent. Horticultural crops, mainly vegetables, are produced under irrigation. Livestock production is an integral part of the production system. Production of cattle, sheep, goat and poultry is a very common practice and there is an existing market-oriented production system.

There are two cropping seasons in the area. *Belg* (short rainy season) from March to April and *meher* (main rainy season) from June to September. *Belg* rains are mainly

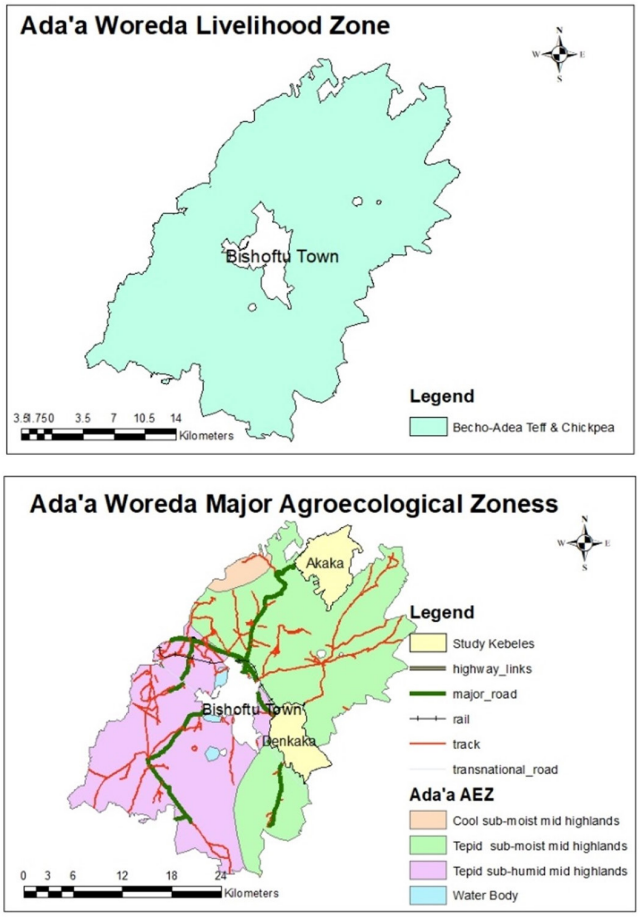


Figure 8: Livelihood and agro-ecological zones of the

used for initial breaking of the soil for *meher* crops and animal feed. *Meher* rains which account for about 74% of the annual precipitation, are the most economically important rains for crop production (Kahsay, 2004). March, April and May are the hottest months and November and December are the coldest months of the year.

Environmental degradation in the area is reported to occur in the form of deforestation followed by erosion. Water pollution and soil and water conservation problems have been reported as existing environmental hazards in the community. Especially in Akako *kebele*, water pollution is posing a serious challenge. Discussants revealed that available water bodies are being polluted with industrial waste in the *kebele*.

Chapter 2. Priority topics identified and validated by stakeholders:

- Reduce deforestation to address soil erosion problem
- Address water pollution from industrial waste

3 Agricultural production system

Agricultural production system of the two study *kebeles* is largely characterized by a practice of mixed farming system with crop and livestock production. Although crop production is predominantly rain-fed in the area, small scale irrigation and residual moisture-based crop production also characterizes the production system. Both in Akako and Denkaka *kebele*, poultry production and animal fattening (mostly oxen and small ruminants) are popular production practices. The two *kebeles* employ different land-use practices. The vast majority of the *kebeles*' land is cultivable. As the *woreda* is relatively closely situated to adjacent towns and with good road access, farmers are engaged in commercially oriented production system, a good deal of land is dedicated for the production of commercial crops like teff, wheat, lentil and chickpea.

Gebremedhin and Jaleta (2010) corroborate that access to roads enhance access to transport and markets and a commercial orientation of farmers. In Denkaka *kebele*, a small portion of the land is affected by waterlogging. The community mapping also indicated that there are no common grazing or forest lands both in Akako and Denkaka *kebele*. While industrial land use is non-existent in Akako *kebele*.

The rainy season in the area starts in June and extends to early September. Teff, wheat, chickpea and faba bean are major crops produced in Ada'a *woreda*. The cropping season for the *woreda* varies depending on the type of the crop. For teff and lentil, the cropping season ranges from July to January while for wheat cropping, the season extends from June to December and chickpea and grass pea cropping season starts from the end of August and extends until February.

The baseline survey result indicated that most farmers, about 94% and 88% produce teff and wheat respectively while 46% produce chickpea. Fertilizer use for teff and wheat crops is 98.9%. The tendency to use improved varieties highly varies with the crop type. For wheat and teff, the use of improved varieties is 39.8% and 20.2%, respectively. For chickpea, there is a lower use of improved varieties of 8.7%. On the other hand, the survey results indicated that farmers do not use improved varieties for faba bean crop. Farmers use pesticides (Table 3) ranging up to 92.6% and 93.2% for bread wheat and teff, respectively. On the other hand, the pesticide use for maize and faba bean tends to be much lower.

The crop rotation system in both *kebeles* is mostly characterized by being cereal dominated or cereal-pulse rotation. The survey and FGD results indicated that intercropping is rarely practiced in the area. When crop rotation takes place, rotating teff with wheat and chickpea is a common practice especially in Denkaka *kebele*. Over the years, the legume-cereal rotation system has seen a major drop due to disease and pest occurrence on lentil which is eventually leading to a monoculture, cereal dominated faming system. Crop rotation is still the most

Table 4: Inputs used for major crops

Crop	HH that cultivate specific crops	HHS that used inputs				Productivity (t ha $^{-1}$)	% Produce sold
		Improved Variety	Urea	NPS	Pesticide		
	%	%	%	%	%		
Food Barley	94.0	20.2	98.9	98.9	92.6	1.1	40
Faba beans	88.0	39.8	98.9	100.0	93.2	2.17	36
Field peas	46.0	8.7	0.0	0.0	71.7	1.53	53
Enset	8.0	0.0	0.0	0.0	25.0	1.72	23

Table 5: Experience in agronomic practices

Household head	Inter-cropping	Relay cropping	Crop rotation	Agro-forestry	Green manuring
	%	%	%	%	%
Male			77	1	
Female	4		81		
Overall	1		78	1	

widely practiced farming system in the two *kebeles* with only minimal intercropping and agro-forestry practices (Table 4). Relay cropping and green manuring are reported as not being practiced in either of the *kebeles*. The RFSA data indicate that home garden practice in the two *kebeles* is limited to the rainy season. Home gardening crops for the two *kebeles* include onion, lettuce, hope , potato, chili, cabbage, kale, beet root and tomatoes. It has been indicated that home gardening produce is for the most part for home consumption rather than for market purposes. However, production for income also takes place although it is at a smaller scale.

Despite the high productivity potential of the two *kebeles*, focus group discussants have raised a number of challenges which they are facing in their areas. Some of these challenges include high cost of inputs, inaccessibility of agricultural technologies, lack of improved crop varieties, inequality in access and use of extension services, lack of agricultural machineries. RFSA participants also indicated that the irrigation system at Denkaka *kebele* is not entirely functional because of problems associated with the design of the irrigation scheme.

Attaining resilient and sustainable food systems while safeguarding the environment requires coordinated actions from a range of stakeholders. Different stakeholders validating the baseline and RFSA results indicated the need to promote agricultural practices and technologies that raise rural income while being sustainable in terms of water, soils, ecosystems, and biodiversity. Stakeholders also emphasized on the need to improve farmers access to productive assets.

Chapter 3. Priority topics identified and validated by stakeholders:

- Promote climate smart production practice
- Improve input supply system
- Promote labour saving mechanization
- Enhance customized and equitable access to and use of extension and advisory services

4 Markets and value addition

Market information is a crucial in guiding people to make informed decisions on what, where when and for whom to sell2. Less access to market information significantly reduces the bargaining power of rural farmers.

According to the baseline survey data, it appears that women headed households (62%) have less access to market information than male headed households (77%) (Figure 9). Survey data shows that a little over 50% of the surveyed households obtain market information

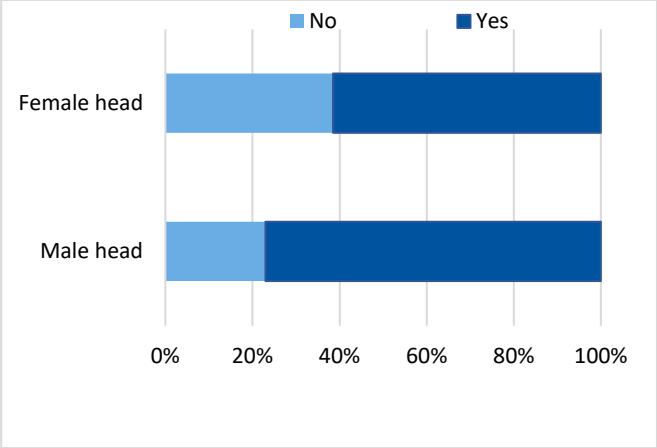


Figure 9: Access to market information

through their neighbours while 15% get market-related information from dealers or brokers (Figure 10). Friends and family are the source of market information for 12% of the surveyed households. The percentage of farmers who obtain market information from formal sources like radio/television, traders or development agents is very minimal as compared to those who solicit the information from informal sources. From market information access point of view there is no difference between women and men farmers besides the information source is largely from informal source. Several studies reveal

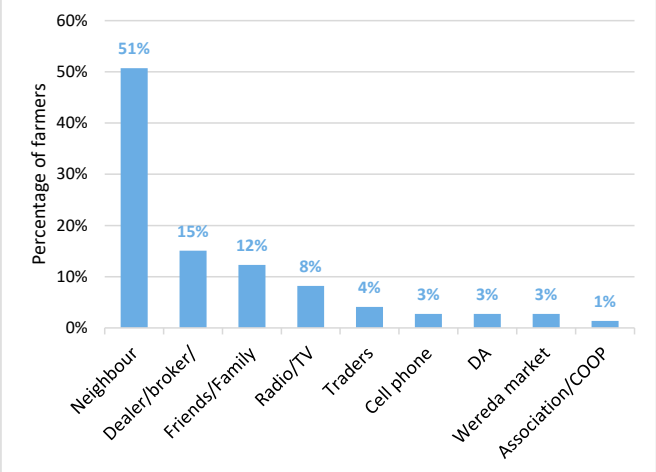


Figure 10: Source of market information

that membership to farmer-based organization empower farmers bargaining and facilitate in input output market arrangements (Bernard et al., 2010; Abebaw, and Haile, 2013). However, in the study area the findings show that cooperatives are found serving the least role of facilitating access to reliable market information that implies that either cooperatives are not established in the way to serve facilitation of market access or they need strengthening towards addressing input and output market access facilitation to its members.

Marketing situations of smallholder farmers is challenged by several factors such as road access and means of transportation. The baseline survey revealed that the means of transport to take produce to the market is largely to draft animals (Figure 12). The vast majority of farmers (80%) rely on animals as a means of transport while 15% carry the produce by themselves to get to the market. The type of road infrastructure and means of transport can highly impact the time, frequency, price and even quality of products sold.

Focus group discussion revealed that there are no local marketplaces in Denkaka nor Akako *kebele*. Moreover, in Denkaka there is no weekly market located within the *kebele*. Hence, people travel to a relatively far marketplace called Kamise market (otherwise known as Ude) in Bishoftu while in Akako people use the *woreda* markets Gaba dama and Godino markets which take place on Sunday and Monday, respectively. Both in Denkaka and Akako *kebeles* discussants, especially women, revealed that market access is one of the pressing challenges for them and their community.

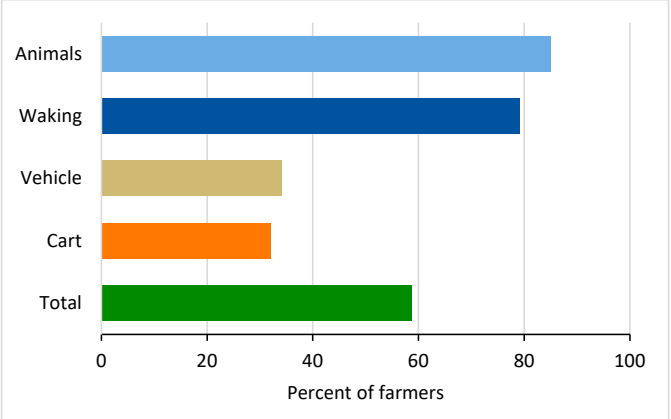


Figure 11: Means of transport to market

The price of local agricultural products largely varies with the peak harvest supply time and market demand of the products. For most crops in the area price tends to get higher towards the scarce season which reaches the peak between August and September. The months from

December to February were identified as months where the price of products appears to be relatively low, which is the harvest time for most of cereals.

Specifically the women group in Akako indicated the season for high price of their products are from June to December and low price January to May while women in Denkaka *kebele* indicated August and September are seasons for high market demand while December to February are months of price fluctuation.

In addition to the challenge of having no viable local market, farmers in both *kebeles* expressed the absence of small, medium and large-scale business enterprises engaging in processing or value addition of agricultural products. This leads to direct marketing of agricultural products without value addition like cereals, pulses and even poultry products. The lack of electric power has also been mentioned as a challenge to engage in value addition as a business.

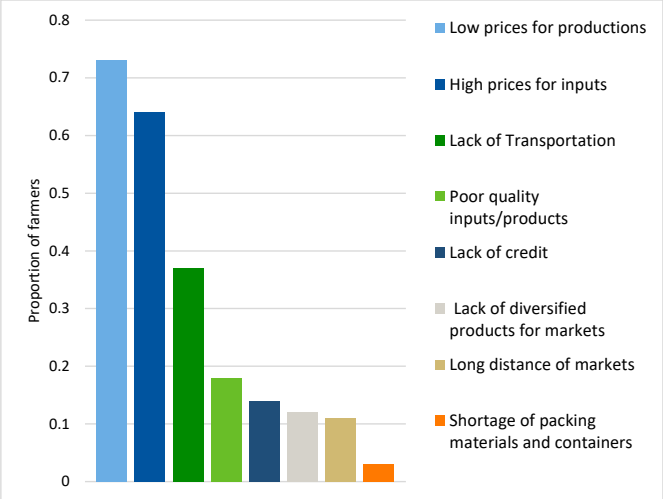


Figure 14: Challenges faced in marketing

Lack of credit services appears to be a significant marketing challenge in the two *kebeles* (Figure 13). The lack of local markets causing long distance travelling was also mentioned as a major challenge as is the lack of transportation to travel to themarkets. Seasonal price fluctuation of some crops are also among the repeatedly mentioned challenges in market access.

Chapter 4. Priority topics identified and validated by stakeholders:

- Strengthen farmers based orgnaizations including primary cooperatives/unions
- Establish local markets
- Avail inclusive financial access to women and youth
- Develop infrastructure (electricity, road) etc.

5 Credit and financial services

Access to finance is one of the most important components expanding economic opportunities. Despite the need for pro-poor and fair access to credit and financial services in rural areas, its accessibility is often under question, especially for landless people. Participants of FDGs indicated there are no financial institutions in their *kebele*. The financial institutions are located in the major town. Adult men have relatively good access to financial access because of their access to collateral like land and their freedom to travel to the cities. but farmers (especially women and young farmers) do not always find it easy to obtain credit. The major reasons for this include lack of collateral, mobility constraints and high interest rate. Participants indicated that financial institutions regard potential loans to young farmers and many other rural businesses especially smaller ones as risky. The conditions for obtaining a loan thus become more difficult to meet.

Different sources for credit services are used by households. Formal financial and credit providers include NGOs, banks/financial institutions, micro-finance including VSLAs/ SACCOs) while friends, relatives, informal lenders and credit groups like iequb and funeral societies (idir) are considered as informal sources. The proportion of households obtaining credit from informal sources appears to be higher than those getting from formal ones (Figure 12).

Regarding the differential credit access for men and women headed households, male headed households have better credit access from formal sources. On the other hand, women appear to have better credit access from informal sources. This was further supplemented by participants who indicated that men have greater credit advantage from formal sources because of their ability to fulfil requirements (like collateral, ID) and their ability to frequently travel to the city where financial institutions are located. Women headed households on the other hand had better access to informal credit because they are considered trustworthy among the society.

Limited financial access had been mentioned by young FGD participants as a major challenge for the ever-increasing unemployment rate in the *kebeles*. This was mainly attributed to their lack of land access which is resulting in their engagement in informal sector.

In conclusion, financial services are key to leveraging investment opportunities, transforming ideas into productive ventures, scaling up projects, and making value chains sustainable, thereby improving the social and economic well-being of smallholders. Therefore, promoting inclusive financial access can be seen as a catalytic tool to unlock development opportunities and improve lives, especially of the poor and disadvantaged , contributing to economic growth.

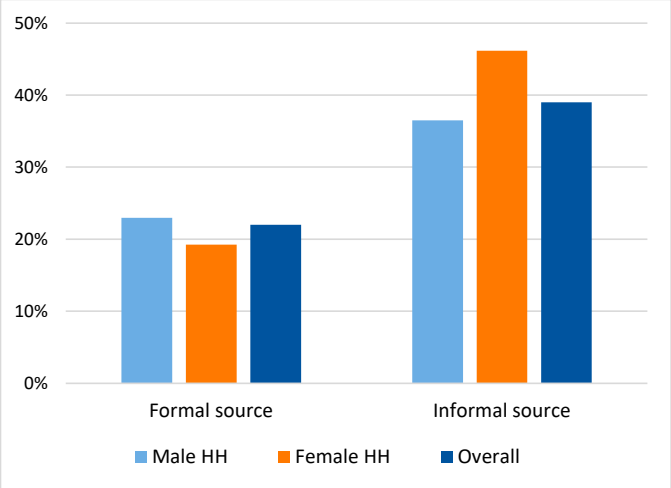


Figure 12: Proportion of housholds who have access to credit

Chapter 4. Priority topics identified and validated by stakeholders:

- Advocacy for feasible collateral policy (rural land certificate to be used as urban house collateral system)
- Advocacy the opening up of revolving fund for youth and landless
- Setup rural women and youth economic empow-

[3] https://ioe.ifad.org/

6 Food and nutrition security

Food and nutrition security is one of the main outcomes of a sustainable food system. Studies show that an increase in dietary diversity is associated with socio-economic status and household food security. Around 23% of female headed households were food insecure while 13% of the male headed households were reported to be food insecure (Figure 13). Women's increased vulnerability to food insecurity could be the attributed to several factors. Evidence indicate that FHHs are often disadvantaged when it comes to access to land, livestock and other assets, health care, markets, information and extension services, off-farm employment. On top of this, cultural norms and practices that minimize the status of girls and women leave them with diminished earning opportunities. Focus group participants also indicated that women headed households with land access face high male labour shortage which often leads to sharing out or renting out their land. The cumulative effect of these factors can have high impact on food security status of female headed households.

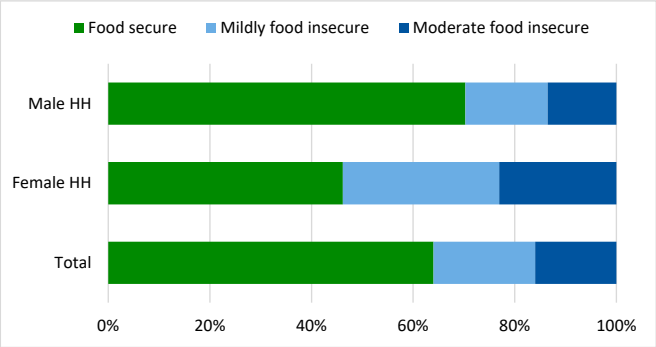


Figure 13: Proportion of households categorized in different stages of food security levels [5]

Food gap months for the two *kebeles* ranged from mid-June to mid October (Figure 14). Participants also highlighted that food scarcity is most severe from early June to end of September. Also here, a higher percentage female headed households face food insecurity in those months compared to male headed households.

Figure 15 shows that almost all households consumed grains and pulces. Around 45% of HH consumed a vegetable in the previous day. The % of HH that consumed any other food group was limited and also no big difference in consumption was observed between men and women. . It is found that in the study *Kebeles* on average men eat 3 foodgroups while women

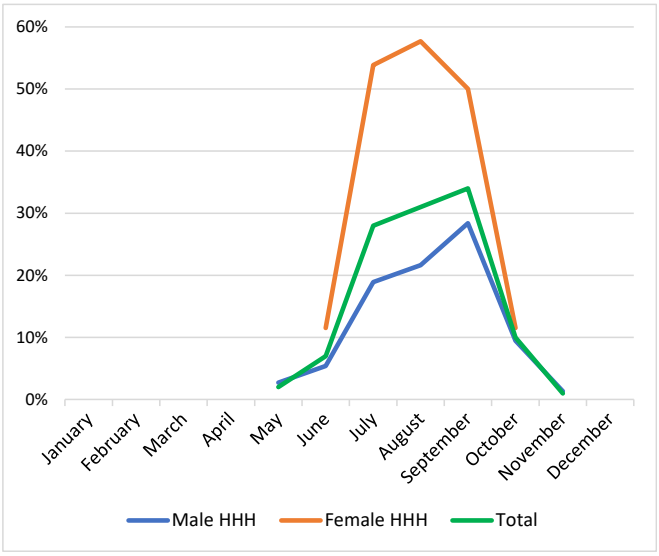


Figure 14: Percentage of HH having insufficient food in different months of the year

counterparts consumed on average of 2.7 food groups. A higher dietary diversity score represent a more diverse diet. When the dietary diversity score for the two *kebeles* is compared against the recommended consumption score of 5 food groups for women, the dietary diversity in both *kebeles* tends to be much lower, which can be associated with micro nutrient deficiency.

RFSA data suggested people's diet is largely influenced

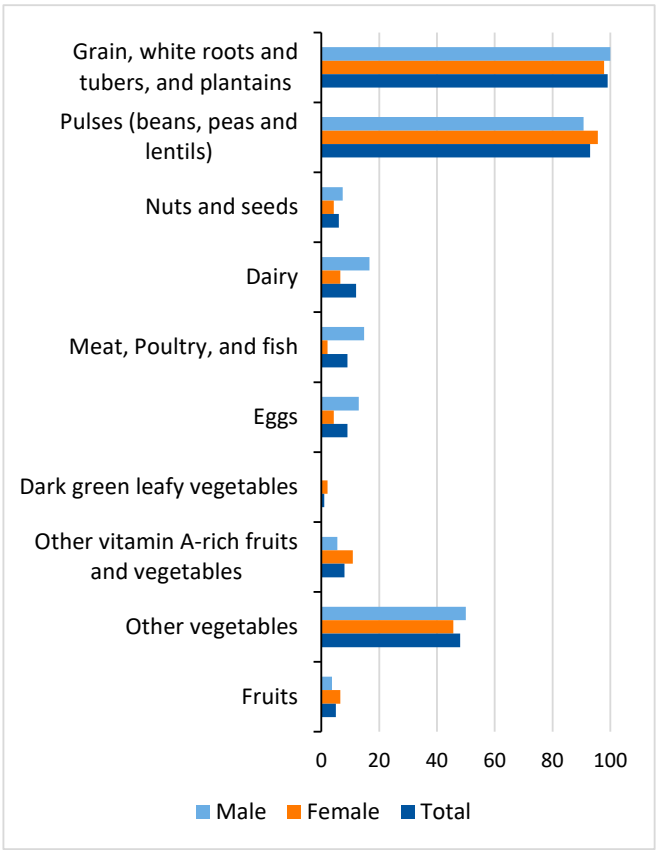


Figure 15: Percentage of individuals consuming food group in the previous day to the interview

[4] Hoddinot and Yohannes, 2002; Hatloy et al., 2000

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

by factors like gender, age, income, health, awareness and agro ecology of the area. FGD participants indicated that in both *kebeles*, diet is mostly cereal and pulse dominated. For of farmers with better income, a standard meal consists of teff injara with animal source foods (mostly meat and milk) t. A meal for less affluent households contains *injera* made out of wheat with grass pea *shiro*.

The definition of a 'healthy diet' varied among women and men groups. For the women, a healthy meal contains foods like teff, wheat, carrot, potato, egg and milk. While for the men's group a meal is considered healthy when it has animal source foods like milk, butter and meat. In what is assumed as a healthy meal there are varieties of food groups including cereals, pulses, vegetables, but the actual consumed meal is less diverse being mostly cereal and pulses dominated. Participants were asked the barriers inhibiting them from consuming what they consider a 'healthy diet'. Income, awareness and availability were mentioned as factors constraining consumption of a 'healthy diet'.

In addition to the above-mentioned factors, community norms dictate what and when individuals can eat. For instance, horse, donkey, pork and the meat of pet animals are forbidden because of religious rules while people with spirit (Ayantu) are not allowed to eat goat meat, chcicken and egg. Moreover, children are not allowed to eat raw meat, milk and chilli while pregnant women are forbidden from eating raw milk, banana, butter and alcohol during their pregnancy to avoid pregnancy complication that come with the size of the foetus. These social norms elevated to the level of taboo are considered fundamental among the community members, beyond just table manners. However, especially food taboos that constrain (pregnant) women and young children to consume nutrient dense and safe foods like (cooked)animal products and fruit and vegetables can have harmful effects for their health and the health of the next generation.

Women FGD participants from the two *kebeles* stated they acquire nutrition related information through radio, cooking demonstration sessions, from school and health extension workers. The men on the other hand stated that they receive nutrition knowledge through neighbours, relatives and NGOs as well as at community gatherings in the *kebele*.

Chapter 6. Priority topics identified and validated by stakeholders:

- Increase consumption of poultry products
- Promote nutrition education to transform food taboos
- Promote home gardening practice
- Promote equal access to resources and opportunities

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

7 Inequalities based on

In Akako and Denkaka *kebeles* of Ada'a *woreda*, women and young people are relatively less empowered than men. Limited access to and decision making on credit and group membership are the factors that contributed most to youth disempowerment. For women, the most disempowering factors are the lack of access to finance and decision on credit coupled with a disproportionately high workload. Difficulties with speaking in public

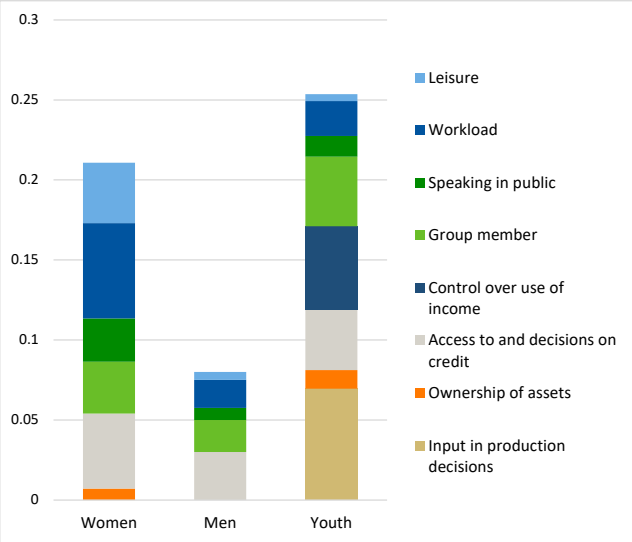


Figure 16: Women empowerment in agriculture (WEIA) score. Weighted score of the % of people classified as disempowered in specific domains[7]

(leadership) and limited group membership is also indicated as another disempowering factor for women. Although much less than that of women and youth, adult men also face disempowerment, which is mostly attributed to the lack of access to and decision on credit. Additionally, limited availability of leisure time, group and ownership of assets are among the different factors contributing to the disempowerment of women, men and youth. (see figure 16 and table 6)

Women's disempowerment and ideal women

Focus group discussions (FGD) also affirmed the above stated disempowering factors. Women's workload, lack of access to finance and limited membership to cooperatives were identified as major barriers for women and youth groups. Women groups specifically indicated that their lack of mobility, as a result of work burden and social norms, is a major restraining factor for women in the *woreda*. The workload of women was also attributed to their limited engagement in income generating activities, further contributing to their detriment. This was supplemented in the communities' perception of ideal man and ideal women. Participants stated that women are expected to do household chores and serve meal to the family even when they are sick.

The FGD also identified the busiest seasons for women which mostly coincides with the peak agricultural seasons in the area (May-August and October-January). Engagement in productive(agricultural) work, reproductive(domestic) work and unity(social) roles leave women with limited time to engage in income generating activities.

The community's image of an ideal woman appears to reinforce existing inequalities and disempowerment of

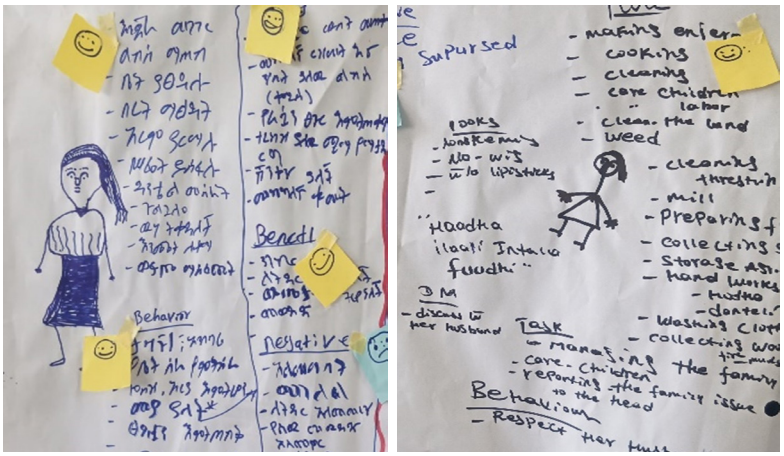


Figure 17: Drawings of ideal women as described by the participants of the FGD. Mentioned characteristics: someone who is good at all deomestic works, good at crafting, agricultural work, timid, respectful etc

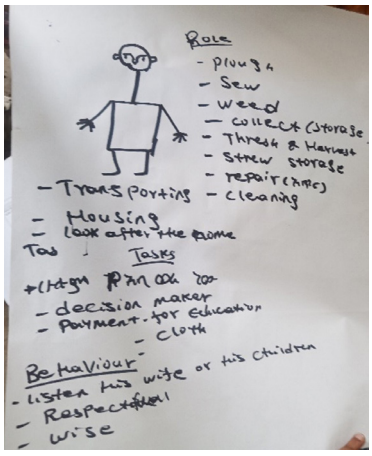


Figure 18: Drawing of ideal men as described by participants of the FGD. Mentioned characteristics: one who can plough, sow, weed, thresh, make decisions, wise etc

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

Table 6: Percentage of women, men, and youth classified as disempowered in different domains using the WEIA cut-off values[8]

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	0.0	5.4	81.1	0.0	32.4	32.4	59.5	37.8
Men	0.0	0.0	80.0	0.0	20.0	7.5	22.5	7.5
Youth	34.8	8.7	69.6	26.1	47.8	13.0	21.7	4.3
Overall	8.0	4.0	78.0	6.0	31.0	18.0	36.0	18.0

women. An ideal woman is portrayed as one who dedicates her time for domestic activities and showing timid behaviour in front of others. Young women failing to abide by such community norms are usually followed by discrimination and being considered as a 'man' by the community affecting the chance of finding 'a man to marry her'. Local sayings also reinforce women's lower status by affirming that 'women know less' of things other than domestic related issues while the man 'rules' the household.

Youth's disempowerment and ideal men

Young people in the *woreda* also face multiple challenges restraining them from opportunities in life.

Access to and decision on credit contributes the largest for the empowerment of young people in the *woreda* (Figure 20). Nearly 70% of young people have no access to credit services (Table 4). This was further supplemented by focus group discussions where participants revealed financial access as a great challenge to youth empowerment due to their lack of collateral and assets. The high interest rate and pre-saving requirements were also mentioned as factors deterring young people from accessing financial services.

Group membership(47.8%) was found to be another major disempowering factor for youth. Focus group participants also indicated that membership to farmers associations and other formal and informal groups depends on land ownership, as a result of which, young people are mostly deprived access to join such groups.

Furthermore, limited input in production decision, limited control over the use of income and a high workload have also been factors contributing to youth disempowerment in the area. All focus group participants (women, men and institutional stakeholders groups) indicated unemployment resulting in migration of the youth is a serious challenge for young people in the *woreda*. The limited job opportunities in the *kebeles* is mentioned as a push factor for pushing young men and women to travel to nearby towns in search of better employment opportunities.

Because of smaller sample size, the survey data did not differentiate the disempowerment score for young female and male separately. However, FGDs participants indicated that female youth face more disempowerment that their male counterparts. This was mainly attributed to limiting social norms that promote male dominance and limiting women's roles mostly to domestic related tasks. As a result of such factors, almost none of the young women in the *kebeles* own land. The ideal man/woman exercise revealed that owning land and or generating income was set as an ideal young man's character while for young women most traits revolved around being obedient, good at domestic chores and displaying shy behaviour in public.

Men's disempowerment and ideal men

Although adult men have relatively better empowerment scores compared to adult women and youth, they still face high disempowerment in some domains. The major disempowering factor for adult men is access to and decision on credit (80%). The unavailability of financial institutions in the community supplemented by higher interest rate were stated as major challenges by focus FGD.

Another disempowering factor for adult men is their work burden (22.5%). The workload score for men appears to have no significance difference with that of youth groups. Focus group discussion showed that men's workload is

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

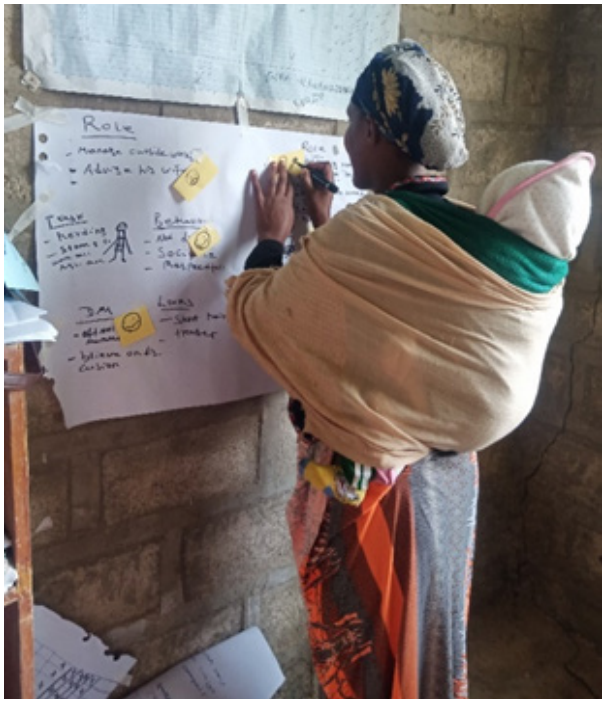
mostly seasonal varying with agronomic activities. Despite the seasonal workload, adult men appear to have better leisure time than women. The WEIA result also shows that adult men group membership (20%) is another disempowering factor for adult men in the *woreda*. Focus group discussion indicated women and youth have the most limitation in group membership because of land access and mobility constraints (for women), but adult men were reported to have better membership to formal and informal groups as compared to women and youth.

Baseline and focus group discussion results show men are more empowered in all domains compared to women and youth. The expectations to achieve more are displayed in the community's assigned traits of an 'ideal man'. For women groups of Akako *woreda* an ideal man's traits includes what is mostly regarded as "women's domains" like washing clothes, cleaning, fetching water and taking grains to the mill house. Despite these preferred chararistic of an ideal man, men's actualy roles are mostly limited to productive and community management roles.

Stakeholder groups from different sector offices (*woreda* and *kebeles*) and farmer groups validated and prioritized empowerment factors in their community. The lack of employment opportunities for youth was mentioned as a pressing issue in the *woreda*. Financial access was also raised as another limiting factor for all groups. Community representatives raised the issue of biased extension services as a major challenge. The focus on male farmer, model farmers and those living in accessible locations was raised as excluding practises especially for women and youth.

Priority topics identified and validated by stakeholders

- Create employment opportunities for youth (to reduce outmigration of youth)
- Promote land access for youth
- Transform negative social norms
- Promote inclusive extension service (avoid model farmer and road side bias)



Women and men participants actively enaging in the focused group discussions

8 Policies and government support

This section of the *Woreda* profile, synthesize and summarize different thematic topics that are believed to contribute to attain resilient, inclusive and sustainable food system development in Ada'a *woreda*. These issues have been generated from the baseline survey data analysis and rapid food system appraisal studies conducted in two study *kebeles* of Ada'a *woreda*.

These insights are summarized into the following key overarching themes.

- Social and economic inclusion for local economic development
- Enabling environment for customized extension, advisory and credit services
- Diversified and nutritious food systems,
- Promoting local food environments and healthy consumer behaviour,
- Climate smart and resilient agricultural practices,
- Partnerships for integrated food system policies, planning and governance.

Social and economic inclusion and women and youth empowerment for sustainable food system transformation

Several local (the ten-year national development plan of FDRE); regional (CAADP) and global (SDGs) development strategies have been formulated and envision to eliminate poverty, food and nutrition insecurity and social inequalities, and thereby advancing equitable and sustainable economic development by 2030. In line with these, the notion of leaving no one behind is the central transformative promise of the 2030 Sustainable Development Goals (SDGs).

Applying the leaving no one behind factors entails creating opportunities for vulnerable and marginalized groups. This requires promoting gender equality and social justice in the different services and programmes to ensure better access and control over production technologies, agricultural extension and advisory services, financial services, sustainable market and promoting fair representation of marginalized groups to be active members of rural organizations etc. This requires designing and implementing participatory and tailor-made programmes for disadvantaged groups. Availing economic opportunities for vulnerable groups cannot do justice on its own. Deliberate efforts have to be made to address underlying norms and restrictive practices that are causing and reinforcing existing inequalities and disadvantages. It is only when equitable opportunities are put in place as stated in development strategies. Cognizant of prevailing inequalities in food and nutrition security and there are pro-poor development interventions in the study area that include irrigated wheat, the resilient food system program, climate action through landscape management program for results, *ye lemat tirufat* among others which are national interventions with different levels of performance including in Ethiopia in general and in the study area in particular.

Enhanced extension and advisory services

Both improved crop and livestock production and productivity are the functions of technology access, use and proper management practices that comes through appropriate extension and advisory services. Agriculture extension services are critical for promoting the adoption of improved farm technologies to increase productivity. Ethiopia has heavily invested in its agriculture sector in recent decades, including in its massive public agricultural extension system . Despite such efforts, the current extension system is still bound by many challenges. The extension and advisory service has limitations in terms of rolling out equitable and customized advisory service, besides it is production and food security oriented with limitations to improve awareness about nutritious food production and consumption issues. Thisstudy corroborate with the established literature that several challenges resonate across the current extension and advisory system. Some of these include lack of participation of women and young farmers, lack of customized extension and advisory services for disadvantaged groups, biased services (including road side bias, male farmer bias, and model farmer bias), less focused to nutrition sensitive agriculture or going beyond cereal production advisories etc. are among the few.
The revised agriculture and rural development policy and implementation strategies, and flagship programs are bold in signifying the need for strengthening a pluralistic extension system promoting the role of private sector actors in service provision. Efforts will be built on current prospects on the distribution and dissemination of agricultural services and inputs (e.g. one stop shop). In order to realize the transformation of a sustainable food system, extension and advisory services must go beyond their conventional functions of distributing

agricultural inputs, technologies and advisory services. A number of key initiatives that include opening space for new service providers in the context of privatization; increased differentiation of target groups for instance through customized demand driven extension, promotion of agribusiness creation and commercial farming, empowerment of poor and subsistence farmers, advocacy for natural resource conservation imperatives, climate change adaptation and mitigation, leverage ICTs, among others are trending in the transformative extension and advisory system designed to develop a more inclusive, sustainable, farmer-led and market driven system of extension and advisory services to effect sustainable food system transformation.

Diversification for enhanced food systems resilience

Diversified farms enhance food security, conserve biodiversity, improve dietary preference, increase household income, reduce vulnerability to shocks and create job opportunity. However, current evidence shows the diversity of crops and animal breeds in the existing food production system is declining, which is leading to the homogenization of diets. Factors like access, distribution, population growth, power poverty etc can contribute to hunger and malnutrition. The core causes of poverty and hunger must be addressed rather than just increasing food supply in order to tackle these issues.

Policies and programmes should promote diversified food production, improve post-harvest handling and use of behavioural change communication strategies for diversified food consumption at different levels. Cognizant of cereal dominated production system, recently the government introduced *ye lemat tirufat* which is a four-year development program that aims to boost productivity and production of dairy, eggs, chicken meat, honey and related hive products. The main objective of *ye lemat tirufat* is to accelerate efforts to achieve food self-sufficiency and ensure nutritional sufficiency at the family and national levels. Introduction of diversified production that encompass both crop and livestock intensification can enhance the food system transformation. In addition, improving market access thereby contributing to availability and accessibility of nutrient dense food is also a mainstay. While addressing these issues, special consideration should be given to nutritionally vulnerable groups like pregnant and lactating women, children, adolescents, elderly etc. Achieving diversified and nutritious food systems requires the col*labour*ation of different stakeholders at different levels. It is only with the coordinated efforts of these actors that sustainable food system transformation can be attained.

Promoting local food environments and healthy consumer behaviour

Culture and food traditions, gender norms, roles and responsibilities play a central role in society and in shaping human behaviour and food systems. Consumer behaviour can be determined by several factors. Among the possible determinants access to markets, purchasing power, social relations, food taboos and awareness are among the few factors affecting consumer behaviour in the *woreda*. Similarly, the growth of local food environment can be assisted or inhibited by policies on food and nutrition security. Women empowerment schemes through awareness creation and trainings shall enhance food system given women are key as diversified food production, processors and consumers.

Efforts are being made to increase consumer awareness by means of information and education. Such information should be customized and presented in different forms based on the target audience. Moreover, in commercial food system settings, information, when combined with other interventions such as income generating activities, can potentially improve the implementation of interventions.

Climate smart agricultural practices and resilient production systems

Climate variability and environmental degradation are increasingly affecting agricultural production, food and nutrition security and population dynamics. A diversity of national and regional initiatives has been deployed to prepare the agricultural sector for climate readiness. The effects of climate change are likely to be more serious in areas with fewer capacities to respond and adapt to climate change adversities.

Successfully initiatives that have been tested and validated at *woreda* level, with the support of research and development partners, can be scaled and disseminated to reach more farming households in other *kebeles*. There is ample evidence and proven positive impact of climate smart agricultural practices including amongst others, crop diversification, diversification of crop genetic resources with stress resilient crop cultivars, water management and conservation and integrated soil fertility management. There is a need to expand on programs and policies

promoting the dissemination and uptake of these types of agricultural and food system innovations.

The high pressures being exerted on the volatile agri-input market have caused skyrocketing fertilizer prices. The high costs of fertilizer can be relieved though promotion of soil fertility management measures that consider the integrated use of, where possible locally produced, organic fertilizers in combination with – imported - mineral fertilizers.

Partnerships for integrated food system policies, planning and governance

Policy actions addressing the food environment require attention from different sectors (e.g. health, agriculture, trade, education, job creation and finance), which could affect the food environment. While evidence suggests that multisectoral policymaking is taking place in Ethiopia, effective coordination and col*labour*ation still remains a challenge. Changes have to be made in this regard to bring about the desired impact.

It is necessary to create strategies and plans that consider the complexity and diversity of local food systems as well as locally determined objectives for action.

Overview of projects implemented in Ada'a *woreda*

Several state and non-state actors are implementing different projects in the *woreda*. These projects mostly focus on poultry, natural resource, horticulture, watershed management, employment opportunities etc.

Some of the organizations working in the *woreda* are listed below along with currently running project and programmes.

- Animal feed, horticulture and natural resource - SNV
- Irrigation and teff cluster - ATI
- Natural resource and employment opportunities for youth – Green Ethiopia
- Watershed management and adoption of sustainable land management (SLM) practices in Oromia Region in general Ada'a *woreda* in particular - CALM (Conservation Areas through Landscape)
- Poultry vaccination - National Veterinary Institute.
- Different poultry farms – feed and poultry products
- Employment opportunities on poultry business - USAID

Adaa woreda, district level baseline and RFSA validation workshop

Oromia, Regional validation workshop for baseline and RFSA

Opportunities and challenges for Ada'a 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 21 . Political outlook and policy focuses, programs, and strategies brings enormous opportunities for food system transformation. 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. Despite presences of food system transformation related initiatives by public, NGOs and civic organizations, there is lack of coordination for effective aligned efforts and coherence of the various initiatives.

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 HHs and contributions to improve food security at national level. Nevertheless, these activities might also generate negative trade-offs such as the formation of acid soils due to excessive use of fertilizer. In addition, a focus on staple crops might negatively deteriorate HH nutrition security and HH dietary diversity when farming HHs do not utilize the increased income to purchase healthy and nutrient dense food products. Another example of system behaviour is how activities to promote home gardens can improve the production of nutrient dense crops with potential synergies to enhance HH dietary diversity and to create a series of alternative livelihood and employment opportunities for women and youth in sector related support activities such as transport, value addition, distribution etc.

A system analysis reveals that the promotion of home gardens can also potentially generate trade-offs that have a negative impact on producers, consumers and the environment. For example, home gardening has the potential to increase the labour burden for women in the HH. In addition, the excessive use of pesticides in home gardening activities has the potential to negatively affect the health of producers and consumers but also has a negative impact on the environment.

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
CALM	Conservation Areas through Landscape
DA	Development agent
FGD	Focus group discussions
FHH	Female headed households
HH	Household
ICT	Information Communication technologies
ILRI	International Livestock Research Institute
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
SLM	Sustainable Land Management
USAID	United States Agency for International Development
VSLA	Village Saving and Loan Association
WEIA	Women empowerment in agriculture
Qt	Quintals (10 Quintals = 1 tonne)

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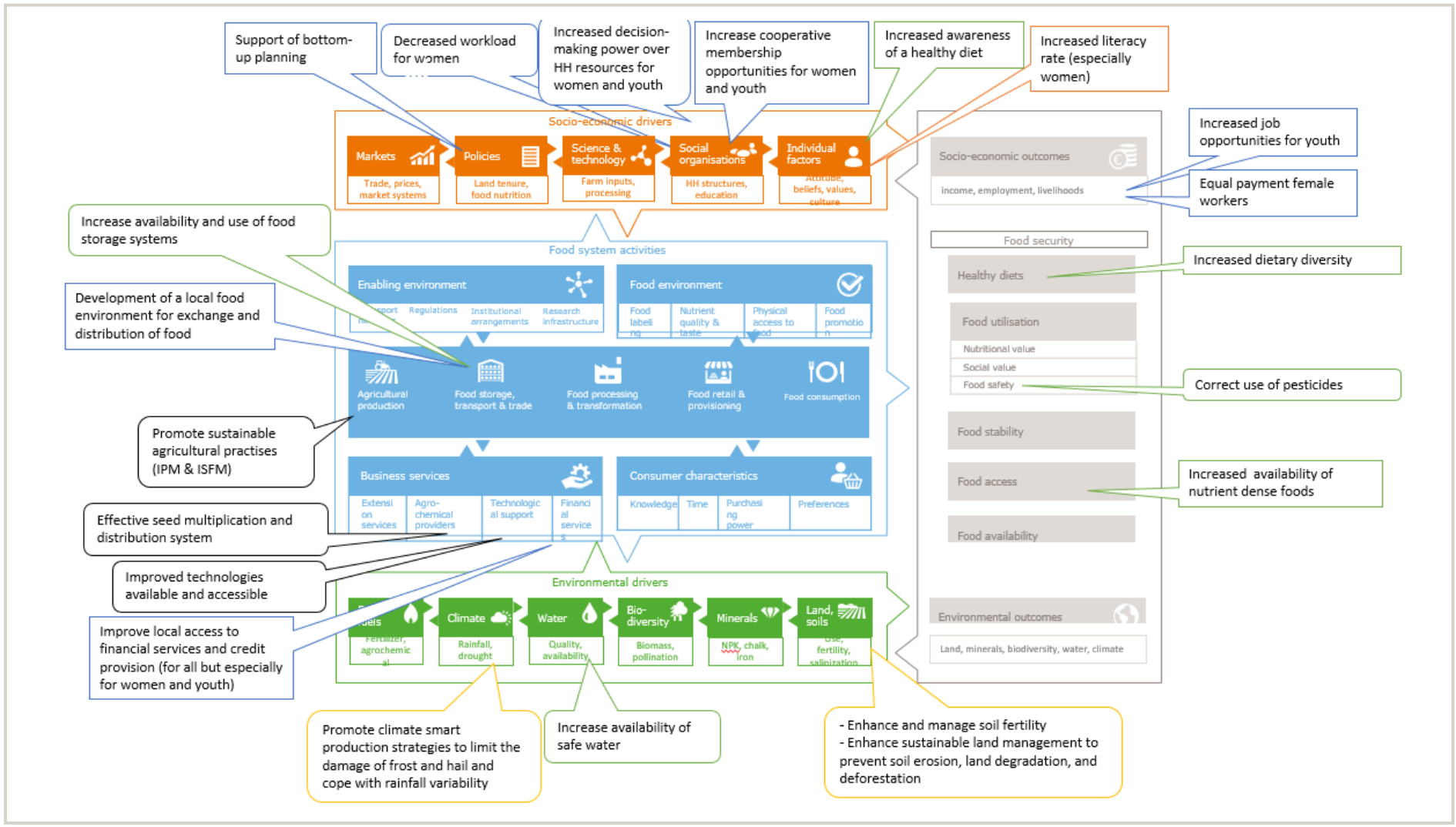

Figure 19: Identified priority topics in a food systems perspective (following van Berkum et al., 2018)

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