# IFTAR ENDLINE SURVEY

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Strengthening Drought Resilience

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## **LIST OF ACRONYMS**

DPPC DISASTER PREPAREDNESS AND PREVENTION COMMITTEE

FAO FOOD AND AGRICULTURE ORGANIZATION

FIES FOOD INSECURITY EXPERIENCE SCALE

HEWS HEALTH EXTENSION WORKERS

HH HOUSEHOLD

IFTAR IMPROVED FOOD SECURITY THROUGH TRANSITIONAL AID FOR RESILIENCE

SDR STRENGTHENING DROUGHT RESILIENCE

KII KEY INFORMANT INTERVIEW

NGO NON-GOVERNMENT ORGANIZATION

NRM NATURAL RESOURCES MANAGEMENT

NA NOT AVAILABLE

### 1.Introduction

The majority of Ethiopia's people (83%) live in rural areas, over 25 million of them in the low-lands. The Afar Region in north-eastern Ethiopia is one of these lowland areas. The region's variable and unreliable rainfall regularly leads to droughts and flooding, which frequently jeopardise agricultural production and the life of animal herds on which people's livelihoods depend. Most of the people use traditional agro-pastoral and pastoral farming systems that were previously sustainable, but now lead to soil degradation and production shortfalls due to rising intensities of use. Consequently, Afar is one of the country's least developed regions. More than half of its 1.4 million inhabitants (56%) live below the poverty line. So far, no new approaches have emerged for sustainable farming of the pasture lands and cropland, or for restoring the fertility of degraded soils (core problem).

The Transitional Aid Measure: Improved Food security through Transitional Aid for Resilience (IFTAR) project is part of the Strengthening Drought Resilience Programme (SDR). It operates in 8 districts (Woredas) of Afar: Chifra, Gulina, Yalo, Awra, Ewa, Mille, Kori and Teru.

The lead executing agency of the project at national level is the Ministry of Agriculture (MoA) with its Natural Resources Management (NRM) directorate. At regional level, the respective agricultural office in the capital of Semera and its line authorities at district and village level are partners in the implementation.

#### IFTAR implements three sets of activities:

#### 1) Water and hygiene

IFTAR aims to improve access to water as well as water quality by introducing collective filter systems. Campaigns raise awareness of the importance of clean water and hygiene supplement construction measures like, for example, underground cisterns and solar-powered pumps, and encourage safer food preparation, storage and utilisation.

#### 2) Food and nutrition security

IFTAR aims to improve access to food and fodder by creating and managing nurseries and tree protection zones, as well as by promoting the sale of local products such as fruit from trees, forage grasses and meat. The project also aims to improve food utilisation by providing information and training on nutrition and care practices.

#### 3) Disaster risk management

In addition to advising the regional Disaster Preparedness and Prevention Committee (DPPC), the project helps to ensure that the population is better protected against drought, flood, livestock diseases and other threats.

#### 1.1 OBJECTIVE OF THE ENDLINE ANALYSIS

The main objective of the endline analysis is to assess the achievement of the project with regards to its two indicators. Hence, the endline survey shall assess the accomplishment of the project with regard to two indicators, **improved hygiene practices** and **Access to and the availability of food** with the following key areas of interest:

· Household water supply and practices

- Sanitation
- · Hygiene practices and sources of hygiene messages,
- Access to and availability of food according to the FAO FIES scale

#### 1.2 STUDY DESIGN

The data collected from 268 households from IFTAR's six intervention Woredas namely Awra, Chifra, Ewa, Gulina, Tero and Yallo will be analysed, Kurri Woreda which was excluded from baseline survey due to security issues is also not included in the endline analysis. The baseline survey conducted in April 2018 will be used as a base for measuring the results or impact of the project.

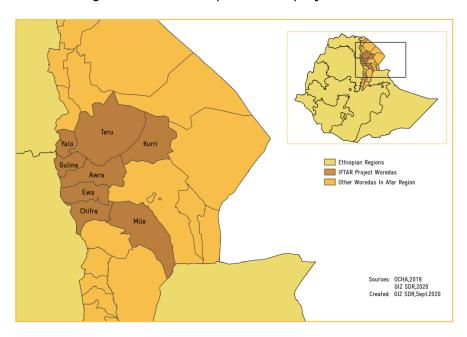


Figure 1 IFTAR intervention Woredas, Afar

#### 1.3 DISTRIBUTION OF RESPONDENTS

	Number of HHs interviewed				
		Male HH Female HF			
Woreda	Total	Heads	Heads	Wife	
Awra	61	19	6	36	
Chifra	68	25	8	35	
Ewa	17	5	0	12	
Gulina	54	20	6	28	
Teru	32	13	2	17	
Yallo	36	11	4	21	
Total	268	93	26	149	

Table 1 Distribution of respondents

# **ENDLINE FINDINGS**

### 2. WATER SUPPLY

#### 2.1 ACCESS TO SAFE AND ADEQUATE WATER

According to the baseline survey conducted at the start of the project in 2018, 74% surveyed households reported to have access to improved water sources. For the endline survey, data regarding access to safe and adequate water has been collected only from KIIs, this makes it difficult for comparison of improvement in access to drinking water with baseline. Hence the below table 2 reflects the information from these KIIs.

#### 2.1.1 Sources of drinking water

Woreda	Main sources drinking water according to KIIs		
Awra	Bono (tap water through pipeline) and hand dug well		
Chifra Mille river, borehole OR tap water			
Ewa	Ella/ deep well		
Gulina	Bono (tap water through pipeline)		
Teru	Tap water, water tracking		
Yallo	Tap water		

Table 2 Sources of drinking water

The majority of KIIs from Chifra and Ewa Woreda reported to have unimproved drinking water sources such as Mille river and deep well which was also the case by half of the households interviewed in the baseline. These might vaguely indicate the situation has not improved in these two woredas in the last three years.

Gulina, Teru and Yallo Woreda respondents reported to have improved water sources such as tap water through pipe-line but this information is based on the interviewee's own assessment and could be subject to bias or misinformation.

Wash committee (28%), village leaders (26%) and woreda water office (24%) were mentioned as the main responsible bodies for maintenance and management of water bodies by respondents.

#### 2.2 SAFE WATER MANAGEMENT PRACTICES

#### 2.2.1 Households perceived quality of drinking water and treatment

The concern by households on the water quality seem to not change from the time the baseline was conducted. 56% and 57% of respondents reporting to have concerns at baseline and end-line surveys respectively.

#### Households reporting issues with water quality

Out of the total 264 respondents 151 households (57%) claim to have concerns in the quality of water they drink. While the odor and taste problems seem to improve from the baseline period, the color problem has persisted and has shown an increase, however the problem seem to shift from baseline reported Gulina and Awra Woredas to mainly

Chifra woreda in the end-line. The Chifra woreda key informants reported two major challenges of water supply in the Woreda which are:

- I. Insufficient water supply to cover all communal drinking water needs, therefore community resorting to unsafe water sources for drinking
- II. Lack of government's focus to provide borehole or tap water which results community to travel more than 3hours to fetch drinking water.

Concern	Baseline	End-line	
Color	28%	48%	Mainly in Chifra woreda
Odor	30%	17%	relatively all woredas with the least problem in Ewa.
Taste	42%	28%	Majority in Awra Woreda
Other	NA	7%	

Table 3 households' perception on water quality

#### **Water Treatment**

Despite the concern on quality of water they drink the majority of respondents do not treat their water, however the reasoning has significantly decreased from a believe that the water is safe to an increased complaints on affordability and availability of treatment Figure 2. This shift could be an indicator to an increased awareness of water treatment, but lack of water treatment supplies and the inability to afford for it which could explain the only slight improvement in water treatment practice figure.

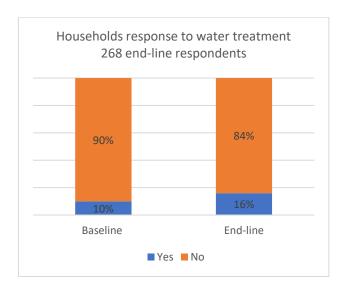


Figure 2 Household's response to water treatment

- The majority of respondents who treat the water 44% and 35% are from Teru and Yallo Woreda, respectively.
- Awra, Chifra and Gulina responded to low level of water treatment practice. From
  the key informant interview in Gulina Woreda has relatively higher access to safe
  drinking water (tap water) and could be one reason for non-treatment.

#### **Reasons for not treating water**

Reasons	Baseline	End-line
Water is safe, no need to treat	91%	57%
Treating water is expensive and unavailable	5%	17%
We are adapted to the water so no need to treat	24%	18%
Do not know how to treat the water	14%	7%

Table 4 Reasons to not treating water

#### Water treatment methods

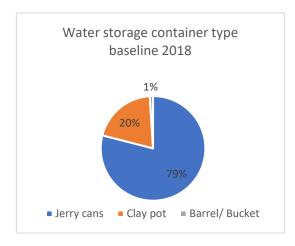
65% of those who treat their water used chlorine/water-guard/aqua tab/bleach while 14% boil their water and 12% use cloth filtration and the minority used solar disinfection and water filter (bio-sand/ceramic). The baseline survey states the minority of households surveyed used boiling and cloth filtration while the end line shows almost quarter of households using the two methods, this could indicate some level of improvement in safe water management even though it can't be figuratively compared.

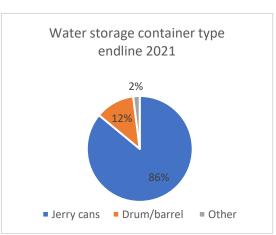
#### Safe water handling and storage

The use of narrow necked collection container (jerrycans) has increased by 7% from the baseline value and the use of clay pot container seem to be phasing out throughout the years and replaced by jerrycans and drum/barrel.

90% of respondents use safe methods while withdrawing drinking water from container (tilt and pour water from the container and use exclusive water scooper).

Figure 3 Water storage container type





## 3. Sanitation

#### 3.1 LATRINE OWNERSHIP AND OPEN DEFECATION

"Provision and use of facilities to safely dispose human faeces prevents direct contamination of water and soil. It hygienically separate human faeces from human, animals and flies contacts. Therefore, achieving health gains from sanitation requires improvement of access to suitable sanitation facility (latrine) and ensuring hygienic use of the latrine." (GIZ-Strengthening Drought Resilience, IFTAR project, Afar, Ethiopia 2018).

#### 3.1.1 Latrine ownership

The end-line survey shows that access to latrine has improved from the only 19% to 38% and in turn open defecation reducing from 81% to 63%. In addition to latrine ownership the quality of latrines has also improved, Figure 4.

Woreda	Baseline	End-line (out of 99 respondents)	
Gulina	38%	34 %	
Awra	29%	24%	
Chifra	8%	19%	
Yallo	14%	14%	
Ewa	0	5%	
Teru	12%	3%	

Table 5 Percentage of latrine owners

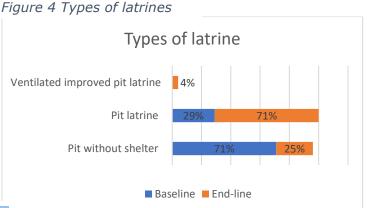




Figure 5 Pit latrines in Afar, Gulina Woreda

#### 3.1.2 Latrine superstructure

Out of the 99 latrines 68% have walls which provide privacy and 49% roofing. Among the latrines 48% are constructed with adequate height of >1.7m. Only 42% have a door/ curtain. Looking at the latrine slaps of those who own latrine, 38% have intact/ cleanable latrine slab/floor and 31% have squat hole cover.

#### 3.1.3 Latrine functionality (use and operation)

Despite of owning latrines, the assessment shows there is a significant need for awareness on keeping latrine clean and healthy. A significant number of latrines have sanitation issues, this will risk the health and safety of users which is in contradiction to one of the purposes of owning a latrine.

Table 6 describes the sanitation inside and around the latrines (99 latrines)

Fresh foot path leading to the latrine?	56%
Splash of urine/water on the floor/slab?	64%
Fresh stool in the latrine pit?	57%
Faecal matter or dirt on the floor of the latrine?	48%
Faecal smear on the squat-hole?	46%
Latrine full (sludge >= 0.5m from the floor/slab)?	29%

Table 6 Latrine functionality

#### 3.2 BARRIERS TO LATRINE CONSTRUCTION

The majority of households put lack of money and material for building latrine. Only the minority 6% think it is not important.

Woreda	
No money/cash to construct	39%
No material	32%
No labour (aged, ill, live with disability)	19
Not important	6%
A lot of space for defecation	3%
No space for construction	1%

Table 7 Barriers to latrine construction

#### 3.2.1 Open Defecation

#### Place for defecation for non-latrine owners

- In the bush or backyard 84%
- Neighbour's latrine 9%
- Plastic bag 5%
- Communal latrine and plastic bag 2%

## 4. Hygiene Practices

The section hereafter will focus on analysing the IFTAR project hygiene indicators and assess how much knowledge, practice and attitudes toward hygiene has been improved through its intervention. Below is the result indicator to be analysed by the endline survey.

**Indicator 1:** 30% of the 26,000 people (of which >25% women) who live in settlements where the project has implemented hygiene-awareness raising campaigns, indicate that they apply new, **improved hygiene practices** (e.g., regular hand-washing; hygienic storage and preparation of food, separate watering places for animals and human beings).

Baseline value: 0 (existing hygiene practices)

Target value: 7,800 persons (of which >25% women), apply 0 plus 1 improved hygiene practices.

#### **Endline result:**

33% (8,580) out of which 63%,5,405 women apply handwashing practice. The critical times the majority people find handwashing important is before food and after latrine use.

86% (22,360) out of which 73%, 16,323 women use safe water collection and storage through narrow necked water storage.

The main focus areas for analysis in with the endline survey will be

- Sources of hygiene message
- Handwashing practices
- Hygienic storage
- Preparation of food
- Separate watering places for animals and human beings

#### The set of hygiene practices promoted by the project are:

- Practice of hand washing with soap at critical times such as after defecation, prior to preparing and handling food etc.
- Personal hygiene such as bathing, face washing
- Menstrual hygiene management which encompasses both personal hygiene and sanitation.
- Baby wash including disposal of child faces, washing children, and ensuring their playing and living areas are clean
- Hygienic preparation, storing and serving of food.

#### 4.1 HAND WASHING PRACTICES

#### 4.1.1 Knowledge about handwashing

There are five critical times where washing hands with soap is important to reduce faecal-oral transmission of disease: (GIZ-Strengthening Drought Resilience, IFTAR project, Afar, Ethiopia 2018).

- 1. After defecation
- 2. After cleaning a child's bottom
- 3. Before feeding a child
- 4. Before eating and
- 5. Before preparing food or handling raw meat, fish, or poultry

The key informant from the intervention woredas claim that the shortage of water supply and unavailability of hygiene supplies are the main causes of poor hygiene. When hygiene supplies are available it is also affordability issue.

The assessment of the average number of critical handwashing times a household could name was found to be 1.6 out of the 5.

Households' response to the most critical times for handwashing is shown in Figure 6.

#### Critical times of handwashing according to 268 respondents

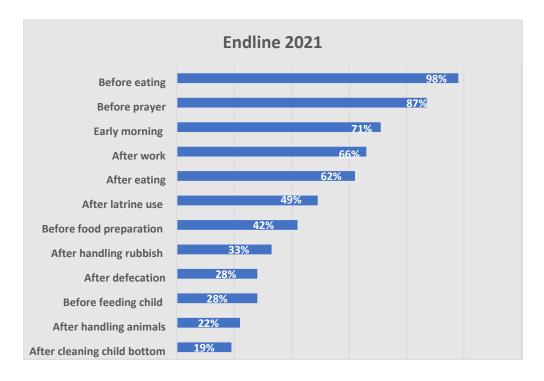


Figure 6 Critical times of handwashing

#### 4.1.2 Soap utilization during handwashing

33% of respondents claim to use soap or ash to wash their hands. 94 % of those who do not use soap reasoned not being able to afford soap.

# 4.1.3 Handwashing practices disaggregate by gender and intervention areas

In general, female respondents were found to be more knowledgeable about hygiene practices than men respondents accounting more than 60% of knowledge on handwashing practice. The table below shows the knowledge among male and female respondents in the 5 critical times of handwashing.

Ewa has the lowest score in handwashing knowledge and practice while the remaining Woredas are in a better position.

	Mentioned by		
	Female Male		Woredas with highest knowledge of
Critical times of handwashing	respondents	respondents	handwashing practice
After defecation	66%	34%	Chifra, Yallo and Awra
After latrine use	68%	32%	Chifra with the majority respondents
After cleaning child's bottom	70%	30%	Distributed unevenly along all woredas
Before feeding child	69%	31%	Awra and Yallo
Before eating	65%	35%	Chifra, Awra and Gulina
Before preparing food 80% 20%		Chifra, Gulina and Yallo	

Table 8 Critical handwashing times by gender

#### 4.2 SOURCES OF HYGIENE MESSAGES

The main source of hygiene messages are still HEWs (69%) followed by NGO workers (45%) and government health workers (40%). The involvement of NGO workers in creating awareness has overpassed the government health workers since baseline.

The top four hygiene messages heard by respondents are shown in table 8. There is an improvement in handwashing message from only 10% in the baseline to 33%. While burying garbage and use of latrine defecation kept being the main messages heard by the community, there is a shift from more messages to use mosquito nets to washing hands with soap.

The least four messages heard by the respondents are stop using open defecation, cleanness around water point and use of mosquito nets.

Message	Heard by out of 268 households
Burry garbage and waste	139 (52%)
Keep your personal hygiene	133 (50%)
Wash hands with soap and water	115 (33%)
Use latrine for defecation	111 (41%)

Table 9 Main hygiene messages heard by community

#### 4.3 PREVAILING WASH RELATED DISEASES

Households were asked to name the main causes and prevention mechanisms of diarrhoea, in both cases women respondents could mention more factors that men respondents.

#### 4.3.1 Knowledge about causes of diarrhoea (268 households)

Causes	% of respondents	Women respondents (out of % of respondents)
Dirty water	76%	65%
Dirty food	68%	63%
Poor hygiene	51%	68%
Dirty hand	43%	64%
Flies	23%	74%
Don't know	10%	63%
Other (vermin, curse, hot water and rainwater, teething	9%	45%

Table 10 Knowledge about causes of diarrhoea

Chifra, Awra and Gulina had the majority of respondents with knowledge on the causes of diarrhoea with Ewa with least of people who could list possible causes.

#### 4.3.2 Prevention methods of Diarrhoea

Prevention methods	% of respondents	Women respondents
Drink clean water	66%	62%
Wash hands with soap	45%	71%
Cover food	43%	59%
Use latrine	34%	64%
Properly cook food	30%	64%
Treat and safely store water	19%	71%
Don't know	13%	67%
Other (control flies and immunisation)	1%	33%

Table 11 Knowledge about diarrhoea prevention methods

#### 4.4 SUMMARY OF CAUSES OF HYGIENE PROBLEMS

According to key informant interviews the following are the main reasons for hygiene problems in their respective Woredas.

- Personal hygiene problem
- Lack of water supply
- Hygiene materials are expensive
- Lack of awareness

### 5. FOOD SECURITY

IFTAR aims to improve access to food and fodder by creating and managing nurseries and tree protection zones, as well as by promoting the sale of local products such as fruit from trees, forage grasses and meat. The project also aims to improve food utilisation by providing information and training on nutrition and care practices.

The indicator under food supply by IFTAR states that:

"Access to and the availability of food has improved by 5% for 2,600 households affected by food insecurity as defined by the Food Insecurity Experience Scale (FIES)".

Baseline value: 70% (average according to FIES survey)

**Target value**: 70% minus 5%

Endline result: 56% (i.e, 70% minus 26)

Under this section household's responses to FIES question will be analysed to understand their perception of food security status in their respective household. In addition, household's current food availability and accessibility, challenges of accessibility of food and the contribution of the project for household food security will be analysed.

#### Current availability of food out of 153 households

1. Not sufficient food: (116, 76%)

2. Available but not quality food: (9, 6%)

3. Available: (28, 18%)

#### Project's contribution to availability and accessibility of food for household consumption

1. I don't know: (20, 13%)

2. No GIZ intervention/ not related to food: (11, 7%)

3. Nothing: (60, 39%)

4. Yes, there is contribution (62, 41%)

#### IFTAR's contribution to food security described by respondents are summarised below:

- Being able to farm/ start farming
- Stop migrating as we are food secured/settle
- Prevent soil erosion
- Job opportunity, increase in income

# 5.1 HOUSEHOLDS RESPONSE TO FIES QUESTIONS ON FOOD SECURITY

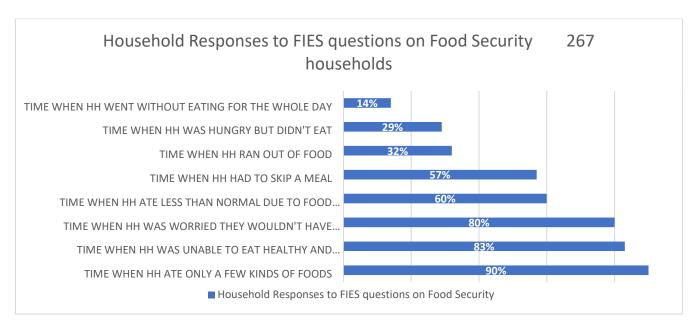


Figure 7 HHs response to FIES questions

# 5.2 COMPARISON OF FIES RESPONSES BETWEEN BASELINE AND ENDLINE

Seven out of eight FIES indicators has improved from the initiation of the project to date. However, the factors (project and external) should further be investigated.

FIES questions	Baseline 2018	Endline 2021
TIME WHEN HH ATE ONLY A FEW KINDS OF FOODS	85%	90%
TIME WHEN HH WAS UNABLE TO EAT HEALTHY AND NUTRITIOUS FOOD	90%	83%
TIME WHEN HH WAS WORRIED THEY WOULDN'T HAVE ENOUGH FOOD	87%	80%
TO EAT		
TIME WHEN HH ATE LESS THAN NORMAL DUE TO FOOD SHORTAGE	80%	60%
TIME WHEN HH HAD TO SKIP A MEAL	67%	57%
TIME WHEN HH RAN OUT OF FOOD	54%	32%
TIME WHEN HH WAS HUNGRY BUT DIDN'T EAT	50%	29%
TIME WHEN HH WENT WITHOUT EATING FOR THE WHOLE DAY	45%	14%

Table 12 HHs response to FIES questions

# 6. Annexes

### 6.1 SOCIO-DEMOGRAPHICS OF SURVEY PARTICIPANTS

Number of HHs interviewed				
		Female HH		
Woreda	Total	Male HH Heads	Heads	Wife
Awra	61	19	6	36
Chifra	68	25	8	35
Ewa	17	5	0	12
Gulina	54	20	6	28
Teru	32	13	2	17
Yallo	36	11	4	21
Total	268	93	26	149

## 6.2 AGE GROUP IN YEARS

Age group	Total (N, %)	Male (N, %)	Female (N, %)
15-19	5 (2)	0 (0)	5 (3)
20-24	35 (13)	5 (5)	30 (17)
25-29	49 (18)	13 (14)	36 (21)
30-34	44 (16)	14 (15)	30 (17)
35-39	42 (16)	14 (15)	28 (16)
40-44	37 (14)	21 (22)	16 (9)
45-49	17 (6)	7 (7)	10 (6)
50 and above	39 (15)	21 (22)	18 (10)
Total	268 (100)	95 (100)	173 (100)
Marital status			
Single	2 (1)	2 (2)	0 (0)
Married	242 (90)	91 (97)	151 (87)
Divorced	9 (3)	0 (0)	9 (5)
Widowed	15 (6)	1 (1)	14 (8)
Total	268 (100)	94 (100)	174 (100)
Educational status			
Cannot read and write	198 (74)	62 (66)	136 (79)
Can read and write	19 (7)	16 (17)	3 (2)
Attended formal education	49 (18)	16 (17)	33 (19)
Total	266 (100)	94 (100)	172 (100)