CARE YEMEN

INTEGRATED BASIC EMERGENCY ASSISTANCE TO CONFLICT-AFFECTED AND VULNERABLE COMMUNITIES IN YEMEN PROJECT

END-LINE SURVEY REPORT

(AMRAN, HAJJAH AND Al-MAHWEET GOVERNORATES, YEMEN)

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ABBREVIATION

AWD	Acute Watery Diarrhea
CHVs	Community Health Volunteers
CSI	Coping Strategy Index
FSL	Food Security and Livelihoods
FCS	Food Consumption Score
HDDS	Household Dietary Diversity Score
HC	Host Communities
HFA	Humanitarian Food Assistance
HH	Household
HNO	Humanitarian Needs Overview
HTH	High Test Hypochlorite
IDP	Internally Displaced People
IPC	Integrated Food Security Phase Classification
IPM	Integrated Pest Management
MAHFP	Monthly Average Household Food Provisioning
OFDA	Office for Foreign Disaster Assistance
PLW	Pregnant and Lactating Woman
TFPM	Task Force for Population Movement
WASH	Water, Sanitation, and Hygiene
MWCs	Water Management Committees
SPSS	Statistical Package for Social Sciences
USAID	United States Agency for International Development
VAM	Vulnerability Analysis and Mapping
WFP	World Food Program

EXECUTIVE SUMMARY

CARE Yemen has been implementing an OFDA-supported "Integrated Basic Emergency Assistance to Conflict-Affected and Vulnerable Communities" project in four districts (Sudah, As Sawd, Jabal Yazid, and Maswar) of Arman Governorate; two districts (Ash Shagadirah and Ku'aydinah) of Hajjah Governorate; and three districts (Alrujum, Jabal Mahweet, and Hafash) of Al-Mahweet Governorate Yemen. The goal of the project is to improve the basic living conditions, and facilitate early recovery and resilience of internally displaced persons and host communities affected by conflict in Yemen. This project seeks to meet the critical WASH and basic living needs of the most vulnerable households living in the targeted districts so that lives are saved, suffering is alleviated, and human dignity is maintained. The specific objectives of the project are: reduce morbidity from WASH-related diseases of vulnerable IDPs and host communities; enable the most vulnerable IDPs and host communities to meet their basic and immediate needs, and increase their asset base; and improve the food security and nutritional status of the most vulnerable host communities.

In order to measure the changes in key outcomes of the project through comparing with the benchmark values, an end-line survey was conducted with 405 beneficiary households living in the nine project operational districts of the Amran, Hajjah and Al-Mahweet Governorates in March 2020. The survey mainly used quantitative methodology (i.e. household survey) to collect pertinent data. Here are the key survey outcomes:

- **Access to safe water:** 75% of respondents in Amran, 100% in Hajjah, and 100% in Al-Mahweet Governorates mentioned to have access to safe water from protected water sources such as piped water system, protected springs, and protected wells.

- **Average amount of water consumed /family/day:** The average quantity of water collected from the primary water sources is 173 liters in Amran, 223 liters in Hajjah, and 119 liters in Al-Mahweet Governorate.

- **Time taken to collect water:** 5.8% interviewees in Amran and 19.8% of respondents in Hajjah replied that it takes more than 60 minutes to collect water from the primary source. All survey participants from Al-Mahweet stated that they travel less than 60 minutes to fetch water from the main sources.

- **Existence of functional Water Management Committees (WMCs):** 66.67% of respondents in Amran; 98.2% of survey participants in Hajjah; and 100% of interviewees in Al-Mahweet indicated the existence of functional WMCs in their villages.

- **Practice of water treatment:** 67.50% of households in Amran, 100%% in Hajjah, and 100% in Al-Mahweet use water treatment techniques and treat water before drinking. The majority of those households who responded to treat water mainly practice boiling and use water treatment tabs.

- **Availability of household latrines:** All respondents from Amran, Hajjah, and Al-Mahweet mentioned to have household latrines, mainly 'pour flush latrine'

- **Practice of handwashing:** 38.33% of respondents in Amran, 100% in Hajjah and 94.8% in Al-Mahweet mentioned to practice hand washing during 'three or more' critical moments of hand washing.

- **Household Dietary Diversity Score:** The average HDDS for the targeted household in Amran, Hajjah and Al-Mahweet Governorates respectively is 8.06, 8.2, and 7.08. This denotes a high

quality of diet whereby households consume an average of around 7-8 food groups out of the recommended twelve food groups.

- **Food Consumption Score:** The average FCS for the targeted household in Amran, Hajjah, and Al-Mahweet Governorates respectively is 62, 55.23 and 38.44. In addition, 86% of surveyed households in Amran, 79.4% in Hajjah and 21.7% in Al-Mahweet are in acceptable food consumption.

- **Coping Strategy Index:** The average reduced CSI score for the surveyed HHs in Amran is 7.22 where as it is 12.1 and 10.35 respectively in Hajjah and Al-Mahweet Governorates, which is considered as low comparing with the national average for Yemen (i.e. 21.35).

- **Monthly Average Household Food Provisioning:** The survey result indicated that households have adequate food in 12 months in Amran, 8.3 months in Hajjah and 11.2 months in Al-Mahweet.

- **Vegetable production:** All respondents in Amran, Hajjah and Al-Mahweet do grow dark leafy green vegetables such as okra, lettuce, radish, and parsley.

- **Crop protection:** All respondents in Hajjah and Al-Mahweet do practice one or more crop protection measures. While, 67.5% of respondents from Amran practice one or more crop protection measures.

1 INTRODUCTION

The humanitarian crisis in Yemen remains the worst in the world and over four years of intense conflict, as well as severe economic decline and recent famine and cholera, has put millions at risk. According to the Humanitarian Needs Overview (HNO) of 2019, an estimated 80 per cent of the population – 24 million people – require some form of humanitarian or protection assistance, including 14.3 million who are in acute need. Severity of needs is deepening, with the number of people in acute need a staggering 27 per cent higher than last year. Two-thirds of all districts in the country are already pre-famine, and one-third face a convergence of multiple acute vulnerabilities. The escalation of the conflict since March 2015 has dramatically aggravated the protection crisis in which millions face risks to their safety and basic rights.[1]

In addition, as of 01 September 2017, the Task Force for Population Movement (TFPM) has identified, 2,014,026 internally displaced persons (IDPs) (335,671 households) who have been displaced due to conflict since March 2015, dispersed across 21 governorates. For the same period, the TFPM has identified 956,076 returnees (159,346 households), across 20 Governorates[2]. Furthermore, according to the latest Integrated Food Security Phase Classification (IPC) analysis, from December 2018 to January 2019, a total of 15.9 million people (i.e. 53% of the population) are severely food in-secured despite on-going Humanitarian Food Assistance (HFA). This includes 17% of the population (about 5 million people) classified in IPC Phase 4 (Emergency) and 36% (about 10.8 million people) in IPC Phase 3 (Crisis), Of greatest concern are the additional 63,500 people in IPC Phase 5 (Catastrophe).

Amran Governorate has been affected by the protracted conflict that was escalated since March 2015. The conflict, in addition to the displacement, has led to the destruction of facilities and has negatively affected the livelihoods of the community and their coping strategies. According to the Yemen 2019 HNO, 83.5% of the 1,210,000 population of Amran is in need of humanitarian assistance and 44% are in acute need. Moreover, the result of the Integrated Food Security Phase Classification of December 2018 revealed that 715,500 (59% of Amran's population) are categorized in Phase 3 or higher whereby 2.1% and 0.9% of the population are respectively in Emergency and Catastrophic phases. In addition, according to the 17th report of the TFPM of the protection cluster, a total of 157812 individuals (26302 HHs) have been displaced to Amran governorate. This has worsened the humanitarian situation and escalated humanitarian needs. Additionally, the strain is increasing on local communities' and host families' safety nets, which were already stretched from years of instability and localized conflict.

Hajjah is one of the Governorates that has been severely affected by the conflict since the intensification of the Saudi-led airstrikes in late March 2015. The result of the IPC of December 2018 revealed that 1,592,000 (66% of Hajjah's population) are categorized in Phase 3 or higher whereby 24.1% and 0.8% of the population are respectively in Emergency and Catastrophic phases. According to the Yemen 2019 HNO, 80% of the 2,510,000 population of Hajjah is in need of humanitarian assistance and 69% are in acute need. In addition, according to the 17th report of the TFPM of the protection cluster, a total of 377562 individuals (62927 HHs) have been displaced to Hajjah governorate.

The humanitarian context of **Al-Mahwit** Governorate is not significantly different from Amran and Hajjah Governorates. The IPC result of December 2018 indicated that 447500 (58% of Al-Mahwits's population) are categorized in Phase 3 or higher whereby 19.8% and 0.9% of the population are respectively in Emergency and Catastrophic phases. In addition, according to the Yemen Humanitarian Needs Overview of 2019, 85.7% of the 770,000 population of Al-Mahwit is in need of humanitarian assistance and 66% are in acute need. In addition, according to the 17th report of the TFPM of the protection cluster, a total of 42492 individuals (7092 HHs) have been displaced to Al-Mahwit governorate.

[1] Yemen Humanitarian Needs Overview 2019

[2] 16th report of the Task Force for Population Movement of a Protection Cluster

The Integrated Basic Emergency Assistance to Conflict-Affected and Vulnerable Communities project provides immediate water, sanitation and hygiene (WASH) assistance through rehabilitation of water schemes, support for household latrines, and hygiene promotion activities. In areas affected by the cholera outbreak, the project focuses on WASH activities in line with the Yemen Health and WASH Clusters' Integrated Cholera Response Plan. The project provides conditional cash assistance through temporary employment opportunities to the most vulnerable households to mitigate the impact of job loss and resource depletion. This intervention will help them to meet their most immediate needs and rebuild vital community assets. The project also supports households with provision of agricultural inputs such as seeds and farm tools so as to improve the food diversity and nutritional status of households.

2. OBJECTIVES OF THE SURVEY

The main objective of this survey is to measure the changes in key outcomes of the project through comparing with the benchmark values. These outcome indicators are

- Projected increase in number of months of food self-sufficiency due to distributed seed systems/agricultural input for beneficiary households
- Percentage of the target population achieves Acceptable Food Consumption Score (FCS)
- Average Household Dietary Diversity Score (HDDS)
- Percentage of post-harvest produce protected against diseases and pests
- Percentage of hectares protected against diseases and pests
- percentage of people trained by USAID/OFDA partners practicing appropriate crop protection procedures, by sex
- Average liters/person/day collected from all sources for drinking, cooking and hygiene
- Percentage of households who know at least three critical moments of hand washing

3. METHODOLOGIES AND SURVEY SITES

3.1 SURVEY SITES

The end-line survey was conducted in four districts (Sudah, As Sawd, Jabal Yazid, and Maswar) of Amran Governorate, two districts (Ash Shagadirah and Ku'aydinah) of Hajjah Governorate and three districts (Alrujum, Jabal Mahweet, and Hafash) of Al-Mahweet Governorate in March 2020.

3.2 STUDY METHODOLOGY AND SAMPLING

The survey team mainly used quantitative methodology (i.e. household survey) to collect pertinent data/information and the survey covered 405 randomly selected HHs from the targeted villages across the project operational districts. This sample was calculated based on a margin of error of ±5%, and 95% confidence level. The survey employed a Probability Proportion to Size sampling approach in each Governorate. Data were collected from 206 households in Amran Governorate (i.e. 61 HHs in As Sudah, 56 HHs in As Sawd, 16 HHs in Jabal Yazid, and 73 HHs in Maswar), 90 households in Hajjah Governorate (i.e. 45 HHs in Ku'aydinah and 45 HHs in Ash Shagadarah), and 109 households in Mahweet Governorate (i.e. 45 HHs in Alujum, 47 HHs in As Jabal Mahweet 17 HHs and in Hafash) reaching a total of 405 HHs in all Governorates. The survey team contacted an adult person in the HH and requested his/her consent/permission to conduct an interview with a member of that specific HH. When permission was granted, the respondent was interviewed face to face in the privacy of their own home.

3.3 DATA COLLECTION, ENTRY, AND ANALYSIS

The household survey was conducted in March 2020 in the above-mentioned nine districts of Amran, Hajjah, and Al-Mahweet Governorates. Data was checked, entered, encoded, and analyzed using MS-Excel and Statistical Package for Social Sciences (SPSS).

Table 1: Number of survey participants

District	Total number of interviewees	Percentage	District	Total number of interviewees	Percentage	District	Total number of interviewees	Percentage
A. Amran Governorate			**B. Hajjah Governorate**			**C. Al-Mahweet Governorate**		
As Sudah	61	29.61%	Ash Shagadirah	45	50%	Alujum	45	41%
As Sawd	56	27.18%	Ku'aydinah	45	50%	Jabal Mahweet	47	43 %
Jabal Yazid	16	7.77%				Hafash	17	16%
Maswar	73	35%					0	
	206	**100**		**90**	**100**		**109**	**100**
Total number of interviewees = 405								

4. RESULTS OF THE SURVEY

4.1 DEMOGRAPHIC CHARACTERISTICS

Amran Governorate

- Sex of respondents: 74.27% of respondents are males and females constitute 25.73 % of the respondents.
- Household status: All respondents are from the host communities.
- Marital status: 94.17% of interviewees are married; 0.49% are single; 5.34% are widowed; and 0% are divorced.
- Age of respondents: The average of respondents is 43.
- Disability: 29.61% of respondents mentioned to have a disabled person (either with physical or mental disability) in the household and 69.42% % of interviewees indicated that there is no a disabled person in the household. The remaining 0.97% of respondents do not know.
- Pregnant or lactating women (PLW) in the HH: 48.54% of respondents reiterated that there is a PLW in the HHs whereas 50.97% of the survey participants mentioned that there is no PLW in the HH. The remaining 0.49% of respondents do not know.
- Head of Household: 14.56% of the surveyed HHs are female-headed; 80. % are male-headed; and 2.43% are elderly headed during the time of survey.

Hajjah Governorate

- Sex of respondents: 55.5% of respondents are males and 44.4% are females.
- Household status: All respondents are from the host communities.
- Marital status: All interviewees are married.
- Age of respondents: The average of respondents is 37.
- Disability: 8.9% of respondents mentioned to have a disabled person (either with physical or mental disability) in the household and 91.1 % of interviewees indicated that there is no a disabled person in the household.
- Pregnant and lactating women in the household: 52.2% of respondents reported that there is a PLW in the HHs whereas 47.8% of the survey participants mentioned that there is no PLW in the HH.
- Head of HH: 80% of surveyed HHs are male headed; and 20% are female headed.

Al-Mahweet Governorate

- Sex of respondents: 78.9% of respondents are males and females constitute 21.1% of the respondents.
- Household status: All respondents are from the host communities.
- Marital status: All respondents are married.
- Age of respondents: The average of respondents is 37.33
- Pregnant and lactating women in the household: 10.1% of respondents reported that there is a PLW in the HHs whereas 89.9% of interviewees mentioned that there is no PLW in the HH.
- Disability: 5.5% of respondents mentioned to have a disabled person (either with physical or mental disability) in the household and 94.5% of interviewees indicated that there is no a disabled person in the household.
- Head of HH: 82.6% of surveyed HHs are male headed and 17.4% are female headed.

4.2 WATER, SANITATION, AND HYGIENE

4.2.1 Source of water

As per indicated in Table 2, participants of the survey mentioned different sources of water that included piped systems at public places, unprotected spring; protected well, protected springs, unprotected wells, and rivers/valleys/streams.

Amran Governorate: 55.8% of respondents (female: 41.9%, male: 60.4%) mentioned that their main source of water is 'protected spring' and 7.5% of survey participants (female: 6.5%, male: 7.8%) indicated that 'protected wells' are their primary sources of water. In addition, 20% of interviewees (female: 25.7%, male: 18%) stated that they rely on unprotected wells whereas 5% of them (female: 6.5%, male: 4.9%) responded that they get water from rivers, streams, and unprotected springs. 8.4% of respondents (female: 41.9%, male: 60.4%) and 3.3% of survey participants (female: 41.9%, male: 60.4%) respectively reiterated that their primary sources of water are 'piped water at house' and 'piped water at public'. The overall result indicated that 75% of survey participants (female: 67.8%, male: 77.1%) have access to protected water sources.

Hajjah Governorate: The primary water source for 94.6% of respondents (female: 88.5%, male: 100%) is protected well whereas 5.4% of interviewees (female: 11.5%, male: 0%) mentioned that their main source of water is protected spring.

Al-Mahwit Governorate: All respondents (100%) indicated that their main source for water is 'protected wells'.

Table 2: Primary source of water for drinking, cooking, and hygiene

Primary/main source of water	Amran		Hajjah		Al-Mahwit	
	Freq	Percent	Freq	Percent	Freq.	Percent
Piped water at public places	17	8.33%				
Protected wells	15	7.50%	53	94.6%	58	100%
Unprotected springs	2	0.83%				
Protected springs	115	55.83%	3	5.4%		
Unprotected wells	41	20.00%				
Rivers/streams/valleys	9	4.17%				
Piped water at house	7	3.33%				
Total	**206**	**100**	**56**	**100%**	**58**	**100%**

4.2.2 Adequacy and quantity of water and time to fetch water

4.2.2.1 Daily quantity of water collected

Survey participants were asked about the quantity of water the family consume for drinking, cooking, and hygiene. Accordingly, the average daily quantity of collected for interviewees is 173 liters/HH for interviewees from Amran Governorate (female: 177 liters/HH, male: 166.6 liter/HH) whereas it is 223 liters/HH (female: 270 liters/HH, male: 182 liters/HH) for Hajjah Governorate; and 119.4 liters/HH (female: 89 liters/HH, male: 130 liters/HH) for Al-Mahwit Governorate. Further analysis indicated that the average per capita utilization of water is 22 liters/day/person in Amran; 33 liters/day/person in Hajjah; and 27 liters/person/day in Al-Mahwit Governorate.

4.2.2.2. Time to collect from water source

The survey incorporated questions related to the time that households spent to fetch water from the primary/main water source.

Amran Governorate: 46.7% (female: 45.2%, male: 47.2%) and 20.8% (female: 16.1%, male: 22.5%) of respondents respectively replied that it takes 'less than 30 minutes' and '30-60 minutes' to collect water from the primary water source. In addition, 5.8% of interviewees (female: 0%, male: 7.9%) responded that it takes '1-2 hours' to bring water from the source and the remaining 26.7% of participants (female: 38.7%, male: 22.4%) replied the source of water become available inside their houses.

Hajjah Governorate: 50% of respondents (female: 65.4%, male: 36.7%) indicated that it takes '30-60 minutes' to fetch water; 28.6% of them (female: 30.8%, male: 26.7%) replied that it takes 'less than 30 minutes'; 17.8% of respondents (female: 3.8%, male: 30%) mentioned that it takes '1-2 hours'; and 1.8% of interviewees (female: 0%, male: 3.3%) mentioned they spent more than 2 hours to collect water from the primary source. The remaining 1.8% of survey participants (female: 0%, male: 3.3%) reiterated that the water is available at home so that they do not travel anywhere to fetch water.

Al-Mahweet Governorate: 84.5% of respondents (female: 86.7%, male: 83.7%) indicated that it takes '30-60 minutes' to fetch water whereas 15.5% of them (female: 13.3%, male: 16.3%) replied that it takes 'less than 30 minutes'.

Table 3: Time taken to collect water from the primary/main source

No	Time taken to collect water	Amran Governorate	Hajjah Governorate	Al-Mahweet Governorate
1	Less than 30 minutes	46.67%	28.6%	15.5%
2	30-60 minutes	20.83%	50%	84.5%
3	1-2 hours	5.83%	17.8%	0%
4	More than 2 hours'	0%	1.8%	0%
5	Main source of water is at HH (i.e. pipes at home)	26.67	1.8%	
	Total	**100**	**100**	**100**

4.2.2.3 Women's safety while fetching water

Amran Governorate: 99.2% of respondents (female: 100%, male: 98.9%) replied that women/girls feel safe while fetching water from the primary sources.

Hajjah Governorate: All respondents (100%) replied that women/girls feel safe while fetching water from the primary sources.

Al-Mahweet Governorate: All respondents (100%) replied that women/girls feel safe while fetching water from the primary sources.

4.2.2.4 Existence and functionality of water management committees

Water Management Committees (WMCs) play crucial role in operation and maintenance of water schemes and the effectiveness of WMCs ensure the sustainability of water schemes constructed/rehabilitated by the project. Accordingly, interviewees were asked about the existence and functionality of community-based WMCs in their respective areas.

Amran Governorate

66.7% of respondents (female: 61.3%, male: 68.5%) replied that the water sources do have water management committee and affirmed functionality of WMCs. While, 33.3% of respondents (female: 38.7%, male: 31.5%) mentioned that the water sources do not have water management committee.

Hajjah Governorate: All interviewees (100%) responded that the water sources do have water management committees. 98.2% of respondents (female: 100%, male: 96.7%) affirmed functionality of community-based WMCs in their respective areas.

Al-Mahweet Governorate: All interviewees (100%) responded that the water sources do have water management committees. All respondents affirmed that the functionality of community-based WMCs in their respective areas.

4.2.3 Practice of water treatment

Interviewees were asked whether they use/practice different techniques to treat water at HH level before drinking. Accordingly, they mentioned different techniques such as boiling, using tabs, applying filters, solar disinfection, and use chlorine /High Test Hypochlorite (HTH).

Amran Governorate: 67.5% of interviewees (female: 58.1%, male: 70.9%) treat water before drinking whereas 32.50% of respondents do not treat water before drinking. Among those households that responded to practice water treatment, 43.4% use Aquatabs to treat water, 23.3% use filter, 7.5% practice boiling, 5% use solar disinfection, 20.8% of respondents use chlorine (HTH).

Hajjah Governorate: All respondents (100%) do practice water treatment techniques before drinking and all of them use aquatabs to treat water. In addition to using aquatabs, 28.6% practice chlorination, 17.9% practice boiling, and 17.9% use filter to treat water.

Al-Mahweet Governorate: All respondents (100%) do practice water treatment techniques before drinking. Further analysis indicated that 39.7% of them use Aquatabs to treat water, 65.5% practice boiling, and 5.2% of interviewees use filter[3].

4.2.3 Hygiene and sanitation

4.2.3.1 Sanitary infrastructure

Participants of the survey were asked about the type of sanitation facilities (mainly HH latrines) they have as well as their practice of defecation.

Amran Governorate: All respondents (100%) mentioned to have household latrine (mainly 'pour flush latrine') and all of them indicated that they used the latrine/toilet when they defecated the last time. With regard to handwashing facility in the latrine, 93.3% of interviewees (female: 66.7%, male: 96.6%) mentioned to have handwashing facility. Also 97.50% of respondents confirmed that women and girls are using latrines in household. Regarding the average number of individual who are using latrine is 9 persons (female respondents: 8.6 persons/HH, male respondents: 9.2 persons/HH).

[3] As some of the interviewees use a combination of water treatment techniques, the sum is more than 100%.

Hajjah Governorate: All respondents (100%) mentioned to have household latrine 'pour flush latrine'. With regards handwashing facility, all respondents mentioned to have handwashing facility. Also all respondents confirmed that women and girls are using latrines in household and they used the toilets when they defecated the last time. Regarding the average number of individual who are using latrine is 10 persons.

Al-Mahweet Governorate All respondents (100%) mentioned to have household latrine 'pour flush latrine'. With regards handwashing facility, all respondents mentioned to have handwashing facility. Also all respondents confirmed that women and girls are using latrines in household and they used the toilets when they defecated the last time. Regarding the average number of individual who are using latrine is 5 persons.

4.2.3.2 Knowledge, Attitude, and Practice

Enhancing the knowledge and practice of community members on key hygiene and sanitation issues is of highly importance to decrease the incidence of water-borne diseases. Accordingly, one of the key components of the project is to implement hygiene/sanitation awareness activities through the trained Community Health Volunteers (CHVs). Therefore, the survey incorporated questions that enable to measure the changes in the knowledge and practice of community members on key hygiene/sanitation issues.

Amran Governorate: 89.2% of interviewees (female: 87.1%, male: 89.9%) mentioned to practice regular handwashing whereas 10.8% of them (female: 12.9%, male: 10.1%) indicated that they practice handwashing occasionally. In addition, all respondents stated that they use soap for handwashing. The survey also incorporated interviewees' handwashing practice during the five critical moments of handwashing: before eating, after using toilet, before preparation of food, after cleaning child's bottom, and before feeding children. accordingly, only 38.3% of respondents (female: 80.6%, male: 23.6%) practice handwashing during 'three or more' critical moments. The relatively low result for males may be attributed to the fact three of the five critical moments (food preparation, feeding children, and cleaning child's bottom) are women's responsibilities in the community.

Interviewees were also asked about the type of water containers they use to transport and store water. Surveyed households use various materials to transport and store water. 65.8% of respondents respectively mentioned that they use 'jerry cans with cover'; 4.2% of them use 'bucket with cover'; and another 4.2% of interviewees use 'jerry cans without cover' to transport and store water. The remaining 25.8% of survey participants do not use material to transport water since their main source of water is pipe system at home. Interviewees were also asked whether the containers they use for water storage are clean. Hence, all respondents mentioned that the containers are clean. Interviewees were also asked whether they regularly wash the water containers that they you use for water storage. Accordingly, 96.67% of respondents mentioned to regularly wash the containers and they use 'water and soap/detergents' to wash the containers.

Interviewees were also asked whether they have been visited by Community Health Volunteers (CHVs) and also they type of hygiene/sanitation/nutrition messages received via the CHVs. Accordingly, 80% of respondents (female: 77.4%, male: 82%) reiterated that they were visited by the CHVs and they received messages on 'prevention of cholera/AWD' and other topics such as safe water, safe food, latrine use, and hand washing.

Hajjah Governorate*:* 94.6% of respondents (female: 88.5%, male: 100%) mentioned that they practice handwashing regularly whereas the remaining 5.4% of them (female: 11.5%, male: 0%) wash their hands

occasionally. With regard to the type of materials they use for handwashing, all respondent (100%) mentioned to use soap/detergent. The survey also incorporated interviewees' handwashing practice during the five critical moments of handwashing. Accordingly, all respondents (100%) practice handwashing during 'three or more' critical moments.

Interviewees were also asked about the type of water containers they use to transport and store water. Surveyed households use various materials to transport and store water. Hence, 96.4% and 3.6% of survey participants respectively mentioned that they use 'jerry cans with cover' and 'Jerry can without cover' to transport and store water. Interviewees were also asked whether the containers they use for water storage are clean. Hence, all respondents mentioned that the containers are clean. Interviewees were also asked whether they regularly wash the water containers that they you use for water storage. Accordingly, all respondents mentioned to regularly wash the containers and they use 'water and soap/detergents' to wash the containers.

Al-Mahweet Governorate*;* 96.6% of respondents (female: 93.3%, male: 97.7%) mentioned that they practice handwashing regularly whereas the remaining 3.4% of them (female: 6.7%, male: 2.3%) wash their hands occasionally. With regard to the type of materials they use for handwashing, all of the respondents mentioned to use soap/detergent. The survey also incorporated interviewees' handwashing practice during the five critical moments of handwashing. Accordingly, 94.8% of respondents (female: 100%, male: 93%) practice handwashing during three or more critical moments whereas 5.2% of them (female: 0%, male: 7%) practice handwashing during two critical moments.

Meanwhile, 98.3% and 1.7% of respondents respectively mentioned that they use 'jerry cans with cover' and 'Jerry can without cover' to transport and store water. Interviewees were also asked whether the containers they use for water storage are clean. Hence, all respondents mentioned that the containers are clean. Interviewees were also asked whether they regularly wash the water containers that they you use for water storage. Accordingly, all respondents mentioned to regularly wash the containers and they use 'water and soap/detergents' to wash the containers.

4.3 FOOD SECURITY AND AGRICULTURE

The project has implemented economic recovery and food security and agriculture interventions to enable the most vulnerable IDPs and host communities to meet their basic immediate needs, and increase their asset base. The project provides conditional cash assistance through temporary employment opportunities to the most vulnerable households to mitigate the impact of job loss and resource depletion. The project also supports households with provision of agricultural inputs such as seeds and farm tools so as to improve the food diversity and nutritional status of households. Therefore, this end-line survey intends to have benchmark values of key food security indicators so that they can be measured during the end-line survey so that comparison can be made whether the project attained its purpose.

4.3.1 Household Dietary Diversity Score (HDDS)

The Household Dietary Diversity Score (HDDS) tool measures the number of food groups a household consumes over the past month period. It serves as a proxy indicator of household food access. In order to better reflect a quality diet for the household, the number of different food groups consumed was calculated, rather than the number of different foods consumed.

Amran Governorate: The average HDDS of interviewees is **8.06** (female: 8.54%, male: 7.9%) denoting a high quality of dietary diversity and implies interviewed HHs consumed an average of around 8 food groups out of the recommended 12 food groups.

Hajjah Governorate: The mean HDDS of targeted areas is **8.2** (female: 7.8%, male: 8.5%)denoting a high quality of diet whereby households consume an average of around 8 food groups out of the recommended twelve food groups. This indicator shows an improvement comparing to the baseline value of 3.94.

Al-Mahweet Governorate: The mean HDDS of targeted areas is **7.08** (female: 8.12%, male: 6.88%) denoting a high quality of diet whereby households consume an average of around 7 food groups out of the recommended twelve food groups. This indicator shows an improvement comparing to the baseline value of 4.3

4.3.2 Food Consumption Score (FCS)

The FCS is a composite score based on dietary frequency, food frequency and relative nutrition importance of different food groups. The FCS of a household is calculated by multiplying the frequency of foods consumed in the last seven days with the weighting of each food group. The weighting of food groups has been determined by WFP according to the nutrition density[4] of the food group. The sum of the scores is then used to determine the FCS. The maximum FCS has a value of 112 which would be achieved if a household ate each food group every day during the last 7 days. The total scores are then compared to pre-established Yemeni thresholds: Poor food consumption: 0 to 28; borderline food consumption: 28.5 to 42; and acceptable food consumption: > 42.

Amran Governorate: According to the results from the result of the survey, HHs consumed Rice/cereals for an average of 6.88 days/week; beans/peas/nuts for an average of 3.67 days/week; vegetables/leaves for an average of 2.95 days/week; fruits for an average of 1.47 days/week; meat/fish for an average of 1.35 days/week; milk for an average of 5.34 days/week; sugar/honey for an average of 6.12 days/week; oil/butter for an average of 6.13 days/week; and tea/coffee for an average of 6.72 days/week. The average FCS for the surveyed HHs is **62** (female: 69.25, male: 59.6%) and, in line with this, households are categorized according to the pre-established thresholds:

- 0% of HHs are in poor food consumption
- 14% of HHs are in borderline food consumption; (female: 9.1%, male: 15.6%)
- 86 % of HHs are in acceptable food consumption; (female: 90.9%, male: 84.4%)

Hajjah Governorate: HHs consumed rice/cereals for an average of 6.41 days/week; beans/peas/nuts for an average of 4.47 days/week; vegetables/leaves for an average of 4.79 days/week; fruits for an average of 1.79 days/week; meat/fish for an average of 1.55 days/week; milk for an average of 3.38 days/week; sugar/honey for an average of 2.20 days/week; oil/butter for an average of 3 days/week; and tea/coffee for an average of 5.91 days/week. The average FCS for the surveyed HHs is **55.23** (female: 49.14, male: 59.5%), which shows substantial improvement comparing to the baseline value of 31 In line with this, households are categorized according to the pre-established thresholds:

- 5.9 % of HHs are in poor food consumption; (female: 7.2%, male: 5%)
- 14.7% of HHs are in borderline food consumption; (female: 7.2%, male: 20%)
- 79.4% of HHs are in acceptable food consumption; (female: 85.6%, male: 75%)

Al-Mahweet Governorate: The result of the survey indicated that_HHs consumed rice/cereals for an average of 6.6 days/week; beans/peas/nuts for an average of 6.1 days/week; vegetables/leaves for an average of 1.2 days/week; fruits for an average of 0.3 days/week; meat/fish for an average of 0.4 days/week; milk for an average of 0.8 days/week; sugar/honey for an average of 0.9 days/week; oil/butter for an average of 1.2 days/week; and tea/coffee for an average of 1.8 days/week. The average FCS for the

[4] Nutrition density is defined as the ratio of nutrient content (in grams) to the total energy content (in kilocalories)

surveyed HHs is **38.44** (female: 43.19%, male: 37.56%), which shows slight improvement comparing to the baseline value of 37 In line with this, households are categorized according to the pre-established thresholds:

- 5.8% of HHs are in poor food consumption; (female: 12.5%, male: 4.7%)
- 72.5% of HHs are in borderline food consumption; (female: 50%, male: 76.7%)
- 21.7% of HHs are in acceptable food consumption; (female: 37.5%, male: 18.6%)

4.3.3 Reduced Coping Strategies Index (rCSI) Score

The rCSI is often used as a proxy indicator of household food insecurity. Households were asked about how often they used a set of five short-term food based coping strategies in situations in which they did not have enough food, or money to buy food, during the one-week period prior to interview. The information is combined into the CSI which is a score assigned to a household that represents the frequency and severity of coping strategies employed. First, each of the five strategies is assigned a standard weight based on its severity. Based on the Yemen's context, the total reduced CSI score is the basis to determine and classify the level of coping: into three categories: **No or low coping (CSI= 0-3), medium (CSI = 4-9), high coping (CSI ≥10).**

Amran Governorate: The average reduced CSI score for the surveyed HHs is **7.22** (female: 9.36%, male: 6.48%), which is considered as medium despite it is lower than the WFP's VAM national average for Yemen (i.e. 20.93) and the Amran Governorate average (i.e. 21.15)[5] for the month of September 2019. Furthermore, interviewed HHs are categorized according to the pre-established thresholds:

Table 4: Reduced CSI score of surveyed HHs – Amran Governorate

Category	Threshold	% of HHs Surveyed (Baseline Value)	% of HHs Surveyed (End-line Value)
Low CSI score	0-3	1.54% (female:0%, male: 2.7%)	27% (female: 13.6%, male: 31.2%)
Medium CSI score	4-9	9.23% (female:7.1%, male: 10.8%)	49% (female:50%, male: 48.4%)
High CSI score	> 10	89.23% (female:92.9%, male: 86.5%)	24% (female:36.4%, male: 20.4%)

Hajjah Governorate: The average reduced CSI for the surveyed HHs is **12.09** (female: 8.86, male: 14.35%), which shows substantial improvement comparing to baseline value of 21.8 In line with this, households are categorized according to the pre-established thresholds:

Table 5: Reduced CSI score of surveyed HHs – Hajjah Governorate

Category	Threshold	% of HHs Surveyed (Baseline Value)	% of HHs Surveyed (End-line Value)
Low CSI score	0-3	0%	0%
Medium CSI score	4-9	2.9% (female:0%, male: 5%)	64.70% (female:85.7%, male: 50%)
High CSI score	> 10	97.1% (female:100%, male: 95%)	35.29% (female:14.3%, male: 50%)

Al-Mahweet Governorate: The average reduced CSI for the surveyed HHs is **10.35** (female: 11.25%, male: 9.28%), which shows substantial improvement comparing to baseline value of 38.2 In line with this, households are categorized according to the pre-established thresholds:

[5] https://vam.wfp.org/mvam_monitoring/DataBank_Csi.aspx?iso3=yem

Table 6: Reduced CSI score of surveyed HHs – Al-Mahwit Governorate

Category	Threshold	% of HHs Surveyed (Baseline Value)	% of HHs Surveyed (End-line Value)
Low CSI score	0-3	1.96% (female:0%, male: 0%)	1.97 (female:0%, male: 2.3%)
Medium CSI score	4-9	0% (female:0%, male: 4.2%)	58.82 (female:37.5%, male: 62.8%)
High CSI score	> 10	98.04% (female:0%, male: 95.8%)	39.21 (female:62.5%, male: 34.9%)

As clearly indicated below in Table 7, the reduced CSI score of the interviewed HHs calculated based on the five common coping strategies. Accordingly, the reduced CSI score for surveyed HHs in Hajjah is relatively high comparing to Amran and Al-Mahweet Governorates.

Table 7: Reduced CSI score of surveyed HHs

Copying Strategies	Copying Strategies Score			Weighted Average
	Amran Governorate	Hajjah Governorate	Al-Mahweet Governorate	
Rely on less preferred and less expensive foods	3.63	5.6	1.84	3.86
Borrow food, or rely on help from a friend or relative	2.58	3.8	1.33	2.70
Limit portion size at meals	0.60	1.2	2.14	1.09
Restricts consumption by adult in order for small children to eat	0.28	1.2	2.08	0.91
Reduce the number of meals eaten in a day	0.13	0.3	2.96	0.74
Total	**7.22**	**12.1**	**10.35**	**9.3**

4.3.4 Months of Adequate Household Food Provisioning (MAHFP)

MAHFP is one of the tools that measures household's food access during different months of the year. Over time, the MAHFP indicator can capture changes in the household's ability to address vulnerability in such a way as to ensure that food is available above a minimum level the year round. Measuring the MAHFP has the advantage of capturing the combined effects of a range of interventions and strategies, such as improved agricultural production, storage and interventions that increase household's purchasing power. Accordingly, survey participants were asked whether there were months (in the past 12 months) in which the household did not have enough food to meet their family needs.

Amran Governorate: The survey result depicted an average MAHFP of **12**, which implies households have adequate food in 12 months across the year. This also implies there is no food scarcity among the surveyed households throughout the year.

Hajjah Governorate: The average MAHFP result for surveyed households in Hajjah Governorate was **8.3** (female:8.5, male: 8.1), which implies households did not have adequate food at an average of 3.7 months across year.

Al-Mahweet Governorate: The average MAHFP result for surveyed households in Mahweet Governorate was **11.2** (female:10.2, male: 11.4), which implies households did not have adequate food at an average of 0.8 month across year. However, they have adequate food for an average 11.4 months across year.

4.3.5 Vegetable Production

Amran Governorate: Survey participants were asked whether they grow dark leafy green vegetables such as okra, lettuce, radish, and parsley. Accordingly, 22% of respondents (female: 18.2%, male: 23.4%) mentioned that they grow dark leafy green vegetables whereas 78% of them (female: 81.8%, male: 76.6%) responded that they do not grow any dark leafy.

Hajjah Governorate: All respondents (100%) mentioned that they grow dark leafy green vegetables such as okra, radish, Molokhia, and others (leeks, zucchini, tomato, spacey, and green beans)

Al-Mahweet Governorate: All respondents (100%) mentioned that they grow dark leafy green vegetables such as okra, radish, Molokhia, and zucchini.

1.1.1 4.3.6 Crop Protection

4.3.6 Crop Protection

The survey questionnaire included questions whether interviewed HHs practice/use various crop protection measures – such as deep ploughing, selection of pest resistant crop plant varieties, irrigation management, crop rotation, insecticides, and mulching.

Amran Governorate: The survey questionnaire included the crop protection measures – such as deep ploughing, selection of pest resistant crop plant varieties, irrigation management, crop rotation, insecticides, and mulching - that households currently use. Accordingly, 67.4% of the survey participants (female: 72.7%, male: 65.6%) responded that they practice some of crop protection measures while 32.6% of them (female: 27.3%, male: 34.4%) do not practice/use any of the mentioned crop protection (pest control) measures.

Hajjah Governorate: All survey participants responded that they do practice/use one or more crop protection (pest control) measures, including deep ploughing, fences, irrigation management, and removing weeds.

Al-Mahweet Governorate: All survey participants (100%) responded that they do practice/use one or more crop protection (pest control) measures, including deep ploughing, fences, irrigation management, and removing weeds.

4.3.7 Training on Crop Production

Interviewees were asked whether they ever received a training on improved agronomic practices and crop production. All survey participants (100%) in Amran, Hajjah, & Mahweet Governorates indicated that they have received training on crop production. However, it is highly recommended to continue with training and agricultural extension services to sustainably enhance agricultural production.

5. CONCLUSION AND RECOMMENDATIONS

The result of the end-line survey revealed that the project has a profound impact on the lives/livelihoods of targeted beneficiaries through enhancing access to safe water; improving knowledge/practice on key hygiene and sanitation issues; increasing access to cash to meet basic and immediate needs; and improving agronomical practices. There has been a significant improvement in access and availability of safe water at household level, which – along with increase knowledge in hygiene - mainly contribute to the reduction of water borne diseases such as diarrhea and AWD. Furthermore, the construction/rehabilitation of water schemes has reduced the burden on women through reducing the time to fetch water from far distances so that they can spend more time now on other household chores. Along with the water schemes, the construction of family latrines reduced the safety and protection threats experienced by women and girls while travelling to fetch water and also practicing defecation in the bushes.

The cash transfer intervention helped the community members to improve their food security and nutrition status of targeted households, which is corroborated by the improvement of the key food security indicators, including Food Consumption Score and Household Dietary Diversity Score. The rehabilitation of community assets (mainly the rehab of rural roads) has also helped community members to have a relatively access to basic services such as markets and health facilities.

The distribution of seeds and farm tools along with the training on agronomic practices helped community members to grow vegetables and can use the harvest for household consumption and market. This helped them to enhance food availability at household level, diversification of diet, and enhance household income.

it is recommended to focus on the following interventions in the course of the project period.

A. Due to lack of income and high cost of food, many households move to keep using some of CSI as technique of saving the food to the children or borrow as to fulfill their immediate and basic needs. Therefore, there is a need to consider provision of emergency livelihood assets or recovery system activities to ensure the increasing the income of household to meet their basic needs of food and health.

B. Strengthen the hygiene/nutrition promotion activities to increase the knowledge and practice of community members to key hygiene and nutrition issues.

C. Farmers should be involved in the process of seeds selection to ensure the compatibility of their and land and the types of seeds.

D. Adequate and proper training as well as regular agricultural extension services have to be provided to beneficiary farmers to improve their knowledge in agronomy and crop protection so that they enhance crop production.

ANNEX 1: END-LINE VALUE OF KEY OUTCOME INDICATORS

Performance Indicator	Unit	Baseline Value				End-line Value			
		Amran Governorate	Hajjah Governorate	Al-Mahweet Governorate	Weighted Average	Amran Governorate	Hajjah Governorate	Al-Mahweet Governorate	Weighted Average
Percentage of HHs that have access to safe/protected water sources	Percent	14.4%	14.3%	0%	10.8%	75%	100%	100%	87.2%
Average number of liters that family consumed for drinking, cooking and hygiene per day.	Liter	161	191	132	161	173	223	119	171.6
Percentage of HHs that travel more than one hour to collect water	Percent	33%	27%	32%	31.3%	5.8%	19.6%	0%	7.7%
Percentage of HHs that reported existence of functional WMCs	Percent	1%	0%	0%	0.5%	66.7%	98.2%	100%	82.5%
Percentage of HHs that treat water before drinking	Percent	36%	11.7%	6.4%	22.7%	67.50%	100%	100%	83.3%
Percentage of households with household latrine	Percent	49%	17.8%	3.7%	30.1%	100%	100%	100%	100%
Percentage of households who know at least three critical moments of hand washing	Percent	17.8%	1.7%	0%	14.2%	38.33%	100%	94.8%	67.1%
Average Household Dietary Diversity Score (HDDS)	Number	5.53	3.94	4.3	4.75	8.06	8.2	7.08	7.91
Average Food Consumption Score	Number	42	31	37	37.81	62	55.23	38.44	55.3
Percentage of HHs achieve Acceptable Food Consumption	Percent	46.1%	26.5%	35.3%	38%	86%	79.4%	21.7%	71%
Average reduced Coping Strategy Index Score	Number	17.80	21.8	38.2	25.64	7.22	12.1	10.35	9.3
Months of Average Household Food Provision	Month	10	6	6	7.73	12	8.3	11.2	10.74
Percentage of interviewees who practice crop protection measures	Percent	0	0	8%	2.7%	67.5%	100%	100%	84
Percentage of interviewees who received a training on crop production	Percent	0	0	1.96%	0.7%	100%	100%	100%	100%

ANNEX 2: SURVEY QUESTIONNAIRE

Questionnaire ID #:

1. BASIC INFORMATION

Date of Interview:			
Governorate name:		Village:	
District Name:		Name of enumerator:	
Sub-district Name:		Name of respondent (optional)	

2. HOUSEHOLD CHARACTERISTICS

	Gender	Age	Head of HH	Marital Statu	Residency status
Respondent	1 = Male 2 = Female		1= Male-headed 2= Female-headed 3= Elderly headed 4= Child-headed	1=Married 2= Single 3= Widowed 4= Divorced	1=Host community 2= IDP 3= Returnee

3. HOUSEHOLD SIZE (ASK AND RECORD)

0-5 years (male)	*0-5 years (female)*	*6-10 years (male)*	*6-10 years (female)*	*11-17 years (Male)*	*11-17 years (Female)*	*18 years – 59 years (male)*	*18 years – 59 years (Female)*	*60 years + (Male)*	*60 years + (Female)*	*Total (Male)*	*Total (Female)*
|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|

Does anyone in your household have a physical or mental disability?	0= No 1= Yes 2= Don't know	If YES to X, how many people in your household has a physical or mental disability?	|__|
Are there any pregnant or lactating women in your household?	0= No 1= Yes 2= Don't know	If YES to X, how many women in your household are pregnant or lactating?	|__|

4. WATER SUPPLY INFRASTRUCTURE

4.1 What is your primary/main source of water for drinking, cooking, and hygiene? **(CHOOSE ONLY ONE ANSWER)**	1= Piped water at house 2= Piped water at public places 3= Protected wells 4= Unprotected wells 5= River/stream/valleys 6= Unprotected springs 7= Protected springs 8= Others (Specify)
4.2 In a day, how many liters of water does your family consume for drinking, cooking and hygiene?	_____liters

4.3 How long does it take you to fetch water from the source (including travelling and waiting at the source to fill?	1= Available inside the house 2= Less than 30 minutes 3 = 30-60 minutes 4 = 1-2 hours 5 = More than 2 hours	
4.4 Are there times when water is unavailable from the main source?	1 = Yes 2 = No	If 'Yes', go to the next question, if 'No' or 'I do not know', go to question 4.7
4.5 If yes, for how many months the water is unavailable from the main source?	_____ months	
4.6 If yes, where do you collect water for drinking, cooking, and hygiene when it is unavailable from the main source?	1= Piped water at house 2= Piped water at public places 3= Protected wells 4= Unprotected wells 5= River/stream/valleys 6= Unprotected springs 7= Protected springs 8= Others (Specify)	
4.7 Do women/girls feel safe when they go to the water source?	1 = Yes 2 = No 3= I do not know	If 'Yes', go to the next question, if 'No' or 'I do not know', go to question 4.9
4.8 If yes, what are the risks they face?	1= Sexual harrassment 2= Airstrikes 3= Confict 4= Wild animals 5= Others (Please specify)	
4.9 Does your water source have a water management committee?	1 = Yes 2 = No 3= I do not know	If 'Yes', go to the next question, if 'No' or 'I do not know', go to question 4.11
4.10 If YES, is the water source committee active/functional currently?	1 = Yes 2 = No 3= I do not know	
4.11 Do you treat your water in any way to make it safer to drink?	1 = Yes 2 = No	If 'Yes', go to the next question, if 'No' or 'I do not know', go to SECTION 5
4.12 If yes, how is your water treated? **MULTIPLE ANSWER IS POSSIBLE**	1= Boiling 2= Using Filters 3= Aquatabs. 4= PUR sachets 5= Chlorine 6= Solar disinfectant 7= Treared from pipeline 8= Others (Please specify)	

5. **SANITATION**		
5.1 Did you use latrine/toilet when you defecated the last time?	1 = Yes 2 = No	
5.2 Does your household have latrines/toilets?	1 = Yes 2 = No	If 'Yes', go to the next question, if 'No', go to question 5.8

5.3 If yes, what type of toilet is it?	1= Pit latrine 2= Pour flush toilet. 3= Flush toilet. 4= Other (Specify)	
5.4 If yes, how many individuals use the toilet regularly?	_____Persons	
5.5 If yes, does the toilet have handwashing facility?	1 = Yes 2 = No	
5.6 If yes, do women and girls in your household use toilets	1 = Yes 2 = No	If 'No', go to the next question, if 'yes', go to Section 6
5.7 If no, where do women and girls in your hosehold go to defecate?	1= Go to the bush 2= Go to the neighbors 3= Go the near hospital/school etc. 4= Others (Please specify). 5= I do not know	
5.8 If you do not have toilet in your house, where do you and family members go for defecation?	1= Go to the bush 2= Go to the neighbors 3= Go the near hospital/school etc. 4= Others (specify) 5= I do not know	

6. HYGIENE PROMOTION		
6.1 Do you regularly wash your hands?	1 = Yes 2= Sometimes 3 = No	If 'Yes' or 'Sometimes', go to the next question, if 'No', go to question 6.3
6.2 What do you use for handwashing?	1= Water only 2 = Water and soap 3= Water and ash 4= Others (Please specify)	
6.3 When do you usually wash your hand? **(MULTIPLE ANSWER IS POSSIBLE)**	1= After using the latrines 2= Before eating. 3= Before cooking 4= Before feeding the baby 5= After cleaning baby waste/feces	
6.4 What type of containers you use for water storage?	1= Jerry can with cover 2= Jerry can without cover 3= Bucket with cover. 4= Bucket without cover 5= Others (Please specify)	
6.5 Do you think the containers you use for water storage are clean? Note for enumerators: Ask permission and check the condition of water containers where family store their water. After observation, enumerators will complete the next two questions by themselves (no need to ask from survey respondent)	1 = Yes 2 = No 3= I do not know	
6.6 Do you regularly wash the containers you use for water storage?	1 = Yes 2 = No	If 'Yes', go to the next question, if 'No', go to Q 6.9.
6.7 If yes, what do you use for washing?	1= Water only 2= Water and soap/detergents	

	3= Water and sand. 4= Water and ash 5= Others (Please specify)	
6.8 What containers do you use for transporting your water	1= Jerry can with cover 2= Jerry can without cover 3= Bucket with cover. 4= Bucket without cover 5= Others (Please specify)	
6.9 Has your household been visited by any health worker or Hygiene promotion worker?	1 = Yes 2 = No	If 'Yes', go to the next question, if 'No', go to section 7.
6.10 If yes, what was the message/s about? **(MULTIPLE ANSWER IS POSSIBLE)**	1= Prevention of cholera/AWD. 2= Safe water 3= Safe food 4= Latrine use 5= Hand washing 6= Others (Specifiy)	

6 *FOOD SECURITY*

7 1. HOUSEHOLD DIETARY DIVERSITY SCORE (HDDS)

The Household Dietary Diversity Score (HDDS) is often used as a proxy measure of household's access to food. NOW, I WOULD LIKE TO ASK YOU ABOUT THE TYPES OF FOODS THAT YOUR HOUSEHOLD ATE DURING THE LAST 24 HOURS? (Write 1 if the HH ate the type of foods during the past 24 hours; or write 0 if the HH did not eat ate the type of foods for during the past 24 hours).

#	Food group	Response Code
1	Rice, bread, maize, biscuits, wheat, or any other foods made from millet, sorghum, maize,	|_____|
2	Pumpkin, carrot, white potatoes, white yams, manioc, cassava or any other foods made from roots or tubers?	|_____|
3	Beans. Peas, groundnuts and cashew nuts	|_____|
4	Vegetables, leaves	|_____|
5	Fruits	|_____|
6	Beef, goat, poultry, pork,	|_____|
7	Egg	|_____|
8	Fish	|_____|
9	Milk yogurt and other diary	|_____|
10	Sugar and sugar products, honey	|_____|
11	Oils, fats and butter	|_____|
12	Spices, tea, coffee, salt, fish power, small amounts of milk for tea.	|_____|

7.2 FOOD CONSUMPTION SCORE (FCS)

The **Food Consumption Score** (FCS) is a composite **score** based on dietary diversity, **food** frequency, and the relative nutritional importance of different **food** groups. **NOW, I WOULD LIKE TO ASK YOU ABOUT THE TYPES OF FOODS THAT YOUR HOUSEHOLD ATE DURING THE LAST SEVEN DAYS? (Write 7 if the HH ate the types of foods for 7 days of the week; Write 6 if the HH ate the types of foods for 6 days of the week; Write 5 if the HH ate the types of foods for 5 days of the week etc; write 0 if the HH did not ate the types of foods throughout the week).**

#	Food group	Response Code
1	Rice, maize , maize porridge, sorghum, millet pasta, bread and other cereals	|_____|
2	Beans. Peas, groundnuts and cashew nuts	|_____|
3	Vegetables, leaves	|_____|
4	Fruits	|_____|
5	Beef, goat, poultry, pork, eggs and fish	|_____|

6	Milk yogurt and other diary	|_____|
7	Sugar and sugar products, honey	|_____|
8	Oils, fats and butter	|_____|
9	Spices, tea, coffee, salt, fish power, small amounts of milk for tea.	|_____|

7.3 COPING STRATEGIES INDEX (CSI)

In the PAST 7 DAYS, if there have been times when you did not have enough food or money to buy food, how many days has your households had to: (Write 7 if the HH uses the strategy for 7 days of the week; Write 6 if the HH ate the types of fo uses the strategy for 6 days of the week; Write 5 if the HH uses the strategy for 5 days of the week etc; write 0 if the HH did not use the coping strategy

COPING STRATEGIES	FREQUENCY 7 = Every day 6 = 6 of the last 7 days 5= 5 of the last 7 days Etc If not used, write 0	WEIGHT Universal Severity Weight	SCORE Weighted Score = Frequency X Weight
A. Rely on less preferred and less expensive food	|_____|	1	|_____|
B. Borrow food, or rely on help from friends or relatives)	|_____|	2	|_____|
C. Limit portion size at meals	|_____|	1	|_____|
D. Restrict consumption by adults in order for small children to eat	|_____|	3	|_____|
E. Reduce number of meals eaten in a day	|_____|	1	|_____|
TOTAL HOUSEHOLD SCORE - Reduced CSI (Sum down the totals for each individual strategy =>)			|_____|

7.4. MONTHS OF ADEQUATE HOUSEHOLD FOOD PROVISIONING (MAHFP)

Now I would like to ask you about your household's food supply during the last 12 months. In the past 12 months, were there month(s) in which you did not have enough food to meet your family's needs?	1= Yes 2= No

If yes, which were the months (in the past 12 months) in which you did not have enough food to meet your family's needs?

#	MONTHS	Response Code
1	January	|_____|
2	February	|_____|
3	March	|_____|
4	April	|_____|
5	May	|_____|
6	June	|_____|
7	July	|_____|
8	August	|_____|
9	September	|_____|
10	October	|_____|
11	November	|_____|
12	December	|_____|
If yes, what were the reasons for not having adequate food?		

7.5 VEGETABLE PRODUCTION

7.5.1 Do you dark leavy green vegetables?	1= Yes 2= No	If 'Yes', go to the next question. If 'No', go to question 7.6

7.5.2. If yes, which type of dark Leafy Green Vegetable did you grow the previous crop season? **Write 1 if the HH plants the type of vegetable; or write 0 if the HH does not use plant that type of vegetable).**		
#	**Vegetabke**	**Response Code**
A	Okra	|_____|
B	Parsley	|_____|
C	Coriander	|_____|
D	Radish	|_____|
E	Molokhia	|_____|
F	Lettuce	|_____|
G	Leeks	|_____|
H	Other (please specify)	|_____|
7.5.2	How many square meter of dark leavy green vegetable do you grow in total?	_____
7.5.3	How many kgs of dark leavy green vegetable seeds do you grow in total?	_____
7.5.4	How many kgs of dark leavy green vegetable seeds did you harvest in total?	_____

7.6 CROP PROTECTION/PEST CONTRO; MEASURES		
7.6.1 Do you practice any crop protection/pest control measures?	1= Yes 2= No	If 'Yes', go to the next question. If 'No', go to question 7.7
7.6.2. If yes, which type of crop protection/pest control measures did you use? **Write 1 if the HH uses the type of crop protection/pest control measure; or write 0 if the HH does not use the type of crop protection/pest control measure.**		
#	**Crop Protection / Pest Control Measures**	**Response Code**
A	Deep Ploughing	|_____|
B	Fences or netting	|_____|
C	Selection of pest resistant crop plant varieties, ,	|_____|
D	timing of planting and harvesting,	|_____|
E	irrigation management	|_____|
F	crop rotation	|_____|
G	Mulching	|_____|
H	removing weeds	|_____|
I	destroying/burning crop residues	|_____|
J	keeping garden/orchards border areas free of pests and pest breeding sites	|_____|
K	Insecticides	|_____|
7.6.2	How many square meters in total did you protect using the crop protection/pest control measures mentioned above?	_____

7.7 TRAINING ON IMPROVED CROP/VEGETABLE PRODUCTION?		
7.7.1 Have you ever received any training on improved crop/vegetable production??	1= Yes 2= No	If 'Yes', go to the next question. If 'No', finalize the survey.
7.7.2. If yes, which type of training did you use? **Write 1 if the HH received the type of training; or write 0 if the HH did not receive the type of training.**		
#	**Type of training**	**Response Code**
A	Agronomy (land preparation, planting, weeding….)	|_____|
B	Minimize post-harvest losses	|_____|
C	Crop protection	|_____|
D	Crop rotation	|_____|
E	irrigation management	|_____|
F	Other (Please specify)	|_____|

END OF QUESTIONNAIRE – THANK YOU VERY MUCH FOR YOUR TIME!