

Care International Sudan
Comprehensive Multisector Need Assessment
South Kordofan State



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Acronyms and Abbreviations

CIS	Care International S
SMoH	State Ministry of Health
SMoAAR	State Ministry of Agriculture and Animal Resources
CSOs	Community Social Organization
FGD	Focus Group Discussion
KII	Key Informant Interview
HH	Household
SRH	Sexual and Reproductive Health
CLTS	Community Led Total Sanitation
FSL	Food Security and Livelihood
WASH	Water Sanitation and Hygiene
NGO	Non-Governmental Organization
INGO	International non-Governmental Organization
IDP	Internal Displaced People
O&M	Operation and Maintenance
SWC	State Water Corporation
WES	Water and Environmental sanitation
GBV	Gender Based Violence
FNC	
ANC	Antenatal Care
HF	Health Facility
TBA	Tradition Birth Attendant

Executive summary

- The need assessment was conducted internally by team from CIS led by MEAL coordinator, the assessment took place in South Kordofan state covering Abasseya, Rashad and Tadamon localities. The objective of the assessment is to assess the current situation, identify the gaps and needs of the targeted communities and recommend of key interventions that meet the real needs of the targeted people. Different methods were used for data collection including individual interviews with HH leaders, FGDs with representative from different community groups, Desk review of the existing information and KIIs with the authorities in relevant miseries and institutions.
- Only 44.8 % of the people in the assessed area have access to easy and adequate safe water for their family, the 55.2% are suffering either from difficulty in getting the water, poor quality of water or the insufficient amount for their households.
- All family members participating in fetching water from sources, but the main responsibility is on women representing 41.5%.
- There is lack of hygiene promotion within the assessed communities, most of them did not received any type of capacity building in WASH 91.2%, this reflected in the way that communities dealing with environment and personal hygiene, lack of hygiene is one of the main causes of poor waste management and common practice of open defecation even from part of family members who have latrine in houses.
- Poor hygiene practices resulted from lack of hygiene awareness and capacity building. 38.5% of the consulted people are using water and soap for washing hands, most of them are in Abasseya and Rashad, 14.5% and 21% respectively, while only 3.1% found in Tadamon locality, 58.1% are using only water, 2.8% use water with sand/soil and 0.6% use ash for washing their hands.
- The assessed areas are suffering from lack of health facilities, and the available facilities are poor in term of required services, only 36.4 % of the consulted people have health facilities in their villages, including health centers (31.3%), hospital (6.5%) and clinics (2.2%).
- From the children under 5 years, 19.8% experienced malnutrition. The existence of malnutrition among children under 5 have two dimensions: 1) is the lack of capacity among mothers on the importance of intensive breast feeding for infants and other best nutrition practices for other children, 2) the poverty and low level of livelihood among the targeted communities which affect their access to the food.
- There is a Gender Based Violence practices including physical and sexual violence related to conflicts and lack of services closed to houses as women and girls go far distances to collect water or to release themselves.

Background

CARE has been operational in Sudan since 2009, with humanitarian, early recovery and peace building interventions. Sectors involved include Peace building, WASH, Health & Nutrition, livelihood diversification and Economic Empowerment. Through UN agencies, ECHO, German MoFA OFDA, DCPSF, GAC, US AID and other donors funding, CARE supporting peace building and governance programs. The programs have been supporting community based resolution of conflict, inclusion of youth and women in community decision making and leadership and engagement in economic empowerment. CARE strongly supports and works with national NGOs, Community Based Organizations, government line ministries and universities.

The transitional government has taken bold steps to advance Sudan's economy, stability, and peace. However, these efforts will take time and humanitarian needs continue to grow. The 2021 Humanitarian Needs Overview (HNO) identifies 13.4 million people (29 per cent of the population) in need of assistance in 2021 – of which 7.6 million are women and girls, 2.5 million are IDPs, and 1.07 million are refugees from South Sudan, Central Africa Republic (CAR), Eritrea, and Ethiopia.

The country continues to face numerous challenges:

- (i) Internal large-scale population displacement triggered by conflict,
- (ii) Climatic and socio-cultural conditions leading to high levels of food insecurity and malnutrition, and
- (iii) The relatively large number of South Sudanese refugees within Sudan.
- (iv) The escalating economic crisis is central in intensifying the numbers of people in need.

Of the 13.4 million people in need, about 7.3 million need emergency assistance for life threatening needs related to critical physical and mental well-being. Meanwhile, 13.3 million people require life-sustaining support to meet minimum living standards. The Health sector has the highest number of people in need – 9.2 million, followed by WASH – 9 million, and the Food Security and Livelihoods sector – 8.2 million people in need.

Humanitarian assistance needs remain high through November 2021, driven by political instability, above-average food prices, and reduced household purchasing power, along with the impact of increased conflict, tribal clashes, and protracted displacement in parts of Darfur, Kordofan, and Blue Nile state, along with Ethiopian and South Sudanese refugees.

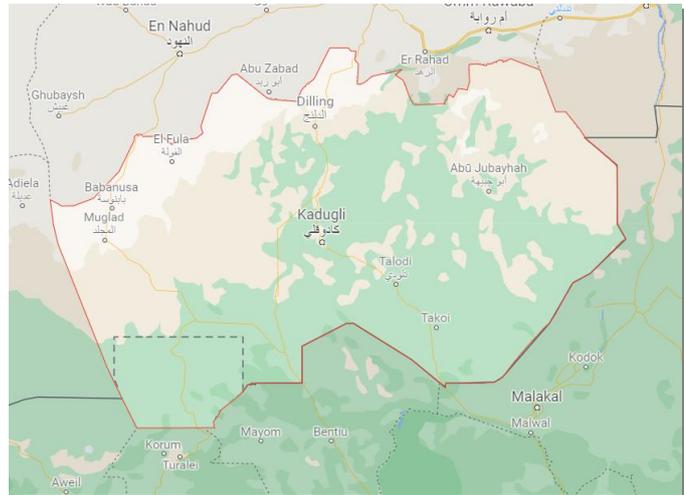
Crisis (IPC Phase 3) outcomes are likely among IDPs in SPLM-N controlled areas of South Kordofan, IDPs and conflict-affected households in Jebel Mara, households recently affected by tribal clashes in North Darfur, urban poor households, and the most vulnerable poor households in parts of North Darfur, North Kordofan, and Red Sea states affected by low food stocks and poor purchasing power due to limited access to income and high food and non-food prices¹.

¹ Sudan - Key Message Update_ Tue, 2021-11-30

While improvements in access have been observed, ACAPS (June 2020) continue to rate the constraints for humanitarian access in Sudan as high. Travel procedures for humanitarian organizations have been made somewhat easier and it has enabled humanitarian partners to reach people in areas that were previously inaccessible. However, heavy administrative procedures and interference present significant obstacles to the timely provision of assistance.

South Kordofan State:

South Kordofan is one of the 18 states of Sudan. It has an area of 158,355 km² and an estimated population of approximately 2,147,980 people². Kadugli is the capital of the state. It is centered on the Nuba Hills.



The total forest coverage is estimated by 6.9 million feddan and the pasture land by 1.6 million feddan, the annual rain average in the range of 150 MM in the northern part of the state and 1000 MM in the southern part of the state, for the irrigation system, they depend on agric. Rain- fed. and very few used agric. Irrigation especially in the horticultural farms.

The most farming crops are sorghum, Sesame, millet, ground nut, cow pea, hibiscus, watermelon, cotton, sun flower crops

For the animal wealth is estimated by not less than fifteen million heads major of it are cows followed by goats and camels.

South Kordofan State is one of the Southern states of Sudan. It is bordered by Upper Nile State, Unity State in the Republic of South Sudan, in the west by West Kordofan State, in the north by North Kordofan State, and in the east by the White Nile State. It has an area of 82,000 km² and a population of 1714,381 people, according to the 2010 census. The state is divided into two main sectors, eastern and western and consists of 17 localities, three of which are outside the control of the government.

The state is rich in its natural forests, agricultural and animal resources. Most of the state's localities are located in the rich savannah, most of people in the state practicing traditional agriculture and pastoralism, and recently entered the profession of gold mining.

The state has a homogeneous mixture of nomadic and settled pastoral societies, in addition to the settled agricultural population. Accordingly, the number of ethnic groups is more than 100, the majority of them are the Nuba and Hawazma tribes, along with small tribes represented such Badiriya, Al-Bargo, Al-Berno and Al-Falata.

² Sudan census 2010 + Ministry of Infra Structure – Assessment report of current situation of water resource and environmental health

The annual rainfall ranges between 1000 mm per year in the far south of the state and gradually decreases towards the north until it reaches 450 mm per year in the north of the state.

Southern Kordofan witnessed long period of conflicts, as the armed conflict began in 1986 and continued until the beginning of the third millennium, when the 2001 Ceasefire Agreement (JMC) was signed in Swiss, which stopped the armed conflict and was supported by the Comprehensive Peace Agreement in 2005, thus extending the period of cessation of armed conflict to ten years. Unfortunately, arm conflicts resumed again on June 6, 2011. Humanitarian partners have appreciated contributions dating back to the last twenty years of the last century, but these contributions remained of an emergency nature (hand water pumps, food distribution and shelter materials), which are important requirements but do not address the roots The crisis, and therefore most of the efforts lose their usefulness at the beginning of each conflict and the need for support arises again more than the previous ones.

The lack of basic services is deeply linked to conflicts, which has direct impact on access to essential services such as water. The poor distribution of basic services also affects peaceful coexistence and act as one of the factors that enhance conflicts. Although there are closed areas, the number of their residents is unknown, but more than one million six hundred thousand citizens are living in safe and easily accessible areas, causing stress over resources of the stable areas.

The scarcity of drinking water in areas with high population, in addition to large number of livestock is one of the main causes of conflicts over resources. The conflict negatively affects services and leads to the deterioration of the environment, and this deterioration is exacerbated by conflicts and human overcrowding and their property and livestock in the sites of permanent water sources during the summer period.

The state population distributed in to 17 localities as bellow:

#	Locality	population			
1	Kadogli	135,054	10	Al-liri	72,950
2	Alreef Alshargi	57568	11	Kalogi	102,535
3	Habila	64698	12	Dolami	47108
4	Aldalanj	179477	13	Haiban	221447
5	Algooz	110335	14	Um Dorin	109508
6	Abu Karshola	100,791	15	Al Boram	149208
7	Alrashad	152593	16	Altadamon	157,824
8	Alabasseyya	115695	17	Talodi	124443
9	Abu Gibeiha	246746			
Total					2147980

Objectives of need assessment:

The overall objective of need assessment is to assess the current situation, identify the gaps and needs of the targeted communities and recommend of key interventions that meet the real needs of the targeted people. The data was collected in four sectors:

- **Food Security and Livelihoods (FSL):** Covers the issues that related to, and affecting the livelihood of the targeted people, including the sources of income, capacity of people, opportunities, with giving special consideration to agriculture and animal resources as they are the main activities in the targeted areas.
- **WASH:** Hygiene promotion/awareness and hand washing practices, access to dignified, safe, clean and functional excreta disposal facilities, sufficient and safe water for domestic use, particularly in the targeted locations.
- **Health and Nutrition:** Situation and gaps in health services including public and maternity health. Gap on children nutrition, malnutrition among children and mother's capacity.
- **Peace building:** Existing of conflicts in the assessed areas including the types and drivers of conflicts and the existing mechanisms of conflicts transformation. The capacity of the targeted communities and need for improving peace.

The assessment will give recommendation for improvement of different sectors.

1. Assessment methodology

1.1 Geographical coverage and scope:

The need assessment was carried in South Kordofan State covering three localities namely Elabasseyya, Altadamon and Rashad.

The assessment covered host communities and IDPs, rural villages, returnees and host communities.

1.2 Data Collection Methods and Tools:

The data gathered through checklists and detailed household constructive questionnaires. Check lists were used for gathering the qualitative data from groups through a Focused Groups discussions (FGDs), and individuals through Key Informant Interviews (KIIs). The household questionnaire designed to collect household information from the selected individual. A single visit technique was used to collect the information through the questionnaires.

Direct interviews:

Direct interviews were conducted with HH leaders using designed questioners, and simple random selection method. The survey used **Glenn. I., 2002 method** to determine the sample size with a confidence level of 95%, and a margin of error (5%).

A sample frame of all homes was prepared and questionnaire forms collected at regular intervals say every 3 to 4 house interval with giving special consideration to the most

venerable groups (poor, HH led by women). A total of 353 HH leaders were interviewed, distributed 128 in ELabaya locality, 126 in ALtadamon locality and 99 in Rashad locality.

HH questioner designed in Kobo toolbox and mobile were used for collecting the data in

Focus Group discussions (FGDs):

Focus group discussion was conducted to collect qualitative data with different groups in the targeted communities. FGDs were conducted with a group of about 10 persons involving different groups in the communities including the leaders of the communities and representatives from other groups (women, men, youth males, youth females).

Key Informants Interviews:

Individual meetings conducted with the key informants from the relevant institutions including the Ministry of Health, Ministry of Agriculture, State Water Corporation, Water and Environmental Sanitation, and the managers of the camps.

Desk Review:

Literature and desk review was used for collecting the existing data including the different reports of the relevant institutions and the recently assessment conducted in the targeted areas, including inter agent assessments in which CARE participated.

Limitation:

The assessment witnessed some challenges includes;

- Tribal conflict in Abu Gibaiha locality make it very difficult to involve its communities in the assessment as movement is not easy in addition most of communities displaced to other areas.
- The long distances to the survey areas in addition to bad roads, specially Jabal Mara area.
- Lack of communication and electricity in rural area affected the use of telephone in data collection.
- The limited time for conducting the need assessment.

2. Findings:

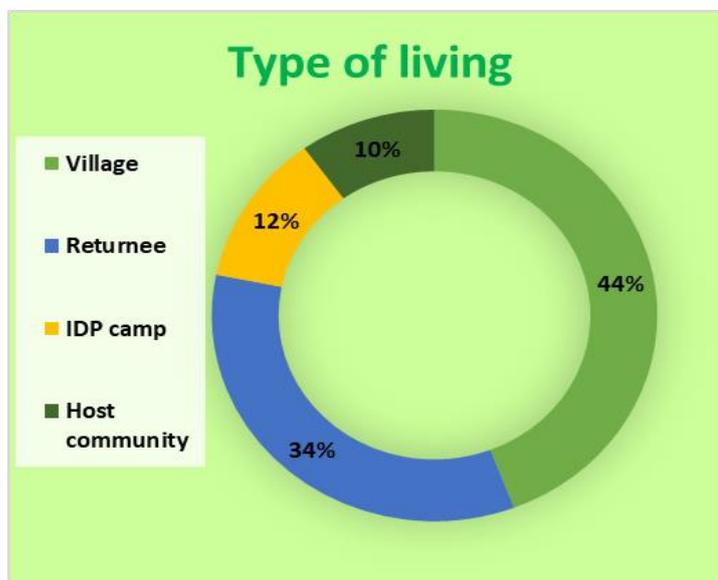
Demography:

Type of leaving:

South Kordofan state witnessed a long time of conflicts including the armed conflict between the government and armed movement in the area, in addition to other types of conflicts over natural resources, this resulted in displacement of many people and hence, different types of living. The assessment concerned the diversification on living condition.

From the consulted 353 households, 44.2% are from rural villages, 34% from returnees, 11.9% from IDPs and 9.9% are from Host communities.

68.6% of the respondent are males and 31.4 % are females headed households.



Most of respondents are within the age 36-60 years (50.1%), followed by 19-35 (35.69%), 13.3% are elderly people more than 60 years and 0.9% are less than 18 years.

HH composition:

The average HH size is 7. As shown in table below; adult males and females in the age group 19-60 are the relatively larger groups in the community comprising 14.8% and 14.6% respectively, followed by boys and girls in the age of 6-18 years comprising 13.2% and 13.45% respectively, male children under five comprising 11.9%, female children under 5 comprising 11.6% male over 60 years are 10.7% while elderly females over 60 is the fewest group comprising 9.7%.

Row Labels	Male over 60 year	Adult Male 19 - 60 year	Boys 6-18 year	Male child 0 - 5 year	Female over 60 year	Adult Female 19 - 60 year	Girls 6-18 year	Female child 0 - 5 year	Total
Altadamoun	64	122	96	80	53	120	94	76	705
Elabassiyia	105	126	120	113	104	124	124	112	928
Rashad	77	92	87	80	66	90	89	78	659
Grand Total	246	340	303	273	223	334	307	266	2292
%	10.7%	14.8%	13.2%	11.9%	9.7%	14.6%	13.4%	11.6%	

WASH sector:

Subsector water:

Geological formation and ground water:

Basement rocks covers more than 84% of the state's area, it includes igneous and metamorphic rocks from the Precambrian period. These rocks were subjected to several stages of reformation, resulting in cracks and folds, in addition to the factors of erosion and weathering. These rocks are topped by modern sediments that differ in their thickness.

The basic rocks are visible on the surface in the form of hills and mountains. Recently, studies have shown that it is possible to produce water from the cracks and erosion sites of the basic rocks through drilling to depths ranging between 150-200 feet and by means of pumping with simplified technology in the form of hand pumps with productivity sufficient for the needs of few communities, especially since the state has a high rate of rain for recharging.

Om Rawaba Formations: These formations are rich of groundwater, found in the south east of the Abu Gibaiha locality, Al Gooz locality and some areas in south of Al Buram locality, it contains significant amount of groundwater in depths around 500-750 feet.

Modern Sedimentary basin: They are modern sediments formed over the basic rocks in the forms of sand and clay, thickness increases in the areas of creeks, valleys and depressions, which forms shallow water sources. Its thickness increase in the areas of the creeks and valleys, and consequently it forms groundwater basins, which are considered to be very useful in the cultivation of vegetables and fruits, as it is present in many areas.

Available water sources:

According to the analysis done by the water sector in the ministry of infra structure and development, the existing water sources that serving the people in the state are 2045 sources including 1782 for ground water (411 of them are not functioning), includes 171 water yards (14 not functioning), 1535 hand pumps (397 not functioning), and 76 mini water yards and 263 of the service water sources including 245 Hafirs, 78 of them can provide water all over the year while 167 Hafirs can provide water for some 3-4 Months after rainy season and the get dry, in addition to 18 check dams.

Elabasseyia locality: There is available 105 water sources (21 of them not functioning) serving about 115695 people, including 7 water yards (1 not functioning), 63 hand pumps (20 not functioning), 4 mini water yards, 29 Hafirs most of them (23) provide water for only few months (3-4) during the year, in addition to 2 small dams.

AL Rashad locality: There is available 143 water sources (56 of them not functioning) serving about 152593 people, including 8 water yards (1 not functioning), 117 hand pumps (54 not functioning), 6 mini water yards, 9 Hafirs most of them (5) provide water for only few months (3-4) during the year, in addition to 2 small dams.

Altadamon Locality: There is available 261 water sources (54 of them not functioning) serving about 157824 people, including 13 water yards, 230 hand pumps (54 not

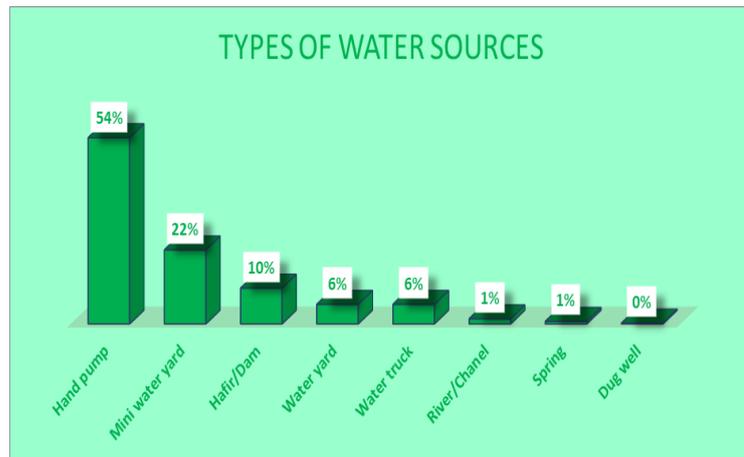
functioning), 5 mini water yards, 13 Hafirs most of them (8) provide water for only few months (3-4) during the year.

Water sources in the state

Locality	Water yards		Hand pumps		Mini water yards	Hafir		Small dams	Total
	Functioning	Not functioning	Functioning	Not functioning		all over the year	Few months		
Algooz	29	1	198	21	7	2	30	3	291
Aldalanj	22	2	150	32	7	4	7	0	224
Habila	6	1	54	21	1	8	12	1	104
Alreef Alshargi	9	1	89	13	6	3	8	2	131
Kadogli	14	1	124	52	7	0	4	0	202
Abu Karshola	14	2	62	27	5	2	10	0	122
Alabasseya	6	1	43	20	4	6	23	2	105
Alrashad	7	1	63	54	6	4	5	3	143
Abu Gibeiha	15	1	54	36	21	26	44	2	199
Altadamon	13	0	176	54	5	5	8	0	261
Gadeir	8	1	43	26	2	8	9	3	100
Al-iri	9	1	61	33	3	10	7	0	124
Talodi	5	1	21	8	2	0	0	2	39
Total	157	14	1138	397	76	78	167	18	2045

Access to easy, safe and adequate water:

From the consulted households, 44.8 % confirmed that have access to easy and adequate safe water for their family, the 55.2% are suffering either from difficulty in getting the water, or poor quality or the insufficient amount for their households. People are in need of providing good quality water and use types of interventions that make it easy collection through networks or sufficient distribution points.



Due to presence of the basement rock in most areas in SK, water can be found in low quantities in the cracks of the rocks. However, there is possibility for drilling wells, but due to low discharge it can be only fixed with low yield hand pumps, thus most of the consulted people are depending on hand pumps as the main source of water for their households comprising 54%, in some cases this wells can be fixed with small pumps as mini water yards providing water to 22% of the people in the assessed area.

Some areas lack of any types of ground water due to the basement rocks, and no existing of crack with water, these areas totally depending on the service water Hafirs or small dams (10%) from the harvested water during the rainy season.

6% of the people are depending on tracks which bring water from far distance particularly in the IDPs camps.

Most of the HH collect more than 5 Jeri Cans per day for the different uses (72.5%), 10.5% collect 5 Jeri Cans, 10.5% collect 4 Jeri Cans, 5.1% collect 3 Jeri Cans, 1.1% collect one Jeri Cans and 0.3% collecting only one Jeri Can of water during the day.

Rashad locality is totally depending on the hand pumps as the main source of water as aquifers are found on cracks with low yield, very few people in this locality depending on rain water from service running water in the springs or khors.

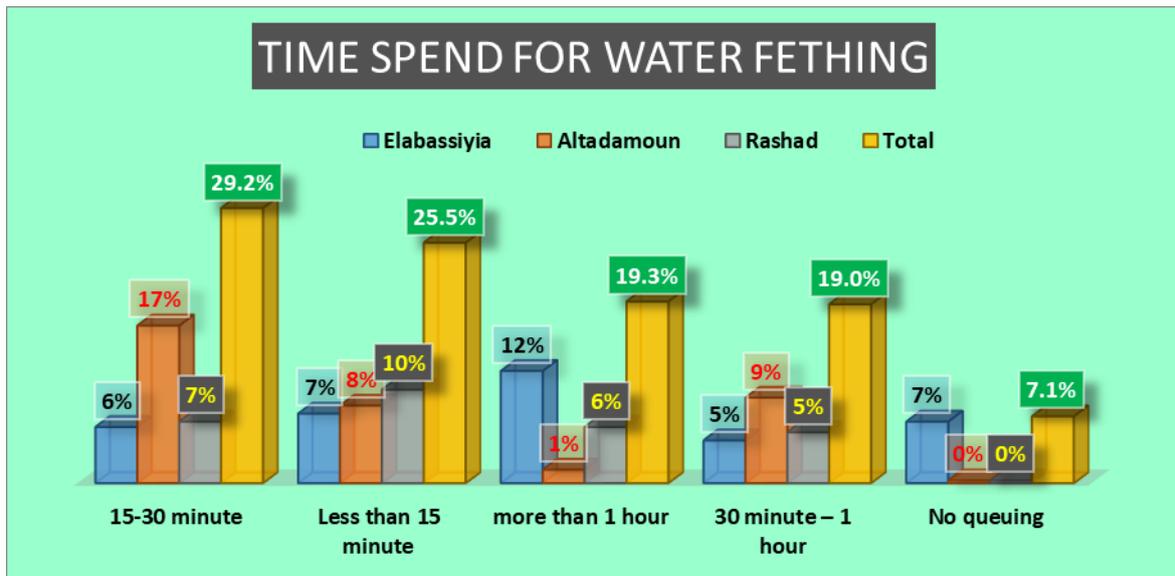
In Abasseya, none of the assessed areas have existing water yards, in some cases; hand pumps were upgraded to mini water yards using small pumps.

Water trucking system is only existed in Abasseya locality which is used for supply water to the IDP camps.

Access to water is one of the difficulties that community facing, particularly in dry season as water sources became far from where they live and overcrowded.

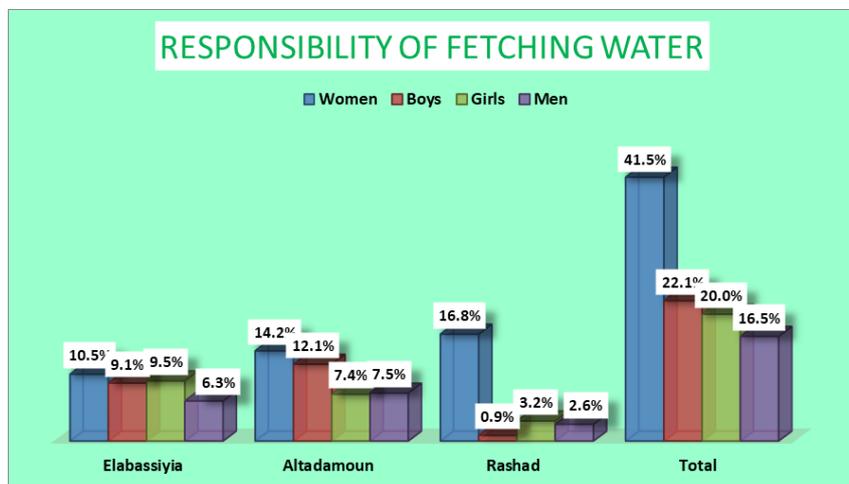
Almost 19.3% of the people need more than 1 hour waiting to collect water from the source, this very clear in Abasseya locality which is due to lack of water yards and more dependent on hand pumps which has low yield. Most of people need 15-30 minutes to collect water from the sources, most of them are in Tadamon locality. 25.5% spend less than 15 minutes,

195 spend 30-60 minutes, while only 7% do not have quines all of them are from Abasseya locality.



None of the assessed communities have water networks in homes, and all the families have to collect water from the sources. Different means are used in fetching water from the sources. Most of families collecting water by jerry Cans or metal buckets they put on their heads (59.3%), 29.4% use donkey card, 6.8% use Khuruj (leather water container carried by donkey), 2.1% use bicycle/motorbike and 2.3% use other means.

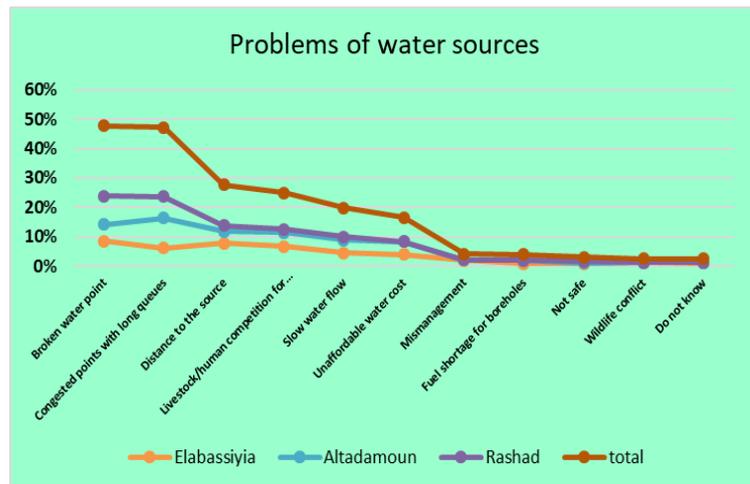
However, all family members participating in fetching water from sources, but the main responsibility is on women representing 41.5%, followed by boys representing 22.1% and girls representing 20% and men are less participating in fetching water (16.5%).



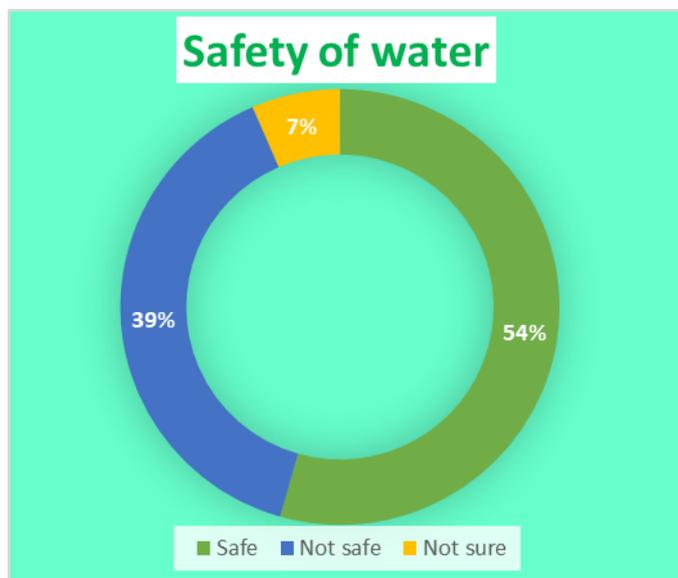
It worth to mention that; lack of water sources closed to the housed is one of the main causes of Gender Based Violence (GBV), particularly girls and youth females who facing different types of violence during collecting water.

From the consulted individuals, 27.2% confirmed that women and girls are facing problems during fetching water, 12.9% of them reflect that it makes them tired and sick, 9.8 % confirmed they are subject to different types of violence, 2.9% get lost, 1.7% subject to sexual harassment, and there are accidents of kidnaps (1.1%).

Communities are facing Many problems affecting their easy access to safe and adequate water, particularly during dry season when natural sources get dry, the problems including; very crowded with long queues (23.9%), broken water point (23.6%), far distance to water sources (12.4%) slow water flow (9.9%), livestock competition (12.4%), unaffordable water cost (8.3%), mismanagement (2.1%), shortage of fuel (2%), wildlife conflicts (1.3%), not safe (1.5%), and 1.3% do not know the problems.



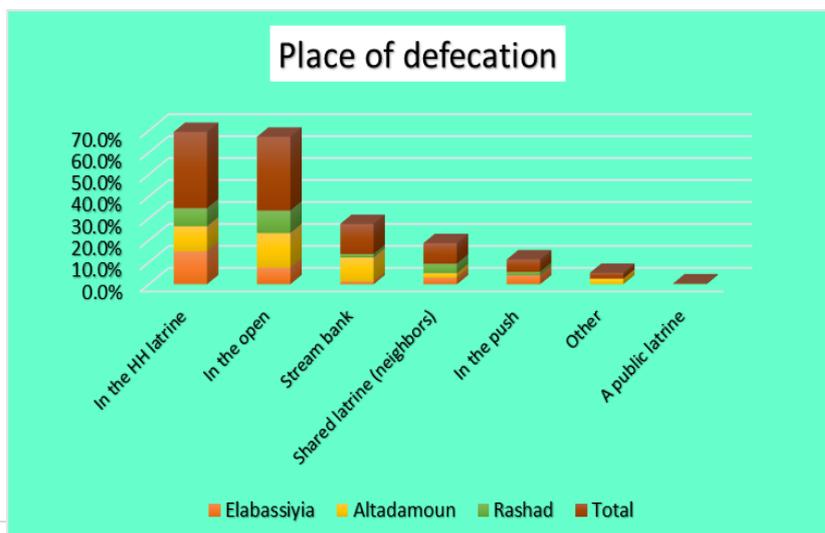
When they asked about the quality and safety of water they are use, 39% of the participants reflected that; the water they are use is not safe, and 54% they think it is safe, while 7% are not sure about the water safety. From those who confirmed water they use is not safe; 82.5% do not use any type of treatment in home to improve water quality while the remain 17.5% are using different methods of treatment including filtering (4.2%), boiling (1.4%), chlorination (1.4%), silting (36.5%), 2.8% are using local materials while 1.4% are storing the water for some time before use.



Subsector Sanitation:

Latrines:

Most of families do not have latrines in their hoses (56.1%), only 43.9% have latrine in their houses and 34.7% of them are using these latrines, while the remaining 65.3% release themselves in different places, 41.9% practicing open defecation in different places including open spaces (33.6%), 13.8%in stream bank, 5.7% in



the push and 2.6% in other different places. 9.4% of the families are sharing latrines with their neighbors while 0.2% are using public latrines in their communities.

Waste management:

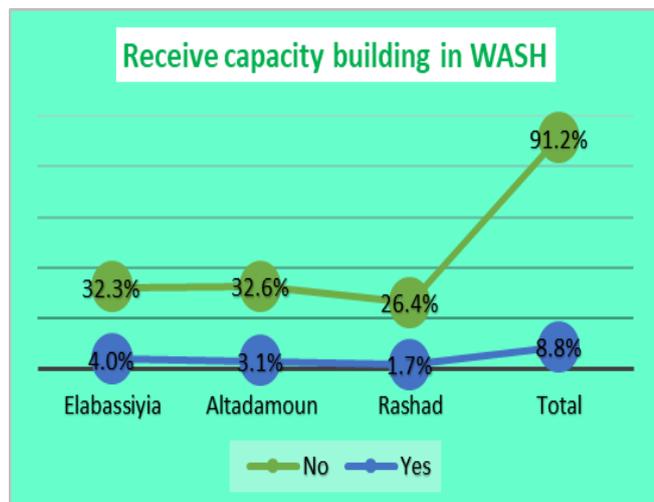
There is no existing of waste management or certain places where people can dispose of their wastes, and only 0.4% of the people were found having containers outside their houses, found only in Elabasseya and Rashad localities (0.2% for each), while all people in Altadamon have no existing of any please for clean waste disposal, the remain 99.6% have no clean and dignified place for waste disposal and they use different means, the majority of the people (66.3%) thrown their waste outside the yard, 13.4%burn it inside the houses, 8.7% thrown their wastes in the water streams, 7.5% use open bits, 1.2% thrown in to latrine, while 2.4% do not dispose off their waste and left it in the home.

It observed that; there is a poor management of waste in the targeted communities, it is spread everywhere including roads between houses. Some people throw it in the water streams and became source of pollution for water sources in the rainy season as it is the same streams take rain water to the service water sources (Haffirs).

Extensive work is needed to improve the environmental hygiene including awareness and capacity building, conduction of cleaning campaigns in addition to introducing of good system for waste management including collection and places for disposing off the wastes.

Subsector Hygiene:

There is lack of hygiene promotion within the assessed communities, most of them did not received any type of capacity building in WASH 91.2%, this reflected in the way that communities dealing with environment and personal hygiene, lack of hygiene is one of the main causes of poor waste management and common practice of open defecation even from part of family members who have latrine in houses.



Only 38.5% of the consulted people are using water and soap for washing hands, most of them are in Elabasseya and Rashad, 14.5% and 21% respectively, while only 3.1% found in Altadamon locality, 58.1% are using only water, 2.8% use water with sand/soil and 0.6% use ash for washing their hands.

The part of people who usually use soap and water for hand washing, when they asked about the time they usually washing their hand, 36.3% reflect that before eating most of them are in Rashad locality (21.9%), followed by Abasseya locality while few people in Altadamon locality practice hand washing with water and saop before eating (3.3%). 25.25 wash their hands with soap and water after eating, 16.2% before food preparation, 15.6% after going to the toilet, 3.3% before feeding children, 2.7% after cleaning baby's back while 0.6% (all from Abasseya locality) in none of this times.



Recommended WASH intervention:

Water supply:

Provision of safe water:

- *Conduction of functionality assessment for all water sources in the targeted area to assess its need. This should be done in corporation with the SWC as the technical institution*

Construction or rehabilitation of water sources including;

- *Ground water source (water yards, hand pumps, mini water yards), or harvesting of rain water using Haffirs or small dams. Provision of water from ground water aquiver need geophysical assessment before drilling particularly for water yards*
- *Rain water harvesting should be treated for human use as it is subject to pollution, or use it only for animal use to reduce stress on other sources.*

Water distribution: *Construction of water storage tanks and connect it with distribution points to reduce the congestion and time spend for fetching water*

- *Construction of water networks for distribution water to houses or to sufficient water point.*
- *Constructing of water point to reduce overcrowd on water sources.*

Water quality:

- *Continuous monitoring system for water sources including frequent water testing.*
- *Water filtering system for the service water sources (Hafirs, Small dams)*
- *Water treatment particularly when using service water or trucking.*

- *Capacity building for people on best and safe practices for water collection and storage*

Sustainability:

- *Involvement of communities in the management, O&M of water sources, by forming and train of Water Users Associations.*
- *Introduce water tariff to communities who do not have and support the poor people through water vouchers.*
- *Build the capacity of the communities on the best way of using sources.*
- *Provide the required protection as part of construction/rehabilitation design.*
- *Introducing of solar system instead of using fuel.*

Sanitation:

Stop open defecation:

- *Improve access to latrines through construction of HH and communal latrines. And construction of latrines in the public facilities specially in schools.*
- *Introducing of Community Led Total Sanitation (CLTS) approach.*

Environmental health:

- *Introducing of a good system for solid waste management.*
- *Conducting of cleaning campaigns.*
- *Build the capacities of people in safe disposal of solid wastes.*

Hygiene promotion:

- *Conducting of capacity building programs in best hygiene practices (hand washing, use of latrine, waste disposal etc.)*
- *Forming and train of Community Health Works (CHWs) groups to lead hygiene work in the communities including conducting of regular HH visits.*
- *Produce and distribute of signboard/leaflets in hygiene messages.*
- *Provision and distribution of hygiene materials/tools (Soap, hand washing facilities, etc.)*

Health and Nutrition sector

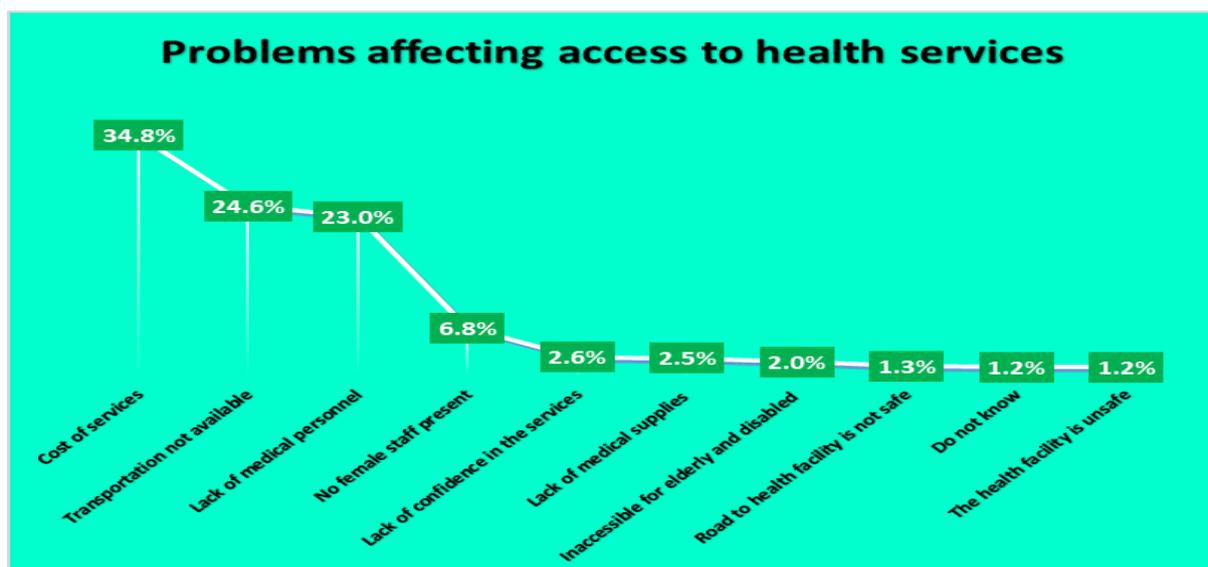
Sub sector Health – Public health:

The assessed areas are suffering from lack of health facilities, and the available facilities are poor in term of required services, only 44.8 % of the consulted people have health facilities in their villages. Most of the available health facilities are health centers (95%), 4% are hospitals found in Tadamon and Abasseya localities, while clinics represent 2% and found only in Tadamon locality.

The remain 55.2% of people travel to nearest villages/towns seeking medical services, and many of them need more than hour to reach nearest health facility (34.4%), 28.7% of people need 15-30 minutes, 17.1% spend 1 to 2 hours, 24.7% spend 30 -60 minutes and only 12.2 % can reach the health facility in less than 15 minutes.

Only 225% of the targeted communities refer to doctor for treatment, 59.9% refer to medical assistant, 15.4% are depending on traditional treatment including local medicine from wild and cultural and religious actors while 2.7% replied that thy do nothing and let ill person just stay in home tell recover.

Communities are facing many challenges affecting their access to health services, in addition to lack of the services there is other factors, some of this factors are related to the households themselves which is in most cases caused by the high level of poverty. 55.2% cannot access health facilities because it is not available in their villages with lack of transportation to the health facilities in other villages/towns, 34.8% do not have the required money, as health services became costly, lack of transportation affecting access of 24.6% to health services, 23% is due to lack medical person, 6.85 due to lack of female staff in the health facilities, 2.6% do not trust the services, 2.5% is due to lack of medical supplies, 2 % of the facilities are not accessible to elderly and people with disabilities, 2.5% have the problem of safety either in the health facility (1.2%) or in the roads (1.3%) .



Sub sector Health – Maternity health:

Lack of good health services is also reflected on weak maternity health among the targeted communities, there no specialized doctors in this sectors and all communities depending on the trained/traditional midwives.

Early or childhood marriage is practiced especially in rural communities, increasing risks of maternal mortality and morbidity due to childhood pregnancy.

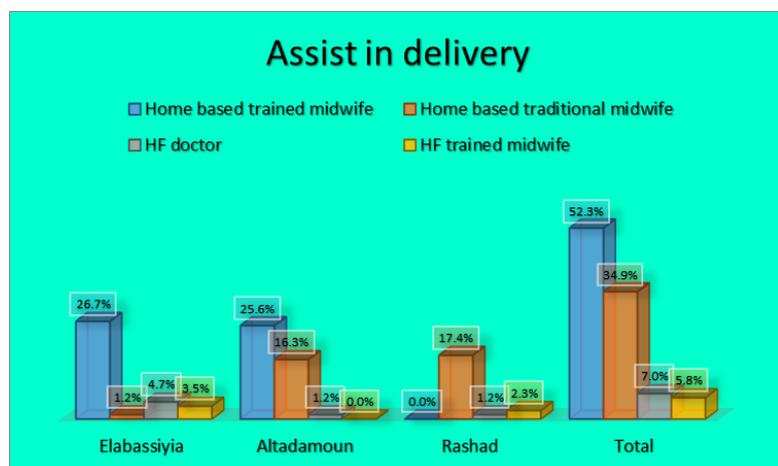
Early or childhood marriage is practiced especially in rural communities, increasing risks of maternal mortality and morbidity due to childhood pregnancy, in this regard, there is a real need strong capacity building and awareness rising program, in addition, there is a need to introduce the approach of Community Health Workers (CHW) and provide them with the required capacity, as government does not have a governing CHW policy/strategy and doesn't usually recruit, retain or remunerate CHWs, these are primarily established by NGOs; Government is aware of NGO programs that establish CHWs (an MOU exists), however in some cases the States set different policies.

From the consulted households; 24.4% have pregnant women during the last 12 months, most of them (93%) referred to midwives for ANC. When they asked about the frequency of attending FNC during pregnancy, 55.8% of them attended AFC tow times or less, 22.1% attended one times, 15.1% attended one time while 18.6% of the pregnant women have never attended ANC during pregnancy, 14% attended three times while 30.2% are the pregnant women attended FNC more than three times during pregnancy.

beside the lack of knowledge on the sexual and maternity health, there are other different reasons that affecting pregnant women access to FNC, 35% due to lack of service and far distance to the nearest health facility, 32% do not have the required money to do the required follow up (FNC), 14% they think no need for attending FNC, 19% because there is no female medical person and they do not prefer to go to male for check, while 14% they think no need for attending ANC.

There is a need for providing delivery support as 57% did not received postnatal care after delivery, particularly in Rashad locality as only 3.5% were received postnatal care as most of the delivered women were supported by untrained (traditional) midwives). 75.6% of the delivered women were not support with the clean delivery kits.

Most of the deliveries were assisted by midwives (93%), 52.3% of them delivered in their house assisted by traditional midwives, 34.9% delivered in house assisted by trained midwives, and 7% delivered in health facility assisted by doctor, while 5.8% were assisted by trained midwives in the health facility.



Sub sector Health – Child nutrition:

Cultural practices exist that undermine nutrition well-being such as low rates of exclusive and continued breast feeding (almost 40% for both), limited dietary diversification due to lack of food variety or limited knowledge, intra-household food distribution with a priority to men, caregivers' knowledge on danger signs (e.g., convulsions, difficulty breathing, etc.) lower than national average.

There are neither education programs on adolescent RH issues nor health services to deal specifically with adolescent and youth RH issues in a way addressing their needs.

The communication program at the national and state levels is challenged, with non-routine/ad-hoc promotion and advocacy activities. 32% of women in the 15-49 age group have no education, which is higher among women with children at 43%

Only 35% of households own radio, and 40% have television; men usually control ownership of radios

Local entities at the State level exist (e.g., mosques, peer groups, etc.) that can expand reach to men and women, boys and girls ³

The demography of the consulted communities (see table 1) shown that, 23.5% population are children under 5 years. From the consulted households; 54.4% have children under 5. The average of meals they give to their children is three per day using the available food in houses.

From the children under 5, 19.8% experienced malnutrition. The existence of malnutrition among children under 5 have two dimensions: 1) is the lack of capacity among mothers on the importance of intensive breast feeding for infants and other best nutrition practices for other children, 2) the poverty and low level of livelihood among the targeted communities which affect their access to the food.

From the households who have malnourished children, 36.9% did not received any type of support for treatment while the remain received some supports, mostly from the INGOs working in the area.

Lack of capacity and knowlage on the child nutrition need special consideration as 94.9% of the consulted households confirmed hat; they never received capacity building in children nutrition.

³ Improved Health Services and Systems in South Darfur and South Kordofan, Sudan Assessment (USAID, Momentum)

Recommended health and nutrition intervention:

Public health:

Support of the existing health facilities:

- *Provision of required equipment and tools.*
- *Provide the required Capacity building for HF staff.*
- *Provision of water and sanitation services.*
- *Medical supply: including provision of medicines and required and required testing materials.*

Sexual and Reproductive Health (SRH):

- *Advocacy and capacity building for authorities and community members to stop harm practices such as Female Genital Mutilation (FGM) and early child marriage.*
- *Conduction of capacity building program for women and girls on SRH.*
- *Provision of extensive and advanced training for the existing midwives.*
- *Provision of the required tools for the trained midwives.*
- *Construction of special rooms for SRH in the existing health facilities.*
- *Provision and distribution of save delivery kits.*

Nutrition

- *Build the capacities of mothers and care givers on best nutrition practices including preparation of available local food.*
- *Support poor families to improve their livelihood particularly in agriculture.*
- *Support existing health facilities with required capacities to response to malnutrition cases for good treatment and reduce mortality rate.*

3. Recommendations:

- Special consideration should be given to the women headed households, as the targeted areas witnessed a long period of armed conflicts which resulted in continuous absence of family sponsors due to death or involvement in the armed action.
- Need of strong corporation with the State Water Corporation and it is related department like water and Environmental Sanitation (WES) project to identify the needs and types of required interventions.
- Introduction of Solar system is very essential to insure sustainability in addition to environmental consideration, this can include upgrading of the existing sources and to be part of designs for new construction of water sources.
- There is a need for providing latrines and hygiene promotion to stop the existing practice of open defecation and reduce the spread of related diseases.
- There is a need for introducing a good system for waste management, only 0.4% have existing containers outside for waste disposal, the remain dispose it everywhere including roads between houses and water sources, this has a negative impact on people health and act as source of diseases.
- There is a need for providing support to SMoH to improve coordination of community health program at state and locality levels, through capacity strengthening of state and locality focal points of the community health and health promotion programs.
- To address the high rate of malnutrition among children under 5, livelihood should be considered as it is one of the main causes beside the low capacity among the mothers and children care givers, as most of the targeted household are under poverty line and have limited access to food.
- There is a need for capacity building particularly for mother and care givers in intensive breast feeding and nutrition practices and referral to doctors to reduce malnutrition and mortality rate among children under 5 Year.
- Food security is directly linked to the agricultural production, as most of the household practice agriculture and depend on it as a main source of food. Therefore, there is an urgent need to support agricultural production to improve the food security.

