Care International in Sudan

Baseline survey

Project:

Provision of lifesaving and sustainable WASH services for Vulnerable Populations in South Darfur and South Kordofan states, and emergency WASH services to Tigray refugees in Gedarif State.

February 2021

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Executive summary:

This baseline survey was conducted internally by Care staff leaded by MEAL coordinator, main objective is to collect information on the project designed indicators, the baseline data generated for the intervention areas in South Darfur and South Kordofan States. Baseline data was collected in SD using both quantitative and qualitative methods. In SK the data of the evaluation of the ended ECHO was used as it covers the same areas and same indicators. Consultation involved 253 individuals (118 females, 135 males), 123 were consulted in SD (34 females, 89 males) while 130 were consulted in SK (84 females, 46 males).

All consulted households have no water inside houses (networks), and they have to go to collect water from the sources, the distance to water sources is vary from one to other in addition to quinine time they spend in the sources. Whoever, most of households confirmed they collect more than 5 Jerri Cans per day, but this is not available all the year, and this water is not only for use of peoples, they use it also for animal consumption and irrigating trees.

There are many problems in water sources affecting participants access to safe water, the top rated problems are the high cost of water, continuous breakdown, congested point and far distance to the sources.

Most of people have access to safe water in some times during the year, but it is inadequate in most of the year, due to either increase of demand for both people and animal in summer and continuous breakdown of the sources.

Most of the consulted households have no access to functional dignified, safe and clean excreta disposal facility (84% in SD and 50%) in SK (see figure 5). And peoples are using different means to dispose their wastes such as thrown outside or burn inside their houses.

Most of the consulted HH, did not received any types of capacity building or awareness rising in hygiene.

From the consulted HH, 25% are not using water and soap for washing their hands, and 10% wash their hands with water and soap only once a day, 26% two times a day, the remain wash their hands three times (38%) or more (26%)

1. **Project background:**

Under the proposed Action, CARE will provide lifesaving and sustainable WASH services to 214,517 IDPs, host community members, and refugees (105,396 males and 109,121 female) targeting two localities in South Darfur (Gereida and Jebel Mara) and two localities in South Kordofan (Abu Jubeha and Gadir). In these four localities, CARE will target crisis-affected vulnerable populations, especially women and girls, to increase their access to safe water supply, sanitation, and hygiene services. The response will be coordinated with local government and humanitarian actors. In line with CARE's humanitarian-development-peace Nexus commitment, the project will focus on sustainable, equitable, community-based structures, developing local capacity and resource management and fostering peaceful coexistence that will endure beyond the life of the project. Furthermore, in case of any emergency or outbreak, CARE will provide immediate and lifesaving WASH services for more than 40,000 people in the two states by prepositioning essential supplies and establishing early warning and response systems.

Principal objective: The overall objective of the project is "Provision of lifesaving and sustainable WASH services, ensuring equitable access for 214,517 vulnerable refugees, IDPs, and host community members in South Darfur and South Kordofan states and responding to any emergency or outbreak".

Specific objective - Detailed description: The proposed Action builds on CARE's existing presence in South Darfur and South Kordofan, including Jebel Mara, and aims to offer lifesaving and sustainable WASH services designed to meet the immediate and basic needs of the targeted populations, notwithstanding their status and sustain the service and contribute for the reduction of morbidity and mortality rate among the targeted communities. The objective will be achieved through results centering on water, sanitation, and hygiene provision, with a strong element of community engagement and promotion of sustainability and resilience.

Project beneficiaries:

Water supply: 155,459 individuals (76,175 males and 79,284 female) will have or continue to have safe water supply in South Darfur (Gereida: 107,033 and Jebel Mara: 20,000) and South Kordofan (Abu Jubeha: 13,426 and Gadir: 15,000) states including 111,255 IDPs, 8,926 refugees, and 35,278 vulnerable host community members.

Besides, 21,000 Ethiopian refugees (9,030 males and 11,970 female) and 6,500 host community members (3,185 males and 3,315 females) residing in Um Raquba and Village 8 will have access to emergency water supply services.

Sanitation and hygiene: 214,517 individuals (105,396 males and 109,121 female) will have or continue to have access to sanitation and hygiene services including hygiene promotion and cleaning campaigns in South Darfur (Gereida: 107,033 and Jebel Mara: 42,000) and South Kordofan (Abu Jubeha: 36,000 and Gadir: 29,484) states including 111,255 IDPs, 8,926 refugees, and 94,336 vulnerable host community members, targeting the intervention areas catchments. In Gereida, around 1,800 people benefit from latrine construction/rehabilitation. Also, 26,000 Ethiopian refugees (11,180 males and 14,280 female) and 7,500 host community members (3,675 males and 3,825 female) residing in Um Raquba and Village 8 will have access to emergency sanitation and hygiene services, including COVID-19 messaging.

2. Purpose/objectives of the baseline Survey:

The overall objective of the project baseline survey is to assess the current situation of what the project aims to achieve (project outcome) by gathering relevant baseline data for indicators, in order to establish benchmark indictors, starting value/ situation of each indicator (based on the project log framework).

The baseline study focused on establishing a baseline for the sectors indicators.

Methods and data sources:

This baseline was conducted internally by care staff leaded by a MEAL coordinator in country and coordination with MEAL and project staff in the field.

The baseline followed a multiple method to collect and triangulate the data, both qualitative and quantitative method for collecting data were used, this include; review of the project documents including project proposal, log frame including the targeted indicators, consultation of the different project stake holder including beneficiaries and service providers in addition to the direct consultation of the targeted households through direct meetings and using of designed HH.

Household questioner: The baseline methodology consisted of a quantitative survey to gather data on the project indicators. The HH survey was developed and uploaded on Kobo and digital data collection was used.

A sampling procedure designed as per the load of population in each targeted area, it included HHs from all target communities. In general, random sampling was used, but some stratified samples were also used to insure samples included HHs with children under 5 years and children 6-23 months of age to collect the data for related indicators.

The team conducted 253 structured household interviews with sampled beneficiary populations. Households were defined as a family eating from the same pot. Total of 253

households were interviewed (118 females, 135 males), 130 in SK (84 females and 46 males) and 123 in SD (89 males, 34 females).

Desk review: Comprehensive desk review has been conducted to inform the design of data collection tools and to enhance the understanding of the situation in the targeted localities, this include review of project documents including project proposal and log frame.

Focus group discussions: Focus group discussions were conducted to allow for nuanced and open-ended responses to difficult questions, eliciting more information on attitudes, perceptions, and experiences that otherwise cannot be obtained by a structured survey.

Key Informant Interviews: Qualitative methods were employed in the baseline survey via key informant interviews (KIIs). The KII was focused on collecting data from the managers of the camp who are from government, and the authorities of the targeted health facilities.

Direct interviews using Questionnaire

Using designed questioner; the targeted household were consulted to collect the required data, a total of 253 individual household leaders were consulted during this survey, an average of 47% (28% in SD, 65% in SK) of the consulted households are females and 53% are males (72% in SD, 53% in SK) as in table (1) below

Table 1: Sex of consulted HH leader

Sex of HH	South Darfur	%	South Kordofan	%	Total	%
Female	34	28%	84	65%	118	47%
Male	89	72%	46	35%	135	53%
Total	123	100%	130	100%	253	100%

3. Findings:

Demography:

Type of living:

As shown in table (2), the consulted households are representatives from different type of living, including household living in refugee camps in SK state representing 32% of the samples, 33% of the consulted households ae living in IDP camps comprising 33% most of them are in SD state, host communities 27%, 5% are from villages and 3% are from returnees.

Table 2: HH types of living

HH living condition	South Darfur	South Kordofan	Total	%
Refugees	0	81	**81**	**32%**
IDPs	77	6	**83**	**33%**
Host community	36	33	**69**	**27%**
Villagers	3	10	**13**	**5%**
Returnee	7	0	**7**	**3%**

HH composition:

As shown in table 3 bellow, the consulted households are involving 1682 individuals with an average of about 7 people in each house, the household considered as group of people whom eating in one plate. Households almost have the same apportion of males and females comprising 50% for each.

Table 3: Household composition

State	Male over 60 year	Female over 60 year	Male 19 - 60 year	Female 19 - 60 year	Boys 6-18 year	Girls 6-18 year	Male child 0 - 5 year	Female child 0 - 5 year	Total
South Kordofan	95	97	109	117	103	103	114	113	**851**
%	11%	11%	13%	14%	12%	12%	13%	13%	**100%**
South Darfur	88	86	120	119	107	106	103	102	**831**
%	11%	10%	14%	14%	13%	13%	12%	12%	**100%**
Total	**183**	**183**	**229**	**236**	**210**	**209**	**217**	**215**	**1682**
%	**11%**	**11%**	**14%**	**14%**	**12%**	**12%**	**13%**	**13%**	**100%**

4. Sub Sector: water supply

Types of water sources:

Communities have different water sources, the main water source is the water yards comprising 65% (69% in SK and 61% in SD), Hand pumps came in the second level comprising 11% (9% for SD and 12 for SK), dug wells were only found in SD comprising 16%, while consulted communities in SK do not use dug wells as source of water due to presence of basement in all targeted areas which make it difficult to dug wells manually. Mini water yards are used by 18% of the consulted households, using mini water yards is much vary between the two states, in SD only 6% are using it, while in SK it came as the second ranking comprising 26%. Use of Hafirs is very low comprising 2% in SD, while water truck is only used by 1% in SK.

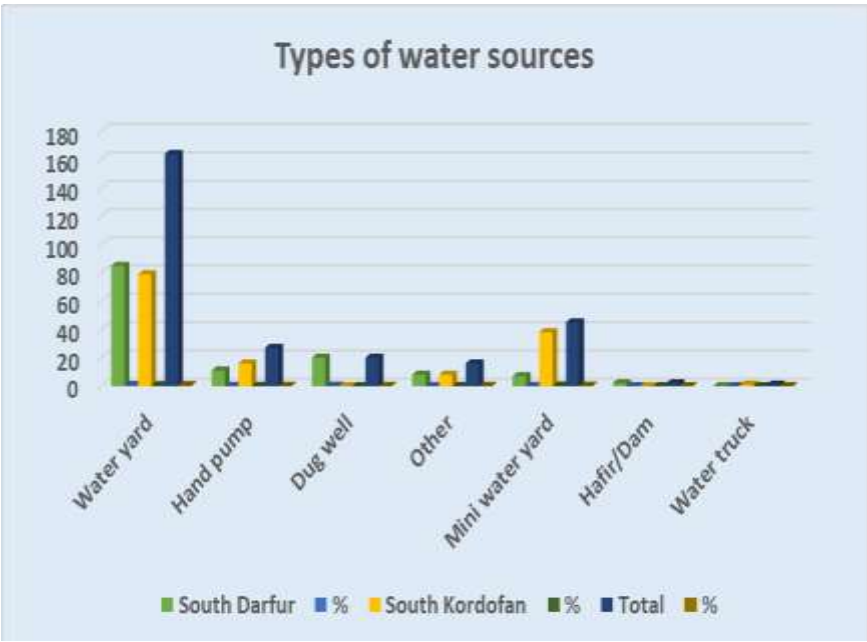

Figure 1: types of water sources

Water consumption:

As shown in table 4 bellow: most of the consulted households are collecting more than 5 Jerri Cans comprising 65 % (72% in SD and 58 % in SK), collecting of 4 Jeri cans came in the second level comprising 15% (135 in SD and 16% in SK), 15 % are collecting 5 Jeri Cans (12 % in SD and 17% in SK), 5 % are collecting 3 Jeri cans (2% in SD and 7% in SK), while only 1% are collecting 2 Jeri cans all of them in SK. The consulted community members confirmed that; the water they collect is not only for the use on family members, it is also for their animal consumption and irrigating trees in their houses.

Table 4: HH water collection per day

	South Darfur	%	South Kordofan	%	Total	%
More than 5 Jeri Cans	89	72%	76	58%	**165**	**65%**
4 Jeri Cans	16	13%	21	16%	**37**	**15%**
5 Jeri Cans	15	12%	22	17%	**37**	**15%**
3 Jeri Cans	3	2%	9	7%	**12**	**5%**
2 Jeri Cans	0	0%	2	2%	**2**	**1%**

Distance to water source:

All consulted households have no water inside houses (networks), and they have to go to collect water from the sources, the distance to water sources is vary from one to other, 34% of households need less than 15 minutes go and comeback from the source, most of them in SD comprising 43% comparing with 25% in SK, 24% need 15-30minutes (25% in SD and 23% in SK), 28% need 30minutes-1 hour (31% in SD and 26% in SK), while 14% need more than one hour to go and come back from the sources most of them are in SK comprising 26% comparing with only 1% in SD.

Table 5: Distance to water source

	South Darfur	%	South Kordofan	%	Total	%
Less than 15 minute	53	43%	32	25%	85	34%
15-30 minute	31	25%	30	23%	61	24%
30 minute – 1 hour	38	31%	34	26%	72	28%
more than 1 hour	1	1%	34	26%	35	14%

Queuing time in water sources:

In addition to time they spend to cross the distance to water sources, consulted HH reflect that the also spend time in queuing in the water sources. 32% of the consulted households spends less than three minutes in the queuing (24% in SD, 41% in SK), 28% spend 30minutes-1 hour (43% in SD, 145 in SK), 23% spend more than 1 hour while 16% spend 15-30 minutes. (see fig 2).

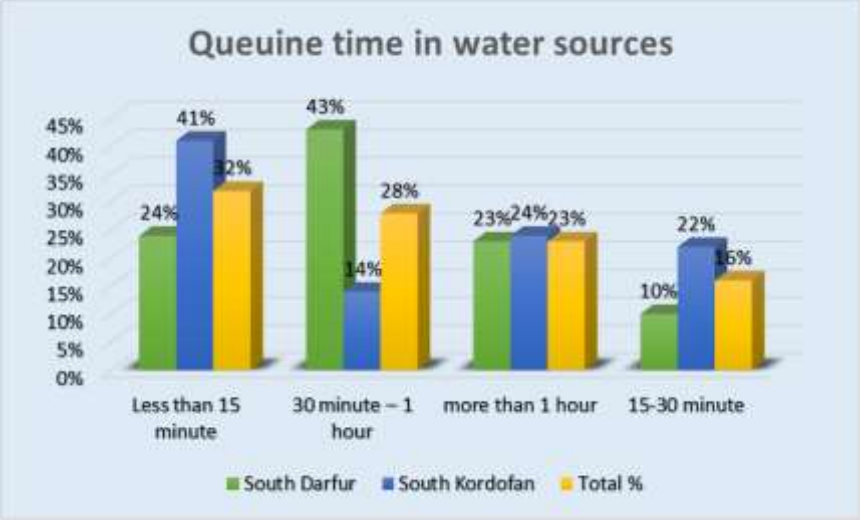

Figure 2: Queuing time in water source

Ways of collecting water from sources:

House hold have different methods to collect water to their houses, most of them are collecting water by Jerry can or Metal Buckets carried on head comprising 92% (85% in SD, 98% in SK), 25% ar also using donkey carts, 4% in SK are using donkey, 5%using Khuruj (Leather water containers) while 6% have other different means to collect water.

Table 6 ; water collection methods:

Method of water collection	South Darfur	%	South Kordofan	%	Total	%
Jerry can or Metal Buckets carried on head	105	85%	127	98%	232	92%
Donkey cart	32	26%	32	25%	64	25%
carried by donkeys	0	0%	5	4%	5	2%
Other	7	6%	7	5%	14	6%
Khuruj (Leather water containers)	12	10%	1	1%	13	5%

Main problems of water sources:

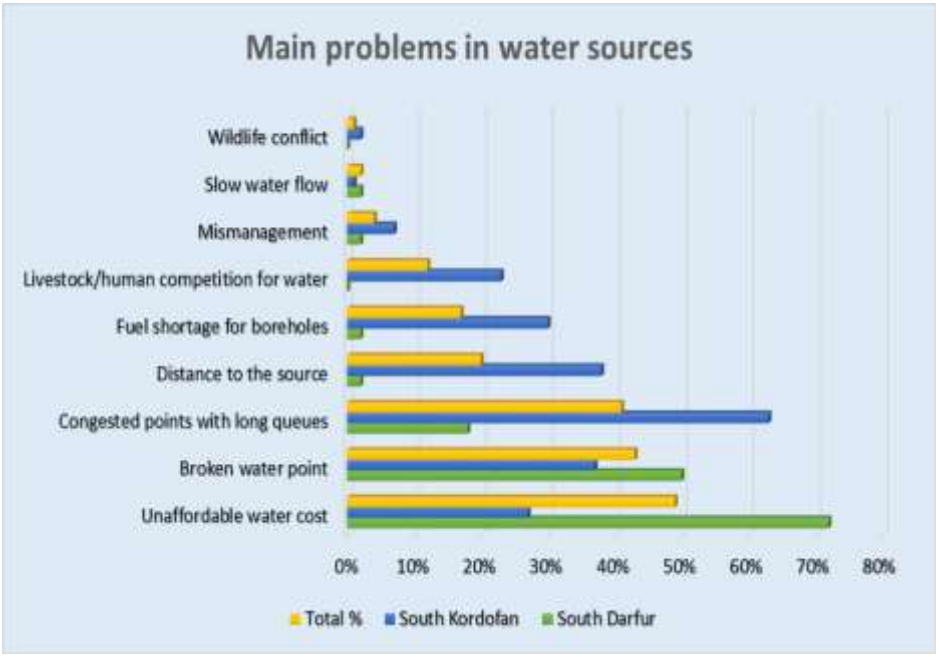

Figure 3; Main problems in water sources

When asked about the problems they are facing and affecting their access to safe water, consulted communities reflected many factors, unaffordable water cost came at the top of the problems comprising 49%, this problem is very clear in SD comprising 72% comparing to 27% in SK, broken water points came as the second rank comprising 43% (50% in SD, 43% in SK), congested points with long queues 41% which came at the top of the problems SK comprising 63% comparing with 185 in SD, the long distance to water sources affecting 20% most of them are in SK comprising 38%, while it is not significant in SD 92%), 17% have the problem of fuel shortage particularly in SK (30%) comparing to 2% in SD. Livestock/human competition for water only found in SK comprising 23%, mis management is the problem of 4% (2% in SD, 7% in SK), slow water flow (2%) and wildlife conflict is only in SK (1%).

Safety of water:

When they asked about the safety of water they use, 91% reflect that they have access to safe water, but not available in sufficient amount, and the availability differ during the different seasons, it is better in rainy season as there is low demand for animals and it became worse in summer as consumption increase for both animals and people with no other options. 7% reflect that they have no access to safe water all over the year while 4% in SK are not sure about the safety of water they use.

Figure 4: safety of water

Environmental Sanitation:

Most of the consulted households have no access to functional dignified, safe and clean excreta disposal facility (84% in SD and 50%) in SK (see figure 5).

Figure 5: Safe waste disposal

As shown in table (7) bellow, communities are using different means to dispose their wastes, this including thrown outside the yard comprising 50%, and this is a very common practice in SK comprising 82% as the min practice comparing with 20% in SD, 20% are using containers outside mostly are in SD comprising 30% comparing to 20% in SK, 27% are throwing their wastes into open pit (21% in SD, 29% in SK), 15% are using latrine to throw their sates, and this only found in SK comprising 31%, 13% are burning wastes inside their houses (14% in SD, 9% in SK), while 9% of people in SK do not dispose of their wastes.

Table 7: Different ways of waste disposal

	South Darfur	%	South Kordofan	%	Total	%
Thrown outside the yard	21	20%	84	82%	105	50%
In a container out side	39	30%	2	2%	41	20%
Thrown into open pit	27	21%	30	29%	57	27%
Thrown into latrine	0	0%	32	31%	32	15%
Burn it inside house	18	14%	9	9%	27	13%
Not disposed off	0	0%	9	9%	9	4%

Hygiene:

Hygiene promotion:

From the consulted households; 52% reflect that they did not received any types of capacity building or awareness in hygiene, most of consulted people in SK did not received hygiene promotion comprising 59%, comparing to 41% in SK.

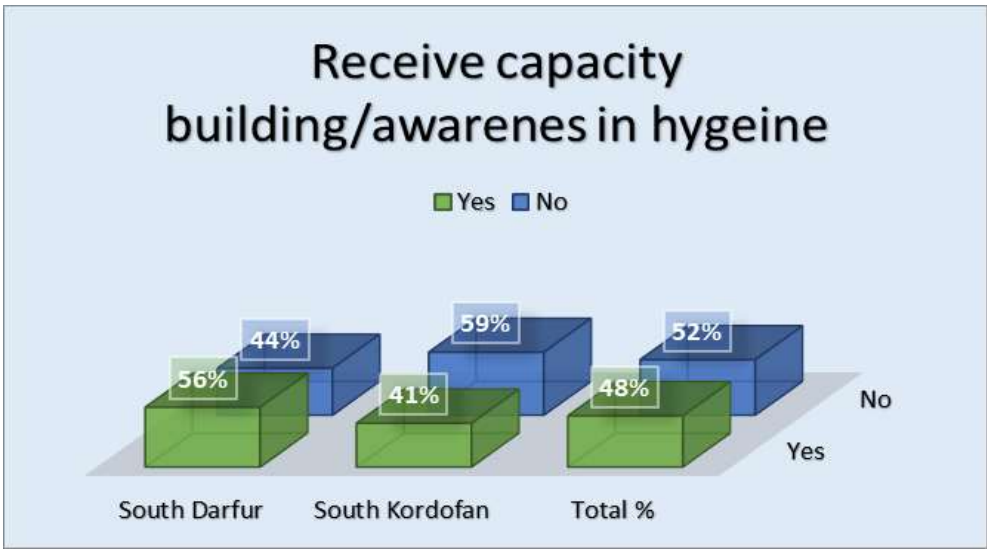

Figure 6; Receive capacity building/awareness in hygiene

Hygiene Practice:

From the consulted households, 25% confirmed that they do not practice hand washing with water and soap (24% in SD, 27% in SK), the practice of washing hands with water and soap is differs from person to another among the 75% who practice; 38% are washing their hands with water and soap three times a day (43% in SD, 33% in SK), 26% more than three times (34% in SD, 195 in SK), 26% two times a day (22% in SD, 29% in SK) while 10 aree washing their hands with water and soap once a day most of them in Sk comprising 19% comparing with only 1% in SD. See table 8.

Table 8: Number of times for washing hands by water and soap/day:

Times of hand washing	South Darfur	%	South Kordofan	%	Total	%
Three times	40	43%	31	33%	71	38%
More than three times	32	34%	18	19%	50	26%
Two times	21	22%	28	29%	49	26%
Once	1	1%	18	19%	19	10%

When they asked about the time they practice hand washing with water and soap during the day; most of them conferred that it is after going to the toilet and before eating comprising 95% and 875 respectively, 73% after eating (66% in SD, 80% in SK), 67% before food preparation (52% in SD, 81% in SK), 31% after cleaning baby's bottom (28% in SD, 35% in SK) while 32% are

washing their hands with water and soap before feeding their children (39% in SD, 255 in SK), and 3% reflect that in none of the mentioned options. See figure (7)

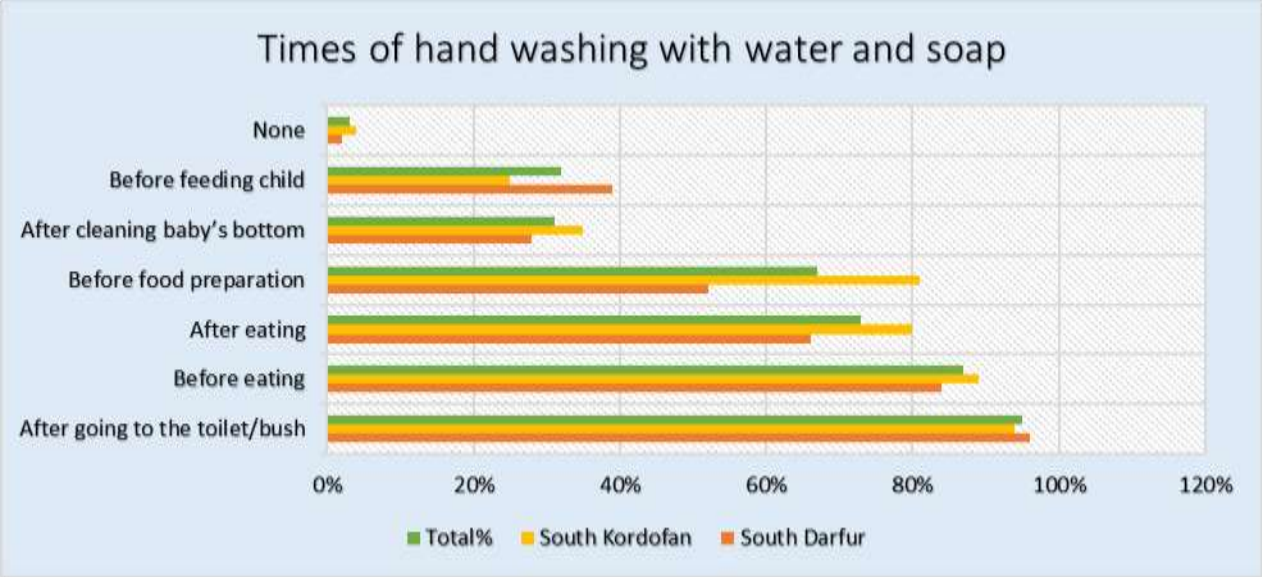

Figure 7: Times of hand washing with water and soap

Conclusion and Recommendations:

- The cost of water, and poor of community members affecting the households access to safe water, and affecting he sustainability of water sources as well. The project has to find way to support poor and most vulnerable households to regularly pay water cost.
- Intensive awareness and hygiene promotion is required to rise their awareness in personal hygiene and this should be done before distribution of items to insure good practice and efficient use of the hygiene materials.
- Participation of community members in project implementation will insure sustainability of the activities, this can be done through representative committees.
- Some indicators need changes to be more smarts and easy for measurement including:
    - Number of people with access to dignified, safe, clean and functional excreta disposal facilities to measure in percentage instead of number.
    - Number of people living in settlements with a functional solid waste management system to measure in percentage instead of number.
    - Number of people receiving direct hygiene promotion (excluding mass-media campaigns and without double-counting to measure in percentage instead of number.

Anex1: Project log frame with baseline values:

Result Indicators	Indicator definition	Baseline	Taraget
Specific objective: Provision of lifesaving and sustainable WASH services, ensuring equitable access for 214,517 vulnerable refugees, IDPs, and host community members in South Darfur and South Kordofan states and responding to any emergency or outbreak.			
% of target population with adequate WASH services and hygiene practices	Average % of the following indicators: - % of population considering that their basic WASH needs are met; - % of population with adequate hygiene practices (according to SPHERE standards on appropriate use and regular maintenance of facilities and on hand washing). Provide data for each of these two indicators in the comments field.	60%	80%
% of target facilities (PHU, schools, markets) with basic WASH services functioning	Use one or calculate average of the following indicators: - % of (present) users considering basic WASH services to be functional in the target facilities; - % of facilities implementing an adequate environmental health and hygiene management plan. Users: refers to the direct beneficiaries of the service, such as patients (health centres) or students (schools); not to the staff (i.e. medical, teachers) who bear (most of) the responsibilities for maintaining WASH services. Functional: in terms of quality, quantity and access. Adequate plan: includes practical and efficient measures to mitigate the major environmental and hygiene risks to which patients and staff of the facilities are exposed to and/or represent a risk to the communities they service. This indicator is only relevant if WASH is in support of other sectors (i.e health; nutrition) rather than stand-alone.	0	60%
% of beneficiaries (disaggregated by sex, age and diversity) reporting that humanitarian assistance is delivered		0	80%

in a safe, accessible, accountable and participatory manner			
Result 1: Increased and equitable access to sustainable, safe, and gender-sensitive water supply, sanitation facilities, and hygiene practices for 214,517 crisis affected women, men, girls, and boys.			
Number of people having access to sufficient and safe water for domestic use	Access:Maximum distance to water point 500m, queuing time less than 15min, filling time maximum 3 min/20 litres or as locally agreed. Water access should be during the whole period of implementation unless action is mostly related to building the local water delivery capacity. Sufficient: covering basic needs, i.e. 7.5-15 l/p/d or as locally agreed. Safe: 1) low risk of faecal contamination, 2) No faecal coliforms detectable in any 100-ml sample, 3) For piped water supplies, or for all water supplies at times of risk or presence of diarrhoea epidemic, water is treated with a disinfectant to achieve free chlorine residual at the tap of 0.5 mg per litre and turbidity is below 5 NTU, 4) If for a short period, water which is contaminated chemically or radiologically is used, no (significant probability of) negative health effect is (likely to be) detected. Domestic use: drinking, cooking and personal hygiene (incl. laundry).	221.765,00	310.000,00
Number of people with access to dignified, safe, clean and functional excreta disposal facilities	Access implies ratio (user/facility) of 1 toilet for a max. 20 people or as locally agreed. Distance: < 50 metres from dwellings or as locally agreed. Clean implies regular cleaning and maintenance for public facilities Dignified: Use of toilets respect cultural preference and is arranged by household(s) and/or segregated by sex. Unsafe facilities include unstable (unlined) pits with risk of collapse, pits accessible to vectors, pits contaminating water tables and poorly sited facilities which expose women and girls to attacks, especially at night.	34%	1.800,00 *Recommend 60%*

	Functional facility: fully constructed, in working order and properly maintained, of a type and in a location acceptable to intended users, with hand washing facilities and anal cleansing material.		
Number of people living in settlements with a functional solid waste management system	Solid waste of all households of the settlements as well as commercial waste is removed stored safely and removed regularly with equipment and frequency according to standards (Sphere). Risk of solid waste pollution of environment is kept to a minimum. Medical waste is managed separately according to standards to minimize risk. System implies: planning and implementation in consultation with affected populations and relevant authorities, taking into account refuse type and quantity, incl. medical, burial, market etc,; adequate disposal with minimum risk; attention to staff welfare	221.765,00 (34%)	350.123,00 Recommend (60%)
Number of people receiving direct hygiene promotion (excluding mass-media campaigns and without double-counting)		138.150,00 (48%)	214.517,00 Recommend 65%
Number of people having regular access to soap to meet hygienic needs	Regular and timely access: 250g soap/p/m for personal hygiene, 200g soap/p/month for laundry; access may be in-kind or though voucher distribution or through unconditional cash to enable beneficiary to buy soap (without compromising access to other basic needs). Distributed items need to be culturally acceptable i.e. take into account local practice and expectations. State in comments field or under activities which other personal hygiene items (dental, hair, menstrual, baby hygien	0	2500