

# **Quick Household Water Collection Survey at Tap Stand Level**

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**Yusuf Batil Camp, Upper Nile State, South  
Sudan**

**February 2014**

## Introduction

SOLIDARITES INTERNATIONAL (SI) has been supporting the Sudanese Refugees in Batil Yusuf and other Refugee Camps in Upper Nile State of South Sudan through its WASH program financed by UNHCR and ECHO.

Following the December 2013 conflict in the country, basic supplies such as fuel has greatly been hampered. The Yusuf Batil Refugee Camp that relies highly on continuous fuel supply for its water supply has suffered during the two months that followed the conflict. The water distribution schedule had to be adjusted accordingly with reduced quantities and distribution and production time. Ensuring equitable distribution to all members of the communities, those families that are located near tap stands, and those far away, and those with varying water container capacities has been a practical challenge for the WASH actors in the camp (namely SI and Medair). A particular interest for SI was, therefore, to assess the impact on water collection of distance from tap stands and water container capacity.

This simple survey has, therefore, been carried out on 7<sup>th</sup> of February 2014, at a selected Tap Stand No. 35, in Batil Refugee Camp to support this concern with evidence and take appropriate measures.

## Objective of the survey

To assess the impact of container capacity and distance from tap stand on household water collection capacity at tap stand level.

## Scope and limitations

The sample size and the method employed in carrying this survey make it hardly possible to claim representativeness of the findings at the camp level. It is, however, a good indicator at local (tap stand level). A camp level comprehensive survey to assess water consumption at water point level would definitely be needed to have a better understanding of factors that attribute to poor water collection rate by households.

## Survey Methodology

The method and steps used in the survey includes the following:

- Random selection of 20 households (10 from near household, 10 from far households). The reference tap stand, No. 35, was selected in such a way that there is no alternative tap stand for the far households to go to in an effort to ensure that these households come to the selected tap stand so the survey would be realistic (Fig. 1 below).

- Containers were marked with SI scotch tape, and name of the family was written on the tape so they would be easily identified at the tap stand by the data collector
- Data collector with proper instruction and data collection tool (attached as annex here) registered as those selected households from far and near came to collect water.
- The survey was conducted for a day

**Criteria:** The following criteria have been established for the purpose of this survey (also shown in Fig. 1 below).

- Near Households: Households within 100 meter distance from the selected tap stand
- Far Households: Households between 400 – 500 meter distance away from the selected tap stand
- Category for container capacity has been made based on 100 liter threshold value.

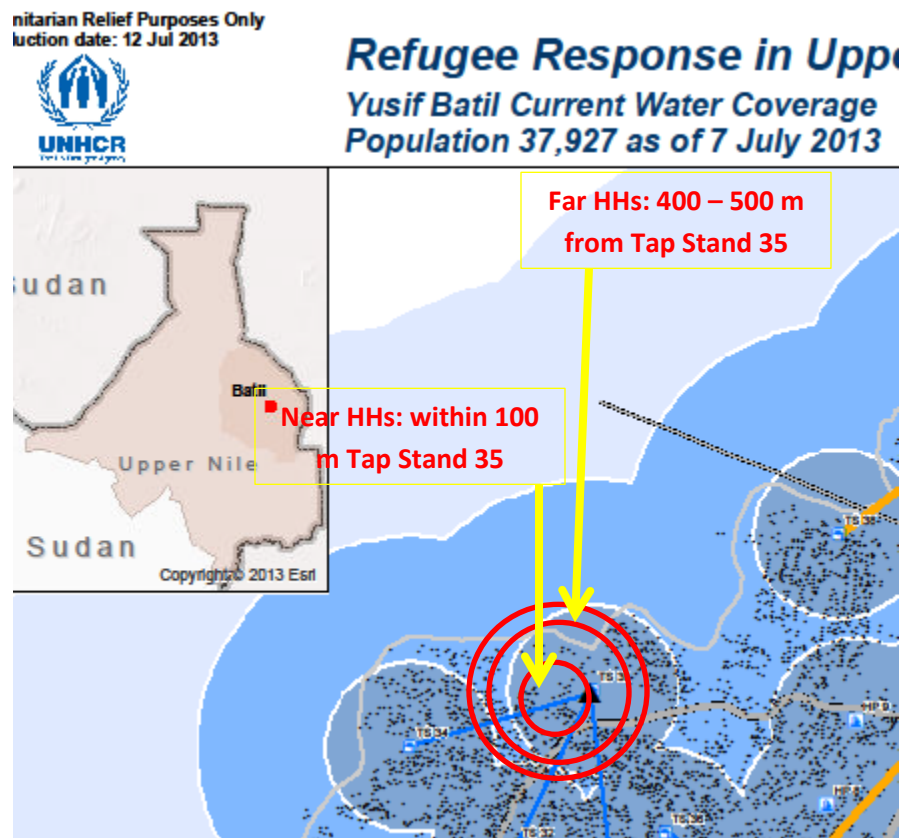


Figure 1: Sample Tap Stand No. 35 & Criteria for Near and Far HHs

## Data, Result and Discussion

The following table (Table 1) presents the data and result of comparison of the two categories of households for overall daily water consumption/collection at household and personal level.

Table 1: Summary of data

<b>Parameters</b>	<b>Near Households (10)</b>	<b>Far Households (10)</b>
Total family size	80	63
Total water container capacity	1,203	1,101
Total liters of water collected per day	1,203	1,101
Maximum water collected per day per household	240	410
Minimum water collected per day per household	30	48
Maximum liter/person/day	47	58.6
Minimum liter/person/day	6	6.9
Average, liter/person/day	15	17.5

A Chart (Fig. 2 below) for personal daily consumption for the two categories indicates that households located farther from the tap stand have more (17 l) compared to those near (15 l). A similar comparison for the maximum daily supply per person, also shows the same pattern for far households getting more (58.6 l) than the near households (47 l), as shown in Fig. 3.

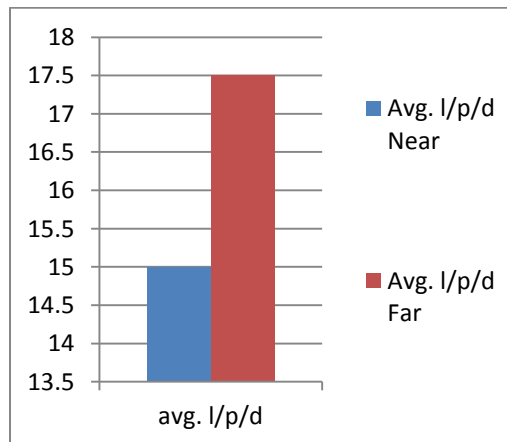


Figure 2: Chart comparing average daily consumption per person for far and near households

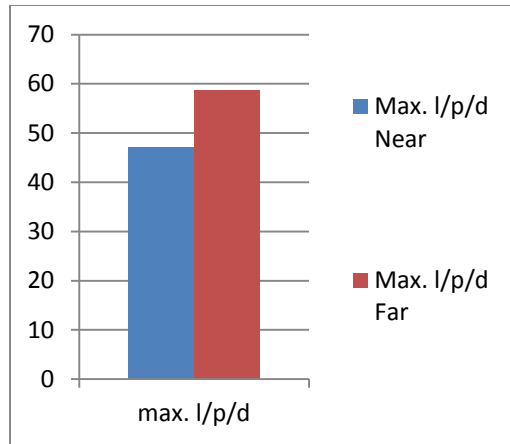


Figure 3: Chart comparing maximum daily consumption per person for far and near households

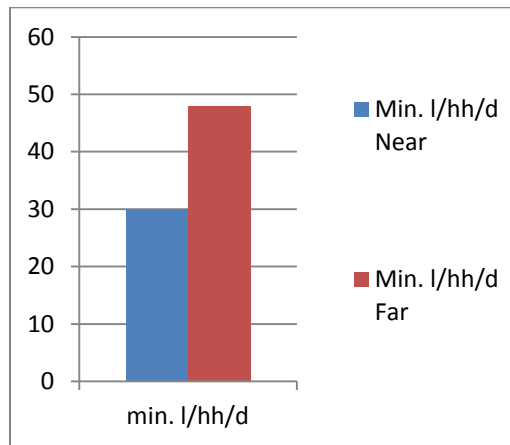


Figure 4: Chart comparing minimum daily consumption per household for far and near households

The above chart, Fig. 4, gives a comparison of the minimum daily supply per household, showing 47 l for far and 30 l for near households.

The comparison for daily maximum household collection, as shown in the chart (Fig. 5), suggests that households located farther from the tap stand were able to get more water (410 l) than near households, which is 240 l.

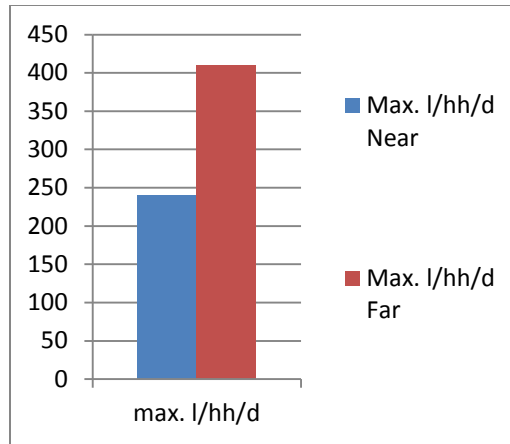


Figure 5: Chart comparing maximum daily consumption per household for far and near households

### Analysis for distance against container capacity

Table below summarizes that there are 50 % of the households from the near category that have container capacity of more than 100 l, while the proportion is 40% for far categories. 73% of the total volume of water collected by near households goes to the 50% households that have container capacity of more than 100 l. The percentage of water collected by the 40% of households from the far category is 67%. Meaning 60% of the households from the far category were able to collect only 33% of the water. (Table 2)

The household water collection comparison by distance has been presented in Table 3 below. Of all the total water volume collected by both categories (2,304 l) during the survey day, 52% went to the near households while the rest 48% was collected by far households, with a difference of only 4%.

Table 2: Comparison by container capacity, for near & far

	NEAR	FAR
h/h with container capacity >100lt	50%	40%
water collected by households with container capacity >100lt	73%	67%
water collected by households with container capacity <100lt)	27%	33%

Table 3: Comparison by distance

total water taken by all households (near + far), lt	2,304
Water taken by near households	52%
Water taken by far households	48%
difference	4%

Looking at Table 4, for comparison based on container capacity for both categories, we can see that households with container capacity of more than 100 l, meaning 45% (9 out of 20) of the total sample households, were able to collect 70% of the total water collected at the tap stand (i.e. 2,304 l), whereas, the remaining 55% households collected only 30% of the total water indicating a difference of about 40%. We have seen above that the difference in water quantity between the two categories based on distance was only 4%.

**Table 4: comparison by container capacity, both categories**

<b>total water taken by households with container capacity &gt; 100lt, near + far, lt</b>	<b>1,622.0</b>
<b>% from total water uptake</b>	<b>70%</b>
<b>total water taken by households with container capacity &lt; 100lt, near + far, lt</b>	<b>682</b>
<b>% from total water taken</b>	<b>30%</b>
<b>difference</b>	<b>40%</b>

## Indicative Conclusions and Recommendations

This simple survey has been carried out at the Yusuf Batil Refugee Camp in Upper Nile State of South Sudan, in February 2014 with a clear objective of assessing impacts of distance from water points and water container capacity on household water collection.

Despite limitation in sample size used for the survey, analysis of the data suggests that water container capacity has more impact (40%) on volume of water collected by households than the distance from tap stands (4%) for houses within 500 m radius from tap stands. The results (impacts) might be close had the survey been carried out for houses that are farther than 500 m radius. Of course, the impact in this case may not only be limited to water quantity but also other protection issues for women and girls collecting the water.

It should be noted that it is not the purpose of this simple survey to down play the important impact distances from water points have on water collection. It is rather to indicate that it is not necessarily true to assume that all people have equal access to water even though they are equally located within acceptable distances from water points. And it is interesting to see that intervention measures aiming at supporting the disadvantaged members of the communities (refugees in this case) are not the same. The simplest intervention focusing on water container distribution can solve a huge problem.

The results and findings from this survey can only serve as indications of trends and challenges in water collection. A comprehensive survey for a representative sample size needs to be carried out if a more robust and conclusive information is to be obtained.

Nevertheless, a valid recommendation can be made here to take measures to increase water container capacities of households.

## Annexes

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Annex – 1: Data (upon request)

Annex - 2: Survey Template (following page)



## HH WATER CONSUMPTION SURVEY AT WATER POINT

Date: \_\_\_\_\_ Starting time: \_\_\_\_\_ Ending time: \_\_\_\_\_






Name of responsible: \_\_\_\_\_

Tap stand / Hand pump number \_\_\_\_\_

Household number: \_\_\_\_\_

Number of Family Members: \_\_\_\_\_

Location (far/near from water point) \_\_\_\_\_

 <p>5 litres ٥ لِيْتَر</p>	 <p>10 litres ١٠ لِيْتَر</p>	 <p>10 litres ١٠ لِيْتَر</p>	 <p>14 litres ١٤ لِيْتَر</p>	 <p>20 litres ٢٠ لِيْتَر</p>
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