TAMEER-E-KHALAQ FOUNDATION

POST-KAP SURVEY REPORT

September 2015 Survey of 214 individuals in Bezan Khel Union Council to assess water supply and hygiene situation of TDP and hosting population post-WASH intervention in comparison to pre-WASH intervention of TKF.
Executive Summary

District Bannu has faced a major influx of Temporarily Displaced Persons (TDPs) which has led to WASH resources being overburdened, with reports and visual observations corroborating the alarming hygiene situation and conditions of water availability and quality. As a result, a WASH intervention was carried out by Tameer-e-Khalaq Foundation (TKF) and a Pre-KAP survey was conducted to assess the baseline for knowledge, attitudes and practices of the targeted community about safe water handling, treatment, storage and hygiene practices. The findings of the Pre-KAP survey indicated widespread unawareness about hygiene practices which may be linked to high incidence of water-borne and sanitation/hygiene-related diseases (like diarrhea, typhoid, stomach disorders, hepatitis, skin infections and eye infections) reported among the targeted population.

After the conduction of WASH activities in area, (which included the installation/rehabilitation as well as disinfection of water sources & DWSS, conduction of hygiene sessions in the community, distribution of WASH NFIs, capacity building of school & health staff and formation & training of Water Management Committees), Post-KAP survey was conducted as a comparison point to assess change in community Knowledge, Attitudes and Practices. The findings are discussed within this report.

Introduction and Background

District Bannu has faced a major influx of Temporarily Displaced Persons (TDPs) as a result of a major military operation in North Waziristan. This operation was launched by the Pakistan Military Forces on 15th of June 2014 and the resulting TDPs have sheltered in Bannu and other surrounding districts in Khyber Pakhrunkhwa. District Bannu has received an estimated 829,000 caseload according to the Provincial Disaster Management Authority, KP (These TDPs have an average household size of 10.43 and the total numbers of families in Bannu district is estimated at 79,482). This has resulted in a humanitarian situation in district Bannu as resource constraints of the already-impoveryed Bannu are now stretched to a breaking point. Due to arrival of a huge number of TDP families in Bannu the WASH resources are overburdened, while first-hand observations confirm the alarming conditions of water availability and quality as well as the hygiene situation and practice (especially for women) as they rarely have access to communal latrines due to cultural constraints.

A large number of people without access to safe water are in urgent need of a range of WASH support, including clean water, hygiene kits and water purification equipment. Due to lack of WASH services especially water, disease surveillance by the health cluster continues to the point of heightened risk of diarrheal disease among affected areas. This increased risk and severe WASH needs in district Bannu calls for a need to analyze the water sources.

Aims and Objectives of the Post-KAP Survey

Tameer-e-Khalaq foundation (TKF) has undertaken Post-KAP survey in order to assess the change in community Knowledge, Attitudes and Practices regarding Water management and hygiene due to WASH project by comparing results of new survey with results of survey conducted prior to executing the IRC-supported WASH project. The change produced will help in assessing the impact of efficacy of planned outcomes of project on target area population.
Methodology

Quantitative research method has been applied for this pre-KAP survey as we deal with quantitative questions in the questionnaire. This research method provides more authentic and reliable data for analysis.

Sample Design for Data Collection

Researchers used the random sampling method from the selected demographics (i.e. adult male and female beneficiaries of the WASH program) to obtain representative data from the large population of project beneficiaries. For this Post-KAP survey, a sample size of 214 beneficiaries (104 males, 110 females) from target villages in UC Bezan Khel in district Bannu have been interviewed. This step was taken to obtain significant statistical data for quantitative analysis. The tools, question and interview methods were based on those used for the Pre-KAP survey in order to provide a readily translatable reference and comparison point. To avoid sampling error, a wide spread of interview locations was used, and all were randomly chosen.

Data Collection and Analysis tool:

In the survey, tools like focus group discussion and structured interviews have been used for data collection, whereas for analysis, Microsoft Excel has been used for obtaining conclusions and generalizations.

Discussion of Survey Results and Key Findings

Since the post-KAP survey was undertaken to measure the changes in approaches, behavior and practices for water management and hygiene among targeted population, the post-KAP survey questions, interview method and reporting has been focused on Pre-KAP survey to better provide direct comparison. All interview locations were at intervention sites.

The Pre-KAP and Post-KAP survey result for the main sources of drinking water in Bezan Khel union council of Bannu district is comprised as shown in figure 1a and 1b respectively. In the intervention target area, following construction and rehabilitation of various water supply facilities, the people’s use of hand-pumps and Tube Wells dramatically increased from 50% to 87% while use of unreliable or unsafe sources went down. Use of public taps/Standpipes, often unsanitary and unsuitable for drinking water, did not show up among respondents as their main source of drinking water whereas previously a large portion relied on it.

Figure 1a: Percentages of water supplies (Pre-KAP)

The project’s effect on walking distance to available water sources (see figure 2) was also assessed. 95.3% of TDP respondents in the target area indicated that their journey time to and from sources per trip has been greatly reduced. For example, 45.8% of respondents reported a reduction of 10-15 minutes per trip. Given the fact that multiple trips are made each day, a sizable difference has been made in the day-to-day lives of beneficiaries.

Figure 1b: Answers to same question post-project.

“After Intervention how much time is reduced PER TRIP in fetching water?”

Figure 2: Sizable reduction in trip time was reported by most.
Previously it was found that the group most commonly responsible for fetching water in household was women and children (which combined, comprised 80% of respondents, with the proportion of adults being 63%). Given that the time required to secure water due to long queues, as well as the frequency of water collection being typically 4-5 times a day (discussed below) we assume it takes a large toll on the labour hours for these groups which could be better utilized for other means. Post-Intervention shows that the share of adults halved (from 80% to just 40%) while children are now more commonly the one making the now much shorter trips for water.

**Figure 3a & 3b:** The share of adults among respondents (especially women) diminished, while share of children went up.

Previously, in the Pre-KAP survey it was shown that the community had a very blasé attitude toward contaminated water. The responses showed that critical awareness about water quality and hygiene was extremely limited. For example, near 100% respondents from the Community at Bezan Khel union council indicated that they considered the water they commonly used as safe for drinking and cooking purposes. However, over half of respondents also shared experiences of bad taste, odor, turbidity and salinity in the exact same water of the targeted area. In the Post-KAP survey, however, only 18% reported taste, turbidity or odor, and the vast majority of these who reported these things subsequently identified that the water was unsafe (showing that their knowledge had increased, while also showing the dramatic decrease in water contamination).

One slightly unexpected finding was that the number of trips undertaken by families for fetching water decreased. Previously about 60% of people said that the frequency of water collection was 4x a day or more (putting burden on the party responsible for collection). Post-KAP data showed that the curve was gradually shifting towards 2-3 trips per day (see figure 4). The distribution of water containers like jerry cans as part of NFI kits is one contributing factor while another explanation is that families who were forced to keep to 1 trip/day now feel
more able making more meanwhile families who made more trips can carry a heavier load over shorter distances and so don’t have to make as many trips.

During the Pre-KAP survey, the most popular method of water treatment for drinking water by far was filtration of water through cloth (89.8%), followed by a minority who used boiling (9.5%). After hygiene sessions conducted by TKF however, a good majority of families switched to boiling water with 94.4% respondents saying that they used boiling. However 46 respondents said that they also used filtration through cloth for water treatment. One explanation is that the cost to boiling over time is prohibitive to some TDPs.

Another impact of hygiene sessions by TKF was on TDP awareness about disease/germs prevention. While most TDPs in the Pre-KAP Survey did report washing their hands five times a day, it was for the purpose of ablution for prayer, and therefore did not normally utilize soap. When asked why hand-washing was important, a majority of TDPs picked the option “religious reasons” (they also chose the same for keeping “why one should keep water containers clean”). In the Post-KAP Survey however, a majority of TDPs 97.1% also indicated diseases and harmful microbes are a reason to wash hands and containers, which is an encouraging finding especially since this knowledge may also translate to other practices such as maintaining sanitary conditions for food.

Some areas where awareness has had an effect in changing habits are illustrated in figure 6.

![Figure 5: Most popular water treatment method became boiling after intervention.](image)

Lastly, the reported prevalence of diseases, due to absence of formal healthcare or data, was assessed in the pre-KAP and post-KAP survey by self-report. Previously, it was found that the vast majority of family units surveyed reported that adult male, female and child family members had contracted water, sanitation and hygiene related diseases within the past year. A comparison table for responses in each category to the question “What water, sanitation and/or hygiene related illnesses have you noticed in your family members recently?” is provided below for Men, Women and Children.

![Figure 7: Reported incidence of selected diseases in families, Pre-KAP and Post-KAP.](image)
Conclusions:

- The share of hand pumps as the water supply of TDPs went up dramatically post-intervention, while usage of standpipes (which are often damaged, unsanitary or unreliable) reduced.
- The journey time for the majority of TDPs in the target area have been reduced greatly, with no one reporting “no change”, and the majority reporting between 5-20 minutes of time reduced per trip.
- The share of women being the main party burdened with fetching water (previously 63%) has decreased dramatically. More men participated in bringing water from close-by pumps, and the trip was now short enough and easy enough for children to help with effortlessly as well.
- More people started using effective forms of water treatment for disinfecting drinking water, and even those who don’t rely on it used it as a supplement. While some still do use filtering through cloth as well, 94.6% indicated that they now use water boiling as a method of disinfection before drinking.
- The number of people who reported odor, bad taste, turbidity or salinity in the water supply has decreased from 54% to 18%.
- Reported habits of respondents in Pre- and Post-KAP surveys reflected a large impact of Health & Hygiene sessions by TKF. More people now use soap, wash hands regularly, use proper hand-washing steps and wash hands at critical points such as before eating, preparing food and after using the latrine.
- In addition to habits, more people demonstrated awareness about germs and disease transmission methods. They were greatly more likely to recognize when water was unsafe for drinking. Moreover, they now recognized the purpose of hand-washing and other critical hygiene practices to be about containing disease, and this knowledge may translate very well to other spheres of health & hygiene.
- Although not a definitive measure to draw a conclusion from, the Post-KAP survey showed a marked decrease in the number of disease reported by respondents compared to the Pre-KAP survey (minus typhoid, which showed a increase).

**Picture 3:** Most open water resources should have been unusable (due to odor, turbidity, etc.), but due to residents not wanting to waste fetched water, it previously found a use in domestic uses such as bathing and washing utensils/hands. This put bathers at risk of skin infections and disease, while it made food more likely to carry contamination. Post-Intervention these activities now happen at safe sources like the hand-pump in **picture 4.**

**Picture 4:** Children bathing near hand pump. With a water source so close to home, children engaging in normal, healthy activities like bathing has become more regular as well as more safe.
# ANNEX A: DATA COLLECTION FORM

## 1. GENERAL INFORMATION

<table>
<thead>
<tr>
<th>1.1 Date:</th>
<th>1.2 District:</th>
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<tr>
<th>1.3 Tehsil:</th>
<th>1.4 UC:</th>
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<table>
<thead>
<tr>
<th>1.5 Village:</th>
<th>1.6 Name of Respondent:</th>
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<tr>
<th>1.7 ID Card Number</th>
<th>1.8 Age:</th>
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<table>
<thead>
<tr>
<th>1.9 Gender:</th>
<th>1.10 Total HH members:</th>
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<tbody>
<tr>
<td>Male</td>
<td>M</td>
</tr>
<tr>
<td>Female</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.0 Beneficiary status</th>
<th>Host</th>
<th>IDPs</th>
</tr>
</thead>
</table>

## 2. ACCESS TO WATER

**2.1 What is the main source of drinking water for members of this household? (Select one)**

a) Hand Pump with borehole  
b) Public Tap/standpipes  
c) Tube well (PHED) line  
d) Other (Specify)

**2.2 How long does it take to fetch water from source?**

a) 10 to 15 mints  
b) 15 to 30 mints  
c) 30 to 45 mints  
d) 45 to 60 mints  
e) NA

**2.2b After Intervention how much time is reduced PER TRIP in fetching water?**

a) None.  
b) Journey time increased after intervention  
c) 1 - 5 minutes  
d) 5 - 10 minutes  
e) 10 - 15 minutes  
f) 15 - 20 minutes  
g) 20 – 30 minutes  
h) 30+ minutes

**2.3 Who goes to fetch water most often? (select one)**

a) Male Adult  
b) Female Adult  
c) Male Child (under 15 years)  
d) Female Child (under 15 years)

**2.4 Do you feel the water is safe for drinking/ cooking?**

Yes □  
No □

**2.5 If No, why? (please do not read, listen and mark all that apply)**

a) Taste (Not sweet/ tastes salty/ tastes harsh/ rackish)  
b) High Saline  
c) Highly Turbid  
d) Bad Smell  
e) Other: (Specify)

**2.6 How many times per day do you travel to collect water?**

1 □  
2 □  
3 □  
4 □  
5 □

**2.7 Do you treat your water to make it safer for drinking?**

Yes □  
No □  
Don’t know □

**2.8 Which method of treating water do you use?**

a) Boil  
b) Add bleach/Chlorine  
c) Strain/filter it through a cloth
<table>
<thead>
<tr>
<th>2.9</th>
<th><strong>How does the respondent store drinking water? (Observation by the enumerators)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a) Jerry can</td>
</tr>
<tr>
<td></td>
<td>b) Bucket</td>
</tr>
<tr>
<td></td>
<td>c) Water cooler</td>
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<tr>
<td></td>
<td>d) Drum plastic</td>
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<tr>
<td></td>
<td>e) Does not store water</td>
</tr>
</tbody>
</table>

### 3. HYGIENE

3.1 **Do you think it is important to wash your hands?**

- Very Important
- A little important
- Not Important

3.2 **Why do you think washing hands is important?**

- Prevent diseases
- For cleanliness
- Religious duty/practices
- Other

3.3 **How often do you wash your hands per day?**

- 0-2times
- 3-4times
- 5+times (as often as needed)
- Washing hands is not necessary
- Other

3.3 **ii) What change you brought in washing hand after attending H&H sessions?**

(Tick either [f] or all that apply from A to E)

- Usage of soap
- Steps of hand-washing
- More regular hand-washing
- Hand-washing at important points. (before eating/after washroom, etc)
- Other
- No change

3.4 **When do you wash your hands?**

*DO NOT READ, please listen and check all that apply*

- After using the toilet
- After handling animal excreta
- Before cooking or preparing food
- Before Eating
- Before breast feeding children
- After returning from fields/Farms
- All of the above

3.5 **If you don’t wash your hands what is the reason?**

- Don’t think hand washing is important
- It is too time consuming.
- Don’t have access to sufficient water
- Don’t have access to soap
- Other

3.6 **Why do you think it might be important to wash your hands?**

- Disease/Germs prevention
- Peer/Social practice.
- Religious connotations attached to it.
- Feels confident/l Looks better/ Smells better
- Don’t know
### 3.7 If you use soap, where do you get it?

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>a)</td>
<td>Buy it</td>
</tr>
<tr>
<td>b)</td>
<td>Given it by other villagers/family</td>
</tr>
<tr>
<td>c)</td>
<td>Received it from an organization</td>
</tr>
<tr>
<td>d)</td>
<td>Other (Specify)</td>
</tr>
<tr>
<td>e)</td>
<td>Don’t use soap</td>
</tr>
</tbody>
</table>

### 3.8 If no soap, why? *(Please select the one that best applies)*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>a)</td>
<td>Not available in the village/market</td>
</tr>
<tr>
<td>b)</td>
<td>Too expensive</td>
</tr>
<tr>
<td>c)</td>
<td>Do not use/need it</td>
</tr>
<tr>
<td>d)</td>
<td>Use something else (e.g. sand, ash, etc.) instead</td>
</tr>
<tr>
<td>e)</td>
<td>Don’t know why</td>
</tr>
<tr>
<td>f)</td>
<td>Other (Specify)</td>
</tr>
</tbody>
</table>

### 3.9 Have you ever attended hygiene session?

- [ ] Yes
- [ ] No

### 3.10 If yes, what did you learn about?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>a)</td>
<td>Hand washing</td>
</tr>
<tr>
<td>b)</td>
<td>Safe water for cooking</td>
</tr>
<tr>
<td>c)</td>
<td>Safe water for drinking</td>
</tr>
<tr>
<td>d)</td>
<td>Water diseases</td>
</tr>
<tr>
<td>e)</td>
<td>Water management</td>
</tr>
<tr>
<td>f)</td>
<td>Sanitation</td>
</tr>
<tr>
<td>g)</td>
<td>Other</td>
</tr>
<tr>
<td>h)</td>
<td>Do not know</td>
</tr>
</tbody>
</table>

### 3.11 What water, sanitation and/or hygiene related illnesses have you noticed in your family members in the past year? *(check all that apply)*

<table>
<thead>
<tr>
<th>Illness</th>
<th>Men</th>
<th>Women</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diarrhoea</td>
<td>☢</td>
<td>☢</td>
<td>☢</td>
</tr>
<tr>
<td>Typhoid</td>
<td>☢</td>
<td>☢</td>
<td>☢</td>
</tr>
<tr>
<td>Stomach disorders <em>(gastro.)</em></td>
<td>☢</td>
<td>☢</td>
<td>☢</td>
</tr>
<tr>
<td>Hepatitis</td>
<td>☢</td>
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<tr>
<td>Skin Infections</td>
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<tr>
<td>Eye Infections</td>
<td>☢</td>
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<td>☢</td>
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<tr>
<td>Other:</td>
<td>☢</td>
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