

# Improvement Project for WASH environment for Returnees and IDPs in 2 Settlements of Nangarhar Province implemented by Japan Emergency NGO (JEN)

Third Party  
Project Evaluation  
Report

March, 2023

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The findings within this document, however, are entirely the responsibility of the technical team of HPRO.

HPRO

March 2023

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## Abbreviations

AFN	Afghani
COVID	Corona Virus Disease
CWS	Community World Service
FGD	Focus Group Discussion
HHs	Households
HPRO	Health Protection and Research Organisation
IDP	Internally Displaced Peoples
IMC	International Medical Corps
JPF	Japan Platform
JEN	Japan Emergency NGO
KII	Key Informant Interview
LFA	Logical Framework
MORR	Ministry of Refugees and Repatriation
NGO	Non-Government Organisation
ODK	Open Data Kit
PDM	Post-Distribution Monitoring
RFP	Request for Proposal
SO	Shuhada Organization
ToR	Terms of Reference
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WMC	Well Management Committee

# Introduction

Overview

WASH Situation in Afghanistan

WASH Situation in Nangarhar

WASH projects implemented by other organisations and donors

Overview of Improvement Project for WASH environment for Returnees and IDPs in two settlements of Nangarhar Province

Improvement Project for WASH environment for Returnees and IDPs in two settlements of Nangarhar Province

Purpose of the Study

Structure of the Report

# I Introduction

## I.1 Overview

Third-party project evaluations are essential accountability and learning initiatives that JPF regularly undertakes jointly with its member NGOs for quality improvement. This is more so for in Afghanistan where JPF and some of the member NGOs have no access to the project sites due to restrictions associated with the Japanese government funding. Local implementing partners/local offices remotely managed by the members NGOs implement project activities and forefront of daily communication with project stakeholders as well as project beneficiaries.

Given drastic situational changes in Afghanistan, JPF with consultation with the member NGOs, decided the third-party project evaluation planned for five projects in Afghanistan funded by year 2021 budget to focus on assessing and documenting outcomes (immediate impact) rather than exhausting limited resource by conducting summative and/or programme evaluation. A request for proposals (RFP) was made to solicit proposals to conduct Third-party project final evaluation services for five JPF projects and Health Protection & Research Organisation (HPRO), a Kabul based NGO, has been nominated to provide the service based on competitive selection process.

## I.2 WASH Situation in Afghanistan

Clean water, basic toilets and good hygiene practices are essential to the survival and development of children. In Afghanistan, diarrhoeal diseases are the second most common cause of death for children under the age of five, after acute respiratory infections. Globally, Afghanistan has the fourth highest diarrheal mortality rate and approximately nine percent of all deaths among children under-five are due to diarrheal diseases. Diarrheal diseases, if not treated, also traps young children in a vicious circle of malnutrition and diarrhoea leading to chronic malnutrition and potential death. In Afghanistan, more than a quarter of all provinces have acute malnutrition rates above 15%<sup>1</sup>, with millions of children who will require treatment for acute malnutrition in subsequent years. One of the most effective ways to save children's lives is by teaching them proper hygiene practices – especially regular handwashing with water and soap – and guaranteeing them clean drinking water and adequate sanitation. Without these, children can suffer from diarrhoea and stunting (which means low weight for age and delayed cerebral development). In Afghanistan, two out of five young children are stunted.

More than 67 percent of Afghans have clean drinking water through 'improved drinking water sources' that are protected from outside contamination – a marked progress from a decade ago when drinking water reached only 20 percent of people. However, although a little more than 80 per cent of families have toilets or latrines, only about 43<sup>2</sup> per cent are improved and safe – meaning they hygienically separate human waste from human contact. Open defecation continues to be a dangerous challenge in Afghanistan because human waste near waterways and living environments spreads diseases like typhoid, cholera, hepatitis, polio, trachoma, and others quickly and puts children and their families at risk.

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<sup>1</sup> Afghanistan Humanitarian Situation Report, June 2017, UNICEF

<sup>2</sup> Joint monitoring program, 2019, WHO/ UNICEF

### 1.3 WASH situation in Nangarhar

Based on WASH cluster data, the families of both documented and undocumented returnees, especially those coming from Pakistan, face a higher risk of poor access to improved WASH infrastructure, with more than 60%<sup>3</sup> of the returnees living in informal settlements with limited or no services. Nangarhar has witnessed the highest gaps in WASH needs for the returnees. Communities living in insecure, remote and hard to reach districts that repeatedly suffer from the impacts of disasters and conflict are often not adequately assisted by humanitarian actors. Those communities hosting considerable numbers of IDPs/returnees suffer severe shortages of basic services unless additional assistance is provided. Conflict, drought and poverty is affecting the capacities of the communities to maintain necessary basic WASH infrastructure in the targeted hard-to-reach areas<sup>4</sup>.

Limited access to potable water is considered the main problem of the households. On the other hand, there are already existing not-functional boreholes due to lack of good maintenance systems in place. Most of the population have to walk around 15-30 minutes to reach the water points, while in some areas, this time is even more than an hour, and people use water tankers to fulfil their needs for potable water. Overall, there is a poor condition of hygiene and sanitation in the province which is one of the main causes of increased water borne diseases among these needy communities. Most of these populations have very limited or no information about safe hygiene and sanitation practices and on the other hand limited access to hygienic latrines and other sanitation facilities keep the population away from safe hygiene practices.

### 1.4 WASH projects implemented by other organizations and donors

Many organisations have worked in this direction to ensure facilities like sustainable and safe drinking water, proper sanitation and hygiene practices to the community. A project by Japan International Cooperation agency was executed to improve the living environment of the returnees and receiving communities by providing basic infrastructure at community level in Behsud and Surkhrod districts in Nangarhar province. Many deep wells were constructed in the project to ensure fresh water is available to the community. As per the plan road, buildings, irrigation canals were renovated and many new were constructed<sup>5</sup>. Another project, Strengthening Resilience of Returnees, Afghanistan Project was implemented to improve access to WASH facilities and provision of economic opportunities to returnees in 4 districts of Nangarhar Province-Afghanistan. The project was designed to provide a durable solution for the returnees and IDP families. The priorities of the project were to fill the gaps and to provide resources to the end-beneficiaries who lack adequate water supplies, any kind of sanitation facilities and had a low awareness of important hygiene behaviours. The water facilities selected were particularly appropriate for the multi-use needs of returnee families including their domestic and agriculture-livestock needs<sup>6</sup>. However, in Chaparhar district there had been no WASH activities conducted

<sup>3</sup> IDPs, Returnees, Host Communities WASH need assessment, April 2019, International Medical Corps

<sup>4</sup> Humanitarian needs overview Afghanistan, December 2019, OCHA

<sup>5</sup> The Community Development Project for Returnees and Receiving Communities In Nangarhar Province, Afghanistan, Final Report, June 2013, Japan International Cooperation Agency

<sup>6</sup> Samsor, Akmal. (2015). External Evaluation Report: Strengthening Resilience of Returnees, Afghanistan Project. 10.13140/RG.2.2.29173.47841.

due to the district being in active fight between the government, the ISIS and the Taliban until 2020 when JEN implemented a WASH project. .

With Support from UNICEF, IMC has implemented the WASH activities in Abdul Khil village of Acheen District in Nangarhar Province, the response includes pipe scheme network, hygiene promotion and distribution of the hygiene kits. The overall beneficiaries of the projects are 4,000 individuals.<sup>7</sup>

### **1.5 Overview of Improvement Project for WASH environment for Returnees and IDPs in two settlements of Nangarhar Province**

The project “Improvement Project for WASH environment for Returnees and IDPs in two settlements of Nangarhar Province” was implemented from February 6, 2022 to August 5, 2022 [181 days], by JEN, funded by JPF. The aim was to provide assistance for improving the water sanitation environment for returnees and internally displaced persons in two settlements in Nangarhar Province, Afghanistan; and improve the WASH environment for Returnees and IDPs in 2 Settlements of Nangarhar Province, Afghanistan. This project covered the Cikmesri settlement Surkhrod district and Chamtala settlement in Khogyani district of Nangarhar Province and provided hygiene education for the beneficiaries to learn basic hygiene knowledge, including methods for preventing new strains of corona. Hygiene kits such as soap were provided for learning practice. In order to ensure safe drinking water, wells and water supply stations were constructed and community-based sustainable management systems were established. A hygiene kit was distributed to 1,205 representatives of affected households and 85 religious leaders.

This project has targeted Chamtala and Shikh Mesri Settlements of Khogyani and Surkhrod Districts of Nangarhar Province. It provided beneficiaries with the opportunity to learn hygiene education and how to prevent COVID-19. In addition, well and water standpoints were constructed to secure potable drinking water and water hand-washing practices, which were important for preventing COVID-19, and a sustainable management system would be built by the community.

#### **1.5.1 External Monitoring of the project “Supporting Improvement of basic WASH situation of Returnees and IDPs in two settlements of Nangarhar Province, Afghanistan”**

The external monitoring was carried out by JEN-Afghanistan MEAL Officer on 16-17 March, 2022 and on June 6, 2022 based on direct observation, check list and focus group discussion (FGD). Before the MEAL Officer went for independent and external monitoring, all the documents such as proposal, BoQ, stakeholders’ list, beneficiaries list, vendor contract, action plans and project documents were asked from project team and reviewed critically. Based on the documents, MEAL Officer developed checklist and questions for external monitoring.

The reports mentioned that the affected people were fully satisfied from the project and they use the in daily life whatever has been learned from hygiene education. The findings of the FGD indicate that beneficiaries were aware of the project’s goals and

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<sup>7</sup> Relief web, Afghanistan Humanitarian Response: Wash Cluster Updates Cluster Achievements - December 2021 Accessed on 22 December 2022

objectives. The report highlighted that Well management committee (WMC) was actively functioning on routine basis and monitoring of the project progress.

Project outcomes:

- Beneficiaries in the target areas will be able to continuously obtain safe water in accessible locations that meet Sphere standards and reduce the burden of fetching water.
- 1,205 households and 85 religious leaders will use hygiene education to improve hygiene knowledge and use hygiene kits in a dignified manner.

## **1.6 Purpose of the Study**

The purpose of the evaluation is to accurately capture information and analyse data on these project outcomes. The specific objectives of final evaluation are:

- To verify and measure outcomes of the projects;
- To understand the beneficiary's satisfaction;
- To document above achievements and challenges;
- Within the scope of the above evaluation, to provide any possible indicatives for improving the projects for both JPF and member NGOs.

## **1.7 Structure of the report**

This report represents the synthesis of a number of different streams of analysis and associated reports, including a set of case studies. The main body of the report is structured as follows:

**Chapter 2:** Methodology

**Chapter 3:** Findings

**Chapter 4:** Recommendations

# Methodology

Study Design

Methodology for Data Acquisition

Data Collection

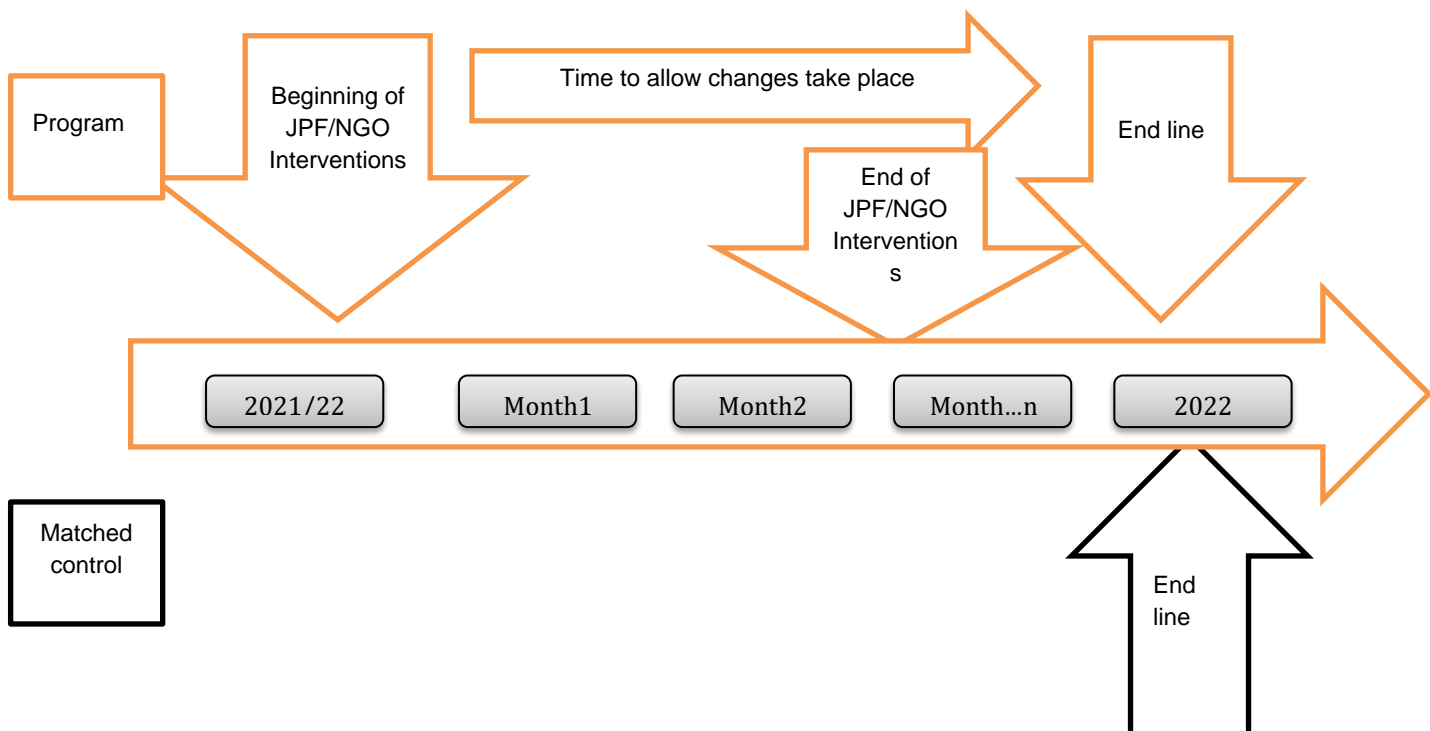
Data Management and Analysis

## 2 Methodology

### 2.1 Study Design

The design of Emergency food assistance in Nangarhar Province made it imperative to use mix methods – quantitative and qualitative methods, and different streams of analysis- for the study.

A case-control methodology will be adopted for impact evaluation in consultation with the JPF and JEN to provide a scientific rigor to the evaluation. In this case-control method participants from both the intervention and the control group was purposively selected through matching by socioeconomic indicators such as age, gender, education and marital status. The assessment was measured using project outcome indicators.



There are 2 main components of the project as described in the logframe:

- 1- The first one related to safe water in accessible locations that meet Sphere standards and reduce the burden of fetching water.
- 2- The second related to sanitation and hygiene education and distribution of kits, including prevention from COVID-19.

The project logframe suggests outcome indicators based on two different sources: KAP survey and pre-monitoring survey. As consequence, the exercise of impact evaluation foresees the generation of primary data (for the KAP survey that will include modules of the produced pre-monitoring survey) and the existing data of the pre-monitoring surveys already performed.

In addition to above sperate indicators were used to evaluate the impact of the project in aspects that are not described in the project logframe (mostly for the case of sanitation).

For estimating the impact of the program, it will be used a **mean difference method**. This method consists in comparing the mean values of the impact indicators between the treatment group (beneficiaries of the program) and the control group (not beneficiaries). In other words, it measures the differences in outcomes between program participants after the program took effect and another group who did not participate in the program. The mean difference is a standard statistic that measures the absolute difference between the mean value in two groups in an experiment. It estimates the amount by which the experimental intervention changes the outcome on average compared with the control. The statistical significance of the indicators is checked, and as consequence the difference between both means to know if the impact of the program both in the different indicators outlined in the findings section 3.

**Outcome 1. Safe water in accessible locations that meet Sphere standards and reduce the burden of fetching water**

**Indicator 1.1 Average time to fetch water** was estimated through questions on the main source of drinking water for your household, where is that water source located and how far is the water source from your house, how long does it take to reach to water source, how long does it take to stand in que and how long does it take to bring water to your home once you have fetched it.

**Indicator 1.2 Percentage of beneficiaries who recognize that the water sanitation environment has improved** was estimated through questions on do you feel the water is safer to use than a year ago, do you think water can carry diseases, what do you do to the water to make it safe to drink for everyone in your family and how do you usually store your drinking water

**Outcome 2. Households and religious leaders use hygiene education to improve hygiene (and sanitation) knowledge and use hygiene kits in a dignified manner**

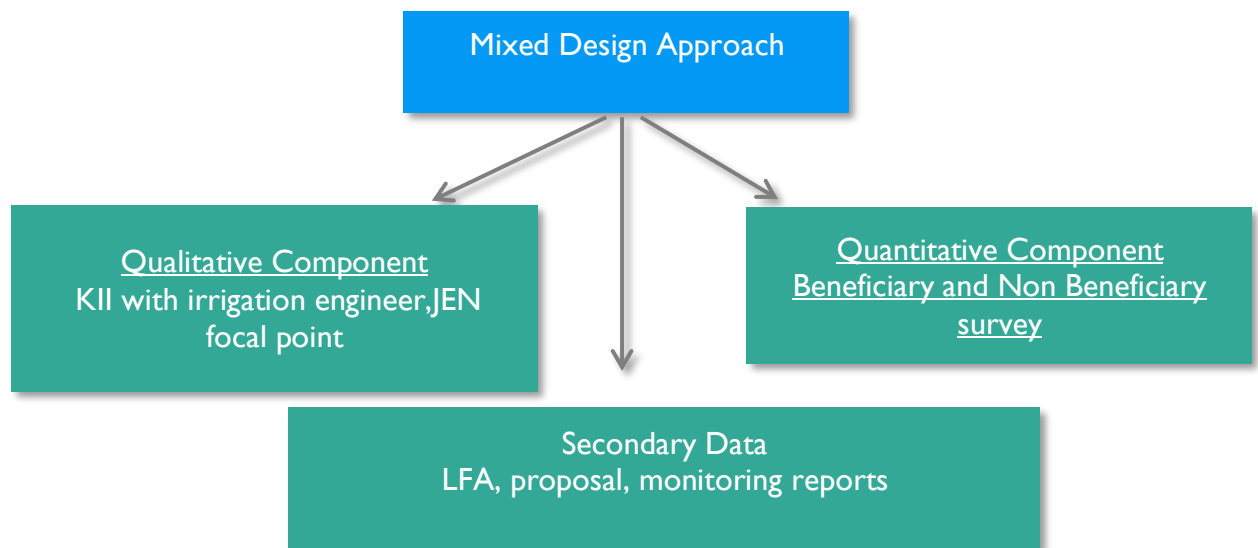
**Indicator 2.1. Percentage of individuals that wash their hands using soap on a daily basis was assessed using questions on** use any soap for any chores in your household, washing practices of fruit or vegetables, times and routines of washing hands, medium of washing hands, reasons of not washing hands, what brings behavior change for handwashing, types of latrine & their usage, information on hygiene education sessions conducted by JEN

**Indicator 2.2 Percentage of beneficiaries who perceived diarrhea to be reduced:** was evaluated through following areas on frequency of diarrhea in past three months by different age group in the family, perception that diarrhea has been reduced in the family in comparison to last year after JEN intervention, knowledge on diarrhea prevention, etc.

## 2.2 Methodology for data acquisition

In line with the above mentioned objectives, a mixed design approach was adopted for the evaluation. As a method, this research design focused on collecting, analyzing, and mixing both quantitative and qualitative data in order to provide a better understanding of study objectives. Evaluation design was based on triangulation of primary and secondary information collected during the study.

Figure 1: Summative evaluation data collection methodology



### 2.2.1 Sampling

In order to calculate minimum sample size for HH, we have used the following formula:

$n = N \cdot X / (X + N - 1)$ , where,

$X = Z_{\alpha/2}^2 \cdot p \cdot (1-p) / MOE^2$ ,

$Z_{\alpha/2}$  is the critical value of the Normal distribution at  $\alpha/2$  (e.g. for a confidence level of 95%,  $\alpha$  is 0.10 and the critical value is 1.645), MOE is the margin of error 10%,  $p$  is the sample proportion (assuming the largest possible variance of 50%), and  $N$  is the population size (1205 households)

Minimum sample size ( $n$ ) = 125HH

An estimated number of 13 extra observations, increasing the total to 138 surveys, in case of a data loss (worst case scenario of 20% data missing).

A case-control methodology was adopted for impact evaluation in consultation with the JPF and JEN to provide a scientific rigor to the evaluation. In this case-control method participants from both the intervention (138 HH) and the control group (28 HH) were purposively selected through matching by village type. The impact assessment was measured using project outcome indicators.

Case-control sampling methodology: stratified simple random sampling for selection of 138 beneficiary HH were adopted and 28 non-beneficiary HH from control cases. The criteria for selection of control area were HH from the same villages and have a similar vulnerability & demographic profile according to HEAT database of the

treatment cases, with the exception that cash for food distribution is not conducted from the JPF project nor from any other organisation.

### 2.2.2. Quantitative methodology

There are 2 main components of the project as described in the logframe:

- 1- The first one related to safe water in accessible locations that meet Sphere standards and reduce the burden of fetching water.
- 2- The second related to sanitation and hygiene education and distribution of kits, including prevention from COVID-19.

The project logframe suggests outcome indicators based on two different sources: KAP survey and pre-monitoring survey. The impact evaluation generated primary data (for the KAP survey that includes modules of pre-monitoring survey) and the current pre-monitoring surveys already performed.

However, there were added indicators to evaluate the impact of the project in aspects that are not described in the project logframe (mostly for the case of sanitation).

For estimating the impact of the program, **mean difference method** was used. This method consists in comparing the mean values of the impact indicators between the treatment group (beneficiaries of the program) and the control group (not beneficiaries). In other words, it measures the differences in outcomes between program participants after the program took effect and another group who did not participate in the program.

Table 1: Sampling methodology: stratified simple random sampling.

Type of village	Village	HH sampled	Percentage
Beneficiaries' village	Chamtala	82	59.4%
	Shekhmesri	28	20.3%
Control group village	Koza Qala	28	20.3%
<b>Grand Total</b>		<b>138</b>	<b>100.0%</b>

Table 2: Surveys and interviews conducted during the summative evaluation

	Beneficiaries		Non-beneficiaries	Total
Respondents	Chamtala	Shekhmesri	Koza Qala	Total
Beneficiary survey	82	28	-	110
Non beneficiary survey	-	-	28	28
KII with Irrigation Engineer	1			
KII with Senior M & E Manager at NGO	1			
KII with JEN focal point	1			
KII with local partners	1			

### 2.2.3 Tools for primary data collection

- Beneficiary survey: to gather information on food assistance through cash benefit.
- Non-Beneficiary survey to assess the counterfactual scenario
- KII with Irrigation Engineer PRRD, DoRR, Head of WMC to understand capacity building needs on WASH and ownership of JEN program intervention
- KII with JEN focal point to understand program improvement scope under localisation
- KII with Local partners to understand capacity building and collaborative efforts of JEN
- Verification Checklist for water points
- Observation of hand hygiene practices and access to safe water: observation of 10 minutes of 5-7 sites during a day. Observation of male and female will be conducted separately

### 2.2.4 Secondary data collection

**Desk Review:** Prior to starting, review of documents regarding the project, a introductory meetings were held with JEN team on the project. Post meeting, a comprehensive review of secondary documents related to the project was conducted. This involved:

- Monthly Reports
- Project Implementation Plan
- External monitoring reports
- Review of implementation plan, PDM monitoring tools: primarily to analyse the processes, output as per LFA

Literature review was first conducted during the tool development. The documents received from project such as application, monthly reports were critical for understanding the context for emergency food distribution evaluation. The gathered information was used to inform our data collection tools. Evaluator also reviewed existing peer reviewed journals on the internet for developing the tools. We used the key words (“sanitation” or “Nangarhar WASH situation ” or “hygiene”) and (“tools” or “questionnaires”) and (“Afghanistan” or “Pakistan” or “India” or “Iran” or “developing countries” or “low- and middle income countries”). Where possible,

evidences were triangulated. However, sometimes analyses were constrained by the availability of secondary data.

## **2.3 Data collection**

### **2.3.1 Training and Field Testing**

The training of provincial supervisor and enumerator for JEN project in Nangarhar province conducted successfully on July 24-25, 2022 in Health Protection and Research Organization (HPRO) office, Kabul. The training facilitated by HPRO technical team. Two participants one male and one female participated in this training. The methods used in the training were Interactive presentations and group discussions, Individual and group exercises, feedback from participants and facilitators, daily reflections from participants and role plays facilitated by investigators. In addition, the data collection tools presented separately to the participants and practically worked on the tools in Smart Phones using ODK system. Different methods, such as presentation, group work, questions and answers and practical work were conducted. Finally, the feedback was given by the facilitators regarding filling out the questionnaires and using ODK properly.

### **2.3.2 Data collection**

Data collection conducted from September 1- 6, 2022. An ODK based cloud mobile data collection platform “Kobotoolbox” was used for the data collection and storage. Digital data collection tools were designed in a manner that ensured receipt of quality data to the system, all possible validation measures were taken into account while designing the tool. Data collectors were popped up with alerts while submitting invalid data and they wouldn’t be able to submit incomplete or invalid data.

The key challenge faced by data collection team was accessing interviewees due to several reasons related to Covid, growing insecurity across Afghanistan. This resulted in difficulty in intra district movement and conducting KII’s. Thus, phone interviews of all participants were conducted from HPRO office. This was successfully executed due to presence of JEN structured database with all necessary details which allowed telephonic access to participants

### **2.3.3 Monitoring and Supervision for quality assurance**

A monitoring team from HPRO Kabul office performed spot checks of interviews as soon as it is uploaded in HPRO ODK. The study supervisor also conducted monitoring of the data collection process on ODK. Besides taking such quality control measures in the data collection application, a data quality assurance officer was assigned to regularly check the data for invalidity and communicated the data related issues with the data collectors. Incorrect records were rectified or eliminated from the database. To ensure respondents’ personal information confidentiality instead of collecting their name, the application generated an auto number for each respondent formatted as (Province Code, District Code, First three letters of village name, 4 digit random number). All qualitative data collection events were audio recorded. The quality assurance manager conducted quality checks on transcribed interviews and second quality assurance check was conducted on translated interviews.

### **2.3.4 Means of Communication**

The mode of communication was phone calls for weekly communication between HPRO Kabul team and JEN Afghanistan team. Virtual platform such as zoom, skype was used for sharing progress updates between JPF, JEN, and HPRO team.

## **2.4 Data management and analysis**

### **2.4.1 Transcription and Translation**

Transcription of field notes started as soon as the data arrived in the database. The quality assurance officer reviewed field notes for completeness and made additions to the notes after listening to the audio-recorded interviews. To get an accurate account of data from the interviews, the quality assurance officer, data manager and field supervisor had to review notes and make additions to the field notes. One translator was solely responsible for translating transcripts from Farsi/Pashto to English. The quality assurance officer translated quantitative information. Verbatim transcripts were created from the recordings using a standardized transcription protocol. Transcripts were translated into English, and used for analysis.

### **2.4.2 Coding of data**

#### **Quantitative**

The questionnaires were coded with such as district name, school name, village name etc. The study team developed coding rules for all the situations and applied them consistently. The coding issues were pertaining to missing information, ambiguous information, details of response is disconnected from choices selected by respondents. The data files were cleaned for errors. The data manager checked thoroughly the data file to ensure that all responses are within the valid range. Invalid entries were rechecked with the electronic database and based on consensus within the team, observations were replaced with valid numbers. Once questionnaire data was coded, the data was entered into an electronic file of access spreadsheet so that file that can be easily imported into a data analysis software program.

#### **Qualitative**

Some identifiers such as KII interview name used in the study were put in hidden folders since we no longer need this information as we wanted to eliminate the possibility of linking responses on the electronic file to individuals. During the study respondents were given opportunity to provide written comments at the end of the questionnaire.

The research objectives and research questions guided data coding for qualitative data. The key themes were developed based on the objectives of the evaluation. The sub-themes were generated using the relevant research questions. These were priori codes that guided the categorization of the data.

### **2.4.3 Data analysis**

#### **Quantitative**

For quantitative data analysis, data was first run for missing values, double entries in STATA 14. Data was recoded for certain values and new variables were generated. During data analysis of quantitative data, data issues of type I and type II errors was assessed. The quantitative information was compiled to generate ratios and figures. In this study only univariate analysis was conducted, mainly in the form of frequencies

and percentages. Later, pivot tables were generated using Ms Excel to segregate the values as per sub-groups.

### **Qualitative**

After the qualitative data was transcribed and then translated to English, data was grouped under one major theme. Grouping of sub themes took place by reviewing their meaning in relation to the major themes. The major themes were: 1) Program functioning, 2) Comparative household food assessment between beneficiary and non-beneficiary 3) Project Management. Sub themes were generated under each major theme based on the objectives stated in ToR. The purpose was to group themes in a hierarchical structure. Sub themes were placed under each major theme in a way that supports the major theme. In addition, when reading text under the themes and adding thoughts and ideas about a particular theme, evaluator tried to identify and assess the relationship between different variables. Similarities and difference between the themes and determined how they interact with each other was assessed.

#### **2.4.4 Limitations**

There were various limitations to this study, which can be divided into, challenges of field, and evaluation scope. The scope of evaluation was broad considering the interventions in three districts. The evaluation team in consultation with JEN field team tried to select control groups as close to the beneficiaries as possible so there is close matching but there were challenges at matching the households as control. Some of the indicators couldn't be captured in the JEN survey so has to be dropped while conducting impact analysis since comparative t-test cant be performed.

# Findings

Objective 1: To verify and measure outcomes of the projects

Objective 2: To understand beneficiary satisfaction

Objective 3: To document project achievements and challenges

Objective 4: To provide any possible indicatives for improving the projects for both JPF and member NGOs (Recommendations)

### 3 Findings

Sections 3.1 to 3.3 present the findings of analysis under three objective areas of the study. Reference was also made to link the findings with the project's stated outcome. As discussed in Chapter 2 (Methodology), the findings were drawn primarily from the in-depth analysis performed through an extensive review of policies around cash assistance for food, project documents and primary data generated from the field. This section presents the findings under four large themes followed by sub thematic areas. Headline findings are presented as bold (and numbered) statements and the supporting findings are presented as sub sections with additional paragraphed text.

#### 3.1 Objective 1: To verify and measure outcomes of the projects

##### 3.1.1 beneficiary characteristics

There have been enquired 138 households, from three villages, with the distribution depicted below (table I). There were sampled 3 villages from the same district: two of them were benefited from the participation in the program (Chamtala and Shekmesri) and one as control group (Koza Qala).

The sampling between the beneficiary households followed the beneficiary distribution<sup>8</sup>: 76% of the beneficiaries were located in Chamtala, while 24% in Sikh Mesri. In the case control there was performed a simple random sampling for selection HH in one village (Koza Kala) representing a 25% of the treatment sample (28 households)<sup>9</sup>.

Table 3: Sample distribution of beneficiaries by village

Type of village	Village	HH sampled	Percentage
Beneficiaries' village	Chamtala	82	59.4%
	Shekhmesri	28	20.3%
Control group village	Koza Qala	28	20.3%
<b>Grand Total</b>		<b>138</b>	<b>100.0%</b>

**Distribution by age:** The average age of the individuals of the sample is 34,8 years-old. In the case of the beneficiaries, the average age in Chamtala is 39years old and in Shekhmesri 38,3 years old. Finally for the control group the average age is 36,8 years old (Koza Qala).

<sup>8</sup> The sample size was calculated using the following formula:

$$n = N * X / (X + N - 1)$$
, where,  $X = Z_{\alpha/2}^2 * p * (1-p) / MOE^2$ ;  $Z_{\alpha/2}$  is the critical value of the Normal distribution at  $\alpha/2$  (e.g. for a confidence level of 95%,  $\alpha$  is 0.10 and the critical value is 1.645); MOE is the margin of error 10%,  $p$  is the sample proportion (assuming the largest possible variance of 50%), and  $N$  is the population size (1205 households). Minimum sample size ( $n$ ) =90 HH.

There were collected an estimated number of 20 extra observations, increasing the total to 110 beneficiary surveys, in case of a data loss (worst case scenario of 20% data missing).

<sup>9</sup> The distance between intervention areas and non-intervention area will be minimum 10 Km. Additionally, control area having similar cultural, economic, customs and geographical conditions that of intervention area except that well are not constructed and source of water is natural streams, along with awareness on hygiene session and kit distribution is not conducted from the JPF funded project nor from any other organisation.

**Distribution by sex and marital status:** In total 48,9% of the respondents of the interviews were female while 51,1% were male. In the case of the beneficiaries' villages the percentages were 50-50 in Chamtala and 48,1% female and 51,9% male in Shekmesri. For the control group, the distribution was 46,4% female and 53,6% male.

All of surveyed beneficiaries and control group respondents were married.

**Distribution by ethnicity:** Almost all respondents belonged to the Pashtun group. There was one case of a person who belonged to Pashayee group in Chamtala.

**Distribution by migration status:** Most of the respondents were returnees (85,7%) while the remaining 15.9% were IDPs. In Chamtala, 78% were returnees and 22% were IDPs, and in Koza Qala, all of them were returnees. In the control group village, Shekmesri, 85.7% are returnees and 14.3% IDPs.

**Children:** Most of the respondents reported to have 2 children (29%). More than half of the respondents have between 1 and 2 children (55,1%). There is a 26.1% of respondents that have 3 children, and only 0,7% have more than 3 children. When analysing the distribution between beneficiary and control villages, there are not big variations on the percentages.

### **3.1.3 complaint mechanism and grievance addressal**

The KII findings concluded that JEN has effective mechanisms in resolving complaints. As a part of ritual followed by JEN project staff, a complaint box is placed after each session for all the participants to submit their complaints. Additionally, to address complaint through community platforms, JEN has established a committee (shura). Through these complaints are resolved. Hence, multi-pronged approaches are adopted by project staff to address complaints.

## **3.2 Objective 2: To understand beneficiary satisfaction**

The KII findings revealed that the beneficiaries are satisfied with the construction of well and pipe scheme.

Most of the beneficiaries (87%) perceived a very high involvement in all the project components. In total 98% felt a high or very high degree involvement in the implementation process of the project. The high Involvement of beneficiary from the findings suggests that the beneficiaries are involved when the list of the potential interventions is prepared. They are asked about their requirements and the intervention they need the most at that time. So, most of the beneficiaries mentioned that they have a high involvement in all components of the program such as construction of wells and water supply stations and community-based sustainable management systems. Beneficiaries were also satisfied with distribution of hygiene kits. The majority of beneficiaries felt very highly involved in the monitoring mechanisms of the project (74%). Additionally, the 21% of the beneficiaries felt highly involved in the mechanism.

Almost all beneficiaries recognized the complaint/feedback mechanism of the project (97,5%). From the users of the feedback/complaint mechanisms, the 75% (three of them) recognized an authorized person to solve issues. Additionally, both beneficiaries that have had their issues resolved, noticed that there were improvements after the complaint was solved.

All beneficiaries consider that the JEN program is fair and is helpful for their families and are willing to continue being part of program.

### 3.3 Objective 3: To document project achievements and challenges

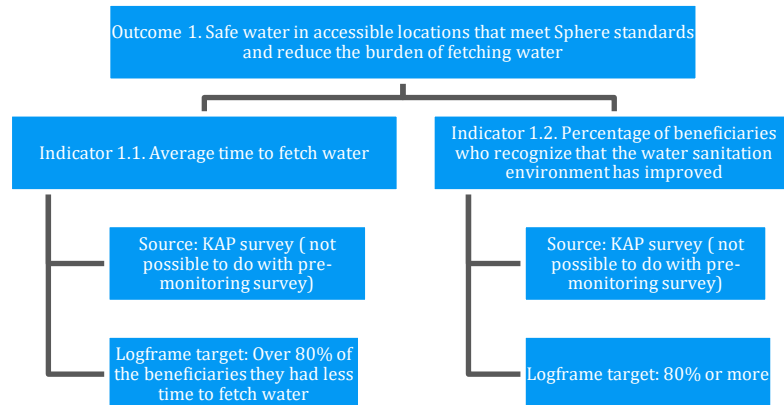
#### Achievements

#### 3.3.1 Impact evaluation

There are two main components that structured the impact evaluation through the two main expected outcomes of the project: 1-Access to water, corresponding to the outcome “Safe water in accessible locations that meet Sphere standards and reduce the burden of fetching water; and 2-Improved hygiene and sanitation, corresponding to the outcome “Households and religious leaders will use hygiene education to improve hygiene (and sanitation) knowledge and use hygiene kits in a dignified manner”.

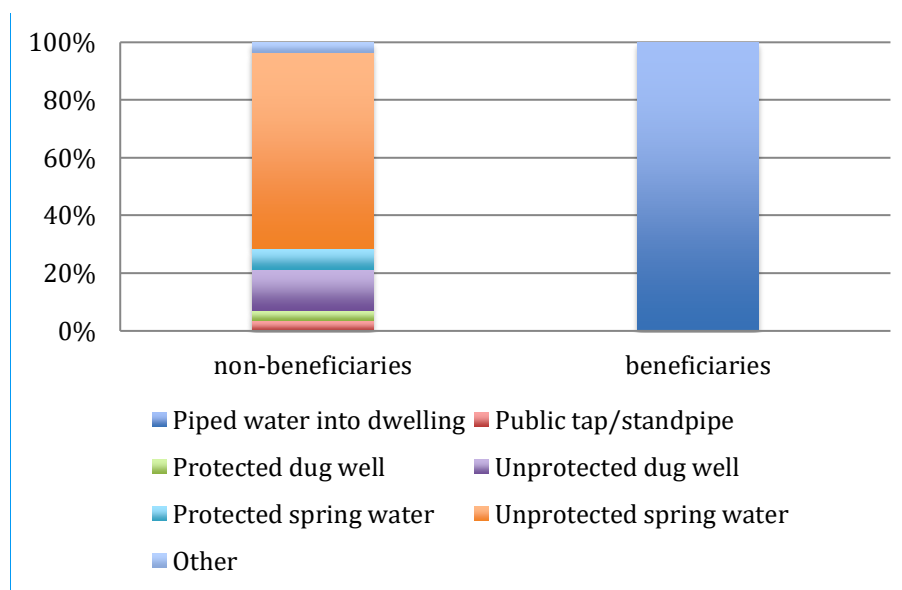
There are precise indicators specified in the logframe for each component. Furthermore, those indicators were complemented with other indicators to have a better perspective of the impact.

##### 3.3.1.1 Component 1: Access to water



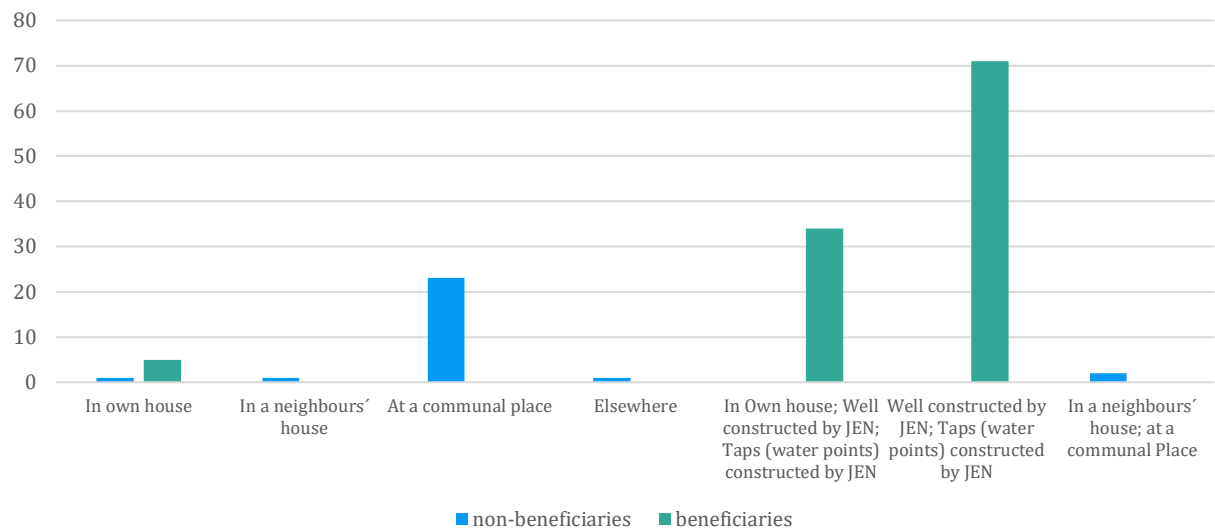
Every beneficiary main water source is piped water into dwelling, while none of the control group has this type of water source and their main water source is unprotected spring water.

Figure 2: Main source of water by groups



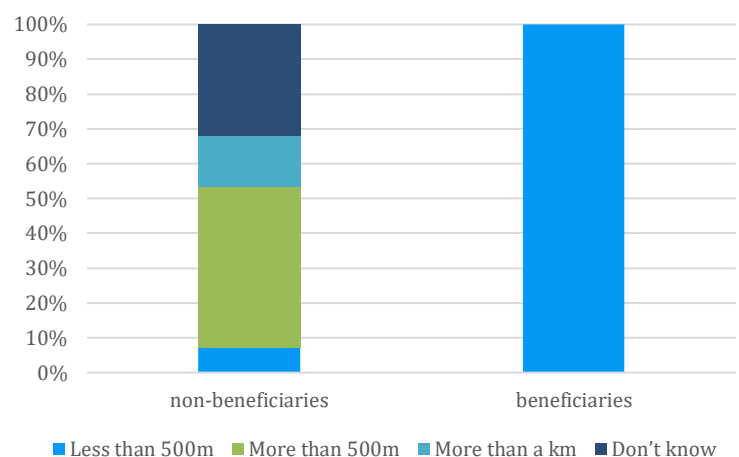
Regarding the location of the water source, most of the beneficiaries are provided by water from the wells or water points constructed by JEN. In the case of the non-beneficiaries, the location of their main water source is at a communal place.

Figure 3: Location of the water source



All beneficiaries have access to water source within 500 meters while only 7,1% of non-beneficiaries have access to the water source within 500m from their households. The total average time that it takes to fetch water and bring it to people's homes was divided into 3 stages (measured in minutes): the average time it takes it to reach to water source; the average time it takes to stand in queue to fetch water; and the average time it takes to bring water to their homes once they have fetched it.

Figure 4: Distance from water source



There is a clear difference between the time it took to beneficiaries in the three stages in comparison to the non-beneficiaries: In average it took nearly 1 minute for beneficiaries to reach the water source, they had no queue, and it took another minute to get back to their homes with the water; in fact the water source is located inside the compound. While non-beneficiaries spent 51 minutes to get to the water source, had to wait more than 13 minutes to fetch water and spent 56 minutes to get back to their homes.'

Table 4: Average time to fetch water, by village

Village	Average time it takes it to reach to water source (minutes)	Average time it takes to stand in queue to fetch water (minutes)	Average time it takes to bring water to their homes once they have fetched it (minutes)	Total average time (minutes)
Chamtala	1.12	0.01	1.13	2.27
Shekhmesri	1.11	0.00	1.11	2.21
Koza Qala	51.00	13.07	56.61	120.68

Indicator 1.1 analysis: Average time to fetch water. Regarding the mean difference, in this case we reject the null hypothesis (with a P value smaller than 0.05), so there is statistical evidence that there is a difference between the group of beneficiaries and the no beneficiaries. That difference is bigger than 118 points more in the case of the non-beneficiaries. This means that on average, it took 118 more minutes for non-beneficiaries to get water in comparison to beneficiaries, which only took a little bit more than 2 minutes.

Additionally, there is less dispersion in the case of the beneficiaries, which means that all of them take more or less homogenously the same time (2 minutes) to fetch water, in comparison to non-beneficiaries. Some of the non-beneficiaries might take more than 160 minutes to fetch water.

The 80% target was fulfilled, because all beneficiaries spent less time to fetch water than non-beneficiaries.

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
0	28	120.6786	7.839672	41.48365	104.5929	136.7642
1	110	2.254545	.0724138	.7594827	2.111024	2.398067
combined	138	26.28261	4.360828	51.22813	17.65937	34.90585
diff		118.424	3.915139		110.6816	126.1665

diff = mean(0) - mean(1) t = 30.2477  
 Ho: diff = 0 degrees of freedom = 136

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0  
 Pr(T < t) = 1.0000 Pr(|T| > |t|) = 0.0000 Pr(T > t) = 0.0000

Indicator 1.2 analysis: Percentage of beneficiaries who recognize that the water sanitation environment has improved

All the beneficiaries of the project perceived that the water is safer than a year ago, while nearly 93% of the non-beneficiaries perceived that the water is not safer than a year ago. As consequence, the 80% target was fulfilled, because all beneficiaries have a better perception on the water safety. Additionally, to the perception on water safety, there were enquired a series of questions regarding safe water usage. All beneficiaries do not treat water because it is already treated, while 50% of the non- beneficiaries either boil it or let it stand and settle. Regarding water storage, all beneficiaries do it on a covered container (such as buckets, bottles, or clay pots)

Figure 5: Perception of water safety

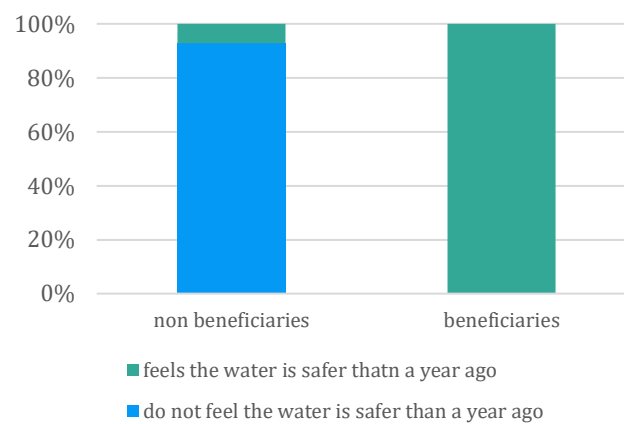
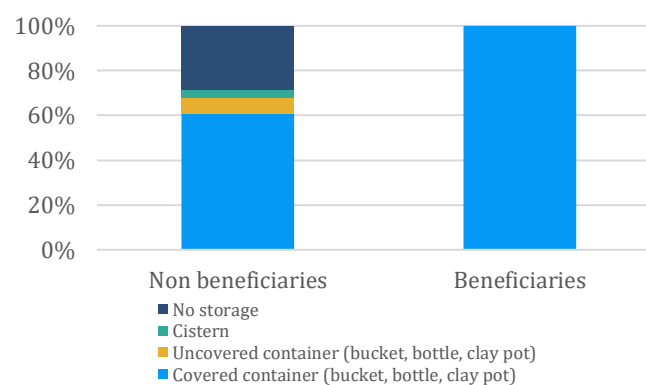
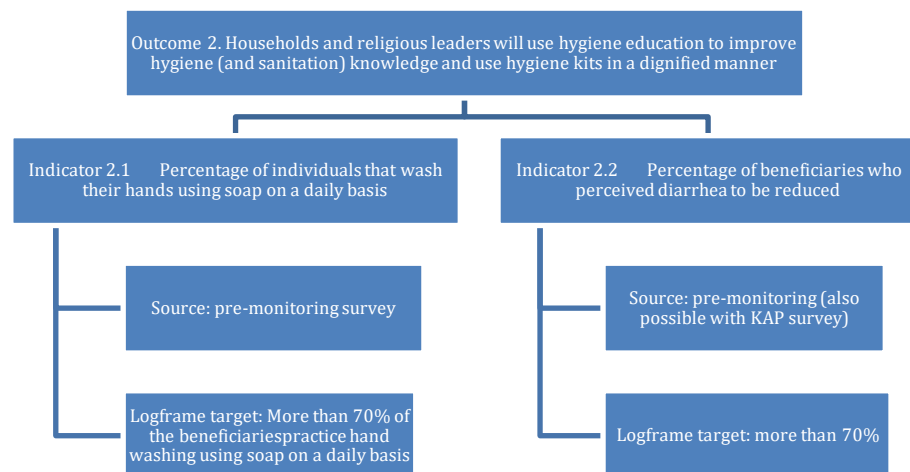


Figure 6: Water storage



### 3.3.1.2 Component 2: Hygiene and sanitation



#### Indicator 2.1 Percentage of individuals that wash their hands using soap on a daily basis

Figure 7: Use of soap for household chores

All beneficiaries use soap for household chores, while in the case of non-beneficiaries, only 42,6% use soap. As result, the 70% target stated in the logframe was accomplished.

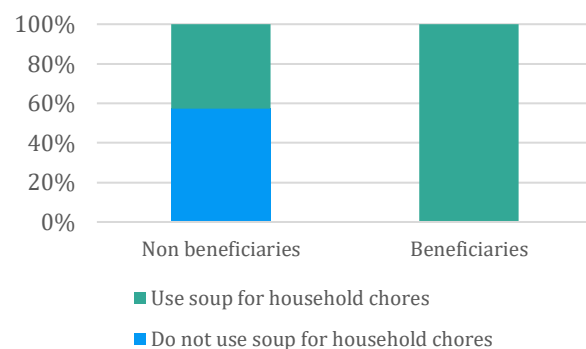
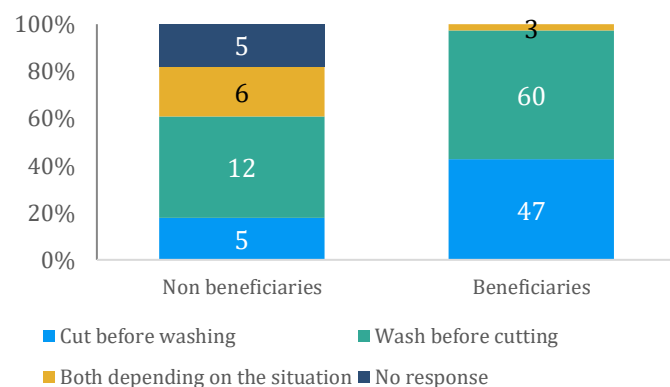
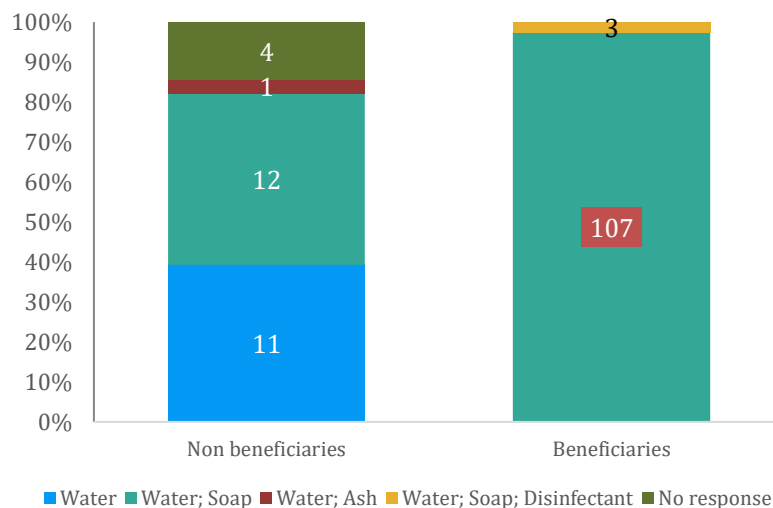


Figure 8: Washing fruites and vegetable Practices



From a list of 14 washing hands habits such as: washing hands before preparing food, after touching animals, etc<sup>10</sup>, 87% of the beneficiaries practice 5 or more habits. On the other hand, 4% of the non-beneficiaries practice less than 4 washing hands habits.

Figure 9: Items used for handwashing



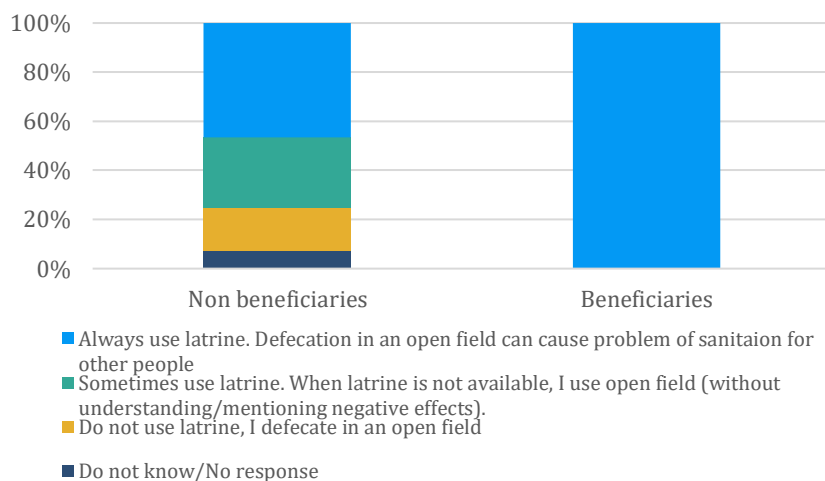
The 97% of the beneficiaries wash their hands with water and soap, 72% also uses disinfectant, in comparison to non-beneficiaries, from whom 28% wash their hands only with water and only 50% washes their hands with water and soap.

Figure 10: Frequency of use of latrine

Regarding sanitation, all beneficiaries use latrine always. In counter position, only 46,4% of non-beneficiaries use it always, 28,6% use it sometimes and 17,8% never use it.

Most of the beneficiaries use a flush or pour flush toilet (67,27%). In second place they use pit latrine without slab/open pit (16,36%)

and in third place, pit latrine with slab (8,18%). Regarding non-beneficiaries, the majority use pit latrine without slab/open pit (42,8%) and 25% use pit latrine with slab. All beneficiaries either have latrine (75,45%) or have discussed it is important to have it, but they do not due to financial reasons (24,54%)



<sup>10</sup> The full list of washing hand habits: After contact with sticky, oily, smelly materials; After coming from the burial field/garden/work; First thing when you wake up; After eating; After attending to a child who has defecated; Before preparing food; Before feeding a child; Before serving food; After touching animals; After cleaning a dead body; After using the toilet/defecating; Before eating; Before breastfeeding; After changing a child's diaper/ cloth

There were not any hygiene education sessions conducted in the non-beneficiary villages. However, only 50,9% of the beneficiaries recognize that those sessions were carried out in their villages. Further inquiry with JEN team in Afghanistan it was revealed that hygiene education session was only conducted for men. Women were not the target of the hygiene education sessions.

Figure 12: Toilet facility used by family members

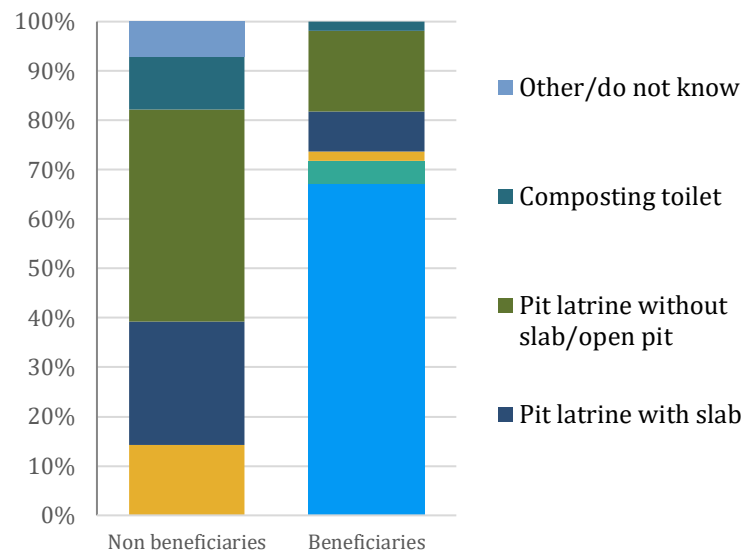
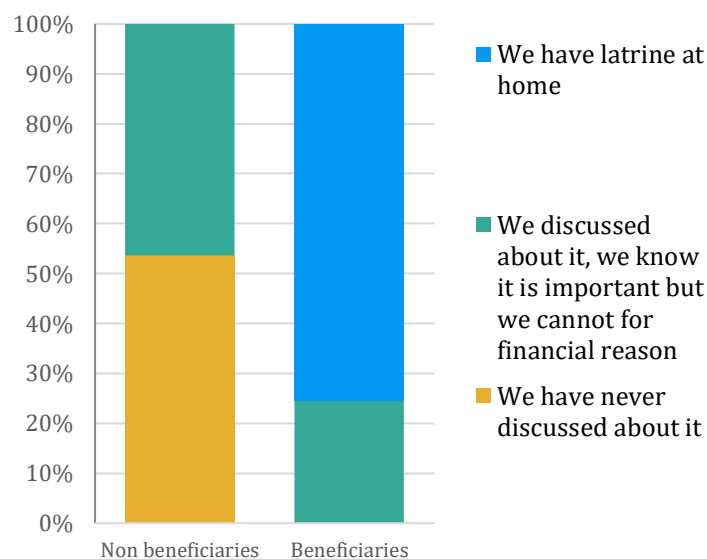
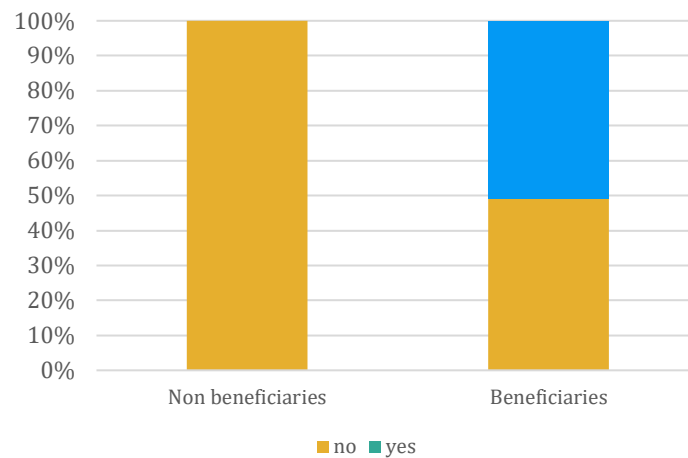


Figure 11: If the family ever thought about building latrine



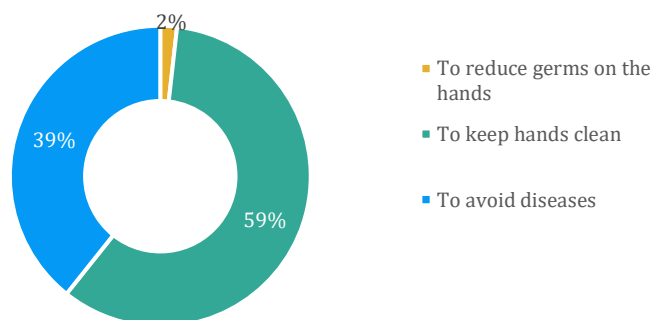
There was no village left apart, because half of the beneficiaries in Chamtala and 53.57% of beneficiaries of Shakmesri recognize that those sessions were carried out in their villages. Finally, when analyzing the responses by sex, it was detected that none of the women recognized those session, but all the men did. Hence, hygiene education sessions were not inclusive for women. All men, who took part of those sessions considered that the sessions were participative, mainly because "People would gather (sometimes at the house of the community leader) and would be taught".

Figure 13: Hygiene education sessions conducted in village



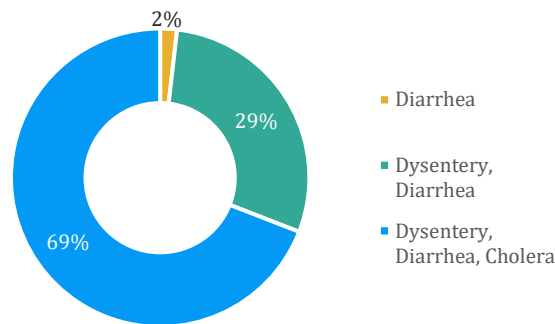
According to the responses of the men that attended to the hygiene sessions, the main purpose of hand hygiene for most of them is to keep the hands clean (59%), secondly, to avoid diseases (39%) and third to reduce germs on the hands (2%).

Figure 14: Purpose of hand hygiene



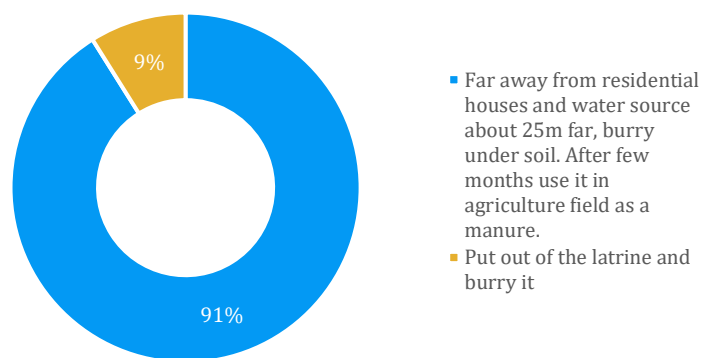
According to the responses of the men that attended to the hygiene sessions, most beneficiaries (69%) associate Dysentery, Diarrhea, and Cholera with not washing hands; 29% associate with Dysentery, and Cholera, and only 2% with Diarrhea.

Figure 15: Diseases associated with not washing hands with soap/ash



The 91% of the men that attended to the hygiene sessions say that the human waste should be put far away from residential houses and water source about 25 meters far, bury under soil. After few months use it in agriculture field as a manure. Secondly, the 9% thinks that it must be put out of the latrine and buried.

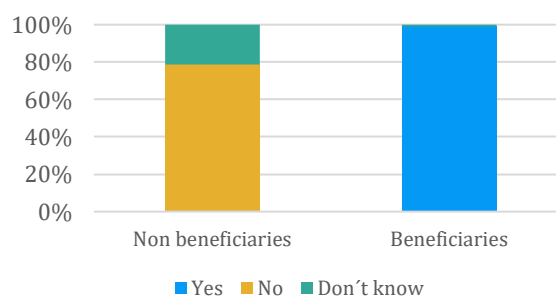
Figure 16: Disposal of the human waste when using the latrine



#### Indicator 2.2 Percentage of beneficiaries who perceived diarrhea to be reduced

All beneficiaries perceived that the diarrhea has reduced in comparison to last year. In contrast, none of the non-beneficiaries perceived that diarrhea has reduced. As consequence, it was completed the 70% target stated in the logframe.

Figure 17: Perception of reduction of diarrhea in the family



Diarrhea perception was complemented with incidence of diarrhea, prevention awareness on diarrhea.

Only 10,9% of the beneficiaries had experience the episodes of diarrhea during the last month, in comparison to non-96.4% of beneficiaries reported diarrhea within the same period. In terms of episodes of diarrhea among children, only 8.1% of the beneficiary children suffered from it during last month, as opposed to 82.1% of the non-beneficiary children experienced it.

Figure 18: Diarrhea of children under 5 during last month

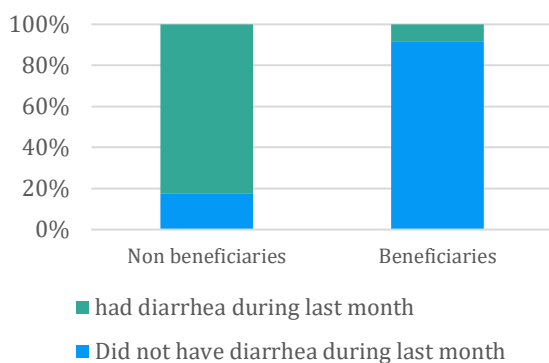
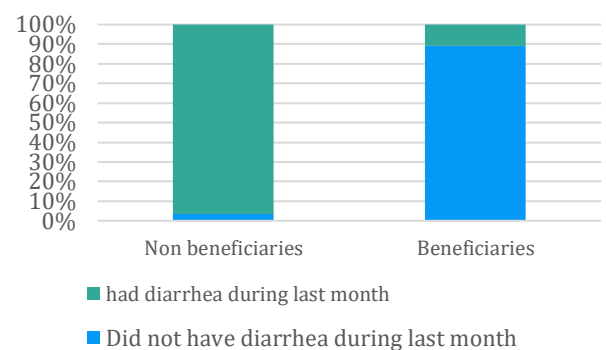
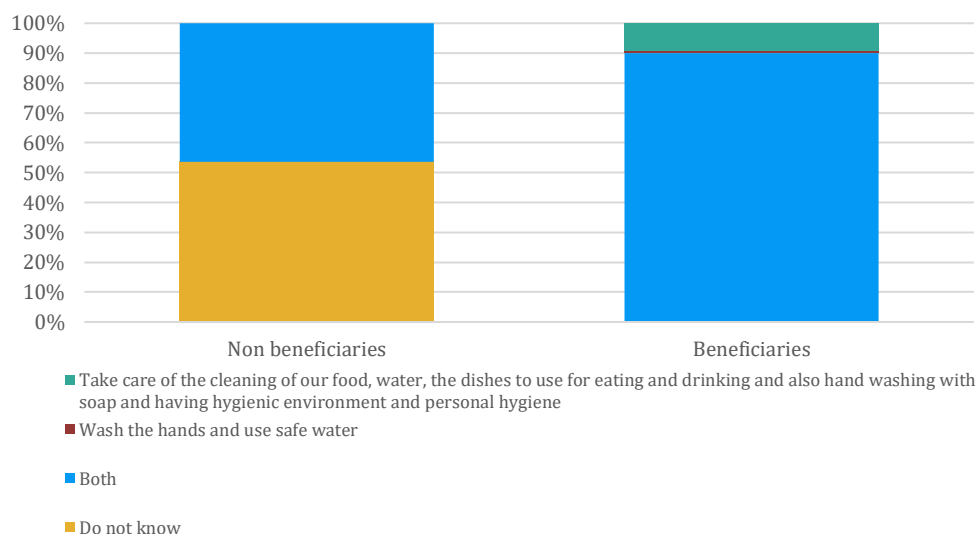


Figure 19: Diarrhea during last month



The 90% of the beneficiaries think that for protecting from diarrhea they should both: 1-Take care of the cleaning of our food, water, the dishes to use for eating and drinking, and also hand washing with soap and having hygienic environment and personal hygiene; and also 2-wash the hands and use safe water. On the other hand, 53,57% of the non-beneficiaries do not know how to protect the spread of diarrhea.

Figure 20: How to protect the spread of diarrhea



### **Impact evaluation summary**

All targets of the project had set in the logframe were completed successfully. As follows, these are some insights on the different components.

**Access to water:** the data highlighted reduction in time to fetch water along with improvement in access to quality of water due to change in water source as compared to non-beneficiaries. This invariably has affected the quality of life such as improved health, reduced time, and effort. It can be concluded that health is improved due to the better quality of water while time is saved so families have more time to allocate on children, and other tasks. Additionally, the amount of effort for walking to the waterpoint and carrying the water back home is saved.

**Hygiene and sanitation:** The finding's highlighted beneficiaries have better hygiene and sanitation habits and knowledge on WASH. Communities are more aware, in spite of the fact that households face financial barrier to building more number of latrines. The only barrier generated from the findings was women lack of participation in hygiene trainings, which could be due to culture barriers or security concerns. To compensate that, JEN made efforts to share hygiene knowledge with women, by Mullahs and female Hygiene Promoter spreading the words to women.

Hence, the project was successful both in bringing awareness and reducing water related diseases such as diarrhea.

## **Challenges**

### **3.3.2 General challenges**

**Procurement under present government:** The findings of the KII highlighted that the procurement was efficient in previous Afghan government but, with the change in the new government issues in procurement, contracting and supply chain has emerged affecting services on the ground.

**Delays from banks in releasing money:** The international financial transactions have been hit badly due to change in regime, leading to delays in transfers for months and therefore timely payments to service providers was affected, so thus the roll out of activities.

**Availability of land to construct well:** The KIIs data highlights the unwillingness of community to donate or sell land for construction of well, hence this derailed the project in terms of timelines for substantial amount of time was invested in convincing community for the same. JEN however, was able to overcome this challenge at the proposal stage and ensured the availability of land during the needs assessment and the donation documents were processed by DRRD and DoRR.

### **3.3.3 Program management challenges (KII data)**

**Devaluation of Yen:** Yen devaluation against the dollar was one of the big challenges faced by JEN project staff. Reduction in value of Yen led to reduced donation. Due to lack of resources, and after confirming the safety of the Well with the community, some of the boundary wall around the well, water reservoir and solar panels was decided not to be constructed.

**Limited women participation:** The KIIs cited that due to decree on banning women from getting education or getting out of home without mahram issued by the present government, women participation was restricted in the training. However, JEN leadership and project staff ensured communication and awareness on WASH with women is continued through religious scholars or through the male family members.

### **3.4 Objective 4: To provide any possible indicatives for improving the projects for both JPF and member NGOs (Recommendations)**

#### **Community Engagement**

Community involvement at the beginning of the project can be further strengthened in any new program. This is to foster trust at the initial stage which will help in quick mobilization of resources such as land, people and other support. New innovative ways can be devised to get 'buy in' from the community stakeholders.

#### **Dealing with the devaluation of money**

Unpredictable global economic situations have put forth challenging issues in front of JEN and one was Yen devaluation against the dollar. Carving out an alternative plan on resource generation/pooling/crowdfunding/financing as part of program implementation strategy is of utmost need.

