

## INDEPENDENT FINAL EVALUATION

JULY 2015

# Safe drinking water, sanitation and hygiene support for flood affected community in Pakistan



Funded by  
**CHARITY:**  
**WATER**

By Zaki Ullah

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## **Preface / Acknowledgement**

This evaluation report of Safe Drinking Water, Sanitation and Hygiene Support to Flood Affected People in Pakistan has been submitted to ACF. The consultant would like to thank Ms. Hannah Wichterich and Mr. Shahzad Ajmal Paracha from ACF for coordinating this evaluation exercise. A special thanks also goes to the ACF field staff and the communities who participated in the interviews or group discussions to share their views.

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## List of Acronyms

|         |  |
|---------|--|
| ACF     | Action Contre la Faim                            |
| ADCO    | Assitant District Coordination Officer           |
| CBOs    | Community Based Organizations                    |
| CFW     | Cash For Work                                    |
| CLTS    | Community Led Total Sanitation                   |
| DAC     | Development Assistance Committee                 |
| DCO     | District Coordination Officer                    |
| DRR     | Disaster Risk Reduction                          |
| ELA     | Evaluation, Learning and Accountability          |
| FCM     | Feedback Complaint Mechanism                     |
| FGDs    | Focus Group Discussions                          |
| FSL     | Food Security and Livelihood                     |
| HDPE    | High Density Polyethylene                        |
| HHs     | Households                                       |
| HP      | Hand Pump  |
| INGO    | International Non Governmental Organization      |
| KAP     | Knowledge Aptitude and Practice                  |
| KIIs    | Key Informant Interviews                         |
| MAM     | Moderate Acute Malnutrition                      |
| MDG     | Millennium Development Goals                     |
| MoU     | Memorandum of Understanding                      |
| MUAC    | Mid-Upper Arm Circumference                      |
| NGO     | Non Governmental Organization                    |
| ODF     | Open Defecation Free                             |
| PATS    | Pakistan Approach to Total Sanitation            |
| PC 1    | Planning Commission 1                            |
| PCRWR   | Pakistan Council for Research in Water Resources |
| PHED    | Public Health Engineering Department             |
| PKR     | Pakistani Rupee                                  |
| PQA     | Program Quality Assurance                        |
| SAM     | Severe Acute Malnutrition                        |
| SanMark | Sanitation Marketing                             |
| TMA     | Taluka Municipal Administration                  |
| UCs     | Union Councils                                   |
| WASH    | Water, Sanitation and Hygiene                    |
| WMCs    | WASH Management Committees                       |

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## Executive Summary

This is the final evaluation report of Action Contre La Faim's (ACF) project 'Safe drinking water, sanitation and hygiene support for flood affected community' in Pakistan. This project was initiated in January 2014 funded by Charity: Water support in 80 villages of Dadu district of Sindh Province. The project principal objective was "to prevent malnutrition in children and reduce water related diseases in flood affected communities through improved access to safe water, sanitation and hygiene".

The project included delivery of water through hand pumps and provision of household water treatment system in the selected villages. In addition, Community Led Total Sanitation (CLTS) approach was used to mobilize communities against open defecation and encouraged them to construct latrines. Subsidized toilets, Easy Latrines, were included to support extremely vulnerable families. Sanitation Marketing (SanMark) approach was part of the intervention with the aim to engage local businesses in the Open Defecation Free (ODF) drive. Under this project, ACF also established Water, Sanitation and Hygiene (WASH) Management Committees (WMCs) and conducted capacity building trainings for communities.

The project overall, included 320 hand pumps (220 new and 100 rehabilitated), 880 Easy Latrines and 880 Chuli Filters. Besides hygiene campaigns in the selected 80 villages were conducted. Triggering for ODF was initiated through CLTS in 80 villages.

The evaluation was conducted through desk review of relevant documents. In addition, field visits were carried out to randomly selected 14 villages to conduct Focus Group Discussion (FGDs), Key Informant Interviews (KIIs) and to complete activities check lists. The key study limitations include availability of the communities for participation in the FGDs in the month of Ramadan (month of fasting) and also as the community was busy in cultivating Rice crop. A total of 26 persons were interviewed during the evaluation exercise. The total attendance in the 15 FGDs conducted was 150. Out of the total FGD participants, 66 were men and the remaining 84 were women.

In summary, the overall project **design** was good, however, the revised social mobilization team was smaller as compared to the scope of activities. In addition, it seems that ground needs were not extensively assessed during the proposal design stage which led to exclusion of Johi Taluka due to high cost of drilling for hand pumps. The interventions were considered by the communities very **relevant** to their circumstances. The lead line hand pumps (HPs) was very appreciated by the communities due to which they got access to safe water. The latrine interventions also found to be **appropriate** especially subsidized latrines / easy latrines to the vulnerable households. The activities were conducted in **coherence** with other ACF activities in Dadu district funded by European Union (EU). However, regular coordination with external stakeholders particularly government department was limited. The project was also unable to engage government in monitoring, and in long term technical support roles. The **coverage** of all the interventions was aimed at benefiting all the communities without any discrimination. This was achieved through detailed need assessment conducted at the beginning of the project. The selection criteria also allowed for inclusion of the vulnerable households as well. The **efficiency** of the project could have been further achieved by bringing balance between the social mobilization and hardware component. The activities were **effective** as they were delivered in coordination with Nutrition and Food, Security and Livelihood (FSL). There is still room for improving the linkages with these

sectors, e.g. in terms of Cash for Work (CFW) activities related to latrine superstructure construction or kitchen gardening with the excess water flow from hand pumps or using the excess water flow from hand pumps for livestock drinking. Under the **sustainability and likelihood of impact** component, ACF has transferred maintenance skills to the communities for hand pumps, Chuli Filter etc and also provided maintenance tools. The community has been seen in carrying out maintenance in many instances. However, some of the other components like SanMark intervention where the linkages between the sanitation marts and communities were not strongly built, the established marts may not sustain. Though it is quite early but likelihood of project interventions **impact** has already been felt, the post Knowledge Aptitude and Practice (KAP) report suggests that there is a trend of decrease in water borne diseases in the intervention area. As a result the health status of the community has been improved compared to pre KAP data. This is resulting in improved nutritional status of the people particularly children in the targeted communities.

The key lessons learnt were regarding the early introduction of subsidized latrine immediately after initial triggering under CLTS which discouraged people from constructing latrine on self help basis. The Sanitation Marketing (SanMark) interventions would not yield desired results unless the sanitation marts and communities are strongly linked. The communities were unable to construct latrine super structure without proper technical guidance.

The good practices in the project were the innovation in the shape of lead line hand pump. The identification marking convention adopted for marking each individual hand pump was excellent. The strategy to engage three contractors to implement the hand pump installation and maintenance component produced good results.

To overcome some of the challenges in future projects, it is recommended for ACF WASH team to provide **technical support to the communities regarding latrine superstructure** construction. It would be useful to review existing latrine construction strategy and **include connecting pipe to the second pit** of the latrine. **The subsidized easy latrines to be introduced only after social mobilization activities for CLTS triggering have been formally concluded.** To make **SanMark intervention effective and sustainable**, ACF WASH team to **revisit the implementation methodology.** The **Hand Pumps with >500 ft Lead Line** could be made more effective through using insulation around the pipe. The **overflow from hand pumps and soakage pits** which is creating nuisance at the moment **could be converted into an opportunity to encourage vegetation; kitchen gardening and / or simply using it for cattle's drinking purposes.** The **social mobilization team needs to be increased in number of staff** for similar interventions in future. Similarly, WASH team could further strengthen linkages with Nutrition through **training WASH social mobilizers in basic techniques of taking MUAC readings**, this will help improve referral of Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM) cases. Likewise, enhanced or **intermediate level training of nutrition staff in hygiene promotion or CLTS** will help passing on key hygiene messages and contribute to CLTS activities through follow up visits. The FSL and WASH team could work together to see possibility of **linking latrine super structure construction with cash for work** activities. The **Program Quality Assurance (PQA) team to put similar focus on capturing hygiene promotion and capacity building trainings quality data** as currently it is doing for the WASH hardware component. The ACF WASH team to reiterate the message to the communities that **the use of Chuli Filter water for bathing** is only advisable if

their drinking needs are met. As ACF has a strong presence in Dadu and there are obvious WASH needs in the area, it is recommended that ACF Pakistan and Charity: Water work together to ensure **continuation of WASH activities in Dadu** district (also extend activities to Johi Taluka).

## 1. Background Information

ACF's project 'Safe drinking water, sanitation and hygiene support for flood affected community in Pakistan' has been implemented in Dadu district of Sindh Province. The project is funded by Charity: Water. The project principal objective was "to prevent malnutrition in children and reduce water related diseases in flood affected communities through improved access to safe water, sanitation and hygiene". The Dadu district has been affected by flooding several times in the last decade. This includes flooding in 2007, 2010 and 2011. Like some of the other districts of Sindh Province, Dadu district is also faced with malnutrition challenge. The ACF survey conducted in 2011 highlighted that malnutrition rate of under 5 years in Dadu was 17.3% i.e. higher than the emergency level of Global Acute Malnutrition (GAM) rate of 15%. Similarly, the WASH indicators suggested that more than 90% of the people have less than 15 liters of safe water available per day. According to weekly bulletin of Disease Early Warning System 2012, the diarrheal rates were at 32% in Dadu as compared to the national average of 19%. All these factors are contributing to the malnutrition problem in Dadu district.

The project's specific objective is 'To increase access to adequate and disaster resilient water supply, sanitation facilities, and hygiene promotion for flood affected communities in Dadu, Sindh.'

The project includes delivery of water through hand pumps and provision of household water treatment system i.e. Chuli Filter in the selected villages. In addition, CLTS approach was used to mobilize communities against open defecation and encouraged them to construct latrines. To make this intervention more effective, Sanitation Marketing (SanMark) approach was made part of the intervention. The purpose of SanMark was to engage local businesses in the latrine construction / Open Defecation Free (ODF) drive.

The following table contains the list of activities planned under this project:

**Table 1: Planned Activities**

| Activity            | Description  |
|---------------------|--|
| <b>Activity 1.1</b> | Rehabilitation of 100 disaster resilient water supply schemes and construction of 220 disaster resilient water schemes (boreholes with hand pumps) and training of community based Water Management Committees |
| <b>Activity 1.2</b> | Water quality analysis of 500 water points and Provision of safe water through point of use water treatment (880 HH filters) for disinfecting drinking water   |
| <b>Activity 1.3</b> | Conduct hygiene promotion campaigns in 80 communities  |
| <b>Activity 1.4</b> | Sensitize 80 communities for improving existing health & hygiene conditions through Community Lead total sanitation approach and achieve Open Defecation Free model villages                                   |
| <b>Activity 1.5</b> | Sanitation marketing in 80 communities and provision of 880 sets of material for the construction of household latrines  |

The following map shows Dadu district and ACF intervention areas:

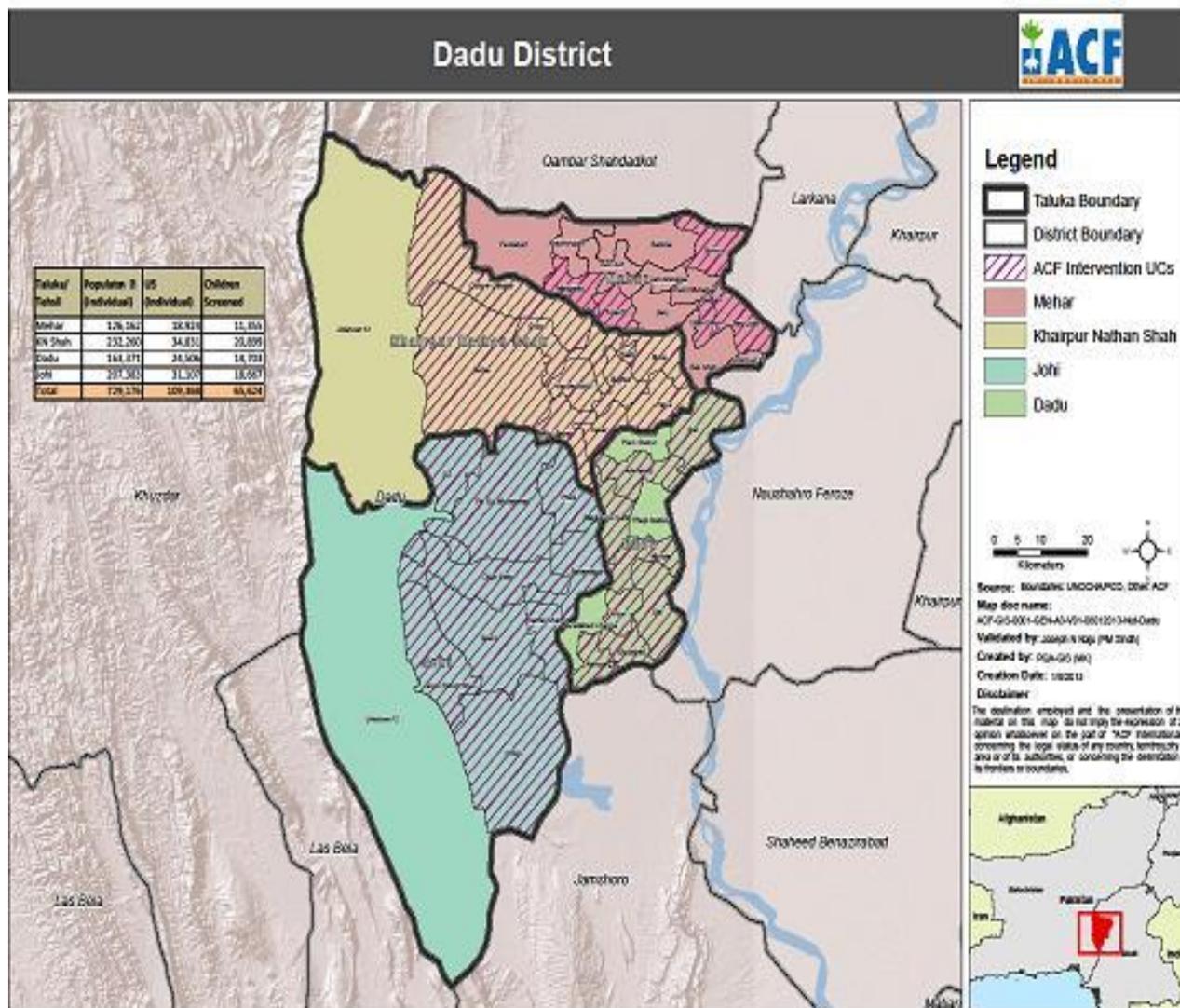


Figure 1: District Dadu Map

## 2. Evaluation Objective and Methodology

The overall objective of this final evaluation is to highlight and capture information related to the changes (positive and negative) that have happened due to the project. In addition, assess the level of success and challenges related to the key interventions like CLTS, HH water filters, SanMark, lead line hand pumps etc. The evaluation will also study the integration including challenges of the project activities with other sectors namely Nutrition and FSL. The evaluation aims to provide capture lessons learned and good practices; and present this in a form of actionable recommendations. The specific objective of the consultancy assignment is to evaluate the project against the following adapted Development Assistance Committee (DAC) Criteria:

- Design;
- Relevance / Appropriateness;
- Coherence;
- Coverage;

- Efficiency;
- Effectiveness; and
- Sustainability and Likelihood of Impact.

The evaluation methodology is briefly explained below:

### **2.1. Discussions with Relevant ACF Staff**

Separate briefing sessions were held with Evaluation Learning and Accountability (ELA) ACF UK and with WASH Advisor ACF HQ. These sessions helped understand the expectations of ACF from this evaluation.

### **2.2. Desk Study / Literature Review**

The desk study / literature review included reviewing project proposal, progress reports, and ACF gender policy. KAP surveys etc – refer to detailed list in [Annex D](#).

### **2.3. Site Selection**

Using a random selection technique 15% of the total project villages were shortlisted for the field visits. The detailed process adopted for the sample / village selection is explained below:

- A sample of 14 project target villages was calculated by multiplying the total number of villages (total project villages 93 which includes 13 additional hand pump villages added at the implementation stage) with 15% of sample villages i.e. total villages x .15=14 villages;
- The corresponding interval for the village selection was calculated by dividing the total number of villages by number of sample villages i.e. total villages / 14 =7;
- The starting number was generated through random number generation technique;
- Using random sample technique identified 14 sample villages from the total ACF WASH intervention villages;
- The randomly selected villages were checked for geographic diversity. It was found that the villages are spread over across the district; and
- Finally, the randomly selected villages were checked for the type of ACF interventions and found to be OK as the villages have good coverage of all key ACF interventions i.e. Hand pumps, CLTS, Easy Latrine and Chuli Filters.

The above process, helped in unbiased selection of the villages for the evaluation activity. In discussion with field staff two villages were replaced due to the security concerns. The replacement villages were identified with similar characteristics and in close vicinity to the previously selected villages.

The list of villages and corresponding ACF interventions in these villages is shown in a table below:

**Table 2: List of Selected Villages**

| S. No. | Village                | Type of ACF Intervention |      |              |              |
|--------|------------------------|--------------------------|------|--------------|--------------|
|        |                        | Water / Hand Pump        | CLTS | Easy Latrine | Chuli Filter |
| 1      | Chate Ji Mianin        |                          |      |              |              |
| 2      | Ahmed Khan Chandio     |                          |      |              |              |
| 3      | Chhutto Bhughio        |                          |      |              |              |
| 4      | Dittal Babbar          |                          |      |              |              |
| 5      | Fatah Muhadmmad Kaboro |                          |      |              |              |
| 6      | Gulzar Thebo           |                          |      |              |              |
| 7      | Jat shahzad Birahmani  |                          |      |              |              |
| 8      | LalBux / AcharKhoso    |                          |      |              |              |
| 9      | Meer Muhammad Bozdar   |                          |      |              |              |
| 10     | Punhoon Kaloe          |                          |      |              |              |
| 11     | Shakal Panhwar         |                          |      |              |              |
| 12     | Shair Muhammad Abro    |                          |      |              |              |
| 13     | Umar Panhwar           |                          |      |              |              |
| 14     | Zafarabad              |                          |      |              |              |

#### 2.4. Key Informant Interviews (KIIs)

A total of 26 persons were interviewed. This includes 22 ACF staff and 4 external stakeholders. The total persons interviewed were made up of 22 men and 4 women. The persons interviewed included:

- ACF staff
- Public Health Engineering Department (PHED)
- Taluka Municipal Administration (TMA)
- SanMark – Mart Owners/Venders
- Education Department

A detailed list of the interviewees is provided in [Annex C](#).



**Figure 2: Discussions with ACF WASH Field Staff**

## 2.5. Focused Group Discussions (FGDs)

FGDs were conducted with specific groups of the benefitting communities such as beneficiary men and women, WASH Management Committees (WMCs) etc. The discussions topics were related to the status of WASH in the communities, how communities feel about the project intervention and the implementation and if there are any gaps. In addition, communities were encouraged to suggest any improvement to the project design or future implementation . The detailed questionnaire is provided in [Annex E](#).



**Figure 3: Focus Group Discussion in Progress**

Details of the FGDs conducted are provided below:

**Table 3: FGDs Conducted**

| Location               | Number of FGDs    | Participants |           |            |
|------------------------|-------------------|--------------|-----------|------------|
|                        |                   | Men          | Women     | Total      |
| Shakal Panhwar         | 2 – Separate FGDs | 8            | 10        | 18         |
| Ahmed Khan Chandio     | 1 – Joint FGD     | 2            | 7         | 9          |
| Chate Ji Miyani        | 1 – Joint FGD     | 3            | 6         | 9          |
| Chuto Bughio           | 2 – Separate FGDs | 11           | 9         | 20         |
| Dittal Babbar          | 2 – Separate FGDs | 12           | 10        | 22         |
| Gulzar Thebo           | 2 – Separate FGDs | 9            | 12        | 21         |
| Fateh Mohammad Kabooro | 1 – Women FGD     | -            | 8         | 8          |
| Zafarabad              | 2 – Separate FGDs | 10           | 11        | 21         |
| Sher Mohd Abro         | 1 – Joint FGD     | 5            | 5         | 10         |
| Punho Kaloe            | 1 – Joint FGD     | 6            | 6         | 12         |
| <b>Total</b>           | <b>15 FGDs</b>    | <b>66</b>    | <b>84</b> | <b>150</b> |

In summary, a total of 150 participants took part in the FGDs. Out of the total participants 66 were men and 84 were women.

## 2.6. Checklists

Besides KIIs and FGDs, customized checklists were used to document observation regarding HH latrine condition, soap / ash or any other item availability for hand wash and capture HH feedback regarding latrine usage. The consultant also documented observations regarding HH Chuli Filter and obtained HH feedback regarding usage of the filters. Finally, the consultant also documented observations regarding Hand Pump condition and utilization. Any environmental impact of these interventions was also noted. Three checklists to cater for each key type of ACF intervention i.e. Hand Pump, Easy Latrine and Chuli Filter were completed per village. A total of 83 checklists were completed. All data collection tools including checklists are shared in **Annex E** of this report.



**Figure 4: Checklists are being Completed**

The following table contains the summary of the checklists completed:

**Table 4: Checklists Completed**

| Intervention Type | Number of Checklists Completed |
|-------------------|--------------------------------|
| Hand Pumps        | 34                             |
| Easy Latrines     | 30                             |
| Chuli Filters     | 19                             |

## 2.7. Data Processing and Analysis

A sex and age disaggregated data has been collected in the field. All data collected in the field has been consolidated, analyzed and arranged. The information collected through checklists is also entered and analyzed in MS Excel.

## **2.8. Preparation of the Draft and Final Report**

On conclusion of the filed work, consultant shared draft findings with ACF team in Islamabad in a presentation form. Following the workshop the consultant shared a draft report with the ELA at ACF-UK for circulation to other stakeholders for their feedback.

## **2.9. Study Limitations**

The following are the key limitations to the evaluation study:

In some cases access to FGDs with women group by the lead consultant was not appropriate as per local traditions. Therefore, a female FGD expert was engaged to facilitate the lead consultant in conducting FGD sessions with women group.

The field work was carried out towards the end of June i.e. month of Ramadan (month of fasting). At the same time communities were busy in cultivation of rice crop. Therefore, it was challenging to maintain men participation in appropriate number. To overcome this issue the FGDs sessions were planned in the first half of the day. In addition, as appropriate joint men and women FGD sessions were conducted.

## **3. Findings**

The key findings are listed under adapted DAC criteria:

### **3.1. Design**

The project proposal states that ACF is implementing a four years EU funded integrated Nutrition, WASH and FSL programme in Dadu. The funding requested from Charity: Water was supposed to compliment the WASH component of the programme. Therefore, WASH activities were only planned in the Nutrition intervention areas. The objective of the WASH project was to improve communities' access to sanitation and safe drinking water resulting in improved health conditions. This in return was expected to improve the nutritional status of the community. Therefore, the WASH activities and objective were linked to other ACF interventions.

According to the project proposal, ACF was already working in the proposed project area. Therefore, previously collected data for the district formed part of the funding proposal. However, after the proposal approval, ACF carried out detailed assessment for the project implementation. The assessment also included mountainous region of Johi Taluka of Dadu District, where access to drinking water is a major issue. However, the assessment revealed that due to availability of drinking water quite deep below ground level i.e. around 200 ft, the cost of a hand pump in that area would be significantly higher than what was included in the original proposal. In other Talukas of Dadu District, the cost per hand pump was much less approximately 1/2 to 1/3 rd as compared to Johi. Therefore, ACF in consultation with Charity: Water agreed to exclude Johi Taluka from the project. The people in other Talukas of Dadu District also had accessibility issues to drinking water; however, the communities are better off in terms of accessibility to water as compared to Johi Taluka. In brief, it seems that ground needs were not extensively assessed during the proposal design stage. Other than this, the project objective and activities were well defined and achievable in the specified time. The financial resources allocated seems sufficient for the agreed activities except for the hand pumps

installation in Johi Taluka. The project had a well developed monitoring plan. The plan included various methodologies of data collection and frequency of information gathering. The plan also identified responsible ACF teams and positions for the data collection.

The project design strongly suggests taking gender into consideration for the project implementation. The project acknowledges to work equally with male and female to determine priorities. In addition, the project design include reaching out to the women and girls through engaging female staff to ensure their voices are heard and their views are included in the implementation of interventions. The design also refers to designing project interventions which are gender sensitive specifically sanitary items appropriate for women.

ACF is using Feedback Complaint Mechanism (FCM) to get communities feedback especially grievances. Under the FCM, all the posters are supposed to contain the FCM information which includes email, mobile number etc. The contact number provided under FCM is used for the PQA team. Besides each village has a complaint box. Generally, no major complaints were raised regarding Charity: Water funded WASH project. Currently, men normally lodge complaint, females are not much aware and they do not have access to mobiles. It is suggested that the charts should contain some photos as it may make it easier for the community to understand FCM complaint mechanism.

As a good practice, the project design highlights ACF PQA team independent monitoring and validation of the project activities. However, it is worth noting that it is a common practice and a routine for ACF PQA team to monitor project activities.

The first tier of ACF team, the social mobilizers directly engaged with the community had gender diversity. In the social mobilization team there were 6 individuals (4 female and 2 male) including the supervisor. However, there was no female staff in the WASH field supervisors and engineering team. It is worth mentioning that culturally there are very few qualified female engineers available in the job market. The issue is much aggravated in the rural areas. Therefore, it would have been very challenging to find female engineers in the project area. On a positive note, the WASH senior management had a female deputy coordinator for some time.

The social mobilization team as per project design appears to be much too small considering the various activities included in the project requiring social mobilization and the overall geographic spread of the activities. The discussions with the project team and ACF management revealed that the social mobilization team proposed in the original proposal was sufficient; however, it was cut down to accommodate some of the hardware interventions. On the contrary, there was a 5 member strong engineering team to oversee the hardware activities. In addition to WASH engineering team, besides having sufficient staff to monitor soft component the PQA also had an engineer included in their team to monitor the hardware activities. Overall, ACF team seems to be more focused on the implementation of hardware component. In evaluator's understanding, similar emphasis could have also been made towards the social mobilization and hygiene promotion even at the cost of reducing some of the hardware component. The social mobilization team should have been double the existing number, approximately up to 10-12 members.

There is an exclusive written exit strategy built in the project design. Under the exit strategy, various components of the interventions have exit steps in built e.g. community trainings related to hand pump and Chuli Filter repair. The Easy Latrines are built with twin pits to ensure continuous functioning of the latrine. Further, the exit strategy required handing over of the communal infrastructure to the WASH committees for long term operation and maintenance.

### **3.2. Relevance / Appropriateness**

The FGDs findings suggest that everyone in the community considered the project interventions relevant and appropriate. The interventions relevance could also be attributed to the detailed WASH assessment that was conducted prior to initiation of activities on ground. Based on this detailed WASH assessment, a relevant and appropriate complete package of WASH interventions was delivered e.g. Hand Pump, Easy Latrine, and Chuli Filter etc. The communities were engaged in the site selection for hardware interventions. The interventions were in line with donor / Charity: Water priorities.

For instance, approximately 70% of the FGD participants mentioned that before ACF interventions they would have to travel for 30-60 minutes to fetch drinking water. Previously, some communities were also using lake water for cleaning of dishes and cloths, and for bathing purposes. The FGD participants in village Shakal Panwar said:

*“Before ACF provided hand pumps, we would travel ½ Km to fetch water. The women would travel on foot and men would use cycles or motor cycles.”*



**Figure 5: Non ACF Intervention Village - Women Washing Cloths and Dishes / Children Bathing in Stagnant Water**

The FGD conducted with Chuli Filter beneficiaries suggest that approximately 40% of the beneficiaries used it in the last 24 hours. However, its use was much more in winter as compared to summer. The households have installed the Chuli Filter inside close places used as kitchens in winter; however, in summer the community uses more of open verandas for cooking. As households were unable to shift the Chuli Filter to their summer cooking place, thus it is used

much less. Though the Chuli Filter is designed in a way that it could be relocated easily; the community did not use this option. The feedback from the checklists suggests that the community has the required skills to repair and reinstall the Chuli Filter. The PQA findings suggests that in some of the communities other NGOs have provided smoke free stoves, which are preferred by women to cook food. Some even mentioned that they use other stoves for preparing rice dishes as the rice meal requires a bigger stove to be cooked.

Besides, the intended use of the interventions, the communities were also utilizing the intervention for some additional benefits. In case of hand pumps, the overflow water from the hand pumps was for instance used for soaking mud, the mud was then used for mud plastering of community infrastructures. In addition, the overflow water was also used for cattle's drinking purpose. The hand pumps were also used for bathing, washing clothes and dishes. Similarly, the excess water from Chuli Filter was used in winter for bathing especially by the school going children. A child studying in class 3 from village Chate Ji Miyani stated:

*“In winter, I regularly took a bath with warm water from Chuli Filter before going to school.”*



**Figure 6: Children Proudly Mentioned Occasionally using Warm Water from Chuli Filter for Bathing Before Going to School in Winter**

The water, sanitation and hygiene activities were adequately included in the project. However, the hygiene promotion team was not sufficient to carryout the activities. The project duration to complete the activities was appropriate. However, time was lost initially in assessment and reassessment due to which additional time for project completion was requested through a no cost extension. The WMCs were formed at the beginning of the project and they were engaged in the project at needs identification stage. The communities helped identify beneficiares for easy latrine and Chuli Filter. Further, communities helped identify location for hand pump installation. Finally, community was engaged in capacity building trainings regarding hand

pump repair and Chuli Filter installation. The community engagement helped improve community sense of ownership of the project intervention, this is evident through hand pump repair conducted and also through utilization of latrines.

In summary, the activities were relevant and appropriate to the local needs; however, in future Juhi Taluka needs to be considered for WASH interventions where access to safe water is a major issue.

### 3.3. Coherence

The project was in line with Pakistan Sanitation Policy 2006. The Pakistan Approach for Total Sanitation (PATS) promotes various community approaches to total sanitation these includes Community Led Total Sanitation (CLTS) and Sanitation Marketing (SanMark). The project also contributes positively towards Drinking Water Policy 2009. The project activities were in line with the government commitment to achieving Millinium Development Goals (MDGs). The project activities more specifically contribute directly to MDG 4 – Reduce Child Mortality through reducing diarrrea rate and to MDG 7 – Ensure Environmental Sustainability through improving access to drinking water and improved sanitation. Unfortunately, Pakistan lacks a comprehensive WASH strategic document which could be used for designing and implementing WASH programs.

For internal coordination and coherence with other ACF interventions, a pre select list from Nutrition was used by WASH and FSL to identify their intervention villages. Therefore, WASH intervention villages were also Nutrition intervention areas and also had overlap with FSL. There were some coordination activities carried out with Public Health Engineering Department (PHED) regarding the interventions. This coordination also resulted in a letter from PHED authorities regarding relaxation of conductivity levels for Dadu district in order to increase community access to water. The executive engineer PHED allowed up to 2400  $\mu\text{S}/\text{cm}$  as compared to SPHERE which says the drinking water should not have more than 1500  $\mu\text{S}/\text{cm}$ . However, it is to be noted that only 10-15% of ACF hand pumps are having conductivity values above SPHERE suggested limits and none of them is above 2000  $\mu\text{S}/\text{cm}$ .

A project beneficiary from village Ahmed Khan Chandio mentioned:

*“We didn’t get latrines in our village from ACF, however, they have installed lead line hand pumps in our village. The ACF WASH engineer would test the water before the hand pump installation by the contractor. Unfortunately, only 4 hand pumps could be installed as the other 4 boreholes failed due to saltish water”*

The Open Defecation Free (ODF) declaration committee consists of ACF Nutrition, FSL, PQA, and WASH personnel. This allowed various sectors of ACF to work together. ACF is coordinating with District Coordination Officer (DCO) to notify district ODF committee, such committee normally includes DCO, ADCO, Mukhtiarkar, TMA and PHED representatives. These mechanisms ensure standardization in ODF certification and at the same time bring transparency to the process by involving people outside the implementing agency. However, to complete all this ODF certification process involving the government was not possible within the available project timeframe.

The project design mentioned engaging Local Government in village selection, and in supervision of water and sanitation activities. Further, Local Government role was envisaged beyond the project implementation timeframe e.g. provision of continued monitoring and technical support to the communities. However, the project was unable to engage the Local Government in the monitoring and long term technical support roles. This was mainly due to the unclear roles of various government departments e.g. TMA and PHED. This is a common challenge faced by various non-governmental organizations working in WASH sector.

Besides Nutrition and FSL, logistic persons were also involved in identification of mart owners for SanMark activities. Logistics helped prepared a Memorandum of Understanding (MoU) between ACF and the vendors (under SanMark activity). Logistic also remained actively engaged in the procurement of supplies and services necessary for hand pump installation or rehabilitation. Apart from the WASH technical coordinator, Logistics also helped WASH team with the contract management. Furthermore, in addition to the monitoring by the program team, the ACF PQA engineer also verified more than 10% of the hand pumps and easy latrines. As per ACF PQA team monitoring reports, verification was carried out at various stages of the activities i.e. at the time of site selection, during the construction and on successful completion of work. ACF Field Coordinator in Dadu also made several visits to the project sites.

As per FGD field notes, currently no International Non Governmental Organisation (INGO) working in the project intervention areas, some local NGOs do work in the area but there is no duplication of activities reported with them. The communities informed that, previously, organizations such as SAFWCO, HANDS, Red Cross etc worked in their villages but it was mainly in emergency response of floods 2010 and 2011. It was one of the prerequisite of village selection for the project that other organisations are not working on similar activities in the area. In addition, through WMCs it was further ensured that interventions are only carried out where needed and duplication of activities do not happen. It is evident from the fact that Nutrition shared a long list of villages for WASH interventions, however, after the detailed assesment WASH only worked in selected villages.

### **3.4. Coverage**

ACF implemented CLTS approach in villages with low latrine coverage, focusing both men and women. As appropriate, separate sessions were arranged with men and women.

However, easy latrines were only provided in the households based on vulnerability criteria. This criteria was in line with the general criteria outlined in the approved funding proposal for selection of villages and communities for WASH interventions. The criteria was comprehensive to cover multi sectoral and crosscutting issues and was developed in line with ACF gender policy. The pre Knowledge Apptitude Practice (KAP) survey has outlined the priority needs of the communities with detailed age and gender wise data analysis. A few key elements of the selection criteria are listed below:

- Female headed household (widow and old age women);
- Persons with disabilities (PWDs) in the age of 18 to 60 years;
- Malnourishment (SAM and MAM cases); and
- Poor or HHs with less income opportunities etc.

A widow in village Chhutto Bhughio told:

*“I am a widow, I am very thankful to you (ACF) for providing hand pumps in our village and for providing latrine (easy latrine) in our house. My children and I use it.”*



**Figure 7: Proud Owner of Easy Latrine**

However, interestingly the households were not necessarily aware of the selection criteria except for poverty, which seems to be a common theme. During the evaluation exercise, 30 easy latrines were visited, in 80% of the cases the HHs were not clear why they have received the easy latrine. They will quote poverty as the only criteria for their selection. Moreover, the HH checklists suggest that besides poverty, malnutrition and widows were the other key criteria used for selection of the HH for easy latrine intervention. This information is also supported by ACF PQA Easy Latrine Beneficiaries Verification Report findings which suggest that after verification of 5% of the total beneficiaries they found that the selection criteria was used properly with some exceptions.

ACF interventions were available to all. The FGD and checklists findings suggest that all the latrines were used by men, women and children. Similarly, all members of the beneficiary HH are using water from Chuli Filter. The field observations suggest that the hand pumps were equally accessible to men, women and children. The women groups seem to be the primary beneficiaries of all ACF interventions. The post KAP suggests that mainly women, approximately 79%, are responsible for the collection of water. In contrary only about 14% think that men are also responsible for fetching water.

Chuli Filters were provided to the HHs who had no easy access to safe drinking water. During the field visit it was noticed that the women appeared to be keen on taking ownership of the

Chuli Filter in particular. This maybe because Chuli Filter was part of the cooking stove / Chuli which clearly falls under women domain culturally in the rural areas of Sindh.

Hand pumps were provided in villages with no or limited access to safe drinking water. They are accessible to all, men, women and children. Again it appeared that if women and children are the primary beneficiary as the women have access to water point comparatively close by after ACF intervention, at which they can collect drinking water, wash cloths and clean dishes. The Children who would normally take bath in the ponds of water, which was not hygienic practice, can take a shower under the hand pumps now. A women participant of the FGD in village Zafarabad told:

*“In our village the hand pumps are equally accessible to men, women and children. No one stops us from using the hand pumps.”*



**Figure 8: ACF WASH Interventions Accessible to All**

On world toilet day a session with school children was organized by ACF, over 500 students both boys and girls participated from schools across the district. In that session, easy latrine model was displayed, students debated on topics around latrine use and hygiene. In addition,

soap was distributed amongst the children to highlight washing hands with soap message. At the end of the session, a walk in the community was organized for public awareness. A teacher, who actively participated in the event, appreciated ACF efforts but mentioned that the session could have been done even better if they were informed a month in advance.

### **3.5. Efficiency**

The hardware components were efficiently delivered through the following measures:

- Contractors engaged were hired from the local market, therefore, reducing set up cost for them;
- Three contractors were engaged to reduce the activities delay risk - one of the contractors left in the middle of implementation mainly due to high number of failed boreholes. However, rather than going through the complete procurement process again, the work load was transferred to the other contractors without causing significant delay to the implementation. This approach, as per ACF logistics estimates, saved at least a month time and also put ACF in a better position to negotiate with the contractor who threatened to quit; and
- The contract with the hand pump contractors bound them to deliver drinking water, therefore, transferring the risk of borehole failure to them.

The first set of quotes received was not accepted by ACF for one of the reasons being the preferred contractor asking for more time for the project delivery.

Through lead line hand pumps water was delivered closer to the community, it was still cheaper than drilling a deep hand pump. For PHED the unit cost for hand pump installation in Kacho (Juhi Taluka) is PKR. 200,000 but in other areas of Dadu district with 40-50 ft depth the average cost is PKR. 35,000-45,000, this is in line with ACF average hand pump installation cost of approximately PKR.35,000 without lead line, and up to PKR. 84,000 with lead line (1500ft lead line).

The construction cost of PKR. 16,000 for latrine substructure seems to be on higher side. There is a room for reduction in the latrine cost.

An estimated 25% hand pumps were drilled again due to water quality issues. To ensure quality, at the drilling stage it was mandatory for at least one person from ACF to certify that the borehole is done properly. It was also noted that to achieve efficiency, in the first 3 months of installation, the contract bound the contractor to rectify any issues which are due to the substandard work.

Overall funding seems to be sufficient for the planned activities except for excluding Johi Taluka from the project due to high cost of drilling hand pumps. In addition, water cooler from the Chuli Filter kit has to be removed due to cost (also as ACF believed that people had access to pitchers or other water storage vessels). The project is still within budget and it is expected to be completed within available funding. There are some variations with in funding packages; however, these are within allowable limits of 15%. The materials budgeted had overspending below 15% mainly due to the increased cost of easy latrines and HH filter for water treatment. There is no change in the total approved funding.

Regarding human resources, HR team did face some challenges in recruitment and retention of the staff. However, these issues were promptly resolved e.g. lack of local skilled engineers at supervisor level in the job market and management level staff turnover. Overall, there is no unusual turnover of staff in this project. However, the social mobilization team seems to be insufficient compared to the area they have to cover. The WASH team could have more social mobilizers in order to efficiently cover all the villages. The logistic team believes that the procurement was done with some delay due to program team raising Purchase Requisition late. As per logistics, WASH engineer was busy in activities related to Easy Latrine, New Hand Pump and Chuli Filter, therefore, he had no time for hand pump rehabilitation activities. Due to this the activity got delayed slightly. Later ACF WASH team hired more engineers in December 2014 to overcome this constraint. If this hiring of additional engineers could have been done earlier, the hand pump rehabilitation activities could have been completed earlier as well.

The assessment and reassessment at the start delayed the project. In addition, according to the project annual update some of the communities in selected villages were having internal conflicts which restricted ACF to deliver project activities in time. These field challenges compelled ACF to request project extension. In fact, in some villages WMCs were also formed. However, after reassessment the villages were changed to match with Nutrition villages. In this process a precious 4 months were lost of social mobilization. The push from the donor on accomplishment of hand pump target also seemed to be triggered down to the field level implementation, where the WASH team employed a strong 5 members engineer's team. The PQA team also included an engineer to have more intense monitoring of the WASH hardware component. This strategy did result in a better quality of hardware work.

The overflow from HP could have utilized for cattle drinking or some vegetation in the vicinity could have been encouraged. Currently, the soakage pits are overflowing with water at many sites. For instance it was noticed that people are using this overflow of water for preparing mud for plastering their homes.



**Figure 9: Over Flowing Soakage Pits**



**Figure 10: Overflow Water from Hand Pump Used for Soaking Mud for Plastering**

### **3.6. Effectiveness**

The hygiene promotion and CLTS approach were effective to the extent that communities are using latrines and avoiding open defecation. In addition, people knew key hygiene messages e.g. washing hands with soap. The FGDs findings suggest that approximately 60% of the participants know and could demonstrate proper hand washing. However, interestingly, there is not much evidence of people constructing latrines from their own resources due to the initial triggering through CLTS sessions. ACF PQA team field visit report (28 April 2015 – 28 May 2015) data suggests that 28 (70%) villages out of 40 villages visited had less than 50% latrine coverage considering the number of households in the village. The feedback in FGDs suggests that there were not many latrines constructed in the target villages during the project period except for the easy latrines. This was also attributed to the introduction of easy latrine for the vulnerable HHs too early in the process. Out of 80 villages selected for CLTS activity, over 40% villages achieved ODF status at project completion stage. The project target was to achieve 70% of the intervention villages as ODF.



**Figure 11: A Women Demonstrating Key Steps of Proper Hand Washing**

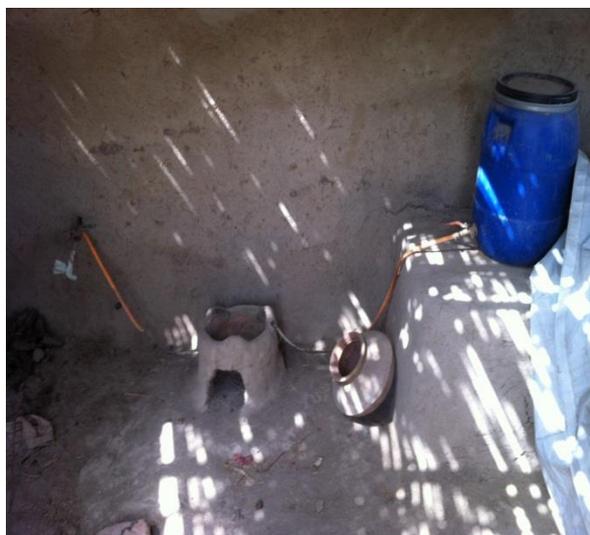
The project effectively engaged communities in the activities such as digging of the pits for easy latrines and in Chuli Filter installation. Households engaged in Chuli Filter installation were paid PKR 200.

Ground water in Dadu district is generally saline and not fit for drinking. Therefore, ACF adopted a strategy to drill boreholes closer to irrigation canals or other water bodies (generally 50ft-100ft) and then carry that water closer to the communities through lead line hand pumps. The water was tested at ACF laboratory in Dadu. In addition, the quality of sample of hand pump water was counter checked at Pakistan Council for Research in Water Resources (PCRWR) laboratory.

The lead line hand pumps appeared to be a very good idea and the community is really appreciative of it. There are 320 hand pumps in total under this project, out of these 100 are rehabilitated and 220 are newly installed hand pumps. Out of 220 new hand pumps, 137 are lead line and 83 are direct pumping. Out of these 83 direct pumping, approximately, 20 hand pumps are made lead line through the community contribution. However, the hand pumps with the lead line longer than 500 ft, some people are complaining of water getting hot in summer and also it takes very long to pump before the fresh borehole water reaches the hand pump site. Insulation of the pipe / lead line against excessive heat could solve the problem. As per post KAP, the access to drinking water in the intervention area has improved tremendously e.g. households with access to 25 or more liter per person per day drinking water from approximately 4% to 97%. The time taken to go, collect and return back from water collection point within 15 minutes improved from 45% to 69% as per post KAP.

For Chuli Filter, the initial intention was to include water cooler but later due to budget constraint and also confirmation from the field that the communities have storage vessels this component was taken out from the Chuli Filter package. However, ACF did distribute buckets

with the Chuli Filter; these buckets are without lid so the danger is that the collected water may get contaminated again. There was also feedback from the community that the plastic bucket was getting damage due to hot water from Chuli Filter. The social mobilization team believed that the Chuli Filter interventions are good and people have used it in the winter months but in summer its use has dropped down. They believed that Chuli Filter if complimented with Nadi (local pitcher) will further help the community store water in a vessel which will cool the water especially if placed in shade.



**Figure 12: Example - Chuli Filters Not Used**



**Figure 13: Example – Chuli Filter in Use**

WASH Management Committees (WMCs) are helpful in maintaining hand pumps and facilitating Chuli Filters. The communities are trained in the repair of hand pumps and are provided with maintenance tool kit. During the field visits, it was witnessed that the communities have already carried out repair of the hand pumps in many instances. This shows that the communities are utilizing the skills and tool kits for maintaining the infrastructure provided. Overall, the community is really appreciative of the hand pump intervention.

Sanitation Marketing component of the project seems to be quite weak, the community did not know where the easy toilet material came from and where the nearest vendor is located. The vendor also seems to be unaware of the very concept of SanMark. The vendors did attend a session on SanMark. It seemed that due to time constraint the activity was rushed through focusing much more on achieving the hardware target. There was one day training organized in

Dadu regarding latrine construction. However, the training was unable to effectively pass on the necessary business development component in the sphere of SanMark. The vendors had no direct interaction with the beneficiaries at the shop level. A beneficiary in Chhutto Bhughio told:

*“The material was delivered to us in the village. I don’t know from which shop the latrine material has come from.”*

CLTS sessions were unable to be conducted for men and women together; the follow up session would be after approximately two weeks. The ACF WASH team shared that CLTS session would ideally require 4 people to conduct but due to staff limitation they deliver the activity with one person that’s why the sessions were not that effective. The field staff received 5 days CLTS training and they were happy with the quality of the training. The social mobilization team had good language diversity amongst them e.g. the team collectively speaks all the languages spoken in the intervention area i.e. Siraiki, Sindhi and Balochi.

### **3.7. Sustainability and Likelihood of Impact**

As part of the exit strategy, ACF ensured to impart required skills to the communities through trainings and provide required tools in case of hand pumps and Chuli Filters. The communities already repaired hand pumps in many instances, all the hand pumps visited were functional, suggesting that community has the required skills and willingness, as well as ownership of this intervention. The checklists feedback suggests that 60% of the hand pumps visited in the evaluation exercise have been repaired by the communities since their installation. A member of WMC in village Jatt Shahzad told:

*“I have received training and tool kit from ACF. Using the tool kit, I have repaired our hand pump three times.”*

Almost, all (with exception of one) latrines visited during the evaluation were functional. Out of them 80% were found clean. In FGDs approximately 80% of the participants suggest that they wash hands with soap after defecation, however, the checklist suggests that only in 55% of the cases soap was available inside or close to the latrine for hand washing. The cost of the latrine PKR.16,000 for the substructure is still considered to be high for many HHs in the area; and could be a key hurdle in large scale replication by the communities.



**Figure 14: Community Willing and Equipped to Maintain Hand Pumps**

In FGDs the communities identified hand pumps as an intervention which appears to have the greatest potential for longer term impact and it seems more effective than latrines and Chuli Filters in improving their health conditions.

Considering the local circumstances, the WASH interventions had Disaster Risk Reduction (DRR) components built in. The most likely hazard in the project area is flooding. Therefore, the easy latrine and hand pump designs suggested constructing raised platforms. The field verification also confirmed that WASH infrastructure was built on comparatively high grounds and were constructed approximately 1.5 ft above from the ground surface.

The post KAP suggests that people perception about various diseases trends changed e.g. 25% less households believe that diarrhea is a common disease in their household. Similarly, 8% less households believe that skin disease is a common disease in their household. In the FGDs the respondents put their health related costs for diarrhea, fever, cough etc to approximately PKR. 3,000. The post KAP more detailed analysis suggests that this health cost for diarrhea only is around PKR. 1073. There is around 10% increase in washing hands with soap after latrine use after the intervention with a corresponding decrease in washing hands with water only or with ash / clay. Similarly, 18% more people believe that washing hands with soap will kill the disease causing germs.

The latrine design contains one pipe connecting commode with one of the pit, it would be prudent to assess if the communities will be able to efficiently connect to the second pit when it is required. The reason for non-provision of the pipe is to tap on the community contribution. However, the community has already contributed reasonably through digging of the pits and construction of the superstructure. Therefore, it may be appropriate to include pipe connecting second pit at the latrine construction stage. The cost of the pipe is expected to be low i.e. in the range of PKR.400-600 depending on pipe quality and length.



Figure 15: Easy Latrine Information Chart in Local Language

Apparently, there is no connection between vendors and the communities, so the vendors have stopped constructing latrine rings and displaying commode or any other sanitary items at their shops. Therefore, the sustainability of the SanMark component could be impeded.

The hand pump repair training was imparted to 6-8 persons from each WMC. The training duration was approximately 3-4 hours and included practical demonstration.

The easy latrines are having super structure issues; approximately 3% of the latrines at project completion were still missing super structures. However, there was some sort of privacy maintained through property boundary wall. The material used for super structure construction was bricks, cloths and bushes / shrubs / wooden sticks. As the superstructures were constructed by the communities without a lot of technical support from ACF, therefore, the super structures of latrines in majority of cases not constructed properly. Therefore, it is likely that in an event of strong wind or rainfall the super structures might get damaged. The experience of latrine super structure construction suggests that communities will find it hard to repair or reconstruct the superstructures if they get damaged.

Some houses have two kitchen one inside and the other outside, Chuli Filter were installed in winter when the inside kitchen was in use. However, with the community now using outside kitchen the Chuli Filter is not utilized. Theoretically, it is easy to move the Chuli Filter within the house, however, not a single case is seen where the filter is moved from its original installation place. There are other issues like the water being too hot and taking a long time to be cold enough to drink. Community also shared that they use water from Chuli Filter for bathing and cleaning dishes. This practice could only have positive health effects as long as the community understands that the key use of the filtered water is for drinking.

Though the expectations are that easy latrine component would sustain, however, the perception is that only a small proportion of the villages that is 10% may remain ODF after 6 months, the rest may go back to open defecation, especially men are more likely to go back to open defecation. The key reason being they are not at home or close to home all the time which will discourage them to completely refrain from open defecation. In addition, men have comparatively more interaction with the outside world through visiting other villages etc so every now and then they would compel to open defecation.

A study conducted by ACF in Sindh suggests that through usage of Chuli Filter fuel efficiency could be achieved they put the fuel savings up to approximately 35%. The fuel normally used is wood which is collected from the nearby areas and instances purchased from the market. Therefore, acceptance of the Chuli Filter by the community and replication on larger scale will have a positive effect on the environment.

Though this is not an impact study as the project is in the final stages of completion, however, the following shows likelihood of impact or the long term trend in relation to the set project indicators to measure its success:

**Table 5: Likelihood of Impact**

| Project Indicators   | Progress / Trend  |
|--|---|
| <p><b>% increase of the target population's access to safe water, sanitation, and hygiene with proper management of all facilities</b></p> | <p>As per post KAP, the access to drinking water in the intervention area has improved e.g. households with access to 25 liter person per day or more drinking water increased from approximately 4% to 97%. Similarly, as per pre KAP figures, less than 40% of population was using latrine for defecation. However, the feedback from FGDs suggests that after the intervention over 90% has started using latrine. This was also evident from the field observation where human feces in open were rarely noticed.</p> <p>ACF imparted required maintenance skills to the communities through trainings and through provision of tool kits. The checklists feedback suggests that 60% of the hand pumps visited in the evaluation exercise have been repaired by the communities since their installation. This shows</p> |

|   |  |
|---|--|
|   | that the communities are utilizing the skills and tool kits for maintaining the infrastructure provided.   |
| <b>% decrease in diarrhea rates in the target area</b>  | The post KAP suggests 25% less household believe that diarrhea is a common disease in their household. However, the pre and post KAP show decline in the diarrhea rate.  |
| <b>% decrease in costs associated with health care at the household level</b>                                       | The pre and post KAP shows 6% reduction in diarrhea related health cost. The FGD findings also indicate that up to 50% participants believed reduction in health costs.  |
| <b>80% of new/rehabilitated water points show 0 fecal coliforms per 100ml, &lt;5 NTU, and arsenic &lt;0.01 mg/l</b> | Water from all hand pumps was tested at ACF laboratory. In addition, to reconfirm the test results some of the samples were also tested at PCRWR laboratory. An estimated 25% hand pumps were drilled again due to water quality issues. In addition, 880 Chuli Filters were provided to the HHs who had no easy access to safe drinking water.  |
| <b>75% of targeted population demonstrating improved hand washing and defecation practices</b>                      | As per post KAP, there is around 10% increase in washing hands with soap. Similarly, 18% more people believe that washing hands with soap will kill the disease causing germs.<br><br>Almost, all (with exception of one) latrines visited during the evaluation were functional. Out of them 80% were found clean. In FGDs approximately 80% of the participants suggest that they wash hand with soap after defecation. Out of them 60% could demonstrate proper hand washing. However, the checklist suggests that only in 55% of the cases there was soap available inside or close to the latrine for hand washing. |
| <b>% of households receiving latrine subsidies have completed, functional latrines by the end of the project</b>    | The easy latrines are having super structure issues; approximately 3% of the latrines at the completion of project were still missing super structures. However, there was some sort of privacy maintained through property boundary wall.   |
| <b>70% of villages are declared as ODF</b>  | Approximately 42% of the villages are declared ODF at the project completion.  |

## **4. Conclusions**

For easy reference, the conclusions are provided below as per adapted DAC criteria:

### **4.1. Design**

The funding proposal clearly states that it is an integrated WASH, Nutrition and FSL project. ACF was working in the project proposed area so there was data collected by ACF used in the proposal development. Similarly, the project design had a well developed monitoring plan which include various data collection methodologies with corresponding departments and positions responsible for the data collection. The project design overall was good, however, Johi Taluka was excluded from the project based on the detailed assessment after funding approval. The key reason for this was the high cost of hand pump construction in Johi area. The project design suggests taking gender into considerations for the project implementation. It also stresses on direct interaction with females through ACF female staff so that women and girls voices are heard and their views included in the project interventions delivery. The revised social mobilization team included in the proposal was much smaller as compared to the scope of activities. The project design has an exclusive written exit strategy included. The design appears to be unclear on defining the roles of various government department in terms of activities design, implementation, monitoring and sustainability. For transparency and accountability, ACF is using FCM for its programs to get communities feedback especially to record grievances.

### **4.2. Relevance / Appropriateness**

The interventions were considered by the communities very relevant to their circumstances. The lead line hand pump intervention was very appreciated by the communities due to which they got access to safe water. The latrine interventions also found to be relevant especially subsidized latrines / easy latrines to the vulnerable households. The use of Chuli Filter was much more in winter as compared to summer season. The reasons for not using Chuli Filter include hot water from the filters taking much longer to cool down to desired temperature, community using outside stoves for cooking in summer and also bigger size stove requirement for cooking some of the food items. The interventions also had some unintended usage e.g. use of hand pump and Chuli Filter water for bathing, cleaning dishes and washing cloths. The communities were involved in the implementation from the beginning as ACF helped communities form WMCs. These WMCs were crucial in identification of beneficiaries for Chuli Filters and easy latrines. The communities were appropriately trained in the operation and maintenance of the provided interventions.

### **4.3. Coherence**

The project activities were in line with the national level WASH related policies and strategies. Besides, the interventions contributed towards Pakistan commitment to MDGs. On field level, it was noticed that regular coordination with the government was limited mainly due to less clarity in the roles of various government departments. The WASH interventions provided opportunities for various technical teams of ACF to work together. Through, actively engaging WMCs in all activities, village level duplication of interventions with other organisations was avoided.

#### **4.4. Coverage**

The project was implemented only in villages with low WASH coverage. The interventions were aimed at benefiting all the communities without any discrimination. The selection criteria also allowed for inclusion of the vulnerable households. The women seems to be the primary beneficiary of the interventions e.g. due to hand pumps access to water was increased, the pre KAP suggests that mostly (79%) women are responsible for water collection.

#### **4.5. Efficiency**

The project activities were delivered through engaging local contractors and communities. The project also promoted innovation through installation of lead line hand pumps. The cost of hand pump was in line with PHED costs for hand pump installation in Dadu district. The project efficiency could have been further achieved by bringing balance between the social mobilization and hardware components. In addition, there is a possibility to reduce easy latrine cost. The delay in assessment affected the time efficiency of the project. The project is expected to be completed within approved budget.

#### **4.6. Effectiveness**

The activities were delivered in coordination with Nutrition and FSL. There is room for improving the linkages with these sectors, e.g. in terms of CFW activities related to latrine superstructure construction or kitchen gardening with the excess water flow from hand pumps or using the access water flow from hand pumps for livestock drinking. The coordination with external stakeholders needs further improvement. The FGDs findings suggests that approximately 60% of the participants know and could demonstrate proper hand washing. The lead line hand pumps were effective as community through self help converted another 20 hand pumps in lead line. On contrary, the CLTS and SanMark activities do not appear effective as there are not too many latrines constructed by the communities on self help basis.

#### **4.7. Sustainability and Likelihood of Impact**

ACF has transferred maintenance skills to the communities for hand pump, Chuli Filter etc, and also provided the required maintenance tools. The community has been witnessed utilizing the kit to carry out maintenance in many instances. This is evident from the field data which suggests that all the hand pumps, Chuli Filters and easy latrines inspected were functional. However, some of the other components like SanMark intervention, the established sanitation marts may not sustain. The DRR component was in built in the hand pump and easy latrine design this will help in their long term physical sustainability. The community perception regarding water borne diseases and associated costs suggest improvements after the project interventions. The FGD participants in village Zafarabad described:

*“Due to ACF interventions the number of very weak (malnourished) children in the village are reduced.”*



**Figure 16: A Malnourished Child in the Intervention Area**

## **5. Lessons Learnt**

The following are the key lessons learnt:

### **5.1. Easy Latrines**

One of the main reason people did not construct toilets from their own resources was the introduction of subsidized latrines / easy latrines immediately after the CLTS activity which discouraged people to construct latrines with their own resources.

### **5.2. Sanitation Marketing**

As discussed in this report, unless clear and strong linkages are encouraged between the sanitation marts and the communities, where demand has been created, the SanMark intervention may not become successful. Further, continuous follow up on the sanitation marts is required to provide them continuous technical guidance and to monitor the progress they are making towards selling sanitation related items to the project beneficiaries and to non beneficairees.

### **5.3. Latrine Super Structure**

The subsidized latrines were provided to the vulnerable families. However, without providing technical support to the communities about latrine super structure construction, the communities will find it challenging to construct robust structures. The technical support could be provided in the form of technical designs using local construction material, the construction cost indicating affordability of the super structure and promoting its easy to construct.

#### 5.4. Chuli Filter Installation

Chuli Filters provided to communities mainly in winter season are also having seasonal variations in their use. The lessons learned are that community cooking requirements are different for cooking different food items requiring different stove sizes and also the location of the stove is important to adjust to the seasonal variations – refer to findings section for details.

### 6. Good Practices

The following are the Key Good Practices:

#### 6.1. Lead line Hand Pumps

The activity includes provision of lead line from the site of bore hole, in order to bring the water in access to the community. The lead line hand pumps should be included in ACF WASH program where accessibility of drinking water within the exact location of the community is a problem.

#### 6.2. Hand Pumps Identification Convention

Every single hand pump installed or repaired had a unique identification code assigned. This seems to be excellent practice in order to show accountability to the donors. The codification was thorough and comprehensive to the extent that even the individual donor name was reflected on the hand pump.



**Figure 17: The Rehabilitated Hand Pump Clearly Shows Unique ID and the Individual Donor Name**

#### 6.3. Engaging More than One Local Contractor

This good practice includes engaging three local contractors for hand pump rehabilitation and installation related activity. This approach decreased dependency on a single contractor and at

the same time decreased the risk of project delay due to under performance of any one contractor – refer to **Annex A** for details.

## 7. Recommendations

The following is a list of recommendations for the future projects with corresponding level of priority and the responsible ACF team:

- 1. Latrine Superstructure Technical Guidance to Community – High Priority** - It is recommended that the ACF WASH team develops technical drawings containing cost estimates based on the local material generally used for construction. The information could be displayed in communities through pictorial charts showing the entire necessary construction information step-by-step. This will help communities to make informed decisions in terms of choice of material. In addition, this approach will help communities construct technically sound super structures for latrines.
- 2. Capturing Hygiene Promotion and Trainings Quality Data – Intermediate Priority** - It is recommended that **ACF PQA team** focuses on capturing soft component of the projects i.e. hygiene promotion and capacity building trainings quality. The PQA team to put similar focus on capturing hygiene promotion and capacity building trainings quality data as currently it is doing for the WASH hardware component.
- 3. Review Latrine Design – High Priority** - It is recommended that the **ACF WASH team** includes connecting pipe to the second pit in the latrine substructure kit. This will help ensure the usage of second pit when it is required.
- 4. Insulation for Lead Line > 500 ft – Intermediate Priority** - A further research by the **ACF WASH team** is recommended to find a long lasting solution. The starting point for the research could be through burying the existing High Density Polyethylene (HDPE) pipe further 6 inch to 1 ft to see if this could solve the problem. However, its effect on the drawing capacity of the hand pumps to be also confirmed. The other possibility could be to use some of the insulation material available in the market around the pipe.
- 5. Timely Introduction of Easy Latrines in CLTS Process – High Priority** - It is recommended to **ACF's WASH team** to ensure that the subsidized easy latrines are introduced only after social mobilization activities for CLTS triggering have been formally concluded.
- 6. Revisiting the SanMark Implementation Methodology – High Priority** - It is recommended that to make SanMark intervention effective and sustainable, the **ACF WASH team** should review the implementation methodology. The communities need to be supported to take the easy latrine voucher to the vendor.
- 7. Strengthened Social Mobilization Component – High Priority** - It is recommended to Charity: Water and to the **ACF WASH team** that the social mobilization team needs to be increased in number for similar interventions in future.
- 8. Stronger Linkages with Nutrition – Intermediate Priority** - It is recommended that **ACF Nutrition and WASH teams** collaborate in order to train social mobilizers in basic techniques of taking MUAC measurements. This will help further improve the MAM and SAM cases referral. Likewise, Nutrition staff should be further trained at intermediate level in hygiene education and CLTS to convey messages such as using hands with soap and promoting latrine use for defecation. They could also help in follow up on CLTS activities.

9. **Linking Latrine Super Structure with Cash for Work – Intermediate Priority** - It is recommended that **ACF FSL and WASH teams** to work closely to come up with an implementation strategy for linking latrine super structure construction with CFW activities.
10. **Utilization of Hand Pump Overflow – Intermediate Priority** - It is recommended to the **ACF WASH team** that the overflow from hand pumps and soakage pits which is creating nuisance at the moment could be converted in an opportunity to encourage vegetation; kitchen gardening and / or simply using it for cattle's drinking purposes.
11. **Use of Chuli Filter Water for Bathing – Intermediate Priority** - It is recommended that **ACF's WASH team** further reiterates messages to the community regarding primary usage of filtered water is for drinking.
12. **Continued WASH Needs in Dadu – High Priority** – It is recommended that Charity: Water and **ACF Pakistan country office** to work together to ensure continuation of WASH activities in Dadu district (also extend to Johi Taluka) in support to Nutrition activities. This district is not part of much awaited Planning Commission 1 PC 1 document for Nutrition and supporting interventions.
13. **Role of Various Government Departments in WASH Projects – High Priority** – It is recommended that **ACF's WASH team** to conduct mapping of the respective departments e.g. TMA, PHED etc roles and identify areas where ACF can work together with them (this process will help allocate realistic roles to these departments in the project design).
14. **ACF Technical Support to Government to Develop a Comprehensive WASH Strategy – Intermediate Priority** – It is recommended to ACF Pakistan country office to explore options to advocate with the government to develop comprehensive WASH strategies at National, Provincial and District levels.

## Annex A - Good Practice

| Title of Good Practice  |
|---|
| Engaging More Than One Local Contractor   |
| <b>Innovative Features &amp; Key Characteristics</b>  |
| The activity includes engaging three local contractors for hand pumps rehabilitation and construction related activities. This decreased ACF dependency on a single contractor and at the same time decreased the risk of project delay due to under performance of one contractor. Further, this approach helped encourage competition between the contractors to deliver quality work.  |
| <b>Background of Good Practice</b>  |
| In Dadu district the availability of capable local contractors is limited. Therefore, when ACF initially tried to engage a local contractor for the complete work package, the bids received had quality issues in terms of the necessary / required bid documentations. Even, the preferred tenderer out of the received bids mentioned inability or capacity to complete the work in specified time. Therefore, ACF management decided to split the whole work in three workable packages and recalled the bids. This time better quality bids were received and the work was awarded to three different contractors.   |
| <b>Further Explanation of Chosen Good Practice</b>  |
| During the project implementation stage, one of the contractors decided to quit primarily due to the high unsuccessful boreholes. At that stage it was easier for ACF management to let go that contractor and, after obtaining their willingness, ACF distributed the balance of work to the other two contractors. This approach, as per ACF logistics estimates, saved at least a month time and also put ACF in a better position to negotiate with the contractor who threatened to quit. In addition, by awarding work to the local contractors, it helped improve the available technical skills in the local community and also helped injecting some cash in the targeted communities. Further, the three contractors worked in a competition to deliver better quality of work. |
| <b>Practical / Specific Recommendations for Roll Out</b>  |
| This practice of engaging more than one contractor is to be adopted at other places to ensure efficiency. This initiative is also in line with ACF policy which prefers to engage local contractors. It is recommended that the supply team to conduct a short market survey initially to identify local contractor's capacity and based on that the whole work if applicable to be split in manageable packages. This good practice seems to be easily replicated elsewhere and also by other ACF programs with commitment from the management.  |
| <b>How could the Good Practice be developed further?</b>  |
| The logistic / procurement team to make customized checklists for a quick market survey. This will bring further improvement in standardizing the contractor's engagement process.  |

## Annex B – Evaluation Criteria Rating Table

| Criteria                                | Rating (1 low, 5 high) |   |   |   |   | Rationale  |
|---|------------------------|---|---|---|---|--|
|   | 1                      | 2 | 3 | 4 | 5 |  |
| Design                                  |                        |   |   |   |   | The project design overall was good. However, the revised social mobilization team included in the proposal was smaller as compared to the scope of activities. In addition, it seems that ground needs were not extensively assessed during the proposal design stage e.g. exclusion of Johi Taluka due to high cost of drilling for hand pumps.  |
| Relevance / Appropriateness             |                        |   |   |   |   | The interventions were considered by the communities very relevant to their circumstances. The lead line hand pump intervention was very appreciated by the communities due to which they got access to safe water. The latrine interventions also found to be relevant especially subsidized latrines / easy latrines to the vulnerable households.   |
| Coherence                               |                        |   |   |   |   | The project activities were in line with the national level WASH related policies and strategies. Besides, the interventions contributed towards Pakistan commitment to MDGs. On field level, it was noticed that regular coordination with the government was limited mainly due to the unclear roles of various government departments.  |
| Coverage                                |                        |   |   |   |   | The interventions were aimed at benefiting all the communities without any discrimination. The selection criteria also allowed for inclusion of the vulnerable households as well.   |
| Efficiency                              |                        |   |   |   |   | The project efficiency could have been further achieved by bringing balance between the social mobilization and hardware component.  |
| Effectiveness                           |                        |   |   |   |   | The project activities were delivered in coordination with Nutrition and FSL. There is room for improving the linkages with these sectors, e.g. in terms of Cash for Work (CFW) activities related to latrine superstructure construction or kitchen gardening with the excess water flow from hand pumps or using the access water flow from hand pumps for livestock drinking. The coordination with external stakeholders needs further improvement.  |
| Sustainability and Likelihood of Impact |                        |   |   |   |   | ACF has transferred maintenance skills to the communities for hand pump, Chuli Filter etc, and also provided the required maintenance tools. The community has been witnessed utilizing the kit to carry out maintenance in many instances. However, some of the components like Sanitation Marketing (SanMark) intervention, the established sanitation marts may not sustain. Some of the ODF villages may revert back. The super structures of latrines not constructed properly may not last longer etc. |



Annex C List of  
People Interviewed.d



Annex D List of  
Documents for Desk F



Annex E Data  
Collection Instrument



Annex F Evaluation  
ToRs.docx