

RURAL DEVELOPMENT INITIATIVE (R I D)

WASH EMERGENCY IDP RESPONSE
NEEDS ASSESSMENT
MOHMAND AGENCY

DRAFT REPORT

June 15, 2010

What is RID?

RID stands for Rural Development Initiative- a Non Profit Civil Society Organization founded in 2008 and registered with Registrar Firms & Societies under Society's Registration Act 1860. More specifically RID is founded to play its role in the following broad areas:

Promotion of Right Based Approaches to Programming

- * Health Sector
- * Water Supply and sanitation
- * Education Sector
- * Local Government
- * Policing/Law & Order and access to justice sector
- * Gender Aspects

Our Developmental Vision

- * Community & School Water & Sanitation Activities
- * Participatory and human rights based approach to development
- * Behavioural changes and communication to identify and target vulnerable
- * Practices for a sustainable development
- * Develop models of participatory civil and environment planning, design, management and implementation
- * Child Protection & empowerment of vulnerable communities through easy access to justice etc
- * Environmental Planning, and Monitoring
- * Institutional Capacity Building;
- * Gender Sensitive Project Planning and Implementation.

Project Portfolio

- A UNICEF Funded "WASH Emergency IDP Responses, NWFP Project", in Jalozai Camp Nowshera Phase14, 13, 9-B & State-2 (Nov,2009 – Feb,2010) where 521 VIP Latrines, 260 Wash Rooms, 130 washing Pads, 29 Laundry points & 29 Solid Waste collection Points were constructed to facilitate IDPs living in these areas. 1792 Hygiene sessions were conducted with Males, Females and Children by RID Hygiene Promoters, NFIs were also distributed among those IDPs in a very systematic and organised manner. For all these activities such strategies were designed that maximum results could be achieved and stayed focused on the SPHERE indicators.
- A UNICEF Funded "WASH Emergency IDP Responses, NWFP Project", in Sheikh Shehzad Camp Mardan & Sheikh Yaseen Camp, Mardan (May,2009 – July,2009) In both the towns 3300 families were provided with all the basic watsan facilities in a very short period of 40 days. 580 & 640 Ventilated improved pit (VIP) latrines were constructed in Sheikh Shehzad and Sheikh Yaseen IDP's camp respectively RID constructed 270 & 240 bathing places. 161 & 172 Water tanks were installed respectively in Sheikh Shehzad & Sheikh Yaseen camps. Hand Wash Places with the clear consent to provide clean and healthy environment by UNICEF, 136 and 172 hand washing places were setup by partner organization to erect hand washing facilities in front of every Latrines.
- A UNICEF funded project on Behaviour change communication Plan for House Hold water Treatment & Hygiene Promotion in Tehsil Lahor District Swabi.
- Repair & maintenance of WASH facilities & Hygiene promotion 17500 IDPs of Jalozai IDP Camp funded by UNICEF. 1000 pit latrines and 500 Wash rooms were repaired and maintained. 50 Laundry places and 25 Solid Waste points were constructed. 16 hygiene promoters accessed to more than 2500 families and created awareness and educated them about personal, domestic and environmental hygiene. Distribution of Hygiene kits among 17500 IDPs of Jalozai IDP Camp.
- Needs Assessment Surveys (Host Families) in the communities where FATA IDPs have been living with their relatives and other family friends
- Distribution of NFIs among the needy Host Families in Peshawar being funded by the local charity
- Distribution of NFIs among the IDPs living in Kacha Gari Camp being funded by the local charity
- Health Hygiene related awareness raising and education for IDPs camps set up in NWFP for the affecter's of War of Terror in FATA funded by the Organization's Board of Directors.
- Health Hygiene related awareness raising and education for IDPs camps set up in NWFP for the affecter's of War of Terror in FATA funded by the Organization's Board of Directors
- A Free Medical Camp for the IDPs of Kacha Garhi Camp funded from the funds generated by the organization from local charity.



Rural Development Initiative (RID)

Acronyms & Abbreviations	Definitions
BCC	Behaviour Change Communication
CtoC	Child to Child Approach
CLTS	Community Led Total sanitation
FDG	Focus Group Discussion
FMC	Free Medical Camp
GoP	Government of Pakistan
HH	Households
HHE	Health and hygiene Education
IPC	Interpersonal Communication
IDP	Internally Displaced People
KAP Survey	Knowledge Attitude & Practices Survey
MCHW	Mother Child Health Week
NFI's	Non Food Items
PCA	Project Coordination Agreement
PHED	Public Health Engineering Department
RID	Rural Development Initiative
SSF	Small Scale Funded (project)
SHHE	School Health And Hygiene Education
TMA	Teshil Municipal Administration
UNICEF	United Nation International Child Emergency Fund
VIP Latrines	Ventilated Improved Pit latrines
WASH	Water Sanitation And hygiene
WATSAN	Water and Sanitation
WES	Water, Environment and Sanitation
WWD	World Water Day

1. BACKGROUND



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The militancy and subsequent operation by the security forces against the militants in Mohmand Agency has resulted into exodus of a large number of local populations to other districts of Khyber Pakhtunkhwa. The socio-economic setup and life fabrics of the communities disrupted and a number of infrastructures including those of water and sanitation were damaged or rendered unusable to due lack of maintenance. According to the political administration of Mohmand Agency, the impacts of the insurgency are:

- Militancy inflicted losses of approx Rs 2326.711 million to the property of Government and the innocent people.
- 5500 families were dislocated from different areas.
- People lost livestock, household items, agriculture and mining activities worth millions of Rs. during insurgency.
- Educational activities were badly affected.
- Services delivery including health services were critically disturbed
- Tribal institutions, local culture and customs were severely damaged
- Development process was retarded.

Out of the 5500 families who were displaced, 2873 returned and rehabilitated without any external support. The remaining 2627 families are still displaced. (1214 families are in the camps and 1413 families are off camp IDPs) 1.

The military operation by the government has resulted into clearance, of most of the areas/tehsils, off the militants and the government writ has been established except few pockets in Safi and Baizai tehsils.

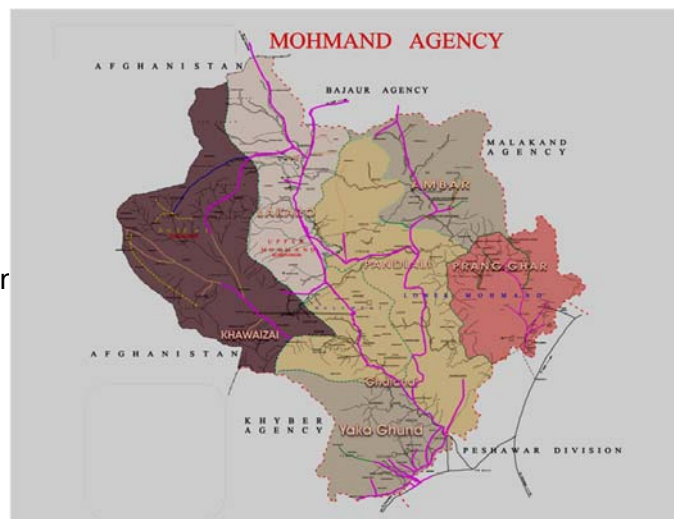
In view of the above, the government/FATA Secretariat has declared repatriation of IDPs to Mohmand Agencies from April 25th. Two humanitarian hubs under UN (WFP) at Ghalanai and Ekkaghund established to support the IDPs.

In order to facilitate and encourage the return of IDPs, the WASH sector activities, which are essential for life, are recommended to be initiated as soon as possible.

2. OVERVIEW OF THE PROJECT AREA

Mohmand Agency was established in 1951 and is part of the Federally Administered Tribal Areas (FATA) of Pakistan. It lies between 34 10' to 34 43' north latitude and 70 58' to 71 42' east longitude. It is bounded on the north by Bajaur Agency, on the east by Malakand Agency and Charsadda District, on the south east by Peshawar District on the south by Khyber Agency and on the west by Afghanistan. Total area of the Agency is 2296 Square kilometer with an estimated current population of 0.6 million.

Mohmand Agency is an area of rugged mountains with barren slopes and small tracts of flat land. General slope of the area is from northwest to south east. The



¹ Presentation by the political administrator



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reported cultivated land is 17183 hectares. Most of the agricultural land is rain fed, having insufficient rainfall. Lower Mohmand area is rather fertile whereas Upper Mohmand area is comparatively less productive. Less rainfall and little irrigated land is a factor responsible for the large demographic movements of the Mohmands to the fertile lands of Charsadda and Mardan districts. The source of income is limited in general except agriculture and some trade/business. Most of the locals are earning their livelihood in the Gulf States.

Mohmand Agency is geographically sub-divided, for administrative convenience, into three sub divisions and further divided into 8 smaller units called tehsils, these are; Halimzai, Pindialai, Safi, Baizai, Khwezai, Ambar, Ekka Ghund and Pranghar.

3. THE ASSESSMENT

Protection of Individual health and practicing hygiene is largely dependent on availability of adequate and safe drinking water and proper sanitation facilities. There is, therefore, a direct relationship between water, sanitation and health. Consumption of unsafe drinking water, improper disposal of human excreta, improper environmental sanitation and lack of personal hygiene have remained major causes of many diseases in developing countries. Pakistan and particularly the Federally Administered Tribal Area is no exception to this. Low coverage in safe drinking water and sanitation is a major cause of poor health conditions in FATA. The problem is acute in the smaller poorer rural communities where the health indicators are amongst the lowest in the region. The under provision of water and sanitation coverage has been linked with water borne diseases which are responsible for killing of 2.200 million children in the world every year. These diseases are the second major reason of high infant mortality. Improvement in water supply, sanitation and hygiene promotion practices not only result in lowering the incidence of water borne diseases but have also proved to be a corner stone in improving living standards and quality of life of the people. Safe water not only fulfills the basic need of people but also contribute to the economic development through saving of lost working days and expenditures on treatment of water and sanitation diseases.

UNICEF as WASH cluster leader intends to conduct an assessment of WASH situation in Mohmand Agency in a view to designing of an intervention plan for assisting the conflict affected population. The job has been assigned to Initiative for Rural Development (RID), a local NGO working for the development of rural communities.

The assessment is aimed at identification of extent of disruption caused to water and sanitation services and resultant problems as well as required measures/interventions to restore/provide water and sanitation related services to facilitate and consolidate return of IDPs to their homes. The report will also chalk out a strategy on how to assist the communities/authorities to enable them respond to the needs of the returning IDPs.

A couple of assessments were already conducted in Mohmand Agency during the past several months. Conflict Early Recovery Initial Needs Assessment (CERINA) was conducted during August 2009. Damages Needs Assessment (DNA) was carried out by WB/ADB during November 2009 and inter-cluster Assessment Mission visited Mohmand Agency during March 2010. The Government Departments have also prepared their own estimates of the water supply rehabilitation and restoration needs. These assessments includes brief sections on water and sanitation and focuses on repair/rehabilitation of existing public/government water supply schemes but do not elaborate on the strategy for responding to the needs of the communities at large who will be returning to their homes and those who are already staying over there.



4. COMPOSITION OF THE TEAM

The assessment team comprised of one senior consultant and six field officers. One project Assistant was also member of the team for data collection, compilation and assisting the consultant in writing the report.

5. MAJOR ACTIVITIES CONDUCTED DURING THE ASSIGNMENT

Staff and resources mobilized. Eight staff members including one senior consultant, six field officers and one project assistant hired.

Work plan and methodology for conducting the assessment prepared.

Orientation session for the field staff was conducted and the staff was briefed on use of questionnaire and detailed methodology on how to conduct the assessment.

Field Survey conducted using Comprehensive Assessment Tool (CAT) provided by UNICEF and a supplementary short Questionnaire for Key Informant Interview (KII)/Focus Group Discussion (FGD) developed by the consultant (copies of the questionnaires attached).

DATA collected from Public Health Engineering Department (PHED), Local Government and Rural Development Department (LGRDD), FATA Rural Development Project (FRDP), FDMA, FATA Secretariat.

MICS, DNA, and other relevant reports downloaded from websites and reviewed.

Data compiled, reviewed and analyzed.

Draft report including finding of the survey and cost of intervention prepared

6. ACCESSIBILITY & COVERAGE

According to the political administration, six out of eight tehsils of Mohmand Agency have been cleared off the militants; however, all the cleared areas were not safe from local population point of view in particular for the NGOs field workers/survey teams moving from village to village. Accordingly the survey teams were restricted to partial movement in several tehsils. Following table indicates the militancy and accessibility status of each tehsil in the Agency.

No.	Tehsil	Militancy status	Accessibility	Covered under survey
1	Halimzai	100% clear	Safe	Fully covered
2	Ekka Ghund	100% clear	Safe	Fully covered
3	Prang Ghar	100% clear	Safe	Fully covered
4	Pindyalai	100% clear	Partially safe	Partially covered
5	Khwezai	100% clear	Partially safe	Partially covered
6	Baizai	Partially clear	Unsafe	Could not enter
7	Ambar	100% clear	Partially safe	Partially covered
8	Safi	Partially clear	Unsafe	Could not enter

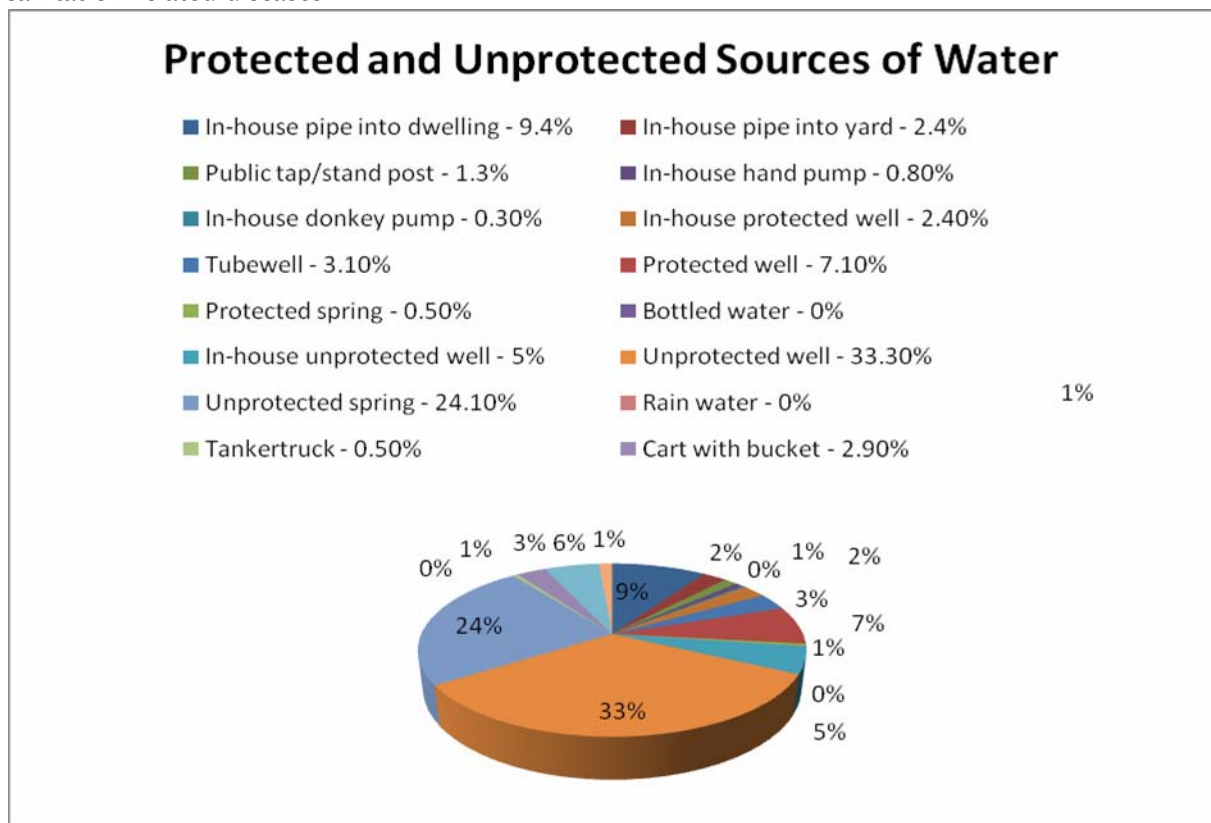


7. CURRENT WASH SITUATION - FINDINGS FROM REVIEW AND ANALYSIS OF THE SECONDARY DATA

The data collected from various sources was thoroughly reviewed and analyzed. Following is a brief description of the current situation based on findings from the review and analysis of data.

7.1 MULTIPLE INDICATORS CLUSTER SURVEY (MICS)

The MICS survey was conducted by the Planning and Development Department FATA Secretariat during 2008 with technical support from unicef. The findings of the survey compiled in a report give a very gloomy picture regarding access of the people of Mohmand Agency to safe water and sanitation facilities. According to the MICS report, only 27.30 % of the population has access to protected sources of drinking water while only 10.70 % of the households have access to adequate/safe sanitation facilities. This situation even before the crisis warrants extensive intervention in the sector to protect the health of the people from water and sanitation related diseases.



The above presentation shows the state of the WASH situation during the initial period of militancy, after which it has further deteriorated.

WASH related Statistics/data of the Government/Non-Government Departments

A number of government and non-government organizations have been working in the Agency for extending drinking water facilities to the people. The most active and extensive work has been accomplished by public health engineering department (PHED) followed by rural development department.

7.2 Public Health Engineering Department



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The PHED Mohmand Agency has so far completed 169 drinking water supply schemes of which, 142 are tube well based pumping schemes and 27 schemes are gravity based. These schemes are providing drinking water facilities to an estimated population of persons. All the 169 schemes are having extensive piped networks covering a projected population of 252,752 persons. Tehsilwise distribution of these schemes is as follows:

#	Tehsil	No. of schemes completed
1	Tehsil Safi	49
2	Tehsil Halim Zai	34
3	Tehsil Khwaizai/Baizai	36
4	Tehsil Eka Ghund	17
5	Tehsil Pindyalai	05
6	Tehsil Prang Ghar	11
7	Ambar	09
	Total	169

7.3 Local Government and Rural Development (LGRDD)

LGRDD is implementing small scale drinking water supply schemes for the communities e.g. dug well with low capacity motor pumps and hand pumps. However data related to their completed works could not be accessed to so far.

7.4 FATA Rural Development Project (FRDP)

FATA Rural Development Programme, an ADB and Government funded project has been active in the agency for the last three years and have so far provided small (dug well) based water supply schemes to 157 communities. Tehsilwise schemes completed by FRDP are given below:

#	Tehsil	No. of schemes completed
1	Tehsil Halim Zai	48
2	Tehsil Khwaizai/Baizai	16
3	Tehsil Eka Ghund	23
4	Tehsil Pindyalai	40
5	Tehsil Prang Ghar	30
	Total	157

7.5 Initial Damages Needs Assessment Conducted By ADB/WB

Soon after the initial phase of operation against the militants, the ADB/WB in collaboration with the Government authorities conducted damages needs assessment of 5 districts in Khyber Pukhtoonkhwa and 2 Agencies in FATA including Mohmand and Bajaur Agency. The report highlights that Mohmand Agency has only 6 partially damaged schemes out of total 169. Total population served by the 6 damaged schemes is approximately 7000 persons. The cost of damage is estimated to be **Rs. 7.700 million.**

8. PLANNED INTERVENTIONS

Public Health Engineering/Works and Services Department

The PHE Department has conducted their own assessment of the damages occurred to their schemes and they have prepared cost estimates for rehabilitation and restoration of drinking water services to the local population as well as returning IDPs. A survey team was constituted for the assessment of damages (Govt: and Public) during insurgency/conflict in Mohmand Agency by the Additional Political Agent Mohmand Agency during a meeting held on 19th



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March, 2010. Survey teams found the following existing PHE schemes out of order which needs restoration & rehabilitation. Initially they have prepared a PC-1 amounting to Rs. 43.200 million, where in they have proposed rehabilitation/restoration of the following 25 drinking water supply schemes throughout Mohmand Agency:

Serial #	Name of scheme	Estimated Cost (Rs.)	Scope of the project
1	Drinking Water Supply Scheme Askar Abad	699,000	Pump house/chowkidar Hut and boundary wall, internal electrification
2	Drinking Water Supply Scheme Shewa Farsh (Subedar Killi)	1,001,000	Pump house, internal electrification, pumping machinery, external electrification
3	Drinking Water Supply Scheme Ali Khel Qandhari	1,229,000	Pump house/chowkidar Hut, internal electrification, 50 kVA transformer
4	Drinking Water Supply Scheme Sandu Khel Qandhari	212,000	Pump House/chowkidar Hut and Boundary Wall
5	Drinking Water Supply Scheme Awara Ali Khel	222,000	Internal Electrification, pump house, 50 kVA transformer
6	Drinking Water Supply Scheme Kamal Khel Qandari	261,000	50 kVA Transformer
7	Drinking Water Supply Scheme Tore Kore Qandari	261,000	50 kVA Transformer
8	Drinking Water Supply Scheme Ghullai Musa Khel	403,000	Internal Electrification, Voltage Regulator and MCU, pump house, boundary wall
9	Drinking Water Supply Scheme Metai Musa Khel	1,042,000	Pump House/chowkidar Hut Internal Electrification, Voltage Regulator and MCU, boundary wall, 10000 gallons surface tank
10	DWSS Ajab Khan Killi	1,833,000	Repair of pump house, boundary wall and distribution system
11	DWSS Dab Kore Michni	1,066,000	Pumping machinery, repair of 5000 gallons tank, distribution system
12	DWSS Lakaro Said Ahmad	312,000	External electrification and voltage regulator
13	DWSS Ekka Ghund	5,538,000	Rising main, transformer and pumping machinery
14	DWSS Prang Ghar	5,739,000	Booster station 40000 gallons capacity and rising main
15	DWSS Sara Maina Ambar	649,000	Supply main
16	DWSS Sultan Khel (Mumbar) Halimzai	1,888,000	Distribution System



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17	DWSS Ghallanai i/c Civil Colony	10,526,000	Rising main, pumping machinery, external electrification
18	DWSS Kuza Kadai, Halimzai	3,494,000	Tube well, pump house rising main, internal electrification, voltage regulator, shifting of external electrification
19	DWSS Ghazi Beg (Sanak Malik)	2,277,000	Pump house, boundary wall, rising main, delivery lines, pumping machinery and internal electrification
20	DWSS Nao Killi Prang Ghar	60,300	Voltage regulator, internal electrification
21	DWSS Kira Laman Utman Khel	653,000	Pumping machinery and voltage regulator
22	DWSS Jhanda Gharibi Safi	832,000	Pumping machinery, repair of pump house
23	DWSS Spelano Killi Safi	629,000	Repair of pump house, boundary wall, internal electrification and voltage regulator
24	DWSS Alingar Safi	1,509,000	Supply main, repair of 20000 gallons surface reservoir, distribution system
25	DWSS Qalagai Gurbaz Safi	832,000	Pumping machinery, repair of pump house
		43,167,300	
	Say	43,200,000	

These schemes were partially damaged during conflict and military operation in the year 2008-09 and 2009-10.

Most of these schemes are situated in Safi tehsil followed by Halimzai tehsil. The amount of **Rs. 43.200 million** as indicated above for rehabilitation of drinking water supply schemes has been proposed for UNICEF funding.

LGRDD

The local government and rural development department is implementing regular program for provision of small dugwell based water supply schemes in the Agency.

9. IDPs RETURN PROFILE

As already mentioned that repatriation has been started and two hubs have been established by WHO one each in Ekka Ghund and Ghalanay, so in order to assess the repatriation pattern, repatriation data was regularly obtained from the concerned staff at these locations. Accordingly the latest data collected on 12-06-2010 indicates the following pattern of return of IDPs.

IDPs repatriation from 27-04-2010 to 12-06-2010

#	Tehsil	Families Repatriated
1	Tehsil Safi	89



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2	Tehsil Halimzai	898
3	Tehsil Khwezai/Baizai	74
4	Tehsil Eka Ghund	12
5	Tehsil Pindialai	69
6	Tehsil Ambar	29
	Total Families	1171
	Total Individuals	7260

10. ANALYSIS OF FIELD DATA

10.1 Situation Analysis

A total of 105 villages were visited during the survey having 179870 population and a total 1255 persons were consulted for collection of relevant information and for conducting the assessment (scanned list of all the persons met in each village during the survey is attached as Annexure - . Tehsilwise summary of the villages visited and people met is presented below:

Tehsil	No. of villages visited	Population	No. of persons consulted
Halimzai	37	84180	469
Ekka Ghund	22	28380	185
Prang Ghar	19	29140	270
Pindialai	15	18000	185
Khwezai	6	13230	64
Baizai	-	-	-
Ambar	6	6940	82
Safi	-	-	-
Total	105	179870	1255

Two questionnaires were used for collection of data from the field; the Comprehensive Assessment Tool (CAT) and a supplementary short questionnaire. The Comprehensive Assessment Tool (CAT) was used for assessing the overall situation regarding WASH including hygiene, water supply, excreta disposal, drainage etc. and other needs of the communities regarding WASH. The supplementary short questionnaire was used to collect data on the current sources of water, depth of water table, power availability and nature of rehabilitation required. The CAT included two parts; the condition and the intervention.

In the condition part, nine parameters were included in the assessment tool; aggravating factors, hygiene practice, hygiene NFIs, water supply, excreta disposal, disease vectors, solid waste,



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drainage and participation/representation. Each parameter contained several questions. Following is a description of each parameter and related questions/indicators:

Aggravating factors; extent of global acute malnutrition and food insecurity, access to health services, presence of faecal-oral diseases, density of settlement in m² of total site area per person, number of people on the site, shelter conditions, and adult HIV prevalence rate.

Hygiene practice; Proportion of households where only safe water is used for drinking and cooking, Proportion of men, women and children who last defecated in a toilet (or whose faeces was last disposed of in a toilet), Proportion of men and women washing hands with water and soap or substitute after contact with faeces and before contact with food and water, Proportion of pregnant women, children under five and other vulnerable people sleeping under effective insecticide-treated mosquito nets, Proportion of households where food is safely stored, prepared and consumed.

WASH NFIs; Proportion of households possessing soap, Proportion of households possessing one or more effective insecticide-treated mosquito nets, Accessibility of appropriate sanitary protection materials for menstruation, and underwear, for women and girls, Proportion of households possessing at least one clean narrow-necked or covered water container for drinking-water, Average total capacity of water collection and storage containers at household level (l), Proportion of households with appropriate water-treatment supplies and equipment.

Water Supply; Quantity of water used per person per day for drinking, cooking, hygiene and laundry (litres per person per day), Likelihood of a critical fall in the quantity of water available per day within the next month, Average time required (minutes) for one water collection journey, including travel in each direction and queuing, Proportion of households with access to a source of safe drinking-water, Access to appropriate bathing facilities, and access to appropriate laundry facilities.

Excreta Disposal; Presence of human faeces on the ground on and around the site, Average number of users per functioning toilet, Proportion of households with access to a functioning toilet, Proportion of toilets with functioning and convenient handwashing facilities and Proportion of toilets that are clean.

Vector Control; Degree of malaria risk, Degree of other biological vector-borne disease risk and Risk of fly-borne disease.

Solid Waste; Presence of solid waste on and around the site and Presence and effectiveness of a solid-waste management system.

Drainage included; Presence of stagnant water on and around the site, Risk of water-induced damage at the site.

Representation, equity, and participation included; The WASH response includes effective mechanisms for representative and participatory input from all users at all phases, All groups within the affected population have equitable access to WASH facilities and services, The affected population takes responsibility for the management and maintenance of facilities as appropriate and all groups contribute equitably.

For each of the above parameters three ranges/conditions were defined;

Severe situation: urgent intervention required in this sub-sector to manage acute and/or widespread needs/risks

Situation of concern: intervention required in this sub-sector to manage chronic and/or limited needs/risks

Relatively normal situation or local population able to cope with crisis: no further action required in this sub-sector



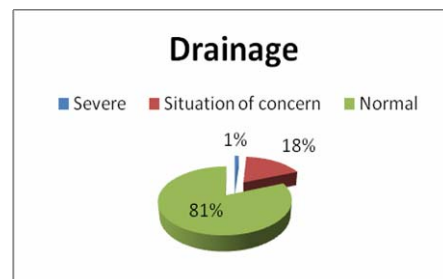
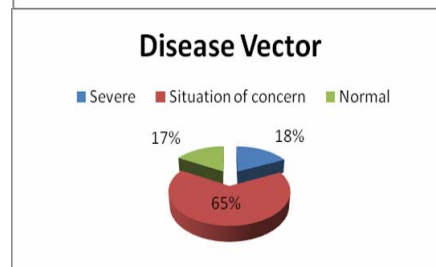
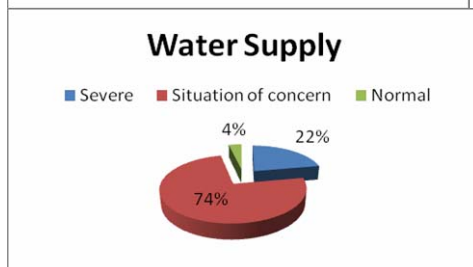
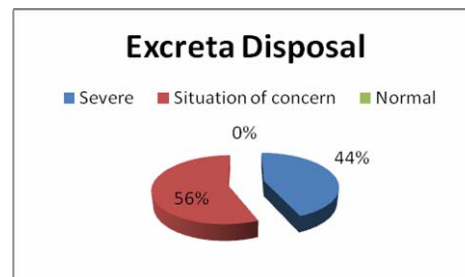
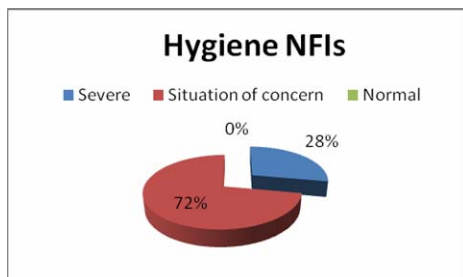
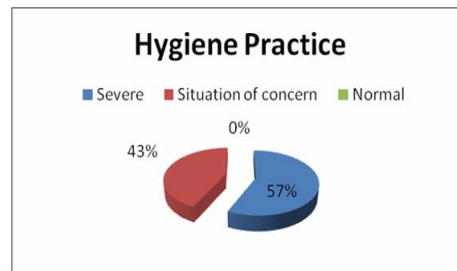
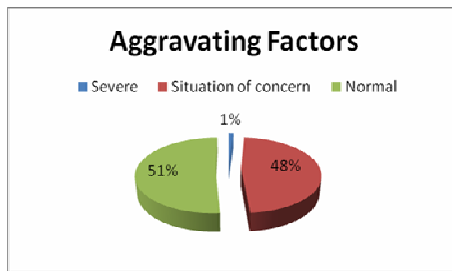
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Responses to the questions/observations from each village were entered into the CAT data entry file, which automatically, through a programmed software generated results as “severe”, “situation of concern” or “normal”.

The following table summarizes the overall and tehsilwise findings showing the number of villages reflecting the WASH situation as “severe”, as “situation of concern” or as “normal” for each parameter. Village wise findings in each tehsil are provided as Annexure - :

Parameter	Condition	TEHSIL						Overall Condition
		Halimzai	Ekka ghund	Prang ghar	Pindialai	Khwezai	Ambar	
Aggravating factors	Severe	0	1	0	0	0	0	1
	Situation of concern	15	11	13	7	5	2	53
	Normal	22	10	6	8	1	4	51
Hygiene practice	Severe	23	13	8	13	3	6	66
	Situation of concern	14	9	11	2	3	0	39
	Normal	0	0	0	0	0	0	0
Hygiene NFIs	Severe	16	5	0	2	2	0	25
	Situation of concern	21	17	19	13	4	6	80
	Normal	0	0	0	0	0	0	0
Water supply	Severe	11	5	1	4	1	0	22
	Situation of concern	26	16	16	10	5	6	79
	Normal	0	1	2	1	0	0	4
Excreta disposal	Severe	17	10	9	5	3	5	49
	Situation of concern	20	12	10	10	3	1	56
	Normal	0	0	0	0	0	0	0
Disease vectors	Severe	13	3	0	0	0	0	16
	Situation of concern	16	16	17	13	5	6	73
	Normal	8	3	1	2	0	0	14
Solid waste	Severe	0	0	0	0	0	0	0
	Situation of concern	28	11	6	9	0	3	57
	Normal	9	11	12	6	6	3	47
Drainage	Severe	1	0	0	0	0	0	1
	Situation of concern	8	6	3	0	0	2	19
	Normal	28	15	15	15	6	4	83
Representation	Severe	0	0	0	0	0	0	0
	Situation of concern	7	0	0	0	0	0	7
	Normal	30	22	18	15	6	6	97

A graphical presentation of the overall situation of nine parameters for all the villages surveyed in Mohmand Agency is produced below. Tehsil wise graphical presentation of the same parameters is attached as Annexure - :



From the above presentation, it is obvious that on average, throughout Mohmand Agency, hygiene practice, followed by excreta disposal and hygiene NFIs come under “severe” condition. This indicates that urgent intervention is required in this sub-sector to manage acute and/or widespread needs/risks. Water supply and disease vector comes under “situation of concern” which indicates that intervention is required in this sub-sector to manage chronic and/or limited needs/risks. While drainage, solid waste, aggravating factors and participation are not so serious concerns indicating relatively normal situation or local population are able to cope with crisis with limited or no support from outside is required in these areas.



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11. PROPOSED INTERVENTIONS

For each village a number of WASH related interventions were identified through meetings/FGDs with the concerned communities. A summary of the proposed community based interventions is depicted in the following table:

Summary of Proposed Interventions							
Tehsil =====>>>	Halimzai	Pandialai	Ekka Ghund	Pranga Ghar	Khwezai	Ambar	Total
General Information							
Number of villages	37	15	22	19	6	6	105
Population	84180	18000	28380	29140	13230	6940	179870
House Hold	8901	2367	4221	4027	1880	990	22386
Proposed Interventions							
Number of packs of specific quantity of soap to distribute to target households	8901	2367	4221	4027	1880	990	22386
Number and capacity of narrow-necked water containers to distribute to target households	8901	2367	4221	4027	1880	990	22386
Number of packs of specific quantity of point-of use water-treatment chemicals to distribute to target households	53406	14202	25326	24162	11280	5940	134316



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Number of boreholes to construct	31	8	55	31	10	0	135
Number of boreholes to rehabilitate	21	5	29	8	1	1	65
Number of dug wells to construct	42	29	31	30	8	7	147
Number of handpumps to install	21	10	42	14	0	4	91
Number of motorised pumps to install	57	26	24	31	8	3	149
Number of motorised pumps to repair/rehabilitate	28	2	39	2	3	3	77
Number of dug wells to rehabilitate	128	101	113	49	23	19	433
Number of spring catchments to construct/Rehabilitate	15	0	1	2	0	0	18
Number of water-collection points to construct	61	76	64	65	21	17	304
Number of water-collection points to rehabilitate	8	8	13	4	2	3	38
Long-term water-storage capacity to construct	13	6	0	2	2	1	24
Length of pipe to lay (rft)	52800	33500	39300	35500	7600	7800	176500
Number of long term Family/communal toilet cubicles to	183	240	490	522	190	87	1712



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construct							
Number of disability toilets to construct	74	32	41	33	7	16	203
Number of shelters / houses to treat with indoor residual insecticide spray	1223	1238	4221	5220	1880	990	14772
Length of drainage channels to construct (rft)	48660	15900	35100	13700	3700	5800	122860

12. COST OF INTERVENTIONS

The cost of intervention in WASH sector is based on unit cost of construction/procurement of each component. The cost, at this stage, does not take into account community contribution or low cost infrastructure option as such kind of modalities will be considered during implementation stage. Standard engineering designs and drawings for major components e.g. borehole, dug well, latrines and storage reservoirs have been prepared and quantity of materials required has been worked out. Government approved and practiced rates in the area have been applied to each item. Where government rates are not available, prevailing market rates have been used. For minor items e.g. repair of hand pump, repair of dug well and repair of boreholes, tentative cost has been used, while actual cost will be worked out during design of individual scheme by the implementing organization as per nature of repairs. The following table shows estimated cost of intervention identified by the communities in the surveyed area. The high cost of the intervention is mainly due to very deep water table and low charged aquifer resulting into deep drilling and digging of wells coupled with provision of generators for each well as there is no adequate voltage in the electricity network of the area.

Cost of Proposed Interventions



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Tehsil =====>>>	Total Quantity	Unit Rate	Total Cost	US\$
Number of packs of specific quantity of soap to distribute to target households	22386	180	4029480	47406
Number and capacity of narrow-necked water containers to distribute to target households	22386	270	6044220	71108
Number of packs of specific quantity of point-of use water-treatment chemicals to distribute to target households	134316	20	2686320	31604
Number of boreholes to construct	135	423000	57105000	671824
Number of boreholes to rehabilitate	65	50000	3250000	38235
Number of dug wells to construct	147	374000	54978000	646800
Number of handpumps to install	91	74500	6779500	79759
Number of motorised pumps to install	149	45000	6705000	78882
Number of motorised pumps to repair/rehabilitate	77	25000	1925000	22647
Number of dug wells to rehabilitate	433	50000	21650000	254706
Number of spring catchments to construct/Rehabilitate	18	40000	720000	8471
Number of water-collection points to construct	304	35000	10640000	125176
Number of water-collection points to rehabilitate	38	25000	950000	11176
Long-term water-storage capacity to construct	24	408000	9792000	115200
Length of pipe to lay RFT	176500	80	14120000	166118
Number of long term Family/communal toilet cubicles to construct	1712	36000	61632000	725082
Number of disability toilets to construct	203	44000	8932000	105082
Number of shelters / houses to treat with indoor residual insecticide spray	14772	800	11817600	139031
Length of drainage channels to construct RFT	122860	276	33909360	398934



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Total Cost			317,665,480	3,737,241
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As evident from the above table, the total cost of intervention in the villages visited works out to be about **US\$ 3.737 million**. This cost does not include community mobilization, partner support, capacity building and management cost. The indicated amount is the cost of hardware intervention in the villages visited during the survey, having a total population of **179,870 persons**. To work out the total cost for intervention in the entire agency, we have to project the cost proportionately based on the total population of the agency.

Total population of Mohmand Agency according to the 1998 census report is **334,453 persons** including 175,404 male and 159,049 female. The average annual growth rate of population between 1981 and 1998 is 4.28%. Based on this growth rate the current population of the agency would be **519,356 persons**. According to the political administration, the approximate current population of the agency is 600000 persons. Considering on conservative side, i.e. the projected population, the total cost of the intervention would be: $3.737/179870 \times 519356 = \text{US\$ } 10.790$ million. If we add PHED estimated cost for rehabilitation of 25 water supply schemes, which is US\$.0.500 million, the total cost would be **US\$ 11.290 million**.

13. IMPLEMENTATION STRATEGY

The implementation strategy for WASH intervention in Mohmand Agency is proposed in consultation with various stakeholders after meetings held with Government officials in Peshawar and Ghalanai Mohmand Agency. There are two possible mechanisms which can be used for implementation of WASH related activities:

A: *Working through government*: Water Supply and Sanitation unit of Works & Services Department in Mohmand Agency is providing drinking water facilities to the population of Mohmand Agency. Their capacity could be enhanced for implementation. Such implementation will minimize security risks and capacity enhancement of the authorities. However, the level of response might not be faster as that of NGO partners.

B: *Working through Implementing Partner (NGOs)*: A number of NGO partners are available for implementation in Mohmand Agency. The NGOs are instrumental in community organization/motivation; therefore their involvement will be more effective in real needs identification and sustainable development/rehabilitation of WASH related facilities. In particular for sanitation, the role of NGOs is more important.

In any case, the priority shall be given to rehabilitation of those schemes which can be put to operation quickly; e.g. provision of pumping machinery, repair and/or installation of hand pumps on existing



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wells/boreholes. Construction of additional community water tanks or stand pipes or extension of pipeline from existing water supply system to those area where community are having no source of drinking water. In addition, community mobilization, hygiene promotion and support in construction of latrines through awareness campaign to eradicate open defecation should be a priority area for intervention.

In the second stage, development of new sources/tubewell/dugwells and rehabilitation of existing sources along with extension on piped network shall be taken up. Construction of small dams could also be considered as an option for longer term intervention.

14. CONCLUSION

Mohmand Agency is one of the main areas hard hit by militancy and also suffered by military operation. The health and water related indicators of the agency were not encouraging even prior to the conflict. The recent conflict has worsened the life of the people. Among other infrastructure, water and sanitation have been affected the most. This, in particular has suffered women and children, who are primarily responsible for collection and storing of water and who are also vulnerable to water and sanitation related disease.

Cost of the intervention in the areas declared as safe is around **US\$ 3.700 million** while cost of intervention in the entire agency, supposing that the agency becomes clear in near future, would be around **US\$ 12.264 million**. Immediate interventions and support to the communities is required to enable them cope with the situation and to encourage IDPs return.

The Donors have the options to support the people of the agency through supporting government departments (PHED/LGRDD), who are mainly responsible for provision of safe drinking water through construction of public water supply schemes. Another option is to use the services of NGOs, and communities' potential to respond to the emergency and to help them solve their drinking water problem. The communities have indicated their passion of self help and are willing to actively participate and contribute towards the intervention.

The above interventions identified in consultation with the communities during the assessment will address the immediate water and sanitation needs of the communities, will help the communities adopt safe hygiene practices and will encourage, facilitate and stabilize the IDPs return. The WASH condition of most of the villages will be improved from severe to average and from average to normal. This will also improve the general living condition of the people of Mohmand Agency and will help protect them, particularly the new born babies, from WASH related diseases.



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As Mohmand Agency is a water scarce area, the donors should also give attention to the management and conservation of water resources on scientific lines in the agency to ensure sustainable development and make water available for future generation.

Another potential area where donors can intervene is the use of solar energy. In view of the current energy crisis in the country and the global need of shifting from fossil fuel to renewable/carbon free energy, use of solar energy would be an appropriate option to be considered as there is plenty of sunlight throughout the years in Mohmand Agency.