

**Rehabilitation of Water Supply Systems and Improvement of Health Status
in the Provinces
Azad Jammu & Kashmir and North West Frontier Province
Pakistan**



FINAL EVALUATION REPORT

Project number: AS 1328 /PAK 1007-06

Allocation amount: 703.868 Euro
(ECHO contribution: 526.868 Euro)

Project holder: Deutsche Welthungerhilfe/
German Agro Action

Project duration: May 2006 – June 2007
(ECHO duration until 30.04.07)



Summary

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1. Summary of the main results and conclusions

1.1 Short description of the project

On 8th of October 2005, an earthquake devastated the mountainous regions of Pakistan. The project PAK 1007 contributes creating new basic living conditions for the people most deeply affected by this disaster in Azad Jammu & Kashmir (AJK) and in North West Frontier Province (NWFP). It was proposed, that 3,422 families with 24,000 individuals will benefit from the rehabilitation of the existing water supply systems and the improvement of the health status. The ethnic group of Pukhtoos is predominately residence in the 10 selected villages of Shangla District. Inhabitants of the 26 targeted villages in Bagh District are Kashmiris and belong to the Pakistani-ruled part of Kashmir.

The specific objective of the project is to improve the availability and quantity of drinking water in the selected villages. Particular focus is given to improved awareness of hygiene practices through a adequate training campaign. The project corresponds to the decision of the “European Commission Humanitarian Aid Office” (ECHO) with an allocation of 526,868 Euro. The duration of the project is 12 months and will end 30th of April 2007. Additionally 177,000 Euro are funded by the Deutsche Welthungerhilfe/German Agro Action (DWHH/GAA) for the construction of sanitation facilities (to be finished until 30th of June 2007) and other administrative items.

To guarantee the access to a sufficient quantity of water, 13 gravity supply systems and 70 boreholes with hand pump installations are currently under construction. The availability of hygienically-safe drinking water and the improvement of people’s awareness concerning health and hygiene practices will be a first step toward the improvement of the health status of the affected population.

1.2 Project holder analysis

The project is implemented by the DWHH/GAA with the support of the partner organizations Sarhad Rural Support Programme (SRSP) in NWFP and National Rural Support Programm (NRSP) in AJK. Both partners are experienced Non Governmental Organizations (NGOs) in Pakistan, replicating the Rural Support Programme (RSP) throughout years and having sufficient personnel and equipment to act professionally and cost-effectively.

The programme office of the DWHH/GAA is located in Islamabad and the project office for several currently ongoing interventions, including the evaluated project PAK1007, is located in Manshera. The project office of PAK 1007 is small but provides sufficient equipment for the employed personnel. A field officer acts from a scanty equipped office in Bagh to carry out site supervision in AJK. The supervising engineer in NWFP shares the office with other staff from the ongoing projects of the DWHH/GAA.

The detailed assessment for the planning of the project and the physical implementation lay partly in the responsibility of the partner organizations. Some of its technical staff has not got long professional experiences in the practical execution of construction work. For the drilling work, a sufficiently qualified external consultant was hired to carry out geo-hydrological investigation and site supervision of the borehole drilling.

The first part of the health and hygiene awareness campaign was carried out by the promotion team professionally guided by an external consultant and the employed health and hygiene coordinators. The project staff of the DWHH/GAA and its partner organizations is generally trained “on the job”. A specified training prior to the start of the project could allow a quicker understanding of the fairly composite rules and standards of the DWHH/GAA. The number of 9 staff members from the organization and 18 from its partners is sufficient to implement the activities. The possibility to form a team with a strong common sense to achieve the projects aims was hindered by various reasons.

1.3 Analysis of situation and target group

The earthquake of 2005 was a major disaster whose epicentre was located in Pakistan-administered Kashmir about 55km far away from Bagh District. The North West Frontier Province is located at the perimeter of the major impact zones. About 3.3 million of people were estimated to be homeless and 73,276 dead people were reported. The situation concerning water resources has deteriorated after the disaster. The tectonic movements shifted the groundwater aquifers and a numerous amount of existing springs and wells have substantially fallen dry. Walking distances for women, who traditionally fetch drinking water, have increased. The general living conditions (income, health and nutritional status) of the target group deteriorated after the disaster and the population is still under stress. The DWHH/GAA has built up a trusting relation with the beneficiaries through former projects distributing relief items immediately after the disaster. This does not have merely a material dimension, but also creating psychological trauma, which adds significant distress to the affected population.

Pakistan has a very high rate of infant mortality compared with neighbouring countries. The government has been setting milestones to overcome remarkable deficiencies in the education sector, but still having a mass of poorly educated people. Pakistan`s overall record in promoting and delivering gender equality is weak. The armed force with general Pervez Musharraf took power in October 1999 and the army is still the ultimate political arbiter while the opposition remains weak.

The 10 villages in Shangla District (NWFP) belong to the least developed regions worldwide. The biggest section of the population in this area are Pukhtoons. Their lives are organized according to old traditions following a strict moral codex and women are not exposed to the outside world. The insensitive language policy of the government still contributes to the continued existence of separatist movements. The illiteracy rate is about 60% for the rural population of NWFP, whereas only about 22% of the women can write and read. Due to the remoteness of the villages and its difficult access the area is suffering from an insufficient access to medical treatment.

The Kashmir dispute is one of the oldest unresolved international conflicts. The selected project area in AJK is the area of Kaful Ghar, consisting of 26 villages. The core problem of this area is related to the meagre water sources in the mountainous area of Bagh District. The income sources of this area have been affected due to the unusable land for cultivation and the return of the male members from their outside labour into the villages carrying out reconstruction of the destroyed houses.

1.4 Analysis and assessment of project preparation

A pre-assessment was carried out within a preparatory mission and subsequently the project proposal was issued to be submitted to ECHO in May 2006. The detailed assessment to define the needs for the final design of the intervention was physically carried out by the partner organizations and started with a delay of about four weeks due to the late signing of the allocation agreements with them and the grant agreement with ECHO.

A very experienced water and sanitation engineer carried out the pre-assessment within a short period of 22 days. The outcome of this “short-term” assessment was impressive and a good basis was thereby set for the detailed investigation and planning of the project. The pre-assessment had to carry out its work with limited documents available, and cumbersome access to the remote villages added another constraint. In regard to the current problems of the project implementation in Bagh District an extension of the period of the pre-assessment could have only addressed some of the issues more thoroughly by extending the time of its execution.

As far as Shangla District is concerned the detailed assessment generally confirmed the findings of the pre-assessment. Whereas in Bagh District it was decided to drill wells and install hand pumps instead of using systems requiring electric equipment.

1.5 Analysis and assessment of planning and project planning matrix

The project was conceived as an “ad-hoc” emergency intervention. Its logic as well as the expected results are credible and clearly defined. Due to the late start of the construction work there are still major activities ongoing and it is currently not an easy task to judge the achievement of the principle and specific objectives as their fulfilment up to 100% is jeopardized. This is regarding the finalisation date (30th of April 2007) given in the grant agreement. At present the delay of the drilling work and the challenging impact measurement of the 35% “behaviour change” by the implementation of the health and hygiene awareness campaign are the critical aspects. According to the results of the geo-hydro geological investigation (HGI) surface water is less reliable in the area of Kaful Ghar than water from wells. Additionally, ownership quarrels have hindered the use of springs as well.

After the detailed assessment the number of expected beneficiaries is stated with 26,350 individuals (3,764 families) in the revised version of the “Interim Report” submitted to ECHO in January 2007. It can be assumed that 15,260 individuals will take water from the communal collection points of the gravity water supply systems, if no major obstruction from now on is hindering the completion of the systems end of April 2007. Until this time the evaluator estimates the outcome of the boreholes with about 70% (50 instead of 70 boreholes). The assumed figures would result in 7762 people (instead of 11,088) benefiting from the supply of the bored wells end of April 2007. This estimation would result in an overall figure of 87% of the total number of beneficiaries. A final survey will determine the time for the collection of the water and the actual supplied quantity.

The initially foreseen installation of 350 temporary pilot-latrines financed by the funds of DWHH/GAA is replaced with 150 permanent latrines. The human excreta will be deposited in a septic tank and the outflow will safely drain underground. The risk of infection with the diseases related to human excreta is reduced with that. The indicator of 50% of the target group using the toilets cannot be achieved. The decision for the installation of the permanent

toilets with a septic tank allocated to the households is reasonable and they can have a “model” character.

The assessment of the economic efficiency is based on the initial budget in the proposal compared with the committed budget for the 30th of April 2007 given by the project management. The cost for goods and services delivered to the beneficiaries will probably increase by about 40.000 Euro and the support costs will decrease by about 30.000 Euro. With 74% of the cost being “directly delivered to the beneficiaries” the project is cost efficient in this aspect.

The planned equipment, goods and services have been satisfactorily supporting the course of the project. The participatory approach of the project to carry out the work with local resources is exemplary. A remarkable staff turn-over was surely not beneficial to the short-term project and has hindered the team of developing a common team spirit. The long distances of driving add its contribution to this.

Risks and assumptions have not been elaborated as a standard procedure. They refer clearly to the consequences of the disaster and have been specifically pointed out the possible problems of the project. Most of the risks and assumption could be found more or less severe within the course of the project.

1.6 Analysis and assessment of project implementation

To achieve a safe and sustainable drinking water supply it requires the selection of the appropriate technologies, that match to the specific conditions of the project. After the finalisation of the detailed assessment, including a geo-hydrological investigation (HGI) by GeoScience Association (GSA), the installation of 70 deep wells with hand pumps was proposed for the water supply in Bagh District. The hand pumps will be installed at a depth between 174-200ft (53-60m) with an expected yield of 2-6gpm (9.1-27.3 l/min). The currently ongoing drilling work confirms the investigated depth of the aquifers and the yields will be defined by a measurement after the completion.

The HGI also included the investigation of the major known springs in Bagh District, which are generally not very reliable due to the tectonic activities in the area. The yields of the sources and the wells depend to a great extent on the seasonal patterns of rainfall. GSA supports the decision that a more reliable and sustainable water supply can be achieved by drilling of wells instead of catching springs.

The selection of the drilling companies was a toilsome project task. Several changes of companies were necessary to get the work on the track. Lack of experience, unsatisfactory performance of drilling companies, the mountainous terrain causing technical problems are the reasons for the difficulties of the drilling work endangering seriously the project aim within the decision period given by ECHO. Currently two drilling companies are active in the field.

Cable tool percussion drilling is one of the oldest, simplest and most reliable technologies available for borehole drilling. It is also the only possible drilling method, which is suitable by means of transport in the project areas. At the end of the evaluation period (8th of March 2007) only four boreholes were completed, 28 boreholes were in progress and 28 remaining. Three

hand pumps have been installed; a total of 8 boreholes were successful in finding water. Ten machines have not been deployed yet.

For the installation of the hand pumps the “Afridev” type pump was selected. It is one of the most commonly used hand pumps in the world and extracts water from up to 45-60 meters below ground surface. The long experience in using this pump has proven its possible maintenance on a community level and its sustainability for many years. The pump is manufactured locally in Karachi (Pakistan).

The installation of the gravity water supply systems in 10 villages of Shangla District and three in Bagh District is ongoing. Catching of the raw water is done directly from one or two springs, which have been used before. A collection tank is installed nearby the spring and from there water flows through the pipelines toward a system of distribution tanks. Their structure is made of plastered masonry walls and the slab of reinforced concrete. Not all tanks have the necessary minimum of plumbing installation. The most time consuming part of the work was the transport to the remote villages on the bad roads. It can be assumed, that if no major obstruction will occur, the 13 gravity supply systems can be finished until the end of April 2007. It is the easiest way of transporting water to the consumers (in case reliable springs are available) due to a minimum requirement of maintenance activities and the independence from electric power supply. Its simple technology is reliable and sustainable when installed in a good quality.

The beneficiaries will fetch their water at communal water collection points. No such installation could be seen during the evaluation period. It is strongly recommended by the evaluator, that the foreseen structure of the water collection points must allow to keep these areas clean.

The water should not cause any risk to the health of the target population and therefore the “sphere standards” for the water quality are applied in the project. As far as the gravity supply systems are concerned the structures contribute to the collection and distribution of hygienically safe water. Concerning the water from the deep wells, it will be tested when the hand pumps are installed. According to the HGI the water from the aquifers and springs in the area of Bagh have a good quality and is safe for human consumption. The control of the water quality must be done on a regular basis. Within the course of the project water from the deep wells and from the springs will be tested before using the water. The contact with the laboratories on district level is needed now in order to define the local standards and the criteria for a final testing campaign.

A particular focus within the project PAK 1007 has been given to the health and hygiene awareness campaign, which is not reflected by the amount of money available for it. An experienced external consultant was hired and the hygiene “master trainees” were prepared professionally to train activists in the communities. The hygiene coordinators of the DWHH/GAA developed a suitable field strategy and the community activists transfer at least five key messages to the households. Community members were very often quite perceptive even stating that timing was not very favourable for them as a lot of houses are not yet reconstructed and sufficient water has not reached most of them nearby. The method was thoroughly adapted to the specific environment as far as traditional and cultural life in Pakistan is concerned. One remarkable issue is that the campaign has reached male groups in very remote villages in Shangla District. Beside three villages women were equally addressed by the health and hygiene awareness campaign. The key factors and indicators of the “sphere

standard” are included in the conduction of the training and currently the personal hygiene training for children in schools is carried out. The envisaged 70% participation of the target group can most probably be achieved counting on a household level. Behaviour change of 35% of the target population is an ambitious task in the selected areas, which are indicated by archaic rules and strong traditions. This indicator needs to be proved by the final impact evaluation. The motivation and the endeavour of the hygiene promotion team is remarkable.

The installation of toilet facilities contributes to a save discharge of human excreta and thus decreasing possible sources of infection to the population. After the sanitary survey has been conducted the project had planned to install toilets only in Shangla as the population is more vulnerable in this district. The design of the toilets proposes a three chamber septic tank with an underground outflow. Having decided on this “upgraded” design from temporary to permanent installed toilets with a septic tank, the budget line allows only the installation of 150 instead of 350 temporary structures. It was decided to erect household latrines, which can create a greater sense of ownership. The toilets can function as a “model” to be replicated.

The technical systems and structures selected are simple in the sense of their operation and maintenance requirements. After the completion of the systems the responsible people for the construction work will function as a maintenance group. Most of the training is carried out “on the job”. The water supply systems with all components will be officially handed over to the communities.

The project is carrying out the production of a film with an envisaged duration of approximately 20 min highlighting the efforts and the results of the water and sanitation project. The film is produced by “World Wide Vision” accompanying the different phases of the project. An additional visibility measure will be the erection of sign boards in the target villages.

The project started in time 1st of May 2006, but due to various reasons the project is about two months in delay compared with the initial work plan. The grant agreement was issued by ECHO on 22nd of May 2006 and the agreement allocations with the partner organizations were signed end of June 2006. The geo-hydrological investigation started only in September 2006, which could have been part of the detailed assessment carried out in May and June 2006. The drilling companies were very much under stress already at the start of their work signing a first contract in November 2006 and implementing drilling for 70 boreholes in a difficult environment within four months. Additionally the performance of two (out of three) drilling companies was not good at all or not satisfactory. Considering this significant delay the project has achieved quite a lot in an actual construction period from November 2006 to March 2007.

In particular the male members of the target group contribute participatory to the technical implementation of the project. Due to the cultural constraints women were only addressed in the course of the health and hygiene awareness training. Skilled labour and main construction material were given to the communities by the project. Site supervision is carried out by the team of the DWHH/GAA and the technical experts of the partner organizations. Construction and monitoring teams have been formed in the communities taking over at a later stage the responsibility of the operation and maintenance work. Only the drilling work is mainly done by the workers of the contracted companies. Activists of the villages have been transferring the hygiene key issues to the households, while community members provided rooms and food for the training.

The project is implemented with the partner organizations (local NGOs) NRSP and SRSP. The HGI was carried out professionally by a technical specialist from Lahore also providing an external consultant for the site supervision of the drilling work. The training of the “master trainer” for the health and hygiene awareness campaign was conducted by a very experienced consultant team. Beside the contact of the DWHH/GAA with the “Earthquake Reconstruction and Rehabilitation Authority”(ERRA) there is no worth mentioning regular interaction with other institutions or authorities.

The actual construction work is not in line with the initially elaborated work plan of the proposal submitted to ECHO. The delay, which has caused this deviation is explained above. The proposal stated that wells should only be drilled as to be the last option to supply sufficient quantity of water. The investigation of possible springs for the installation of the more favourable gravity supply systems did not reflect the expectations as most of them are not perennial. The final number of wells to be drilled is 70 and instead of installing electric pump systems for the distribution of the water, the project decided to install “Afridev” hand pumps. In each of the districts three originally selected villages were replaced. The number of 350 temporary toilets were replaced by 150 permanent latrines.

1.7 Impact with regard to development

The assumption takes into consideration that the borehole systems will have at least a success rate of 70% until the end of April 2007. In terms of cost directly delivered to the beneficiaries (about 18 Euros per person) the project is very efficient. The available resources could transform the various activities into the intended results if the delayed work (regarding the finalisation date of the 30th April 2007) can get on track again. The overall efficiency in terms of timing could have only increased by avoiding the delay. Considering the short actual construction period of five months the project is efficient in terms of the quantity achieved within this short time.

The input of the personnel is efficient to carry out the necessary activities and the management system applied was set up professionally. Additional trainings and a team-building workshop could have strengthened the skills and a more common sense of motivation. The fairly high expectations of the effectiveness of the health and hygiene awareness campaign might be not fulfilled. There is a reduced coverage concerning activities of other actors in the targeted districts. Credit should be paid to the effort spent to bring improvements to the remote and neglected areas of Shangla District. As the targeted population was struck by a disaster the project is relevant in the sense of its overall definition to support rural population affected by the earthquake and creating new basic living conditions. The target group expresses clearly their satisfaction and gratitude towards the DWHH/GAA and its implementing partners. None of the selected villages felt a “cultural interference” by the activities of the project.

The ability to afford spare parts necessary for the operation and maintenance of the systems is connected to the income available, which right now can add an additional financial burden to the communities. The work load for the women will decrease due to the reduction of the time and the distances to walk for the collection of the water. The water will be provided safely and the water consumption will increase compared with the status of living in the destroyed villages. This can contribute to a slow improvement of the health status. When the water is available the preparation of food can be done under an improved cleanliness of the kitchen.

There is only the domestic use of the water considered and it should not be used for irrigation and/or livestock keeping, which would be necessary to improve the nutritional standard. The target group has increased its knowledge about health and hygiene practices as well as technical skills of men are enhanced. The traditionally organized villages have a certain capacity to point out their problems and get involved in its solutions. The project is strengthening the self-help potential by setting up a construction, a monitoring and a maintenance male group. There is no official self-help initiative carried out by the women. More regular links with the relevant institutions can increase the availability of necessary data for the future planning of projects. As the project was carried out under an emergency decision with a short implementation time, it will still bring change to the village life of the poor people. The participation of the male groups is laudable, while the women are secluded from decision making processes due to the archaic principles and rules of the Pakistani society.

The principal goal of the ECHO decision was to focus on integrated relief assistance, small scale rehabilitation and livelihood support. From a small scale rehabilitation programme one should not expect a “big scale” sustainability. Nevertheless, there are two aspects to be pointed out as possible sources in terms of sustainability:

- sustainable technologies of the water supply systems
- installation and training of the operation and maintenance groups in each village

The possibility of the DWHH/GAA to implement follow-up projects in the District Shangla and/or Bagh can add measures increasing the sustainability of the already implemented components.

“Hygiene-sustainability” is related to “behavioural change”. The first step is taken and the final impact survey will give an answer about the actual extent of the changes. Despite of the achievement of the indicators, the campaign is giving awareness to the target group and it could be sustained by a repetition of such a campaign after they are more relieved from the direct distress of the disaster.

When the families (benefiting from the toilet installation) promote the permanent structure of the facilities to other community members, they can have a “model” character. The experiences gained in Shangla District can be used to find the most sensitive approach toward such remote and traditionally secluded areas. In terms of these two aspects the project can be significant.

1.8 Gender related issues

The project was planned as a water supply and sanitation programme and no special attention was paid to gender guiding questions, which are a very sensitive issue due to the religious and cultural traditions in Pakistan. The understanding of the behavior patterns arising this out can contribute to a gender sensitive approach within a project and the planning for future interventions. A significant variation of the more or less severe rules in daily life of the Pakistani society can be found, whereas the project area in NWFP belongs to the area with a more strict codex than the area of Bagh in AJK.

The Muslims are enabled to order their lives in the individual and collective spheres in accordance with the teaching and requirements of Islam as given in the “Holy Qur’an” and the

“Sunnah”. The discussions about the Pakistani “Women’s Protection Bill” is one of the most striking issues in the news and creates serious tensions within the Pakistani society.

The “Purdah-Concept” is used to describe the system of the delimitation of women in public and the separation of the sexes in everyday life. Following this concept, women have to take the responsibility for controlling themselves and this is a contradiction to the fact that women are really incapacitated by simply locking and keeping them away from the public life. The “Purdah-Concept” causes not only a restriction of the freedom of movement but also an effect on the education possibilities of the woman. The consequence of this segregation is a strict job sharing and a high dependence of the women on their men. The employed share of the Pakistani women is estimated to be the lowest of the world. Only home work is accepted as being useful and necessary for every housewife and does not contradict with the traditional and cultural rules. But home industry pays poorly and prohibits the woman to make contact with the outside world. The key issue of women development in Pakistan is education. In rural areas girls are not allowed to leave the villages to get high school degrees and vocational training in prestige-taking professions.

Due to its sensitivity of gender-related issues in the Pakistani society DWHH/GAA is handling this with care and no official gender policy has been adopted so far. Gender-issue-related problems are handled informally on a project level. Assessment and planning of the project was carried out with the male members of the communities and women were only considered in the health and hygiene awareness campaign due to their cultural segregation from decision making processes. But despite of this lack in participation they will benefit from the project because of the reduced burden for the collection of the water.

The DWHH/GAA staff in Pakistan consists of 53 male and 13 female (19%) employees (partner of PAK 1007 not included). Beside the local M&E expert, no Pakistani women works in a management leading position. The figure of 19% (21 men and 5 women) can also be applied for the female staff working in the project PAK 1007. These percentages derived from the DWHH/GAA staff list reflect the current situation of women working in Pakistan. A “code of conduct” stating adequate behaviour and gender related issues in the context of a multi-cultural working group could be a useful tool for a sensitive approach toward this topic . A women’s representative might also contribute to this. Women development in future interventions of the DWHH/GAA should be addressed with special care and modesty.

1.9 Recommendations

Recommendations specific to the water and sanitation sector:

There are only two months left to finish the ECHO funded part of the project and therefore there are some immediate measures recommended, which can help to finish successfully:

- To address the problems of the drilling campaign possible short-term alternatives should be investigated, hours of drilling to be increased and more boreholes to be shifted to the drilling company with the better performance record;
- The gravity supply systems should be investigated immediately to assess missing parts and allow improvement of the quality within the remaining time;
- The erection of the communal water collection points should not be a source of infection, therefore the places should allow proper cleaning and should be clearly defined for its use by the beneficiaries;

- The installation of the hand pumps should be closely monitored and maintenance training should be applied throughout the just started implementation;
- The pipe laying of the HDPE pipes in Bagh should be investigated and wherever possible pipes should be buried underground;
- The maintenance teams should elaborate a schedule for regular checking of the structures and technical support should be provided to them for this work;
- The spare parts list should be developed and it should be handed over to the maintenance group with a technical leaflet of the “Afridev” hand pump;
- The final impact survey should find a clear definition for the “behaviour change“ of the hygiene practices to measure its impact;
- Standards and testing procedures should be collected from the district laboratories and water quality testing should be carried out before the water consumption starts;
- Community members receiving a toilet should get a maintenance training particularly on the use and emptying of the septic tank;
- The community members should be prepared for the regular testing of the water quality;
- The communal water collection points should not be connected to single households as the distribution tanks and the pipes are not designed for an increased consumption through the additional pipelines;
- The project manager should stay in close contact with ECHO representatives to inform about changes and working progress;

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- The contents of a hygiene kit should be thoroughly adapted to the content of the training and by this increasing the motivation of distressed people;
- The toilet installation should be investigated within a future intervention to evaluate the impact of its “model character”;
- Further investigation should be done in NWFP to get more data about the existing water supply systems and other needs of the population;
- Increasing the time period of the pre-assessment and linking it with a specialised survey when technically demanding implementation methods (for e.g. drilling activities with its hydro-geological investigation) are required;
- Increasing the sustainability of the health and hygiene awareness campaign by its replication after the target group is more relieved from the distress of the reconstruction work;
- Water supply systems, particularly in short-term projects should provide the facilities necessary for hygiene practices as early as possible to allow a more informative measurement of the impact;
- “Ambitious indicators” in the implementation of a health and hygiene campaign should be considered within a adequate time allowance, budget and number of toilets;
- The installation of toilet facilities should cover more of the targeted population when the focus is strongly on health and hygiene practices and toilets are seldom and not affordable in the targeted areas;
- The doctors from the hospital in Besham recommend an inclusion of a vaccination campaign for remote areas with low income and difficult access conditions;
- Health data should be collected from local hospitals, line ministries and other organizations to get a better knowledge about the percentage of the water borne diseases;

- The improvement of health centres could be a possible subject to look at for the future planning of interventions;

Recommendations specific for GAA/DWHH Pakistan:

The following recommendations are given to the country office of the DWHH/GAA in Pakistan for the design of future interventions:

- The selected target groups should be in the same district as travelling is a time consuming and cumbersome activity;
- More Pakistani female staff could be employed in key positions to support the professional development of Pakistani women;
- An official women’s representative could support the development of confidence and trust within the project teams;
- A “code of conduct” stating adequate behaviour and gender related issues in the context of multi-cultural working groups can contribute to the team spirit;
- A closer co-operation with the relevant ministries and authorities on a national and district level (particularly district hospitals) could contribute to the availability of baseline data;
- Due to the archaic principles and rules the impact evaluation particularly on “behaviour changes” should be longer;

Recommendations for GAA/DWHH head quarter:

- Gender related issues should be addressed carefully in the planning of new interventions and only modest efforts can be expected;
- The key issue for the development of the women is education. Construction and rehabilitation of schools would strengthen this need and could be subject for further interventions in Pakistan;
- Team building workshops and training of staff should be addressed more carefully to strengthen the success of a project and the capacity building for future interventions;
- Thoroughly evaluated projects results from PAK 1010 “Psychosocial Programme for the Earthquake Affected Population” can be very useful for the planning of future interventions in areas of disaster;

1.10 General conclusions

The project PAK 1007 is mostly suffering from its delay and the problems jeopardizing the finalisation end of April 2007 are related to it. The situation is serious concerning the finalisation of the project till the end of April 2007. The implementing staff of the health and hygiene awareness campaign has done its best and there is a high probability that the impact results will satisfy the organization and the donor. As the DWHH/GAA remains in the country with funds available, there is a good opportunity gradually improving the water and sanitation interventions and focussing more on capacity building and gender related issues. The experiences gained from the areas in Shangla District can be used to find a sensitive approach toward such remote and traditionally secluded areas.

The target group expressed more needs. Whereas in Shangla District women asked for the supply of material for toilet installation and better access to medical treatment. Men preferred as a next step improvement of the roads.

The inhabitants of the villages in the area of Kaful Ghar are also aware that the sources and springs selected cannot meet the future demand. The “Earthquake Reconstruction and Rehabilitation Authority” (ERRA) wishes very much to have a future link with the DWHH/GAA and recommends them to take part in the reconstruction and rehabilitation of the water supply scheme of Harighal to Juflari Top District in Bagh..