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**Effective emergency WASH response using demand-driven  
methods: a case study from Afghanistan**

*M. J. Burt, Kenya*

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*In the post-emergency context, economic revitalization is a key factor for any response. Therefore, demand-driven interventions that promote sustainable livelihoods should be favoured. This case study from Afghanistan illustrates effective emergency WASH response using demand-driven methods in a post conflict setting. Resources were invested in promotion and marketing of household-level water and sanitation interventions. At the same time, artisans were trained and livelihoods were developed to meet the new demand for household water filters and latrines. This approach has created sustainable livelihoods for many artisans while also addressing health issues relating to water quality and sanitation.*

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## **Introduction**

The early stages of emergency response require immediate water, sanitation and hygiene (WASH) interventions which normally use fully subsidised, 'supply-driven' methods, such as water distribution, latrine construction and hygiene kit distribution. However, when these methods are applied for too long it can result in dependency, lack of community ownership and become unsustainable. During the recovery phase of an emergency response, and when working with returnee populations, Tearfund has found success using non-subsidised, 'demand-driven' methods for WASH interventions, which also promote economic revitalization through development of sustainable livelihoods. Demand-driven WASH interventions focus on facilitation and marketing techniques to create demand, and then on training artisans to produce products to meet the new demand. This case study from Afghanistan illustrates effective emergency WASH response using demand-driven methods in a post conflict setting.

## **Context**

Bako Kham village is located in Kohistan District, Kapisa Province, Afghanistan. Like many Afghan villages, Bako Kham lies in mountainous terrain. It enjoys an abundant but seasonal water supply. However an ongoing challenge has been access to safe water and sanitation.

## **The problem: needs assessment**

The 07/08 National Risk and Vulnerability Assessment showed only 27% and 5% of the population in Afghanistan have access to safe drinking water and improved sanitation respectively (NRVA 2007/8). In Bako Kham, the canals that irrigate the fields also pass through the residential areas and are used as a primary drinking water source. Needs assessment identified that poor sanitation and contamination in the water has resulted in significant health issues in the community. In the words of Quand Agh from Bako Kham Village, "*Half our income every year is spent on doctors and medicine because we are always getting sick with stomach complaints and diarrhoea.*"

Due to the high incidence of diarrheal disease, Tearfund targeted this village as part of its wider WASH programme to provide basic water and sanitation services to support the safe and sustainable reintegration of the villagers, a majority of whom were returnees.

### **The solution: demand-driven response**

After participatory discussions with community members in Bako Kham Village it was discovered that there was a lack of understanding of the link between safe sanitation and health. Therefore the decision was made to trial WASH interventions focussed on creating demand for safe water, sanitation and hygiene.

Tearfund focused its efforts on facilitation, promotion, marketing and training, leaving construction, production and distribution for the local community, homeowners, and tradesmen. The programme adopted a social marketing approach, which involves the systematic application of marketing techniques, to achieve specific behavioral changes for a social good.

The first objective was for the community to understand how contaminated water and bad hygiene and sanitation practice contribute to poor health. The second objective was to stimulate demand for household water treatment systems, household sanitation facilities, and hygiene behaviour improvements. The third objective was to train and equip local artisans to manufacture items to meet the new demand, thus creating livelihood opportunities as well as addressing the health issue. These objectives were achieved through; (1) facilitation of a Community Led Total Sanitation process; (2) facilitation of a participatory hygiene and sanitation transformation process; (3) promotion of household water treatment.

### **Community Led Total Sanitation (CLTS)**

CLTS was a new approach in the emergency context of Afghanistan; therefore Tearfund began the process by training national staff and local government representatives on the methodology through a field visit to a successful project area in neighbouring Pakistan.

The aim of the CLTS process was to establish an understanding of the link between open defecation and diarrheal disease in order to stimulate demand for safe sanitation. Both women and men were involved in the process, although due to the cultural context events tended to be held separately for men and women. With this in mind Tearfund employed high capacity female facilitators to work with the women and girls, while at the same time male facilitators targeted the men and boys within the same community. The involvement of Mullahs (religious leaders) and community leaders was critical to the success of this process.

Tearfund focussed its resources on the CLTS facilitation process, and after 'triggering' (the point in the CLTS process at which the community suddenly realises the connection between open defecation and poor health), construction of latrines was left for homeowners and local tradesmen. Most householders opted for an elevated vault latrine design, with a sealed waste collection chamber above ground, which is periodically emptied. Ash is added to the waste to control odour and accelerate the composting process. Householders built their latrines themselves with help from local tradesmen who already had the necessary skills and knowledge. Tearfund also provided training to local tradesmen to ensure that they understood the wider best practice issues with regard to safe sanitation, including latrine siting, design and construction quality.

### **Participatory Hygiene and Sanitation Transformation (PHAST)**

After CLTS 'triggering', Tearfund staff facilitated a community participatory hygiene and sanitation transformation (PHAST) process. This process helped the community understand the importance of good hygiene behaviour, and particularly hand washing with soap (or ash). It was important to work closely with the Mullahs to explain the importance of good hygiene behaviour, and then, together with the Mullahs, to carry the same message to the larger population. In many communities, faith-based institutions are central to the social fabric of a community; and in Afghanistan, the support of religious leaders validated Tearfund's work in the community.

Tearfund also worked with the community to promote Global Hand Washing Day, and used many social marketing techniques to promote hand washing with soap (or ash). The increased demand for hand washing facilities was primarily met by local steel workers, who were already producing small steel drums with a faucet designed for hand washing.

### **Household water filtration**

At the same time Tearfund facilitators held participatory discussions with the community to consider the most appropriate water treatment intervention. Due to the fact that most households collect drinking water from the canals which pass by their houses, it was decided that household water treatment systems would be most appropriate. After considering the options, the community decided that the bio-sand filter (a household-size slow sand filter) would be most appropriate due to the local availability of the necessary materials which meant that artisans would be able to manufacture the filters locally.

The bio-sand filter was a new technology, and local artisans needed special training to enable them to meet the demand. Tearfund, together with the government, Community Development Committees (CDC), and the targeted communities, selected trainees based on agreed criteria. After training, the artisans were equipped with tools, and started producing filters and holding demonstrations in mosques and schools, where the religious leaders and teachers promoted the product and explained its health benefits to community members. Many community members bought the filters, and all buyers received detailed training on how to operate and maintain them.

Tearfund invested in a comprehensive marketing campaign for household water filtration with a focus on bio-sand filters, including promotion through billboards, TV, radio and leaflets. Product demonstrations were held at schools, clinics and mosques, and Mullahs promoted the filters after religious gatherings.

During the introductory phase of the project, Tearfund signed a memorandum of understanding with local artisans, with various subsidies and price controls that enhanced availability and accessibility at the initial stages of the program and allowed consumers to test the product. The retail cost of one filter during the introductory period was \$6, which included a \$2 profit for the shop owner. During this period, 2,100 filters were sold. Since the memorandum of understanding expired, product pricing controls have been removed and artisans have been able to sell a further 4,400 filters at a higher cost of \$22, which includes a profit margin of \$9 per filter. An artisan with two moulds can produce four bio-sand filters per day, and still carry out other profitable tasks during the day. This effectively adds \$36 per day to his or her income.

As demand increased, many of the trained artisans opened bio-sand filter shops. The first shop was established in Bako Kham on a pre-order basis. Popular government officials, religious leaders, and community leaders were invited to endorse each shop at a well-publicized opening ceremony; this proved to be very helpful for promotion and marketing of the filters. Many of the opening ceremonies were covered by local television and radio stations and newspapers; during interviews, local government officials advised communities to consider using the filters.

### **Outcome of the demand-driven response**

The CLTS campaign stimulated demand for household latrines, and after only three months, a survey revealed that every household in Bako Kham village had a latrine.

The PHAST process and hygiene promotion campaign stimulated demand for hand washing, and now the majority of households in Bako Kham have installed a hand washing system outside each latrine.

The household water treatment advertising campaign stimulated demand for household water treatment systems, of which the bio-sand filter proved most popular. Now the majority of households in Bako Kham have purchased a bio-sand filter and are using it for treatment of drinking water. Water quality tests completed by an independent testing laboratory within randomly selected households have shown that in most cases the water produced from the filters meets the WHO Drinking Water Quality Standards.

The high demand for filters in Kapisa District has resulted in interest from other technicians to receive training on their manufacture. In response, Tearfund, in conjunction with UNICEF, the Danish Committee for Aid to Afghan Refugees, and the Centre for Affordable Water and Sanitation Technology, has conducted additional bio-sand filter technician training. Many graduates of these workshops are now training others.

Surveys carried out in the area have shown that knowledge of public health issues has improved and that the health benefits of the bio-sand filter program, coupled with the CLTS and hygiene promotion campaigns, have become apparent within the community. Bibi Fatema, of Bako Kham village, said, *“The money that we previously spent on expensive medication to treat water-related diseases, we now use to buy fruit for our children.”* The head of the village CDC, Noorullah Ahmed, said, *“Before, I was always sick. Now with filtered water from the bio-sand filter, I am well.”*

Additional evidence collected by Tearfund from district health clinics indicates that water and excreta-related diseases have been reduced by 61 percent for adults and children in target communities in Kapisa since the start of the program (Tearfund 2009).

The obvious health benefits and enhanced dignity, especially for women, as a result of the demand-driven WASH program has stimulated a strong demand for sanitation and water filtration systems. Local artisans benefiting from the increased demand have become enthusiastic champions for this technology. This is especially true in the case of bio-sand filters, where the rapid growth of businesses manufacturing the filters has contributed significantly to economic revitalization in Bako Kham village and the wider Kapisa district.

### **Government endorsement and policy change to enable scaling up**

Based on the success observed in Bako Kham village and Kapisa Province, Tearfund in collaboration with UNICEF and the Afghan Ministry of Rural Rehabilitation and Development are encouraging other agencies implementing WASH programmes to use demand-driven, social marketing techniques, which also promote sustainable livelihoods. Tearfund has also successfully lobbied the government to amend the National WASH Policy to include CLTS and household water treatment as acceptable WASH interventions. This change has enabled donors to increase funding to scale up similar demand-led WASH interventions across Afghanistan. Now UNICEF is working with the government to develop a national plan to implement CLTS across the country, and USAID has committed funding for a programme to equip artisans across the country with the knowledge and equipment to produce bio-sand filters at scale.

### **Conclusion**

In the post-emergency context, economic revitalization is a key factor for any response. Therefore, demand-driven interventions that promote sustainable livelihoods should be favored. In the Afghanistan case study, resources were invested in promotion and marketing of household-level water and sanitation interventions. At the same time, artisans were trained and livelihoods were developed to meet the new demand for bio-sand filters and household latrines. This approach has created sustainable livelihoods for many artisans while also addressing health issues relating to water quality and sanitation.

Civil society groups should also be encouraged to engage with national-level policy makers in order to link policy with practice and shape emergency response initiatives and the future development of the country. The case study from Afghanistan illustrates how raising government awareness about the success of demand-driven, community-level water and sanitation initiatives led to a change in the national WASH policy, which opened up the opportunity for the approach to be scaled up across Afghanistan.

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### **Contact details**

Murray Burt  
PO Box 76184-00508, Yaya Centre, Nairobi, Kenya  
Tel: +254-20-2714179, Fax: +254-20-2724032  
Email: [murray.burt@tearfund.org](mailto:murray.burt@tearfund.org)  
www: [www.tearfund.org](http://www.tearfund.org)

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