

Household Water Treatment and Safe Storage Implementation Case Study: Biosand Filters

TEARFUND AFGHANISTAN

Introduction

Tearfund is an international relief and development agency based in the United Kingdom. They are working globally to end poverty and injustice, and to restore dignity and hope in some of the world's poorest communities. Tearfund has been operating in Afghanistan since 2001.

Tearfund believes strongly in supporting the development of sustainable livelihoods through their water, hygiene, and sanitation (WASH) programs. They are seeing success with a demand-led approach to implementing WASH interventions in post-conflict settings.

As of June 2011, Tearfund Afghanistan has implemented more than 15,000 biosand filters in 15 districts in 4 provinces. 7,000 of these filters were produced and sold by local artisans who are trained and supported by Tearfund.

Creating Demand

To create demand, Tearfund uses 2 participatory approaches in sequence – Community Led Total Sanitation (CLTS) followed by Participatory Hygiene and Sanitation Transformation (PHAST). CLTS is a mobilization approach to “ignite” the community to desire change. CLTS confronts a community about their dirty environment and provokes a decision by the community members to stop open defecation and build latrines.

After the community recognizes the role of sanitation for good health, Tearfund will facilitate PHAST methods, to educate the communities about the need for good hygiene, in particular hand washing with soap or ash.

These two promotion and education approaches set the foundation for community members to demand safe water. Biosand filters are promoted in areas where people are using open canals and streams



Biosand Filter Shop Opening Ceremony, Kapisa

that pass by their homes as their source of water. Tearfund works with artisans who market and sell the biosand filters in their communities. Together, they work closely with local Mullahs to receive their endorsement and promotion at religious gatherings. The support of religious leaders is critical in most communities to gain acceptance of new technologies and ideas.

Artisans initiate community demonstrations at schools, clinics and mosques. Successful artisans have also opened biosand filter shops to create and meet demand. As part of the initial promotion, Tearfund invited government officials, as well as religious and community leaders to endorse the shop at a grand opening ceremony. In some cases, television, radio and newspaper media are also invited to give the shop additional publicity and credibility.

While artisans promote the products locally, Tearfund has invested in a large-scale marketing campaign for biosand filters, advertising them on billboards, TV, radio and leaflets. Prior to implementing biosand filters, Tearfund had already used radio broadcasting for raising awareness about good hygiene practices and community development issues. They used this as a basis for developing the campaign for biosand filters. The social marketing approach has been successful at raising awareness about the technology and creating demand.

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Government support of biosand filters has been integral to implementation and expansion of projects. Tearfund has lobbied the Ministry of Rural Rehabilitation and Development (MRRD) to amend the National WASH Policy to include the biosand filter as an appropriate WASH option in Afghanistan.

Supplying Products and Services

Tearfund staff are responsible for the marketing campaign, tools and education initiatives that accompany the biosand filter project.

Local artisans are selected in conjunction with the local government and community development committees to operate biosand filter businesses. Tearfund provides the artisans with:

- Training in filter production, installation and monitoring
- Materials for promotion and marketing
- Steel molds
- Ongoing support through joint monitoring visits with Tearfund staff
- Refresher training, as needed.

Artisans will manage between 1 and 2 molds as part of their filter business. Initially, in areas where the biosand filter was unknown to the community, Tearfund donated filters to selected households to help create demand. After a period of time, the retail cost of a filter was charged to other households.

A memorandum of understanding was signed with the artisans setting the retail cost of the filter at US\$6 with US\$2 in profit to the artisan. Over the last three years the price has risen to US\$22 with US\$9 in profit. The price adjustment reflects the willingness and ability to pay by community members. The full cost of a biosand filter is about US\$30 (including materials, labor, education and marketing).

The artisans source and prepare the filtration sand and gravel as well as produce the concrete filter box. To assure and maintain the quality of the filters, Tearfund staff work closely with the artisans to train them in all stages of production through training of the end users.

Monitoring and Improvement

During the implementation phase, Tearfund staff conduct household visits to monitor the project. They also provide artisans with monitoring and follow-up forms so that they have the tools to monitor their business. Artisans are not required to report back to Tearfund with the results of their day-to-day monitoring of the business. Side-by-side monitoring visits with Tearfund staff help the artisans to identify problems and take immediate action to correct any issues.

Community Water Groups are also engaged to help monitor the biosand filter projects. The groups are trained by Tearfund to manage different aspects of WASH in the community, including knowledge of the biosand filter and basic troubleshooting. Participation in the group is voluntary.

While the promotion and direct implementation phase by Tearfund has completed in some districts, they still have a presence in those districts for other projects. This presence enables them to do periodic monitoring of previous projects and receive feedback from various stakeholders; however, monitoring after the project has closed remains a challenge. There is no one responsible for regular monitoring and follow-up activities.

Tearfund is seeing significant improvements in the health and well-being of communities in Kapisa Province. Livelihoods have been improved for filter artisans and their families. District health clinics in targeted communities have also reported a 61% reduction in water-related diseases since the projects began.

Building Human Capacity

A key component of Tearfund's program is to build the capacity of the people involved in the project. They were originally trained in biosand filter implementation by BushProof. Since then, CAWST and the Danish Committee for Aid to Afghan Refugees (DACCAR) continue to provide additional training and follow-up support to Tearfund staff.

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Artisans, initially, receive 5 days training on biosand filter construction, installation, operation, maintenance and troubleshooting. Tearfund also trains the Community Water Groups and does side-by-side monitoring visits with artisans and Water Group members. Refresher training is also provided as Tearfund identifies different needs.

Artisans do the initial training of the end users and are a resource for larger problems the users may encounter. Community Water Group members will also provide ongoing support to users in the community.

Tearfund remains active in the target districts. They are called on for support, periodically, by artisans.

Tearfund reports that, “*the high demand for filters in Kapisa Province has resulted in interest from other technicians to receive training on their manufacture.*” To meet the demand, Tearfund has collaborated with UNICEF, DACAAR, and CAWST, to deliver biosand filter technician training to additional artisans.

Program Financing

Tearfund Afghanistan’s WASH activities are funded through a variety of sources including UK Department for International Development (DFID), Bureau for Population, Refugees and Migration (BPRM), UNICEF,

Canadian International Development Agency (CIDA), and trust funds.

Funding from the international community for relief and development activities in Afghanistan is being reduced as it withdraws from the country. Tearfund is hopeful the demand-led basis of the program will enable ongoing gradual expansion of the biosand filter. In the meantime, they are seeking other institutional funds to continue their efforts in Afghanistan.

References

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Further Information

Tearfund: www.tearfund.org

CAWST, Centre for Affordable Water and Sanitation Technology

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