

## Water and Sanitation (WATSAN) in Afghanistan

### A Brief History of Afghanistan

Ahmad Shah Durrani unified the Pashtun tribes and founded Afghanistan in 1747. The country served as a buffer between the British and Russian empires until it won independence from notional British control in 1919. A brief experiment in democracy ended in a 1973 coup and a 1978 Communist counter-coup. The Soviet Union invaded Afghanistan in 1979 to support the tottering Afghan Communist regime, touching off a long and destructive war. The USSR withdrew in 1989 under relentless pressure by internationally supported anti-Communist *mujahedin* rebels. Subsequently, a series of civil wars saw Kabul finally fall in 1996 to the Taliban, a hardline movement that emerged in 1994 to end the country's civil war and anarchy. Following the September 11, 2001 terrorist attacks on the World Trade Center in New York and the Pentagon, a US, Allied, and anti-Taliban Northern Alliance military action toppled the Taliban. The UN-sponsored Bonn Conference in 2001 established a process for political reconstruction that included the adoption of a new constitution and a presidential election in 2004, and National Assembly elections in 2005. On December 7, 2004, Hamid Karzai became the democratically elected president of Afghanistan. The National Assembly was inaugurated on December 19, 2005.<sup>1</sup> More recently, there has been a resurgence of Taliban-instigated attacks as foreign troops are still fighting in Afghanistan. The security situation has worsened in recent years.

Two decades of war in Afghanistan has had a devastating effect on the people, infrastructure and socio-economic structure of the country. Manmade disasters like war as well as natural disasters like earthquakes, floods and drought have taken a heavy toll on the Afghan people and their ability to maintain adequate livelihoods. The negative impact of the devastation is particularly felt in rural Afghanistan, where more than 75% of the population lives.

Agriculture is the main source of family income for most Afghans and the basis of the country's economy. Food security depends on agriculture, which relies on sufficient water, functioning irrigation systems, adequate rainfall and fertile soil. The National Development Framework of Afghanistan outlines rehabilitation of agriculture and irrigation infrastructure as an important



In the Village of Furmurogh, the water supply starts at a source up in the mountain, about one mile behind the village. Aga Khan Development Network, in collaboration with the villagers, has installed underground pipes and a reservoir, and the village now has a supply of fresh, clean and safe water.

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<sup>1</sup> CIA Factbook

component of its developmental strategy. A recent survey of irrigated areas indicated that water scarcity is the biggest constraint against agricultural development in the country. Also access to clean and safe water supplies for drinking and household use are critical to the health and well being of Afghan families.

### **Aga Khan Development Network in Afghanistan**

To respond to the scarcity of clean water, in 2002 Aga Khan Foundation and its implementing partner, FOCUS Humanitarian Assistance, started the Water and Sanitation Program (WATSAN) in the provinces of Badakhshan, Samangan and Kunduz. The objective of the program was to increase access to safe water and sanitation by helping communities to construct wells, latrines and pipe systems, as well as by providing health and hygiene education to the community members. The program has contributed to improved health for Afghans by decreasing diarrheal morbidity particularly among women and children. This was accomplished through the community-based projects of safe drinking water, sanitation, and health and hygiene education.

As a result of the Aga Khan Development Network's water and sanitation program:

- Some 1,000 wells have been built or reconstructed and more than 30 piped drinking water supply systems have been installed and maintained in seven districts. Community labor built and maintains water supply systems that benefit more than 100,000 people.
- Health and hygiene education sessions have been conducted in communities. Over 20,000 women and children attended sessions where the female health and hygiene promoters presented basic information on the causes, transmission and prevention for diarrhea with the aid of pictures and charts.
- The longer-term objectives of the WATSAN program include ensuring regular supplies of safe drinking water through the construction of reservoirs, small pumping stations and piped water systems. This objective is especially important to women, many of whom must walk several miles daily to fetch water. By creating systems that are simple to maintain, the program enables communities to manage the supply infrastructure.
- Communities are encouraged to organize themselves into 'user groups' and 'village organizations' at the outset of the project and get community input for its implementation. Communities nominate two to three people for technical training from each district. Some of these nominees initially worked as laborers during project construction, and are later engaged in more technical jobs such as installation of hand pumps and pipe networks. The user groups pay their workers through collection of yearly water taxes. The payment is often given in-kind in the form of wheat or other commodities.



In Pul-i-Khumri, Aga Khan Development Network constructed a 24-horse power pump by the river and a reservoir on the heights, to supply water to the residents in the city. In the area supplied by this scheme, 82 taps have been installed, which benefit 700 families.

- The beneficiaries contributed to nearly 10% of the construction cost of the project. Furthermore, they have committed to contribute towards the future operation and maintenance costs of the projects. They will be responsible for paying the project technicians who were selected from within the communities.



In Gazar Village, Doshi District, Aga Khan Development Network in partnership with the community has constructed a water pump that allows men, women, young boys and girls to fetch clean and safe water in plastic containers and tin buckets to carry back to their homes. Pre- and post-implementation surveys have shown that Aga Khan Development Network's water and sanitation projects have reduced child mortality and morbidity by 50 percent in a one-year period.

- Aga Khan Foundation's Water and Sanitation Program has helped communities to build around 1,000 wells and piped water supply systems in seven districts in Afghanistan. Community labor built and maintains water supply systems that benefit well over 100,000 people and growing every year.

### Results

A survey of irrigated areas in Afghanistan has revealed that water scarcity is the biggest constraint in agricultural development, food security and health. With a scarcity of clean water supplies in Afghanistan, Aga Khan Foundation has implemented the Water and Sanitation Program to improve health conditions of communities. Aga Khan Foundation is working to increase access to safe water and sanitation by helping Afghan communities construct wells piped water schemes and latrines, and providing ongoing health and hygiene education sessions.

- Aga Khan Foundation has conducted health and hygiene education sessions, reaching tens of thousands of woman and children. Female health and hygiene promoters train mothers and children on the causes, transmission and prevention of diarrhea and diseases.

### Innovative Solution: Irrigation by Crystals

Water scarcity is a continuing problem for many Afghan farmers who need to water their crops. Aga Khan Foundation has shown Afghan farmers how to employ polymer crystals to save on irrigation costs. These special crystals can absorb up to 400 times their own weight in water. Just 5 grams of crystals added to the soil during planting makes available 2 liters of water to the young plants. This reduces the need for and cost of irrigation, which is especially high during the summer period.



Water scarcity is the biggest constraint to agricultural development in Afghanistan's arid terrain.



In response to the scarcity of clean water in rural regions, Aga Khan Development Network (AKDN) has initiated numerous water and sanitation programs to increase access to safe water and sanitation. AKDN helps communities construct wells, piped water scheme and latrines as well as provides health and hygiene education. Here, in Shuter Ganjal, Baghlan Province, Afghanistan, AKDN reconstructed a primary school and water pump on the school grounds. Young women, boys and girls fetch water in containers and buckets to carry back to their homes.