

Case study: Afghanistan

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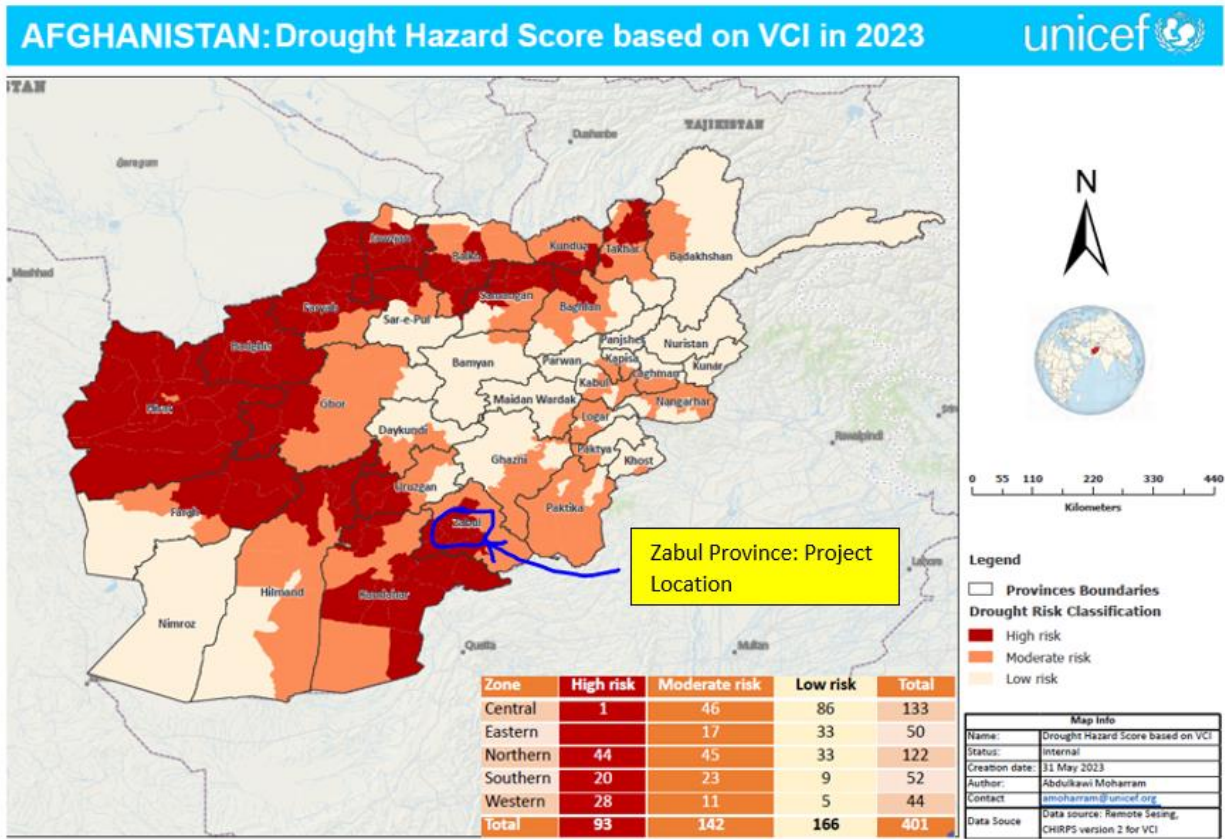
Schools in Afghanistan adopt climate resilient water supply system



School students expressing their joy standing next to newly constructed toilets. (Source: Afghanistan WASH team)

Background

Many schools in Afghanistan, particularly schools in remote areas of Zabul province, face considerable challenges in terms of providing access to education and facilities, including appropriate water, sanitation, and hygiene (WASH) facilities. Qalat city and other neighbouring districts of Zabul have a total of 144 operational schools, where 33,450 students are currently (2023) pursuing their studies. Due to the rural and underdeveloped geography, schools in Zabul province often have a shortage of proper school infrastructure like buildings, classrooms, or basic amenities like WASH facilities. As a result, many schools operate in tents and private residences.



As per the 2023 Drought Hazard Score based on the Vegetation Condition Index (VCI)¹, Zabol Province is one of the high-risk provinces in which pollution and climate change have a significant impact, as evidenced from the drying up of shallow groundwater sources (see map above which includes the project area location). Due to this, many schools in Zabol province like Baba Hotak No. 2 High School, one of the schools targeted under the WASH in Schools project, lack access to drinking water. Baba Hotak No. 2 High School, which has 1,799 students and 52 teachers, is in the Shah Joy district of Zabol. Unfortunately, the existing borewell of the school dried up due to the impact of climate change, meaning reduced rainfall and limited groundwater recharge. As a result, students were having difficulty accessing safe drinking water and basic sanitation services. The lack of WASH services has resulted in increased incidences of waterborne diseases, like diarrhoea, and other infections in students leading to absenteeism and decline in class performance, as reported by a teacher in the initial assessment.

Therefore, UNICEF partnered with the Human Resource Development Agency (HRDA) to implement an “Integrated School WASH Project”, which included the construction of a climate resilient water supply system, sanitation and hygiene facilities in Baba Hotak No. 2

¹ Climate Hazards Group InfraRed Precipitation with Station data (CHIRPS) version 2 for VCI for 2023

High School. The infrastructure interventions were accompanied by capacity building, hygiene promotion and facilitated children to be the agents of change.

Strategy and implementation



Picture 2: Installation of solar powered water supply system (Source: Afghanistan WASH team).

HRDA with the funding and support of UNICEF, has taken proactive steps to promote climate resilience in the mentioned school. HRDA constructed a solar powered water supply system, which pumps water from a 100-meter-deep aquifer thus, minimizing the chances of the water source drying up. Solar panels are installed as a renewable energy source, minimizing dependence on external and polluting power sources, such as generators. The solar power technology ensures consistent availability of clean water. The solar pump draws water from the borewell and pumps it into storage tanks for distribution to hand washing and sanitary facilities. The storage tank, an overhead reservoir, is connected to various water distribution points. The system is fully functional and provides a reliable and sustainable water source for the school students and faculty staff. The main objective of the bore well construction was to provide access to safe drinking water and enhance the overall school WASH facilities.

Further HRDA has upgraded eight (8) dry toilets to flush systems which promote good hygiene habits among students. Hygiene promotion efforts are aiming at establishing an open defecation-free environment in the school catchment area to promote a healthy environment and prevent the spread of illnesses, especially among students.



Picture 3: Constructed eco-friendly flush latrines for the school students (Source: Afghanistan WASH team).

In parallel to the construction activities, various trainings were provided to school staff and students on developing water management plans to address the effects of climate change on water availability.

HRDA conducted awareness sessions to enable students and school faculty to take measures protecting their health. These sessions further empowered the school children through child clubs to lead the hygiene promotion activities in their respective communities. The outreach included topics like proper use of WASH facilities, handwashing with soap and use/construction of toilets at their own houses.



Picture 4: School Management Shora (SMS and WASH Club) training (Source: Afghanistan WASH team).

Progress and results

Aminullah, a Baba Hotak 02 High School teacher, narrated, "I am very pleased to see the positive changes that the WASH intervention has brought to our school. We previously had difficulties in maintaining a healthy and hygienic environment for our students. Due to the lack of access to safe drinking water, and inadequate sanitation facilities which were poorly maintained. Younger students had to defecate in the school grounds due to lack of toilets, which had a negative impact on the school's environment. This not only affected the health of our students but also impacted their attendance and class performance in school."



Picture 5: School students wash their hands with soap before and after entering and leaving (Source: Afghanistan WASH team).

Through the project, especially with the addition of climate resilient water supply system the Baba Hotak 02 High School experienced a transformation in their WASH facilities and environmental cleanliness. This initiative also contributed to the fight against climate change by educating students about establishing healthier environments, promoting sustainable energy, and overall encouraging students to be aware and knowledgeable of climate issues.

Challenges during implementation

Two key challenges faced during the implementation of the project were related to implementation realities in the targeted area:

1. Baba Hotak High School 02 is located in the Shahjoi District in Zabul Province in Southern Afghanistan, which is one of the provinces severely affected by climate change induced drought leading to the drying of wells. Thus, water availability from a reliable source was the key challenge for the school and the surrounding community. Based on the findings from the geophysical groundwater survey, the issue was resolved by drilling a borehole of 100 meters reaching a deep aquifer.
2. Another challenge faced during the implementation of the WASH in Schools project especially in girls or co-ed schools (i.e., where there are two shifts separately for boys

and girls) was the engagement of female staff of UNICEF implementing partners (i.e., NGOs) for facilitation of capacity building and hygiene promotion activities in the schools, in the context of the ban on women's participation.

Lessons learned

Following are key lessons learned from the implementation of the UNICEF assisted WASH in Schools project:

1. Due to water scarcity in Baba Hotak High School 02, students and faculty learned how to manage and effectively use the water at their disposal and realized the critical contribution of safe drinking water to the reduction of various waterborne diseases.
2. Students and faculty staff were enabled to learn valuable life skills on how to contribute to positive environmental development, with an emphasis on water management and safe waste disposal in the context of coping with the impacts of climate change.
3. Shajoi District in Zabul Province is struggling with climate related water scarcity, so drilling a bore well required in-depth technical assessments and knowledge of the geographical and hydrological condition of the area. Therefore, HRDA involved hydrologists and local experts to identify the best drilling location based on the area's hydrological conditions. A systematic approach using the latest technology combined with local knowledge is critical to finding a reliable drinking water source and avoiding drilling dry bore wells, which could be costly.
4. Baba Hotak High School 02 has been able to experience the advantages of access to and use of safe drinking water, sanitation and handwashing facilities such as improved students' health, increased attendance rate, and learning in a safe environment, which turned the students into effective agents of change for the community.
5. The formation of various committees, such as WASH Clubs and School Management Shuras -SMS in the schools brought a sense of ownership and responsibility for the newly constructed safe WASH infrastructure. The committee members were trained on the effective use, operation and maintenance, management, and protection of the newly constructed WASH facilities, which is a prerequisite for long-term sustainability and impact.

Way forward and potential application

Moving forward is to scale up the WASH in School Project in Zabul province which will require considerable advocacy with the relevant departments, local authorities, and school administration to set a goal and come up with a practical strategy. Engagement of relevant departments, community leaders, parents, teachers, and students to ensure their support and engagement in the project is the way ahead and possible application. It is necessary to provide adequate guidance to the school faculties as well as relevant department-responsible staff in order to integrate WASH education into the school's curriculum and daily routines. The Department of Education is expected to establish a monitoring and evaluation system and designate a team to track the long-term feasibility and sustainability of the school's WASH facilities. Local people's involvement and participation in the maintenance and operation of WASH facilities is essential to contribute to the sustainability of the WASH facilities.

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