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HIP HYGIENE IMPROVEMENT
PROJECT

SUCCESS STORY

BRINGING SAFE WATER TO SCHOOLS

Students Become Water Treatment Change Agents for their Communities



[Photos: A. Shrestha (AED)]

The principal of Suminima Primary School stands before a large-capacity water filter that Nepal/HIP installed as part of its POU in schools project. The school built this shelter to safeguard the filter, which is maintained by the students.

When it comes to waterborne disease, children are among the most vulnerable population; in Nepal diarrheal disease accounted for 2,200 deaths in children under the age of five in 2001. To improve water quality in Nepal and spread safe water treatment knowledge and practices, the Nepal Hygiene Improvement Project (NHIP) was launched in 2006, a public-private sector initiative between the government of Nepal's Department of Water Supply and Sewerage and UNICEF. The USAID Hygiene Improvement Project has provided focused technical assistance for this activity throughout its implementation. In addition to targeting households and communities in four pilot districts with point-of-use (POU) water treatment and hand washing messages, NHIP recognized the need to involve children in its safe water and hygiene interventions.

Schools were identified as an ideal entry point because students have tremendous potential to be effective change agents (an estimated five family and community members per student could be reached with hand washing and POU messages). NHIP recognized that providing hygiene information to students and teachers was not enough to change complex behaviors and reduce waterborne illness. It was crucial for students to practice safe water treatment and drink clean water on daily basis at home and at school.

POU in Schools

Addressing safe water options at schools was a bigger challenge than at the household level. No safe water products were available on the market that could handle the high volume water demand of an average school with 300 students, particularly in light of operation and maintenance challenges. NHIP conducted a pilot study to design and identify high volume water treatment products that could address the schools' needs. It modified and designed several of the existing water treatment filters and finally developed a colloidal silver (CS) filter into a high volume device (15–18 liters/hour filtration capacity) that was suitable for central or decentralized (classroom) safe water provision. The project also explored other technologies such as chlorination, solar disinfection (SODIS), and the use of regular

colloidal silver filters, so that schools would have other options that addressed their particular water quality and management needs.

At the conclusion of the study, guidelines for school POU promotion were developed and subsequently implemented in 200 schools in Nepal. To determine what type of water treatment option to install in each school, technicians assessed the school environment, the quality of its water system, and its management capabilities and consulted with the school management committee. The school was expected to contribute to the treatment system (in cash or in kind, normally on the accessories such as stands/platforms, mugs, buckets, etc.). Either the members of the school management committee, teachers, or child clubs were solely or jointly responsible for day-to-day operation and maintenance.

Results

Arunodaya Primary School in Subhang Village constructed a separate room for its filters. The school has one large CS filter (100 liter capacity), 10 small CS filters, and 50 SODIS bottles for water treatment. The principal of this school says, "This is the first organization that came to our Dalit [ethnic minority] community and offered such a wonderful solution to our village school. We were compelled to boil the water because the quality of village water was very bad, but now we can drink cool and refreshing water from these filters."



Small CS filters were placed in individual classrooms in some schools involved in the point-of-use promotion.

Suminima Primary School in Phidim has one large CS filter and two small CS filters. The school constructed a concrete platform with wooden doors that lock for safety purposes. The young principal, Indra

Kala Rai, says, "Because of this cold and cloudy weather throughout the year, [the village] could not do SODIS, however, after getting knowledge about boiling and filtration, the villagers have now started either boiling or filtering water. In school, the school children, especially the child clubs, take care of the filters and when needed ask for help from teachers or caretakers."

Jorkulo Primary School of Chokmagu Village has made a separate rack for SODIS bottles aside from investing in making a separate safe water room and platform for the large CS filter. Students use their classroom roof top for SODIS; once the water is treated they store it on the rack they have made for use the next day.

The health post in charge of Kurumba Village, Manoj Shah, attributes a 20 percent to 30 percent decline in cases of diarrhea and waterborne disease to the safe water and hygiene promotion in the village and schools. Similarly, Manager of the Agriculture Cooperative of the village Mandhwaj Lawati says, "With people having less fuel wood for household purposes including boiling of water, other options for safe water such as colloidal silver filters are in demand, which could help people get safe water every day and also help reduce the use of fuel wood."

The principal of Sahid Dasahrad Primary School says the school has strategically placed its filter outside the classroom so that villagers and visitors to the school can see how it works. The school also provided a certificate of appreciation to the technicians who installed the filter and gave its commitment to relay safe water and sanitation messages and practices all over the village.

For additional information: <http://www.hip.watsan.net/page/251>