

# BILLI, BANGLADESH

## *Rural community needs water supply, sanitation*

### Current Situation in Billi:

Each day in the rural community of Billi, Bangladesh, the people struggle to meet their water needs. Their existing water systems were installed in the 1970s in an effort to create safe, clean drinking water. However, in the 1990s, it was discovered that their wells, like many other wells in

Bangladesh, contained arsenic and are unsuitable for drinking. Today, while these wells are used for a variety of household purposes, drinking water is collected from either contaminated, unprotected sources or distant uncontaminated wells. This distance to safe wells is increasing each year as a greater strain is placed on the current system by agricultural needs and as more wells are determined to be arsenic-contaminated.

The water problems facing the community are further exacerbated by unhygienic practices, which contaminate their open water sources. This, in turn, has led to a spike in disease and illness throughout the region, testing their already limited physical, natural and economic resources. The children of Billi are some of the hardest hit by the increase in water-related diseases; child mortality is on the rise.

**The Solution:** The people of Billi are prepared to pay a portion of the capital costs and 100% of the maintenance costs for a new water system, but they lack the financial resources to get started. With financial support from WaterPartners International, our Bangladeshi partner organization will work with the people of Billi to develop and implement a sustainable community water supply and sanitation system.



**Proposed new water system description:** New wells will be drilled in the community. Based on the village population, we estimate that the community will need to construct ten new wells in order to ensure that each household has close access to safe drinking water. The new wells will be drilled into deep aquifers where arsenic is not present. In addition to their financial contribution to the capital cost of the project, the community of Billi will assist in the construction of the new wells. Treatment of the existing well water to remove arsenic was considered as a possible option. However, currently available arsenic removal technologies have not performed well and have actually been found to increase the bacteriological contamination of the drinking water. Each participating household will build a sanitary pit latrine for their own personal use. The wide range of types and prices of latrines will enable families of any economic level to construct one.

**Project implementation schedule:** Project will take approximately 1 year to complete.

### **Goals of the Billi water project:**

- Eliminate hours of labor by women and children who collect water every day;
- Ensure that residents use improved hygiene practices;
- Provide enough safe water to meet every resident's personal needs for drinking, cooking and washing;
- Ensure that every household has access to a latrine



Billi is located to the northwest of Nachol Upazila region of Bangladesh

## *The water crisis in Bangladesh*

One of the poorest countries in the world, Bangladesh is also one of the most densely populated, with a population of 125 million. The density of the population and lack of adequate sanitation led to severe microbiological contamination of surface water, resulting in high rates of mortality because of water-related diseases. Diarrheal diseases constitute a major health problem in Bangladesh. Each year, 323,000 Bangladeshi children die, mostly due to water-related diseases. Thousands of episodes of diarrhea occur in children and adults each day, exacerbating other biological and socio-economic problems in the country, including malnutrition, poor maternal health, and high fertility rates.