



ENGINEERS WITHOUT BORDERS

University of Colorado Student Chapter, Nepal Project

Namsaling, Nepal and EWB

In the community of Namsaling, Nepal, water-borne disease is responsible for 16% of deaths. Most deaths are due to preventable surface water contamination as well as poor storage and hygiene practices. To eliminate these unnecessary fatalities EWB-CU is partnering with the local community in Namsaling, Nepal to provide information, training and engineering solutions to ensure the delivery of safe drinking water which will improve the health and quality of life of all the community members.

2009 Spring Source Protection Projects Namsaling, Nepal

Last spring, many of you participated in a Nepali Cultural Celebration to raise funds for the 2009 projects of the University of Colorado Student Chapter of Engineers Without Borders. Those funds were targeted to build/repair Spring Source Protection for 5 springs in the community of Namsaling, Nepal.

Here are the project updates that we promised so that you can see the difference your generosity made for the villagers of Namsaling, Nepal.



Five EWB-CU Nepal students along with advisors traveled to Namsaling in May. The target sites in Namsaling for new spring source protection systems were Payau Dhara, Kokale Dhara and Manchowk. Working these sites is a very hard task. Namsaling is NOT

flat. It is composed of steep hillsides climbing up rapidly from the Mai Khola River bordering the western slope and the JogMai River to the south. Traveling to the three dhara (springs) was an exhausting trek. A usual day started at 5.30 AM. Students would take *chiya* (hot, black tea with a few spoonfuls of sugar), maybe wash a few clothes (by hand, of course), have a snack of a hard-boiled egg, fried in a turmeric and curry seasoning and head to the spring. The working day didn't end until 6 or 7 PM.



Students also squeezed in trips to Thulo Dhara or Piple Dhara to check up on the progress of last year's projects and make repairs as needed. Examples of these successfully completed projects are shown in the photos above.

To complicate matters during the spring trip, Cyclone Aila blew through the Namsaling area with wind speeds gusting up to 120 km/h (75 mph). For two days, students were forced to stay inside their host homes. Electrical power failed and was not reconnected for days. When the wind finally died, and the rain

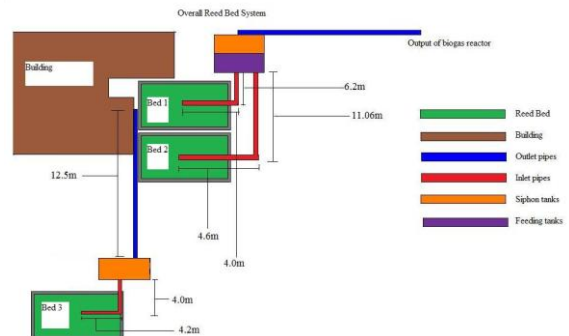
ceased, there were many backbreaking hours of clean-up before projects could start again.

Reed Bed Projects

In addition to spring source protection, two projects were started to implement Reed Bed technology for the Namsaling hospital and the NCDC office, (the local NGO partner of EWB). Reed bed technology basically consists of constructing a natural wetland pond area piped so that waste water can flow through it. The interaction of the plants with the waste water allows the water trickling through the reed bed to be cleaned by microorganisms living on the root system and in the rocky fill. This filtration process mimics nature and removes contaminants in the water. The 2009 project team repaired the two existing systems in Namsaling. The neighboring community of Ilam wants to construct a Reed Bed system at their hospital to improve the water quality discharged to the local river. EWB students traveling in December will start work to assess and design new, more efficient Reed Bed systems to be implemented in 2010!

Students leave for Nepal on December 20th

Four dedicated students are headed to Nepal for the Assessment Trip for 2010 projects. The major work will be in determining the final design of the Reed Bed system and a methodology for testing water quality. Preliminary research and design is already underway.



Participate with EWB

There are many ways to support EWB students and their international projects. EWB needs advisors on many different aspects of their projects. If you have expertise that you would like to put to use, contact the University of Colorado Student Chapter at any of the coordinates listed below.

If you support EWB financially, check to see if your company provides matching funds. If your company has a corporate giving program whose funding emphasis matches the work of EWB, please let us know how to apply for that funding.

If your company has 'lunch and learn' sessions where EWB could come and speak, please let us know. EWB would appreciate the opportunity to speak to engineers who would be interested in supporting EWB.

If you are looking for alternative giving ideas for that person on your holiday list who is hard to buy for, think about the gift of clean water!

If you would like to financially support EWB projects, donate online:
www.cufund.org/giving-opportunities/fund-description/?id=3612