

The World Plumbing Council Joins Project in Nepal

The WPC was very pleased to be able to support the WorldSkills Foundation and Healthabitat, an award winning Australian not-for-profit organization, working with a local Nepalese organization, the Community Health and Development Society (CHDS) as part of a Nepalese Village Sanitation Program, Nepal Sanitation Studio in January 2013.

The 'Sanitation Studio' was a week-long project in Dhulikhel village, Nepal, combining an experienced team of plumbers (including representatives from the World Plumbing Council, WorldSkills Foundation, Global Founding Partners IAPMO and RMIT University), with a team of Australian architecture students, working alongside community representatives to design and install new toilets, rainwater and biogas systems.

The key aim of the Sanitation Studio was to work with the existing skilled Nepalese Team to develop the design process and construction details of toilets to further improve health by the safe removal and treatment of human waste. In the words of Paul Phaleros of Healthabitat, "the studio was a great way to use the passion of young people, students, and also experienced people, an experienced plumbing team, to not to come over the top of a Nepalese Team, that have been building toilets for a few years now, but to actually improve the quality of all parts of the toilet. Also to improve the way we design them and to help the Nepalese team with the tools they can use to better work with local families and villages to design and build toilets."

The Nepalese Village Sanitation project commenced in late 2006, with Healthabitat working with the villagers to plan the first stage of the sanitation phase, including discussions about design of the toilet buildings, using biogas digesters and/or septic tanks for waste management, the need for water, accessing supply and storage.

Since July 2007, a total of 58 toilets with either septic tank (38) or biogas (20) waste systems have been built in



Grant Stewart, WorldSkills, Tom Gugino(WPC) with Nepalese plumber Surya Lama inspecting a water tank and rainwater catchment system in Dhulikhel village

Bhattedande. Villagers have been instructed in toilet maintenance and regular hygiene including hand washing with soap. Two local women have been trained to inspect and report any faults with the toilets as part of the ongoing maintenance.

In 2011 the project moved into two more villages, Arubot and Dandegaun. A skilled team developed from the Bhattedande project, in coordination with the management of the CHDS team, leads the project in the next two villages. Each village develops a local management committee whose members are encouraged to participate in the activities of the project, some of whom have gained employment in the project.

Healthabitat works with the villagers to plan the first stage of the sanitation project which includes discussions about the design of the toilet buildings; using a biogas digester or septic tank for waste management; the need for water and collecting water from the toilet roof and storing the water in a tank for dip flushing and hand washing; making an agreement about how the partners will work together.

Villagers access water at 10 tap points located throughout the village. They gather water from these 10 taps twice a day when water is released from a header tank. They fill buckets and metal vessels and carry them back to their homes. The local plumber and construction coordinator work with Healthabitat to set up water quality testing.

Water quality testing commenced and the local villagers are trained to complete the testing regularly over 12 months. Water meters are also installed to measure average daily use from 3 of the 10 tap points located throughout the village. Plumbing repairs and modifications were commenced on the first day of the project. Since then, a reticulated water supply has been put into Bhattedande village. The project partners agree to start Stage 1 of the toilet building project by constructing only two toilets, one with a biogas and one with a septic waste disposal system.

The project is managed by CHDS Nepal, using local labour and materials. This "trial" allows for all partners to gauge their ability to effectively work together, plus the villagers will have a chance to observe the process of construction, view the results, assess their appropriateness and apply any modifications if necessary for the continuation of the project.

A clean start

Hygienic toilet facilities help villagers in northern Vietnam to achieve good health, privacy and a clean environment.

"My family has lived here for over 25 years but we only just built a proper toilet three months ago," says Hien, a farmer from the north of Vietnam. "My wife and I spent close to a week completing the work. We should have made the toilet long ago." Prior to constructing their new toilet, a makeshift pit in the corner of the yard was the only option for Hien's family when nature called.

Hien decided to build their new toilet after he and other members of his village participated in a water and sanitation group discussion facilitated by World Vision with the support of StarKids. "Our eyes were opened to see the detrimental effects that unhygienic water and sanitation practices have had on our health," he says. "I was one of the first to register to construct a new toilet for my family."

"Only four families had a proper toilet when World Vision first arrived in our village," recalls Cu, the leader of Hien's