

Clean Water Village Project

Pilot Project Report



Kvean Village, Kok Chork Commune, Siem Reap District, Cambodia

July – November 2009



Introduction

The need for a new 'village centered approach'

When JWOC started putting in clean water wells in 2006, access to water wells in and around Siem Reap was extremely limited. As tourism has increased and more organizations have started to work on the issue of clean water the number of water wells has increased. JWOC's well scouts have therefore started to travel further in all directions to provide wells to households still in need of a safe and year-round water source. Thus JWOC's Clean Water project has grown in size and location. Many of the wells put in by both JWOC and other organizations break and need repairs, but frequently villagers are not able to fix them themselves or pay for them to be fixed.

The next necessary step is to fully increase the impact of JWOC's Clean Water Project. Building on the positive impacts JWOC's award winning project has already had, JWOC is adding more elements to its Clean Water Programme to ensure the greatest and most sustainable impact. These elements include well repairs, basic training on the means to ensure safe-drinking water for your family, simple hygiene practices and well maintenance. They also include working with one village at a time thus allowing a more thorough response to the needs of the village as well as securing a commitment from the village for their cooperation and continued independent ownership of the project in the long-term. By incorporating the training, JWOC can not only increase the impact of each well that is repaired or drilled but can also provide the villagers with the means to safeguard their own health in the future. Combining this training with a community centered approach JWOC can ensure that the impact is also increased in terms of duration as villagers go on to fix their own wells and are empowered to work together to improve their health in the long-term.

Starting in August 2009, JWOC has put into place 10 basic steps through which it can work with a local community and give them the chance to take control of their health and their future. By collaborating with communities and giving them the resources they need and the information they need to improve their lives, JWOC hopes to empower these partner communities to change for the better. The steps we take with the villages are as follows:

- 1) Scouting
- 2) Gathering information / mapping / needs assessment
- 3) Contract signing / collecting money
- 4) Baseline health and hygiene knowledge and practice surveys
- 5) Drilling and fixing wells / well maintenance training
- 6) Water testing
- 7) Filter training and distribution
- 8) Hygiene training (hand washing / teeth cleaning) and distribution of hygiene packs
- 9) Final checks and follow-up health and hygiene and surveys
- 10) Six month impact assessment

1) Scouting

Members of the JWOC clean water project team go out into the countryside looking for areas that are both in need of assistance and where the local authorities (village chief, group leaders) and the community demonstrate a desire to work with JWOC to make positive changes.

2) Gathering information / mapping / assessment of need

When a location has been decided on in collaboration with local authorities, JWOC scholarship students gather all the information needed in order that JWOC can provide the appropriate assistance to the village. This includes information about the number of households, the population of the village, the existing water sources and places where access to water is limited or unsafe. GPS mapping of all the existing water sources is also made which is inputted into Google Earth for tracking and future record keeping.



3) Contract signing and money collection

Before beginning work in the village on fixing broken wells and drilling new wells, JWOC enters into an agreement with the village chief on behalf of the village population to guarantee JWOC's assistance for the village and to make sure that the villagers enter into the process and spirit of helping each other to use the information and resources made available to improve quality of life in the village. A small sum of money (\$3 or by mutual agreement with the village chief) is collected from each household in order to invest the villagers in the process of JWOC's assistance and ensure they continue to look after their wells and filters once JWOC leaves.

4) Baseline health and hygiene knowledge and practice surveys

Once an assessment of the needs of the village has been made, a representative sample of people in the village are interviewed to gather information about their water source, health, hygiene practices and knowledge. This gives JWOC the information it needs to later assess its impact and collaboration with the village.

5) Drilling and fixing / maintenance training

Once the water needs of the village have been assessed, maintenance reports have been made and new locations decided on, JWOC employs a local well expert to begin work. During the course of the drilling and maintenance, the well man takes time with each group of houses to instruct them about the way the well works, how to care for the wells and how to fix basic maintenance problems as they arise (for example, changing filters). All JWOC installed wells are guaranteed for one year and while villagers are encouraged to take responsibility for the long term maintenance of their wells, JWOC's separate maintenance fund may be called on in the future for any big problems.

6) Water testing

Water is collected by students who have received specific training in how to collect water samples and they are delivered to a local testing laboratory in Siem Reap. The water is tested for dangerous chemicals such as arsenic that naturally occur in some areas of Cambodia. If the water in a particular well is unsafe the well is dismantled and another location is sought to find a solution.

7) Filter training and distribution

Providing households with access to safe drinking water for everyone is a crucial aspect of ensuring the decline in water borne illnesses causing diarrhea, sickness and in more severe cases, death. JWOC provides each household in the village with a locally produced and sustainably produced ceramic water filter, as produced by Rural Development Initiative Cambodia (for more information on the filters please visit their website). In order to receive their filter, villagers are required to attend JWOC training about preparing and caring for the filters as well as the health benefits of drinking filtered water.

8) Hygiene training (hand washing / teeth cleaning)

Over the course of a weekend, villagers are required to attend basic hygiene seminars delivered by JWOC scholarship students. Presenting to adults and children separately, these seminars are designed as interactive and engaging information sessions focusing on hand washing and teeth cleaning. Villagers are encouraged to think about concepts of basic hygiene that they can introduce or develop in their everyday lives to have the maximum impact on their health. After the training, participants are presented with a small hygiene pack (soap, a toothbrush and toothpaste) to encourage them to incorporate these basic practices into their lives (if they are not doing so already) straight away.

9) Final check and follow up hygiene knowledge and practice survey

One week after the hygiene training, JWOC students return to the village to check that everything is working well and to answer any questions that may have arisen amongst the villagers. They also carry out a final follow-up hygiene survey to measure the difference in hygiene knowledge and practices in the village.



10) Six month impact assessment

Six months after the initial collaboration with the village, JWOC students return to conduct an impact assessment. This is done to measure the success of the project and identify any areas that can be improved or changed in future projects.

The Pilot Project - Kvean Village

The decision to work with Kvean Village to pilot the village centered Clean Water project at JWOC was taken for a number of reasons. Scouting in a number of villages in the vicinity of JWOC's central office revealed this village as one with a number of encouraging aspects already in place. First, it was clear that the community had already taken some concrete steps towards improving health with regular health classes being held for children by the daughter of the village chief. Secondly, while there were a good deal of existing wells in the village, many of the centrally located ones were in a poor state of repair and a number of collections of houses were using only polluted hole wells that dried up outside the rainy season. Thirdly, we found the local authorities (the village chief) extremely welcoming, open to working with us and keen to improve the lives of his community.

Owing to the size of the village as a whole and the limitations in JWOC's funds, it was decided by mutual agreement with the village chief that JWOC would work with three groups within the village that are both geographically linked and were the most in need of assistance.

Implementing the project in Kvean Village

Summary

During the months of July and August, JWOC worked intensively with the village to achieve the following things:

- assessing their needs,
- recording their water source, health and hygiene knowledge and practices,
- addressing the needs of families in their access to clean water (drilling new wells and fixing broken wells),
- testing water sources throughout the village,
- distributing filters and running seminars on how to care for the filters and the benefits of filtered water,
- running health and basic hygiene seminars and distributing hygiene packs,

Once the initial work was done, JWOC continued to work in Kvean Village in October and November conducting follow up surveys about hygiene knowledge and carrying out water tests on the drinking water provided by the ceramic filters.



Kvean Village Location in relation to JWOC, Siem Reap and Angkor Wat.

1 - Assessing the needs

In late July and early August 2009, JWOC scholarship students and volunteers made a number of visits to Kvean Village to assess the existing water situation and assess the needs that could be met by JWOC's Clean Water Project. Amongst a population of around 250 people, it was found that many villagers were using polluted hole wells which dried up during the dry season. Although there were a good number of drilled pump wells in many areas of the village, many were either completely broken or in a serious state of disrepair due to age.



Hole and pump wells found in disrepair and supplying dangerously polluted water to villagers

It was decided that four pump wells in the village were in need of major repairs (for example, replacing the pump or re-concreting the apron around the well) and that JWOC would build seven new wells to provide access to families whose only existing nearby source of water was polluted hole wells.

2 – Contract signing / village contribution

JWOC considers the participation and investment of the communities it works with in the process as fundamental to the impact and sustainability of the work it undertakes. In collaboration with the Village Chief of Kvean Village it was decided that each household would make a small contribution (\$3) towards the partnership with JWOC and the work that would be done. A contract was signed detailing the commitments of JWOC to provide access to clean safe water for every person in the village, water testing, training and education and surveys to ascertain the impact of the project. Community obligations included attending seminars, using the knowledge and materials provided to make positive changes in their lives, making a financial contribution (\$3) towards the project and taking responsibility in the future for the maintenance and upkeep of their wells.



3 – Recording water source, health and hygiene knowledge and practices data



On 9 August 2009, JWOC Scholarship Students and a group of volunteers from the UK interviewed adult members of 25 households (half the number in Groups 1, 2 and 3 of Kvean village) to find out information about their health, their situation with regards to access to water, their knowledge about basic hygiene and routine hygiene practices. This data will be used to record their current access to clean water and its impact on their health as well as their hygiene knowledge and practices. Further through the process the data will be used to make comparisons so that JWOC can gauge the changes that have happened and potential improvements to be made.

4 – Installation and Maintenance

Employing the services of a local well installation professional, the next step in the process was to begin building all the new wells decided on and to make repairs to all the existing wells in the village which were not functioning correctly. During the course of the installation and maintenance the well expert held numerous training demonstrations and information sessions with families throughout the village to teach them about how to look after their wells, how the wells work and how to make simple repairs should anything go wrong.



This well in Group 3 of the village was completely re-drilled



Two of the seven new wells drilled in Kvean Village



One well in Group 2 that had major repairs thanks to funds raised by Chloe Baker and JWOC Board member Larry Kurmel.

5 – Testing Water sources throughout the village

Once the well installation and maintenance was complete JWOC began the process of testing the water for potentially dangerous substances in the water that are common in Cambodia. Testing for nitrates and arsenic in ground water are key to ensuring the overall safety of the water for general use. JWOC scholarship students and UK volunteers spent a number of days in Kvean village taking various water tests for this purpose. The results were negative for nitrates and arsenic throughout the village. Bacterial tests on filtered water also provided excellent results showing that the drinking water throughout the village is now free from harmful bacteria such as e-coli.

6 - Distributing filters and running seminars on how to care for the filters and the benefits of filtered water



Over the weekend of 22-23 August 2009 JWOC scholarship students conducted three training sessions which were attended by a representative of each of the 53 households in Kvean Village Groups 1, 2 and 3. Each training session was a practical and interactive introduction to the benefits of using the ceramic water filters (a popular, locally made and recognized solution to the problems of filtration in Cambodia) and the techniques needed to care for them. Villagers were invited to get involved as volunteers in the demonstrations to build their confidence and all attendees were presented with a filter at the end of the training. Students then walked around the village after the training offering assistance to anyone who needed it.

7 - Running health and basic hygiene seminars and distributing hygiene packs

The following weekend all villagers, adults and children, were required to attend a 45 minute seminar on basic health and hygiene including hand-washing and teeth-cleaning. The seminar was designed to be relevant and accessible in engaging people with the benefits of basic hygiene and the best techniques to use. Over 250 people attended five sessions over the course of the weekend, including three sessions for adults and two for children. Each person present was given a small “hygiene pack” of a toothbrush, toothpaste and soap for attending the sessions and to be able to put the training into practice straight away.





8 – Follow-up hygiene knowledge and practice surveys and information sheets

In mid-September JWOC returned to the village to conduct the first follow up survey to measure the effectiveness of the hygiene training.

JWOC also prepared information sheets that were distributed to the village chief and the group leaders in the village, detailing the different parts of the wells and the filters, prices of replacement parts and contact details of people who could supply these things in the future. This is done in the hope that villagers will be empowered to invest in new resources should they need to in the future and continue to benefit from the opportunity they have taken to improve their health by partnering with JWOC.



Water Filter parts information sheet distributed in the village



9 – Remaining steps.

In March 2010, six months after the conclusion of the hygiene seminars JWOC will conduct further health surveys to measure the impact that the project has had on the lives of those living in Kvean village.

Acknowledgments

This project was, in large part, possible thanks to the efforts of a number of JWOC volunteers who gave their time, ideas and energy towards developing it. JWOC would like to thank Kathy Bender and Mary Helen Moore who took the first steps in developing ideas and materials for the hygiene seminars. For their creativity, energy and fundraising skills, JWOC would like to thank Karin Leinwand and her family who put together hundreds of “Hygiene Packs” that were distributed during our initial trial of the hygiene seminars in May. These first seminars in a local village in May and June were possible mostly thanks to the hard work and creativity of a group of students from West Point Academy in the USA. Finally JWOC would like to thank the group of volunteers from TravelAid UK who helped our scholarship students successfully implement this project in Kvean Village in August 2009.

JWOC would also like to thank all the donors who made this pilot project possible:

TravelAid 2009 (Filters, Water Testing, Hygiene Seminars)

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The Spranger Sisters (Well)

Savannah Rae Tongo (Well)

The Alex Marciello Family (Well)

Our clean water village centered approach pilot project in Kvean Village has been a great success. Building on this success, JWOC is now partnered with a larger second village - Branet village - and hopes to help another five villages in the same way throughout 2010. Now we have the method, materials and trial completed thanks to your kind efforts and support we are continuously looking for new donors to help support our work with our upcoming villages. Below is a list of ways that you could be involved now and in the future of JWOC’s work.

Please also visit our website (www.journeyswithinourcommunity.org) for more details and if you would like to donate online.



There are many ways you can get involved in helping us help:

Well Repairs: **\$20 - \$150**

Fixing a broken well can cost anything between so every contribution counts. Even a small donation to our well maintenance fund can resurrect a well and give villagers back their right to clean water.

Water Filters: **\$130**

Give 10 houses a sustainable way of getting safe drinking water.

Educational Seminars and hygiene packs **\$200 (Recommended donation)**

JWOC will typically run 5 or 6 seminars in each village but the number of participants depends on the population of the village.

Water Testing **\$250**

Test 20 wells giving hundreds of people the knowledge and security of having safe water.

New wells **\$350 (or \$375 with a recognition sign).**

Sponsor a village **\$6,000***

Give JWOC the resources to help an entire village.

** Approximate cost given that every Cambodian Village is different in size and population.*