



“Make a difference in Rattanakiri”



Report on Nestlé Nordic support to the Cambodian/Danish Red Cross water project in Cambodia

June 2009

Introduction and background

Rattanakiri province is situated in the north-eastern corner of Cambodia, bordering Laos in the north and Vietnam in the east. The province is sparsely populated, with less than 9 people per square kilometre, leaving large areas unpopulated, including deep jungle forested inhabited by a range of wildlife species. Ethnic hill tribes make up 61% of the population of the province, mainly Tampuan and Kreung. Among the indigenous people, Khmer language is not widely spoken or understood, especially by the female and the older parts of society.

Generally, the health and nutritional status of the people living in Rattanakiri is poor, suffering from a wide range of common diseases, such as diarrhoea, respiratory infections and malaria – all diseases that are associated with poor access to clean drinking water, poor access to proper sanitation solutions, bad hygiene and sanitation practices and low knowledge on disease prevention. Approximately 50% of all children under the age of 5 years suffer from malnutrition, being underweight – which also is related to water borne diseases, such as diarrhoea, as well as low nutritional knowledge and lack of access to an adequate diet.

Lack of access to clean drinking water is a big challenge in the area. There are few safe water sources, and the majority of people have to collect their drinking water from polluted sources such as ponds, streams or rivers. As proper latrine facilities are also rarely used, contamination is very easily spread to sources for drinking water, especially during the rainy season.

The Danish Red Cross has been working in Rattanakiri province since the beginning of 2008, in partnership with the Cambodian Red Cross, with a Community Based Health Development programme, targeting vulnerable people in the province, especially women and children, with a holistic approach to community health. Water and sanitation (WatSan) is an integral and highly important component of this programme. The WatSan component comprises of both technical solutions to water provision and capacity building on water, hygiene and sanitation.

Combined Ring Wells

With support from Nestlé Nordic, the Cambodian and Danish Red Cross is constructing 8 protected ring wells – or so-called combined ring wells, in a total of three villages in Kachoun commune in Voeun Sai District of Rattanakiri, providing an estimate of 1,000 people with safe drinking water. Four wells are situated in Team Leu village, three wells in Vorng village and one well in Vay village. One well is located at a school compound and one is by the village meeting hall.

The wells are all dug by hand power, and are between 7,5-10 metres deep. All excavation work is done during the dry season, so that the depth where water is found is as deep as possible. When water is found, electric water pumps are used to pump out water so that the well can be made even deeper. This means that the well will yield water during the driest months of the year. In the rainy season, the water table in the ground is higher, meaning that the well yield is higher as well. All wells are constructed with cement rings, which ensure that the walls do not collapse. When the rings are installed and a platform constructed around the well site, a cover is placed on top over the well, to protect the water source from contamination. Each combined ring well is installed with a locally produced rope pump – the Rovai pump. A major advantage of this pump is that it only contains parts that can be purchased at a low price at the local markets, making it easy for villagers to access

adequate spare parts, if necessary. Also, the Rovai pump is very easy to use, easy to maintain, locally produced and cheaper than imported pumps.

At the time of reporting, three out of the 8 combined ring wells are complete, in use and providing the people with safe drinking water. Another four wells are fully constructed with rings and platform, only waiting for the pump to be installed. At the final well site, excavation is on-going, and platform construction and ring installation is about to start within short. All 8 combined ring wells are expected to be finished by the month of July.

As soon as the wells are finished, water quality tests are taken and analysed for 6 chemical parameters, to ensure that the quality of the drink water meets all required standards.

Status on well construction as at end of June 2009

Village	Well code	Excavation completed	Depth	Rings installed	Platform completed	Well site fenced	Pump installed
Team Leu	CRC/DRC/Nestlé-008	x	7,5m	x	x	x	
Team Leu	CRC/DRC/Nestlé-009	x	9m	x	x	x	
Team Leu	CRC/DRC/Nestlé-010	x	10m	x	x		
Team Leu	CRC/DRC/Nestlé-011	x	10m	x	x		
Vorng	CRC/DRC/Nestlé-012	x	10m	x	x	x	x
Vorng	CRC/DRC/Nestlé-013	x	10m	x	x	x	x
Vorng	CRC/DRC/Nestlé-014		3m				
Vay	CRC/DRC/Nestlé-015	x	9m	x	x	x	x

An important sustainability measure for the Cambodian- and Danish Red Cross programme is that beneficiaries contribute to the construction of water points. By contributing with either working hours and/or construction materials it is expected that community ownership to the well is enhanced, increasing the likelihood that villagers will take proper care of their well in the future. At all well sites, villagers have contributed with land, sand for the construction and wood for the fence, as well as with a financial own contribution before construction and an annual user contribution fee, to be used for well maintenance and spare parts.

Water and Sanitation User Groups / Water Maintenance Committees

When construction is finished, all wells are officially handed over to the villages. Each well has a registered number of users – people living within a certain distance of the well site. The number of users for each well is dependent on the yield of each water point – a hand dug combined ring well can have up to 25 households as official users. The group of users are called a Water and Sanitation User Group (WSUG). All these households are registered with the programme and contributing

with annual user fees for the well. WSUGs have been established at all 8 well sites, and they have all been trained on 'safe water' practices and hygiene. It is important that everybody knows why it is important to keep the well site clean, and that potential contamination is prevented.

Maintenance and well-keeping of the well site is the joint responsibility of all the users in the WSUG, but in order to have some core responsible persons, each WSUG has democratically elected a Water Maintenance Committee (WMC). The WMC is a three-member committee, consisting of a Leader, a Treasurer and one person in charge of hygiene and sanitation. Together with the Red Cross Volunteers, they are all present and participating when the pump is installed, so that they know how to dismantle, and assemble it again, if there is a problem with the pump in the future.



Seng Katroeng is a Water and Sanitation Red Cross Volunteer living in Vorng village. Since he was elected as Red Cross Volunteer by his fellow villagers in 2008, his main responsibilities have been to train the people on water, hygiene and sanitation related topics and to support the ring well construction process of the 3 wells in his village. This picture has been taken during the construction period, just before the pump was to be installed.

In the same village lives Yoern Chaoek with her husband and three children. Before the Red Cross started working in their village, Chaoek and her family collected water from the nearby stream and consumed it without any treatment. This often resulted in family members being sick, especially during the rainy season. Now, Chaoek and her family lives nearby one of the new Nestlé Nordic funded wells in Vorng and they are now benefiting from access to clean water from the well. She also receives training from the Red Cross Volunteers every month, as part of the Red Cross WASH club in Vorng. As a direct result of the availability of clean drinking water and increased knowledge from the WASH club meetings, Chaoek now experience that both herself and her three children are sick less frequently. She is also very happy that she does not have to walk a long way to the stream every time she wants to fetch water. The Nestlé Nordic funded well in Vorng has truly made a big difference in the lives of Katroen, Chaoek, their families and many more people in Vorng village .

WASH clubs

Parallel to the provision of safe water sources and training of Water and Sanitation User Groups and Water Maintenance Committees, the Red Cross has also established WASH clubs in all three villages supported by Nestlé Nordic. WASH is short for Water, Sanitation and Hygiene. The WASH club is a group of 15 people per village, consisting of WSUG members and mothers with children under the age of 5 years, which is being thought by the village Red Cross Volunteers. The three clubs – one in each of the three villages – meet every month to learn, discuss and practice issues related to water and sanitation, hygiene and environment. Until now, they have had 6 group meetings each, and the interest from the club members has been impressive and attendance being very high at each meeting.



Installed Rovai pump at the meeting hall in Vorng

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