



“Make a difference in Rattanakiri”



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

June 2010

Introduction and background

This is the 2nd year Nestlé supports the CRC/DRC Community Based Health Development programme in Cambodia with funding for water activities in Rattanakiri province. This report will, after a short introduction, give an update on the 8 hand-dug wells constructed in 2009, then provide an account of the progress on the 5 hand-dug wells supported by Nestlé in 2010.

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. The Project target group is mainly ethnic minority hill tribes. In Rattanakiri there are 3 major hill tribes (Tampoeun, Jarai and Kreung - which make up 61% of the provincial population) and 4 minor hill tribes. Khmer language is not widely spoken or understood, especially by women and older people, and the hill-tribe languages have no written form.

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.

The specific problems faced by the target groups in this Project include: limited access to clean, reliable water and effective sanitation solutions; low levels of education specifically in relation to basic health and hygiene practice; knowledge on how to enhance family nutrition; limited access to health services; and gender inequities which place a disproportionate burden on women and girls. 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.

Activities supported in 2009

As reported in June 2009, Nestlé financed the construction of 8 hand-dug wells, in a total of three villages in Rattanakiri province, including appropriate water and sanitation training for Water and Sanitation User Groups and Red Cross Volunteers. During the rainy season (roughly May – October) all wells were operational, providing all beneficiaries with improved water for domestic consumption. During the early months of the 2009-10 dry season, all four wells in Team Leu village showed signs of drying up from time to time – indicating that the ground water level was lower than

when the wells were originally constructed. Therefore, in early 2010 all four wells were further excavated to ensure appropriate water yield throughout the year – rainy and dry seasons. All the wells are now fully operational. This situation is a good reflection of the realities of working in the field in very remote areas, and highlights the importance of regular and continuous monitoring and support to the villages, especially in relation to water and sanitation.



Water point construction will be followed by household latrine installations

Hand-dug well status:

| Village | Well code | Excavated | Depth | Rings installed | Platform completed | Well site fenced | Pump installed | Added depth 2010 | New depth |
|----------------|--------------------|------------------|--------------|------------------------|---------------------------|-------------------------|-----------------------|-------------------------|------------------|
| Team Leu | CRC/DRC/Nestlé-008 | X | 7,5m | X | X | X | X | 1,5m | 9m |
| Team Leu | CRC/DRC/Nestlé-009 | X | 9m | X | X | X | X | 2m | 11m |
| Team Leu | CRC/DRC/Nestlé-010 | X | 10m | X | X | X | X | 3m | 13m |
| Team Leu | CRC/DRC/Nestlé-011 | X | 10m | X | X | X | X | 2m | 12m |
| Vorng | CRC/DRC/Nestlé-012 | X | 10m | X | X | X | X | NA | NA |
| Vorng | CRC/DRC/Nestlé-013 | X | 10m | X | X | X | X | NA | NA |
| Vorng | CRC/DRC/Nestlé-014 | X | 3m | X | X | X | X | NA | NA |
| Vay | CRC/DRC/Nestlé-015 | X | 9m | X | X | X | X | NA | NA |

Make a Difference in Rattanakiri 2010

The 2010 Project has followed the same outline as the 2009 Project, where hand-dug wells have been constructed, in combination with relevant training on improved water, hygiene and sanitation behaviours to the people responsible for and using the water points (Water and Sanitation User Groups) and Red Cross Volunteers.

This year's interventions have been carried out in a very remote village, called Kachon Leu, which is situated across from one of the major rivers in Rattanakiri province, making access very challenging – further complicating major construction work, such as hand-dug well construction. This village has seen very few water and sanitation development initiatives prior to this Project's involvement in the sector.

The initial **water survey** that was carried out by Cambodian Red Cross staff showed that there was an immediate need for improved water sources in this village. Villagers normally used water from the nearby well for domestic purposes, sometimes without any filtering and/or boiling before drinking. In calculating safe water coverage, the Project is following the national standards and policies on provision of safe water. The national definition of safe water is to have a year-round sufficiently yielding water point or well within 500 meters from household. The need for safe water provision in ***Kachon Leu*** village for 2010 was identified as 5 new water points. Hand dug wells were identified as the most appropriate solution, since transport of heavy drilling equipment across the river was deemed impossible, since there are only small long-tail boats available on the river. Furthermore, the geographical layout of the village, where houses are scattered over a quite large area, means that a hand-dug well solution, where there are fewer households per water point, is the most appropriate.



Staff arriving for water survey assessment in Kachon Leu

Water point construction:

At the time of reporting, all 5 protected ring wells have been excavated to a depth between 10 and 12 meters. Concrete rings have been installed in the holes, and the water levels in the wells are between 2 and 3.5 meters. After the rings were installed, a platform was constructed, identifying the date, code, depth and donor of the well. The Project is in the process of installing one Rovai pump on each well. The Rovai pump is a locally produced pump, which is considered to be highly appropriate for this kind of well. The technology of the pump is very simple, and spare parts can easily be purchased at the local markets, facilitating easy maintenance and local ownership. The pumps are expected to be finished installed by the 2nd quarter of 2010.

Before the pumps are installed, the wells will be chlorinated by Project staff, to insure the wells are not contaminated; water quality tests will also be done for all wells.

Selection of **Water and Sanitation User Groups (WSUG)** has started in at all water points – total of 5 groups. According to the national standards in Cambodia, one hand-dug well can provide improved drinking water for 15 households, which means that there should be 15 members of each WSUG. The reality, however, especially in the remote Northern provinces, such as Rattanakiri, is often different than in lowland Cambodia. The WSUG is composed of one representative from each of the household using the water point. For the 5 water points constructed in 2010, 4 have a standard WSUG, which consist of 10-14 members. The last well site is situated at the community school; hence, all students and teachers belong to the WSUG. Each WSUG select a 3 member Water Maintenance Group (WMG) that is in charge of maintenance, sanitation and hygiene and user fee collection.

Hand-dug well status:

| Village | Well code | Excavated | Depth | Rings installed | Platform completed | Well site fenced | Pump installed |
|-------------------|--------------------|------------------|--------------|------------------------|---------------------------|-------------------------|-----------------------|
| Kachon Leu | CRC/DRC/Nestlé-016 | X | 10m | X | X | X | in progress |
| Kachon Leu | CRC/DRC/Nestlé-017 | X | 10,3m | X | X | | in progress |
| Kachon Leu | CRC/DRC/Nestlé-018 | X | 11,7m | X | X | | in progress |
| Kachon Leu | CRC/DRC/Nestlé-019 | X | 10,5m | X | X | | in progress |
| Kachon Leu school | CRC/DRC/Nestlé-020 | X | 11,7m | X | X | X | in progress |



Interview with water point user on 28/5/2010

My name is Mrs. Seng Heng, I am 45 years old and living at Vorng village, Kachon commune, Voeun Sai district, Ratanakiri province. “Before we had this well I used to take water from Se San River, but that water is dirty and do not look clean because everyone use it for many purposes and also, upstream is a dam for producing electricity! My family and many from my village used to get sick such with diarrhoea and skin disease because we had to drink the river water. After we got this well with support from Red Cross and Nestlé, we always use water from the well and I have noticed that diarrhoea and skin diseases is now less than before and my living status is now much better.” She added: “Water is Life, so with no Water we will die!”