



## 22 mars 2010 - World Water Day: Clean Water for a Healthy World.

### A concern at the heart of Antenna's activities



The UN is dedicating the World Water Day 2010 to water quality, which equally affects our ecosystems as well as the well-being and health of individuals.

The WHO estimates that 80% of the illnesses of children in developing countries are the result of consumption of contaminated water !

The bad quality of drinking water, the lack of sanitation and hygiene are responsible for the death of 1.5 million children under the age of five every year.

This number would be reduced considerably if we could provide clear drinking water based on the local production of active chlorine with the electro-chlorinator WATA – in combination with raise of hygiene awareness.

## Household water treatment and storage systems (HWTS) : a solution that is still marginalised

The large drilling and adduction projects cannot single-handedly resolve the water access problem. Furthermore, even if good water quality is distributed, there is a high chance that contamination of occurs between source and point-of-use.

In Mali for example, it is estimated that 65% of the rural and 35% of the urban population do not have access to safe domestic water. This situation inevitably causes the spread of water-related diseases and makes diarrhoea the third leading cause of death among children under 5 in Mali.

Access to household water treatment systems (HWTS) can reduce diarrhoea diseases by half and – together with improved sanitation and hygiene (hand-washing) reduce child mortality.

HWTS may not be the ideal solution to provide access to safe water and should not divert from the objective to achieve a tap in every household, but it is an important step to improve today's situation where almost one billion people have no access to safe water sources. A study published in January 2008 by UNICEF shows that household-based interventions were about twice as effective in preventing diarrhoeal disease than improved wells, boreholes and communal stand pipes.

## WATASOL approach...

Among all water treatment solutions, the WHO estimates that chlorination is the most secure, effective and cheapest option. Aware of the need to introduce simple and affordable water treatment methods at household level to the population exposed to contaminated water, Antenna Technologies has developed an electro-chlorinator for the local production of active chlorine from clear water and basic cooking salt.

But WATASOL is more than a device; it is an approach which integrates health education with the local production of chlorine in a sustainable supply chain, making safe water treatment a profitable activity. In the long term, the production and the dissemination of chlorine should generate a income for the local population and should insure their autonomy.



## ...in action

Thanks to the support of UNICEF in Mali, and of the Swiss Development Cooperation Agency and Caritas Switzerland in South Asia, Antenna is launching two major pilot projects. These projects will operate in very different contexts, using various methods. However, the objective is the same: to promote the use of active chlorine for the treatment of household water and to make the production and dissemination active revenue generators.

More specifically, the objectives of the pilot projects in Mali and in Asia are the following:

- To provide an autonomous and sustainable solution for safe drinking water at household level based on local production of chlorine through electrolysis;
- To control the quality of the produced chlorine and of the drinking water after the chlorination;
- To create income generating activities based on the local production and distribution of the concentrated chlorine solution to contribute to the promotion of HWTS;
- To establish methodologies for the implementation, monitoring and evaluation of domestic safe water through the local production and sale of chlorine;
- To document and capitalise these experiences in order to replicate them;
- To prepare a "scaling up-phase" based on the know-how and lessons learned;

## Focus on the projects

### In Mali

This project, which is supported by UNICEF aims at improving the quality of domestic water for 50'000 people in four priority zones in Mali.

The local production of chlorine would also allow health centres of these places to use a high-standard and cheap disinfectant. The following local NGOs are responsible for the implementation of the project in the identified zones:

**The NGO Le Tonus** runs a programme to fight cholera, which persists in the region of Kayes.

**Formations Sans Frontières** will equip ten health centres in the Mopti region with the active chlorine production systems, run with solar panels.

**Aidemet** works on the promotion and local production of chlorine in partnership with Antenna Technologies in the district of Kadiolo (Sikasso region).

**AS EDEN** plans to use electro chlorinators to treat water from wells in the municipality V and the suburban zone of Bamako (Ganouan).

**ASACOBA** works in partnership with Aidemet in the urban zone of Bankoni for the promotion of the local production of chlorine.

These zones of intervention have the advantage of representing a large spectrum of different situations: urban, rural and suburban settings; precisely one of the objectives of the project is to document the feasibility of the local production of chlorine of HWTS in diversified contexts.

### In South Asia

Antenna Technologies launched a WATASOL programme of two years together with its four partners in South Asia. The aim of this programme is to develop viable economic models generating income for the people involved in the sale and promotion of chlorine.

A seminar organised last January was the kickoff to this ambitious programme and allowed to consolidate the approaches, the technical aspects as well as the questions of raising awareness. Here is a brief overview of the partners and their implementation plans:

**Environmental Camps for Conservation Awareness (ECCA) – Nepal:** The objective of this project is to promote access to drinking water in schools and communities to prevent water-related diseases in the centre and the east of Nepal.

At the school level, the emphasis will be on raising hygiene awareness, access to safe water as well as to the reduction of sickness absences in schools. The production and the dissemination of the flasks of chlorine will be done by social entrepreneurs who ensure the quality of the product, its regular use and the hygiene consciousness.





**Vertical Shaft Brick Kiln (VSKB) – Népal:** This project aims at improving the access to safe drinking water for workers and their families in four brickyards in the valley of Kathmandu. The collected data shows that the productivity of the workers is impaired by waterborne diseases. The objective is to get to a win-win situation between the workers and entrepreneurs.

**Development Alternatives (DA) – India:** The aim of this project is to provide safe water systems to ten slums of New Delhi through the sale of chlorine produced by social entrepreneurs. The chlorine will be injected directly into the containers with water of the households. This project is combined with a large awareness-raising campaign among the communities.

**Centre for Mass Education in Science – Bangladesh:** The production of chlorine will be realised by trained disadvantaged young women who will be responsible for the promotion of hygiene and the sale of chlorine. This activity should generate a stable income for these women.

## Stand in Chambery, 19. - 20. March

As a contribution to the World Water Day, Antenna Technologies will present its WATASOL activities at "Spring Water", an event organised by Hydrauliques Sans Frontières.

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