## Naiade produces drinking water world-wide

Nedap is a leading company in the field of electronics in the Netherlands. Based in Groenlo, engineers and technicians constantly develop and produce, next to a lot of other applications, high tech power supplies for water treatment plants.

During their world-wide trips, they focused many cities, in which a substantial part of the population was unable to obtain reliable drinking water for prices which were conforming to their daily income. It motivated them to develop and design a state-of-the-art water disinfection unit, which could operate 24 hours a day and would be independent from the electrical grid.



## At the beginning of 2004, their efforts gave birth to the Naiade.

The Naiade, named after an old-Germanic water ferry, is a compact water disinfection unit, powered by a solar panel. The unit can handle up to 3,000 litres of water per day, hence fulfilling the needs of up to 400 people.

After taking the water from any sweet water source, the user simply pours the water into the container. The water passes a sieve, which takes out coarse materials, like leaves, small pieces of wood etc., passes two filter bags, the last one being just 10 micron, to remove worm eggs, colloidal parts and equal and then passes a tube, which holds a UV lamp.

Since UV inactivates bacteria, protozoa and viruses, the unit can produce potable water, which fulfils the high WHO standards for drinking water. A reduction of log 3 is standard, but even reductions of log 4 are not seldom been measured in the field. This means a kill-rate of 99,99 %! It all takes only seconds, since it is a full flowthrough system. There is no need for chemicals and the water can be drunk immediately after it comes out of the tap.

Due to the fact that the unit is powered by an integrated solar panel, is completely pre-



assembled and easy to install at the spot, Nedap N.V. has enabled even the most remote areas to disinfect water from any source, without making the users depended on fossil fuel

For use during the dark hours, the unit has been fitted with an integrated (car) battery



with an appropriate charging circuit. High tech controls in the system avoid misuse or the delivery of off-standard drinking water, thus avoiding the production of untreated, hence sickening water.

This kind of technology helps the rural population to improve their sanitation standards with high tech for prices less than two euro per person per year. Being a community device, it will keep upright the daily chats between its users, since it is located next to the spot where they gather to pick up their daily water amount. Maintenance is reduced to the cleaning of the re-usable filterbags and an every nowand-then cleaning of the glass tube, which holds the UV lamp. Experience in many countries in Africa, South America and Asia has shown that this even can be done by non-technicians.



## Contact

Nedap Naiade team Phone: +31 (0) 544 471 899 E-mail: info@naiade.com Internet: www.nedapnaiade.com