



1 014
SOLVATTEN

SAFE WATER TO
5 700
PEOPLE

43 000
CUBIC METRES OF CLEAN
AND WARM WATER

2020-2021

**PROJECT REPORT
SOLVATTEN TO UGANDA**

May 2021

A collaboration between Solvatten
and Investment AB Latour



Water, people och planet

Trees play a critical role for the natural fresh water supply in the world. Prosperous forests have the ability to filter and regulate water in the earth's groundwater reservoirs, while also influencing rainfalls and protecting us from droughts and floods. These so called eco system services, are depended-upon by humans and all other species for survival.

In Uganda, where half of the population lives without access to safe water at home, 90% of the rural households primarily use firewood from their surrounding vegetation to cover their energy needs. The majority of this energy is used for treating, heating and boiling water. Even though protection of forests and vegetation can in fact improve societies' access to water, the deforestation rate continues to increase as a result of competing interests and humans' dependence on the forest for as a source of energy for their most primary needs.

When trees are cut down for firewood, not only does their ability to absorb carbon dioxide from the atmosphere vanish - the burning of biomass also release the carbon dioxide that the tree has so far managed to store, which speeds up the global warming.

It also has negative effects on biodiversity, and the local resilience. Humans are an interconnected part of this socio ecological system, and already millions of people are affected by our changing climate. To disrupt this negative pattern and promote a more sustainable development, we need simple, smart and innovate solutions adjusted to local needs and behaviour.

Solvatten as a solution

Today, 2 billion people live without access to safe water at home. This has negative effects on health, equality, environment and peoples' ability to work their way out of poverty.

Solvatten is a Swedish innovation that treats and heats water by using nothing but solar. This combination gives people access to safe drinking water, as well as warm water for cooking and hygiene. This decreases the risk of attracting water and hygiene-related diseases, such as typhoid, cholera, and skin and eye infections.

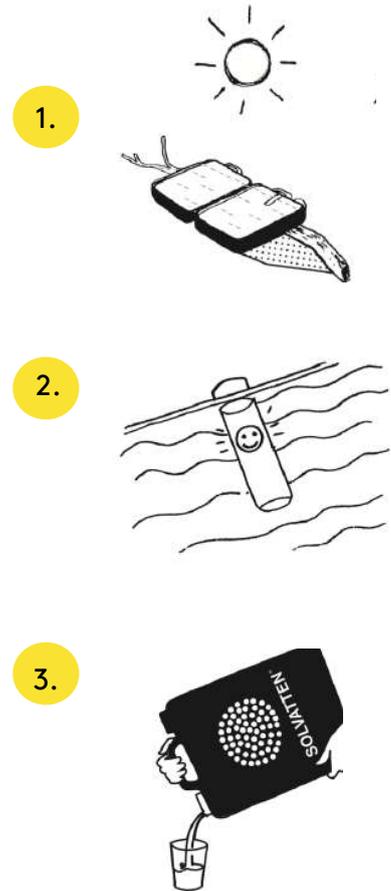
Solvatten was invented by a women, for women, and is specially designed for off-grid use. Today, more than 400 000 people use Solvatten to improve their living conditions.

How does Solvatten work?

Solvatten is a combined portable water treatment and water heating technology, that uses nothing but the power of the sun. No batterier or chemicals needed! The container has two attached parts that holds 5 litres of water each, and includes one transparent surface that lets through the sun's UV light.

To use Solvatten, one fills up both parts of the container with dirty water. Solvatten opens up like a book towards the sun, and the magic process begins. The combination of thermal heat - meaning direct heat from the sun - together with the exposure of UV light, makes bacteria, viruses and parasites harmless. As the heat makes the microorganism's cell membrane fragile, the UV rays can easily come through and destroy the cell's DNA linkages.

When the water has been exposed to enough heat and UV light, the indicator switches from a red, sad smiley to a happy green one. The result meets WHO's highest level for safe drinking water and reaches a temperature of +55 °C. The water can either be placed in the shade to cool off or be poured into a thermos to keep it hot and use it for cooking, hand washing or other hygiene purposes later on. This enables valuable energy savings. In sunny climates, families use their Solvatten 2-3 times per day on average, giving them 20-30 liters of safe and warm water every day.





A family in Kamuli shows off their Solvatten in the process of treating and heating water under the morning sun.



Together for Agenda 2030

Since 2018, Investment AB Latour and its' wholly-owned operations have given 3288 families in Burkina Faso and Uganda access to safe and warm water from Solvatten. The collaboration has enabled improved living conditions and decreased the need of burning biomass equal to 800 hectares of forest, by replacing these fuels with sustainable solar energy. This has resulted in better socio-economic conditions, while also enabling families to save fuel and protect their local environment.

This year's project in Uganda, to which you donated 1014 Solvatten, is implemented through our partners PLAN International, UNHCR and International Aid Services. Within their program locations, these organizations make sure that your support reaches the most vulnerable families in need of Solvatten.

Thank you for making it possible!

Latour's 2020 contribution enables:

Number of Solvatten	1 014
People reached	5 700
Decreased number of sick days	320 000 days
Trees saved	50 000 trees
Amount of water treated and heated by the sun	43 000 cubic metres

Based on Solvatten's 7 year long lifespan



Solvatten Facts

Did you know that women and girls in Sub-Saharan countries together spend more than 40 billion of hours per year collecting water and firewood?

The value of warm water and energy savings

In the Barjere village north of Uganda, 61-year old Mariana lives with her husband, their two adult children and 12 grandchildren. All of the children go to school, except for the youngest one and Brian who is 15 years old and suffer from the neurological disease Nodding Disease Syndrome. While the other children are at school and their parents at work, Mariana helps to take care of the baby and Brian, who both require constant attention. She also takes care of the family's small-scale farming and various household chores.

To ease Mariana's daily life and improve the children's health, the large family was selected to receive a Solvatten about one year ago. Since then, Mariana has noticed plenty of positive changes. The safe, warm water is used for cold and warm drinking, to make bread and to mix formula for the youngest one. Most days they also have enough warm water for hygiene and cooking ugali. Previously, the family used 10 bundles of firewood per week for these chores.

Today, their use of fuelwood is down to 2 bundles per week - an amazing saving! By letting the sun do most of the work, it now only takes about 5 minutes over the fire to make the pre-heated water boil, which saves both time and energy. In addition, their expenses for medical treatments have decreased by 60 000 UGX, equal to 15 USD, every week - a valuable margin for a family living on short resources.

Mariana explains that when a relative passed away in November last year, they treated water in Solvatten to offer the mourners safe drinking water - something that she was very glad to be able to provide them with.

Mariana bathes her youngest grandchild in safe, warm water.



“

Solvatten has helped me save energy - partly the firewood, but also my own strength to take care of chores and the children.

- Mariana



“

We need safe water on a daily basis - for drinking and washing our hands and surfaces. Otherwise diseases tend to spread so quickly.

- Scovia



Sunshine Story

Safe drinking and hand washing

Wilber is nine years old and lives in Kamuli, eastern Uganda, together with his siblings and his mother Scovia. The family provide for themselves through small-scale agriculture, where they grow maize, beans, sweet potato and cassava. They eat most of it themselves, while a small share is sold at the local food market to cover other expenses, such as school fees and health care.

The closest well is located three kilometres from their home, so every day at least two people spend more than an hour collecting water. At times, the water in the well gets contaminated by harmful bacteria and other micro-organisms which increase their risk of falling ill.

In March 2020, when Covid-19 started to spread within the country, the family was advised to install a so called “Tippy” tap” - a simple hand washing station which is not dependent on piped water. Instead, the families fill it with water they have available. The increased need of hand washing meant more time spent on collecting water, so instead of going to the well, they started collecting water from the river closer to their home.

“One day we were invited to a workshop to learn about safe water and hygiene, and they introduced us to Solvatten. We were considered one of the families in special need of one and brought one home as a gift in kind. Since then, we have used it every day to treat and heat water from the river nearby. This has made our daily life so much easier and safer!” - Scovia.

Wilber and his siblings help their mother by filling Solvatten with water every morning. When they come home from school for lunch break the safe, warm water is available for cooking and rehydrating. Before going back to school they fill it up one more time, so that more water is ready in the evening when it’s time for dinner and washing!



Sunshine Story

Healthy, happy and proud children

Kampi and her husband Katumba live with their five children in the Buyende in Uganda. Their closest well is shared among three villages and provides more than 600 people with water every day. The high pressure on the well causes frequent damages that requires repairs. Meanwhile, the family depends on water from open sources which often have high levels of microbiological contamination, as they are shared with cattle.

As a result, the children used to fall ill and miss school days. Medical treatments for stomach illnesses cost the family about 3 dollar every week, which strained their economy. To improve their health and living conditions the family was prioritized within PLAN International's Solvatten program. Kampi and Katumba were invited to a workshop about water, health and hygiene before receiving their Solvatten and bringing it home.

Since then, a lot has changed! Instead of using the crowded well, they collect water from a stream closer to their home - but now without attracting diseases since they treat and heat the water in their Solvatten. Kampi says that Solvatten saves her time as well, since it has made her husband more interested in contributing to the household chores. Now, he gladly helps to fill Solvatten with dirty water, and pour it into their container once it's treated and heated. The whole family is very proud of their Solvatten, and they often offer their neighbours safe drinking water when they have some litres to spare!



Thank you for helping me to save time, and for giving us a tool to keep the children healthy!

- Kampi

