

PROJECT REPORT

March 2022

Solvatten
with Greencarrier

72
SOLVATTEN

SAFE WATER TO
400
PEOPLE IN
KENYA

TREES SAVED
5000



Kenya in times of climate change

Four-fifths of all ecological systems on earth are already affected to some extent by climate change. Consequences of this include drought. Acute water shortages are an increasingly widespread problem. In 2021, large parts of Kenya received 30-50% less rain than normal. The cumulative effect of two consecutive poor rainy seasons, together with the Covid 19 pandemic, vermin and diseases, has led to more families falling into poverty. This is especially true in the arid part of Kenya, for example Marsabit, where ChildFund Kenya runs one of its Solvatten projects.

Deforestation has long been a problem in Kenya. When the country became independent in 1963, 10% of the country was covered by forest. In 2009, this figure had fallen to 6% as a result of charcoal and timber production, agricultural expansion, unregulated felling and urbanization. Between 2001 and 2020, Kenya lost 361 kha of trees, corresponding to 176 Mt of CO₂ emissions, which can be compared with the annual emissions from all of Europe's food waste. Many of Kenya's rural communities depend on firewood to heat their homes and cook food. Not only has this exacerbated climate change, it has also had a number of other devastating effects, including soil erosion, increased floods and dramatically reduced access to fresh water during droughts.

"Together for our planet" was the theme for the 2021 COP26 in Glasgow, where the countries managed to agree on several

important decisions, including adding articles on coal power and climate-damaging subsidies. However, it is clear that more radical changes are needed if we are to succeed in the goal of keeping the global average temperature rise below 1.5 degrees and create climate justice in the world. The IPCC's latest report states that the impact of climate change on people, societies and ecosystems is becoming increasingly clear. The next few years are crucial for the world to succeed in avoiding the most catastrophic effects of climate change.

41% of Kenya's population does not have access to clean drinking water. Since the year 2000, supply has increased by 12 percent as the country has made great progress in the expansion of water-related infrastructure. Kenya, however, is struggling with an uneven distribution of available water across the country and varying rainfall that results in frequent droughts and floods where families in rural areas are hit extra hard. The Covid 19 pandemic has demonstrated the importance of access to clean water, hygiene and water resource management as an investment in preventing and controlling diseases. Access to clean and warm water at home is a first step in reaching real change. Thanks to your contribution, Solvatten can be a vital part of many Kenyan households.

Climate benefit with Solvatten

Solvatten is a solution for cleaning and heating water in an environmentally friendly way. All that is needed for Solvatten to work is sunlight and the container lasts for many years. That makes the solution very cost-effective per liters of clean and warm water.

In a low-income country like Kenya, the shortage of proper infrastructure and electricity leads people to clean and heat their drinking water with the help of coal or wood. When deforestation occurs, and the ecosystem degrades, that causes harmful effects on people, society, the environment and the climate.

Solvatten is a solution that reduces the daily use of wood and coal by up to 50%. Furthermore, trees can remain to continue to bind carbon dioxide. This enables people to save time, money and at the same time, the conditions of the climate are improving, along with personal hygiene and global health.

To obtain complete climate justice, it is important not to neglect the ethical aspect of climate change. Climate compensation through Solvatten reduces the emissions of carbon dioxide and also creates better living conditions for some of the people already affected by the devastating results of climate change.



Solvatten, IAS & Childfund Kenya

International Aid Service (IAS) has been an implementing partner for many years in Solvatten's climate project in Kenya. We have primarily worked together in Tharaka-Nithi County, where the climate is dry, and the water conditions are challenging. In previous years, the areas of Wajir and Tana River, where IAS also operates, took part in the Solvatten project after being affected by floods and cholera outbreaks. This year, the collaboration with IAS has once again included the Wajir area and the new site Kilifi.

Solvatten has, together with Barnfonden and their partner on site, ChildFund Kenya, run several successful projects, and this year, we included them as a partner for Solvatten's climate project. Therefore, a share of your company's climate benefit has gone to ChildFund's project in Samburu and Marsabit in northern Kenya. The areas are among the sunniest places in Kenya, and the results have already shown there is a high frequency of users with improved living conditions for families.

Under the Sunshine Stories you will find stories from some of the families in Tharaka and Marsabit.

The climate threat knows no borders and it is only with joint efforts that we can find sustainable solutions to curb development. In developing sustainability and climate justice we need ethics, innovation, risk assessment and priorities to go hand in hand. From the very beginning, Solvatten's founder Petra Wadström was convinced that a Solvatten container would not only provide clean and warm water, but also be designed as environmentally friendly as possible. Therefore, each component of Solvatten has undergone a careful assessment in the choice of the material it consists of.

Solvatten works long-term and is recyclable the day it is no longer being used. Solvatten has a sustainable production and contributes to a renewable transition that affects both people and the environment.

The Covid 19 pandemic and the Ukraine crisis have led to changing needs and new consumption behaviours. Energy prices have risen by almost 20%, which unfortunately hits hard on already vulnerable groups, but also the environment as more people are forced to return to using coal and wood as a form of energy.

We all need to create activities that can meet today's and tomorrow's requirements without jeopardising the resources of the future. World leaders agree that we need to come up with sustainable solutions that can minimise carbon dioxide emissions. Solvatten is a concrete contribution to this. Together with you, we come closer to a sustainable world for all.

Greencarrier's contribution for 2021:

Number of Solvatten	72
People who have gained access to clean and warm water	400
Reduction in the number of sick days	20 000 days
Trees that are saved	5 000 trees
Liters of water that can be purified and heated using solar energy	3 million liters
CO2 that is not emitted	504 tons





Sunshine stories

The Marsabit area, located in the northern part of Kenya, has been particularly exposed to the drought that has hit the country for the past two years. Solvatten's partner, ChildFund Kenya, testifies that more people have ended up in poverty as small-scale agriculture and animal husbandry have been hampered by water shortages.

Jibril is a three-year-old happy and playful boy who lives in Maikona, a village in the countryside of Marsabit, with his father, mother, grandmother and sister. The family supports itself on 3 goats. They say that the recent past has been difficult due to drought and poor livestock market. The family picks up water from a shallow well or school borehole.

Jibril's mother, Bokayo, says that Solvatten has been a great help to the family. She usually cleans 10-30 liters of water per day which is used for tea, cooking, bathing the children, meeting the family's need for drinking water and for hand washing. She saves the purified water in another container so that the family will always have access to clean water.



We are so grateful to have had access to Solvatten. Our family's health and finances have improved. Solvatten has changed our lives. - Bokayo.



James is 9 years old and lives with his sister and mother in Karare, Marsabit. His mother, Robeya, works as a maid and looks after a couple of goats. They fetch water from a pond some distance from the home. Because they have limited opportunities to collect firewood, they have previously had many waterborne diseases in the family. Robeya says that Solvatten has simplified life and everyday chores, which she is very happy about. She also mentions that Solvatten plays a role in her family's improved health as they have fewer water-related diseases such as diarrhea, typhoid and cholera since they started using it.

On sunny days, the family uses Solvatten twice a day, which they use to wash, drink and cook. Thanks to Solvatten, the family saves firewood, which is also difficult to obtain in the area as the use of the forest in Marsabit has been limited due to uncertainty and deforestation.



Solvatten has simplified life and everyday chores. - Robeya



I am also doing something good for the environment because more trees can remain.
- Agnes

Agnes Kathuure is 38 years old and lives in Twanathanju in Tharaka with her husband and their three children. Agnes says that she has had Solvatten since October 2021. She mainly uses Solvatten to purify and heat the water to meet the family's need for drinking water, as well as cooking, washing dishes and for the family's hygiene.

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Pauline Kaithi from Kamwathu in Tharaka is 43 years old and lives with her husband and their five children in the countryside. Pauline says that in her area they can only fetch water from a muddy pond, which is not suitable for drinking.

Previously, she therefore boiled the water daily with wood and coal. Since she received her Solvatten in March 2020, she uses it to purify and heat the water, which the family then drinks and uses for cooking, washing dishes and hand washing. Through this, she has reduced the family's expenses because they no longer buy as much firewood and coal and spend less money on healthcare.



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I am grateful to IAS Kenya who have selected Tharaka for the Solvatten project. I hope more families will have access to Solvatten. - Pauline