
ONE COOKSTOVE SAVES TREES,
HUNDREDS SAVE FORESTS.
IN KENYA
CO2logic™
Credible Climate Action
CO2logic.com

IN A FEW WORDS

PROTECTING NATURE WHILE HELPING FAMILIES.

The simple task of daily cooking has a big impact on the most vulnerable communities across Kenya. They have to spend a significant portion of their income on fuel wood (about 20%) and when there is no more budget, women are traditionally responsible for its collection, which make them waste a lot of precious time.

Wood supplies around villages are often exhausted, forcing them to go deeper into the forest. Traditional cookstoves or open fires are also a major health issue, causing respiratory diseases as well as burn injuries, especially among children.

IN KENYA

ISSUE N°1

The collection of firewood results in the exhaustion of wood supplies around townships and villages in Kenya. Many people are forced to travel further and further to collect fuel wood. In the worst cases, mothers are away from home for many hours, which is a real problem for the care of their children and nursing infants. Often, girls are also tasked with collecting firewood, a responsibility which can keep prevent them from attending school and increases the risks of school drop out. Promoting female empowerment is an important part of the Project.

ISSUE N°2

As traditional cookstoves don't fully combust the biomass, up to 75% of the heat is lost, and the process releases substances hazardous to human health including carbon monoxide, nitrous oxides, particulate matter and black carbon. According to the World Health Organisation (WHO), the indoor smoke from biomass ranks in the top 10 risk factors for the global burden of disease.

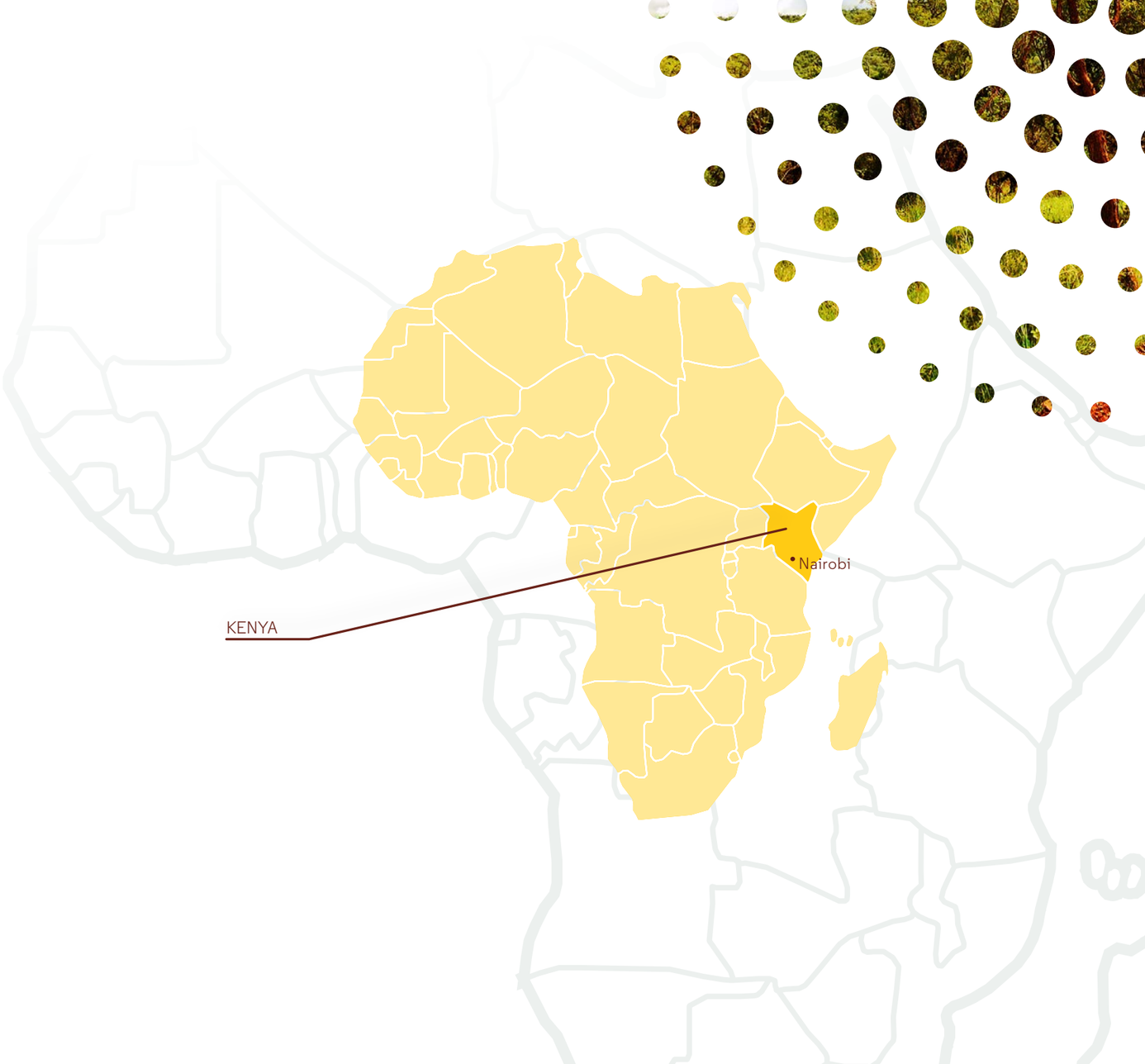
ISSUE N°3

Kenya's five montane forests, called "water towers" because of their ability to store water during the rainy season and release it slowly during dry periods, provide 75% of fresh water supplies to the population. More and more hectares of forest are lost every year from these water towers, leading to reduced water availability of millions cubic meters per year.

KENYA
26 338 km²

48% Agriculture
2% Water
6% Forest
44% Other

An efficient cookstove can cut down the daily fuel consumed and thus necessitating fewer trips to collect fuel and less money spent on charcoal. These stoves also produce less smoke resulting in cleaner air. At last, the reduced demand for charcoal will also reduce deforestation.



HOW DOES IT WORK?

REVOLUTIONIZING THE COOKSTOVE INDUSTRY

8 DECENT WORK AND ECONOMIC GROWTH

BUILDING MORE EFFICIENT, SUSTAINABLE COOKSTOVES AND MAKING THEM EASILY AVAILABLE TO THE LOCAL POPULATION.

The Project's objectives are to manufacture efficient cookstoves and in order to reach a wide range of Kenyans with the most appropriate technology, the project leverages carbon finance to support the sale and distribution of stoves to households. The stoves have higher efficiencies compared to traditional stoves commonly used in the country.

The improved stoves are charcoal stoves featuring a refractory metal combustion chamber backed by abrasion resistant, lightweight ceramic insulation. This combination increases durability, efficiency and safety of the stove.

These cookstoves reduce fuel consumption and therefore reduce greenhouse gas emissions. A typical household uses about 2kg less charcoal per day compared to their old cooking methods. Cooking time is also reduced by half.

There is a big brand awareness of the cookstoves in Kenya, as this Project is from and for the local people : 99% of the users stated they would recommend the cookstove to friends and family.

IMPROVED HEALTH AND WELL-BEING

By emitting less smoke and allowing the air to circulate better, the use of efficient cookstoves reduces respiratory diseases and significantly improves health. The efficient cookstoves reduce the amount of wood necessary by half, saving a lot of time for women who can now spend more time with their children and for young girls who now get a chance to go to school.

PROTECTING THE ENVIRONMENT

When there is less need for wood or charcoal, the pressure on the forests of Kenya decreases. These forests are essential to be protected as they provide valuable ecosystem services to the local population : climate regulation, water regulation, protection against soil erosion, etc. Forests are also important in terms of biodiversity and carbon sequestration.

ECONOMIC SUSTAINABILITY

The cookstove supply chain is completely located in Kenya, providing sustainable jobs to the local population, from which more than half are women. The transition to efficient cookstoves reduces the budget allocated to fuelwood and therefore has a positive effect on the poverty rate and people's well-being. The savings are used for critical expenditures to improve quality of life, such as household items and school fees.

IMPROVED HEALTH AND WELL-BEING

HOW A COOKSTOVE CAN IMPROVE DAILY LIFE

Improved stoves are more efficient and less energy consuming compared to charcoal pots, the traditional stoves most commonly used in Kenya. The stoves burn faster and emit less smoke and particulate matter. The use of the efficient cookstoves for cooking therefore leads to a better indoor air quality. Particulate matter and carbon monoxide decrease by 63% and 65% respectively, resulting in a reduction of respiratory diseases, headache and itchy eyes. Children are particularly vulnerable to toxic fumes and are protected through the use of the improved cookstoves. The stoves are also safer to use, which results in less burn injuries or damage to houses by fires.

Women, who now have to spend less time cooking or collecting fuel, experience a huge time gain. This allows them to devote more time to their children or any other activity.

3 GOOD HEALTH AND WELL-BEING

13 CLIMATE ACTION

PROTECTING THE ENVIRONMENT

LOWER CO_2 EMISSIONS AND PROTECTED ECO-SYSTEMS.

Deforestation in Kenya is linked to the production of charcoal. With a fast-growing population, the charcoal demand is rising, putting more pressure on the forests that are not capable of regenerating fast enough. In a poor country like Kenya, the cheapest and most efficient way to mitigate the harmful effects of climate change is to have lots of trees. Trees absorb excess carbon dioxide and other harmful gases from the atmosphere.

The improved cookstoves require much less charcoal and thus help avoiding further environmental damage. The lower fuel consumption of the cookstoves also help in lowering greenhouse gasses in the atmosphere on a local and global scale.

Over a year, a cookstove saves around 1,2 tonne of wood compared to traditional stoves. This avoids around 1,4 tonne of CO_2 per year, which corresponds to around almost 13 fully grown trees.

A well-designed, efficient cookstove will reduce fuel use

↓

by approximately 50%

↓

while reducing toxic emissions by up to 70%

ECONOMIC

EVERYONE BENEFITS FROM THE COOKSTOVES

In some areas of the country, charcoal can be scarce and expensive to buy. The Project therefore aims to increase the access to energy at minimal cost. Families converting to an efficient cookstove save around 40% of their fuel budget. These savings will then be available to the households for alternative use. When asked how they spend their savings, it shows that:

53%
Buys more food

23%
Pays more school fees

15%
Buys more household items such as soap or clothing

Since the efficient cookstoves are produced and sold in Kenya, the Project activity has created employment across the stove supply chain from manufacturing, distribution to the sales of the stoves.

The manufacturing facility in Ruiru, in the North on Nairobi employs 400 people. In addition, its operations have created more than 200 jobs for sales, marketing, distribution and monitoring staff. Continuous training results in permanent knowledge transferred to local people. The business is sustainable, profitable and keeps growing.

IMPACTS OF THE PROJECTS

Gold Standard for the Global Goals

The Gold Standard certification body checks the impact of the Project throughout its lifespan, in terms of greenhouse gas emission reduction and also several other benefits. In order to do so, a lot of data has to be collected on the spot, such as, the amount of cookstoves distributed, the hectares of forests saved, the number of people positively impacted, etc. This data is collected by independent researchers, according to specific criteria defined by the Gold Standard.

Each level of the Project allows important CO_2 reductions & creates many positive outcomes for the local population, all in line with the United Nations Sustainable Development Goals.

13 CLIMATE ACTION

8 DECENT WORK AND ECONOMIC GROWTH

CLIMATE IMPROVEMENT

- Generating carbon credits
- Reduction of carbon emissions

ETHICAL BUSINESS

- Job opportunities to local people
- Money saving for families
- Supply chain fully in Kenya

CLIMATE

ECONOMY

PRESERVATION

HEALTH

NATURE PRESERVATION

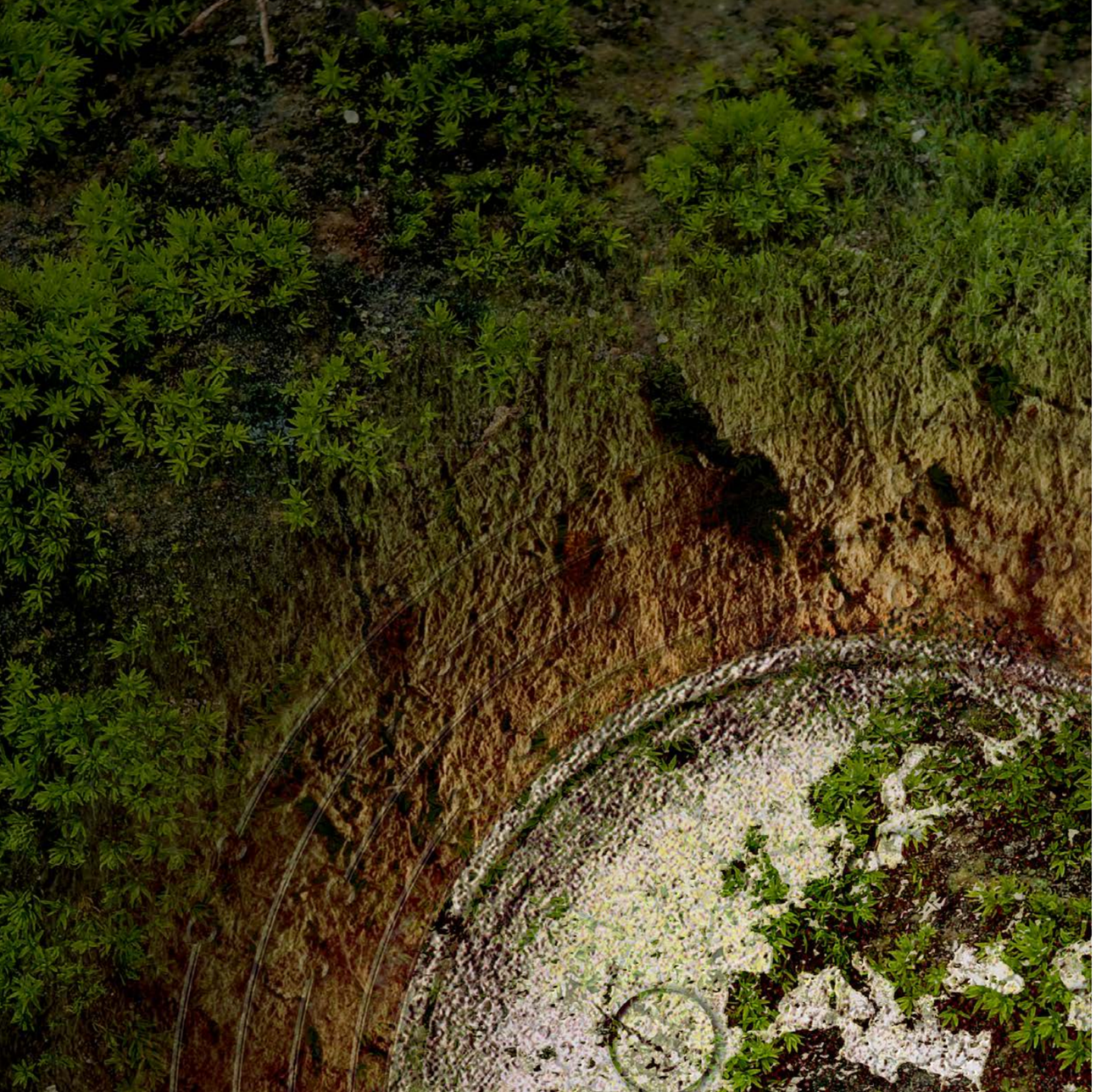
- Nature preservation
- Fewer forest cleared for fuel
- Protecting biodiversity and ecosystem

LIVELIHOODS

- Better life conditions
- Reduction of household air pollution
- More time for women and families
- Chance for girls to attend school
- Reduce risk of burn

3 GOOD HEALTH AND WELL-BEING

1 NO POVERTY



CLIMATE ACTION

“HOW CAN WE REDUCE OUR CLIMATE IMPACT AND THAT OF OTHERS?”

This is the first question the team of CO2logic asked themselves, back in 2004.

There are often limits to the CO_2 emissions that can currently be reduced, and each remaining tonne of CO_2 has a high cost for society & future generations. At CO2logic we firmly believe that future generations are not responsible for these “climate disruption costs”. That’s why CO2logic supports companies and organisations in reducing and offsetting their impact on climate & the environment: by supporting & developing climate projects that generate carbon credits. This is the way to give back and restore the balance.

A WORD FROM ANTOINE GEERINCKX, FOUNDER OF CO2LOGIC

“There is only one atmosphere and there are no borders for CO_2 emissions. Our climate projects help in avoiding deforestation through education, collaboration, energy efficiency, fuel switch, renewable energy, reforestation, access to clean water. We act to improve the livelihood of local people while addressing the global climate breakdown. We are all interconnected.”


CO2logic™
Credible Climate Action
CO2logic.com
VINCOTTE VALIDATED
CO2
NEUTRAL
BROCHURE
CO2logic CERTIFIED