Efficient Cook Stoves save Habitat for the last of the Mountain Gorillas

There are only around 1,000 mountain gorillas left in the wild, 600 of which are in the Virunga mountains (May 2018).

A reduction in the use of firewood means habitat for animals, less deforestation, reduction in greenhouse gases being released into the atmosphere, more time and money, and improved health for women and girls in Rwanda! This can be achieved with the subsidised sale of energy efficient cook stoves to families around the Volcanoes National Park in North-West Rwanda.

170 EUR saved per year
8,186 efficient stoves installed
200 ha of rainforest saved

Rwanda – the land of a thousand hills – is Africa’s most densely populated country. The ever increasing use of wood by the growing population, not least due to migration from the already deforested regions, is jeopardising the unique rainforest ecosystem. The population of Virunga mountain gorillas, made famous largely by Dian Fossey, which live in the mountain cloud forests of the Virunga volcano, located in the Volcanoes National Park in the North West of Rwanda, are critically endangered due to the...
deforestation.

The answer to the intensive use of wood for cooking is optimising the burning process. myclimate project partner Likano has therefore been developing a locally producible, efficient cook stove model in collaboration with the local population which uses two thirds less firewood than the conventional open three-stone fireplaces. The project aims to reduce the demand for firewood from the families who live around the national park by up to 70 percent with 50,000 efficient cook stoves. This will not only ensure that the habitat of the mountain gorillas is preserved, but will also absorb CO₂ which would otherwise make its way into the atmosphere through burning.

In addition to protecting mountain gorillas and the CO₂ savings, the project is also changing the lives of women and girls especially. They will spend far less time and money procuring firewood – work which has traditionally been the domain of women. Thanks to the more efficient burning, they are also less exposed to the harmful soot particles from the open fires.

There is less smoke gas in the huts now. My eyes are no longer red and my lungs are no longer aggravated. I am only paying 50 Rwandan francs (approx. 5 euro cent) per day for firewood - a sixth of what I was previously paying.

Ancille Mukasine, Kabatwa, Nyabihu District, Rwanda

The efficient cook stove reduces the cooking time by half. Families therefore gain at least an hour a day which is available for farming and other activities. Everything needs to be done during daylight hours. Most people living in the huts around the national park do not have electrical lighting.

A huge advantage of the new cook stove is the time saving it provides. I can now weave baskets and sell them in my own shop.

Felicité Muragijimana, Rwanda

The principal part of the stove is a clay cylinder, which acts as a chimney, providing good burning. A special insulation mixture made from local available clay and coffee husk residues in the core stores the heat. A sturdy metal covering protects the outside of the stove and its heavy weight of more than 20 kilos is the basis for its long life. The coffee husk residues are purchased from the coffee farmers in the region and offer them an additional income.

Providing my people with a sustainable improvement to their daily life and at the same time protecting the fragile ecosystem, the home of the mountain gorillas, makes me very proud.

Faustin Ngirabakunzi, Local Project Manager

Felicité Muragijimana sells her home-made woven baskets to earn an additional income.

While searching for firewood, the boundaries between the national park and the surrounding settlements are crossed every day.
This project considers itself to be an extension to the governmental and NGO protection measures to help the rain forests. Money from the CO₂ offsetting is being used for the local production of the stoves and their subsidised sale to households. Regular visits to the families represent the basis for optimal use.

The close partnership with the IGCP (International Gorilla Conservation Program) provides a focus for protecting the mountain gorillas on an annual basis. This includes, for example, training the rangers, awareness programmes or repair works to the stone walls which mark the boundary of the Volcanoes National Park.

This project contributes to 10 SDGs:

1. **No Poverty**
   - Households save on average EUR 170 per year on firewood.

2. **Good Health and Well-being**
   - More than 48,800 people benefit from better health and quality of life as flue gas can lead to respiratory diseases.

3. **Quality Education**
   - One household saves one hour per day during which, for example, children can do homework.

4. **Gender Equality**
   - Women save one hour per day in the procurement of firewood, during which additional income can be earned.

5. **Affordable and Clean Energy**
   - 8,186 efficient subsidised stoves have been sold so far.

6. **Decent Work and Economic Growth**
   - 34 local jobs have been created to date.

7. **Responsible Consumption and Production**
   - The stoves are made of locally sourced, recyclable materials.

8. **Climate Action**
   - 60,000 tonnes of CO₂ are avoided every year.
To date, 40,458 tonnes of wood have been spared, saving over 200 hectares of forest from deforestation, which protects the habitat of many endemic animal and plant species.

The project reflects a strong North-South collaboration.