

Back to the Green Island with Efficient and Solar Stoves in Madagascar



Benjamin Rakotovaomanana on completion of a clay combustion chamber for schools. Photo: Angela Zimmermann

In order to reduce CO₂ and counter the rapid deforestation on Madagascar, myclimate supports the manufacture and distribution of efficient cookers and climate-friendly solar cookers. The sensibilisation of pupils about environmental protection and climate friendly cooking as well as the reforestation of two seedlings per cook stove sold are part of that project.



100,000

pupils and teachers sensibilised



1.6 mio

beneficiaries



550,000

trees planted

The Swiss-Madagascan organization ADES (Association pour le Développement de l'Energy Solaire) has been producing solar cookers in Madagascar since 2002 and selling them at a reduced price to local households. Since 2010, the project has expanded its activities to the entire island and included also efficient cook stove models that perfectly complement the use of solar cookers if the sun is not shining. Today ADES offers a portfolio of nine different solar and efficient cook stove models for

Project type:

Efficient cook stoves , Solar

Project location:

Madagascar

Project status:

In operation, credits available

Annual CO₂ reduction:

269,621 t

Situation without project

Higher consumption of non-renewable firewood and charcoal

Awards



Prix solaire suisse
Schweizer Solarpreis



Project standard

Gold Standard®

VER

Impressions

households as well as for institutional and commercial clients such as schools, children's homes and hospitals. The project operates stove production and distribution centres all over the island to serve customers all over Madagascar. Meanwhile, three camions are on the road as mobile promotions and information centres in predominantly rural areas in northern Madagascar. The remote Sava Region in the north of Madagascar has also been supplied since 2021. It is known as a global centre for the cultivation of vanilla. Since transportation to the region by land is very difficult, the stoves are transported from Tamatave to Antalaha and Vohémar by sea and from there distributed within the region using one of three lorries.

Today, we learned how a forest is created, and what kinds of plants and animals live in our forests. It was exciting and I would like to learn a lot more.

Nomenjanahary Faravavy, a pupil in year six in Besinjaky

ADES is currently setting up various events to increase the population's awareness of environmental and health protection, eating healthily and fuel-efficient cooking. With an innovative environmental education programme, ADES is bringing school children and their teachers closer to their native flora and fauna and motivating them to act in an environmentally friendly way.

The climate-friendly cookers save up to 50 per cent of charcoal or firewood consumption resulting in valuable monetary savings for the household's budget or time savings and less frequent gathering of firewood. Especially women and children benefit from the zero-emission solar cookers or cleaner combustion of efficient cookers due to less exposure to smoke during cooking. The dissemination of efficient and solar cook stoves is an effective means to combat the quickly advancing deforestation in Madagascar and to reduce CO₂ emissions from the use of non-renewable biomass. Additionally, ADES finances two trees for reforestation each time a cook stove gets sold.

I have planted more than 6000 trees in the last five years. I am proud of that.

Rasoha, Samovo local association (partner NGO Voiala)

The solar cookers are ideal to prepare traditional Madagascan food such as rice, corn, manioc, meat soup or chicken. However, this new way of cooking requires a change of cooking habits. For this ADES carries out special training and awareness building programmes to ensure appropriate and convenient use of the solar cooking technology.

Since 2017, biomass briquettes instead of firewood get used for firing the kilns. These so called artemisia briquettes are one meter long, weigh 10 kilograms and are made of the remaining biomass of the production process of antimalarial drugs. Together with the introduction of a semi-industrial production, the energy efficient cook stoves can not only be produced more climate friendly, but also in a more efficient way and in a better quality.



Reforestation in the south of the country: Seedlings need to be watered for three years. Photo: ADES/myclimate



Different types of locally produced stove models are available. Photo: ADES



«We use less charcoal than before.» Luc Rado Rabotoson, project employee, with his wife Eléonore and daughter Alicia. Photo: Angela Zimmermann



Resellers like Francine have an income thanks to reselling the energy efficient cook stoves. Photo: Angela Zimmermann

This project contributes to 10 SDGs:



People benefit from lower fuel expenses. A household saves 23 euros and 462 hours per year.



Mainly women and children benefit from better air quality.



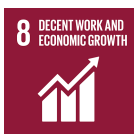
During 896 school visits over 100,000 pupils and teachers have been sensibilised for climate protection and clean cooking.



Especially women and girls have to spend less time collecting fire wood and maintaining the cooking fire.



1.6 million people benefit from efficient and cleaner cooking.



176 permanent employees and various work experience offers. Another 143 jobs with local suppliers and around 100 independent stoves retailers.



9 different stove models are being locally produced with local material.



Each stove saves around 2.4 t CO₂ per year and 2.5 t of firewood or 0.5 t charcoal.



550,000 trees planted



370,000 solar and efficient cook stoves have been produced and sold.