

# Solar Panels for Education and Quality of Life in Ethiopia and Kenya



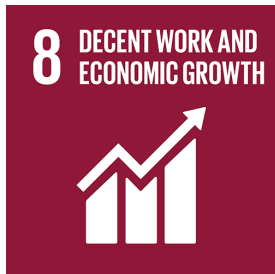
Clean energy for very remote rural households.

The installation of photovoltaic cells on the roofs of Ethiopian and Kenyan houses for electricity production gives families access to lighting and improves the livelihoods of people living in the rural regions of Ethiopia and Kenya. The use of solar lighting instead of kerosene lamps has positive effects on people's health and leads to reductions of greenhouse gas emissions.



**25,810**

**homes benefit**



**250**

**jobs created**



**6.6**

**million liters of kerosene avoided**

The project's objective is to supply a high number of villages with Solar Home Systems to produce electricity for lighting at home. Over 50 per cent of the population in the rural areas of Ethiopia and Kenya does not have access to electricity and therefore experiences numerous limitations at nighttime.

Once the sun sets usually between 6 and 7 o'clock, the only source of light is a dim kerosene lamp producing health-hazardous smoke. Due to

## Project type:

Solar

## Project location:

Ethiopia, Kenya

## Project status:

In operation, credits available

## Annual CO<sub>2</sub> reduction:

13,976 t

## Situation without project

Use of kerosene lamps for lighting

## Project standard

**Gold Standard<sup>®</sup>**

VER

## Awards



## Impressions



Light while cooking and improved indoor air quality.

the lack of light, social time, housework and further any educational activities for the children are restricted in the evening. By substituting the poor kerosene lamps with strong solar powered LED lights, environmental, social and economical benefits can be achieved.

Education and training of local people is a key part of activities of the Solar Energy Foundation. To have well-trained personnel available who is able to professionally install and maintain the Solar Home Systems in Ethiopia and Kenya, the “International Solar Energy School” has been founded. After their graduation, five “Technicians” found a new Solar Center in a village and are responsible for the provision of its inhabitants with Solar Home Systems annually. The first Solar Technicians have graduated in March 2008, since then 10 Solar Centers have been opened and more than 96 solar technicians have been trained. Through this approach, many villages are reached and the know-how is spread around the country.

There are four different kinds of solar products offered differing in their power output and application. The solar lanterns and Solar Home Systems have been adapted and tested to fit the lives in rural Ethiopia and Kenya. To assure that every individual household finds a suitable lighting model for its needs and its financial situation, the small portable solar lanterns are sold directly by cash, where as the Solar Home Systems and other larger systems are sold by cash or credit and may be paid back over a specified period of time. The respective price takes into account the income level and ability to pay of the rural communities.

Have a look at two foto-albums on myclimate-Facebook (first and second one)!

This project contributes to 8 SDGs:



25,810 households have access to appropriate new clean and efficient technology, saving USD 80 and 77 liters of kerosene and USD 42 on mobile charging costs per household per year.



141,696 persons benefit from reduced air pollution from kerosene fumes contributing to improved health



A solar home system increases children’s study time by 2 hours per day and therefore helps to improve school grades. Over 250 women, men and youth trained by the project locally.



The programme empowers women by providing green jobs and encouraging solar-powered businesses run by women. Over 30% of employees are women with equal opportunity to gain skills as men.



Installation of a Solar Home System in the village.



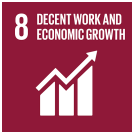
The possibility to read is important for a good education.



Reading in the evening with the LED lamp.



25,810 homes benefit from clean and efficient lighting and energy.



250 locals employed by the project (Kenya and Ethiopia)



A solar home system saves on average 411 kg CO<sub>2</sub> per year.



The project promotes dissemination of sound technologies to developing countries at favorable terms, with over 25,810 systems in Kenya and Ethiopia.