

## ADES from 2001 to 2013

### Purpose of the project activity

The objective of the project is to provide solar cookers and efficient stoves for cooking to people in Madagascar. In this way wood fuel and charcoal consumption can be substantially reduced. In order to convince the people to this new way of cooking, cooking demonstrations, training of women who disseminate the cookers themselves, trainings of school teachers in environmental questions and usage of solar cookers so they can integrate them in their lessons and publicity programs were done. Solar cookers have to be subsidized so that the people can afford them.

ADES has the vision that within 20-40 years a large part of the population in Madagascar is predominantly using solar cookers to prepare their food. Every year an increasing number of stoves will be distributed.

2011 we could sell 6642 cookers (1460 of these were solar cookers). 2012 we distributed 11'580 Stoves. 2013 we distributed 16'952 cookers (1817 were solar cookers). This year we estimate to sell 15'000 to 20'000 units in total.

### Deforestation in Madagascar

For centuries the population of Madagascar has been cooking their food with wood, which requires vast amounts of firewood in the form of charcoal. About 90% of the original forest in Madagascar is destroyed. It is not any more a green island but becomes more and more a red one.

Madagascar has, especially in the South and Southwest of the country, close to ideal conditions for the use of solar energy. The solar cookers and efficient stoves are an important contribution towards halting the deforestation process and thereby preserve the environment since there is no CO<sub>2</sub> emission from using solar cookers. Besides environmental reasons there are also economical and practical reasons to favor the solar cooker. Families spend less money on wood and charcoal and cooking with the solar cooker is hygienic (there is no smoke to cause health problems).

### Results of ADES

ADES started its solar cooking program in Madagascar in 2001 with a small carpentry shop under a party tent, two motivated carpenters and an instructress. Today we operate eight centres with manufacturing facilities, also a new sales point in Antananarivo, the capital and a coordination centre in Tuléar. ADES actually employs more than 160 persons and additionally created about 50 jobs in external enterprises. On average a family of 20 people is living off the salary of one employee.

ADES is a socially sustainable employer. All the children of our employees go to school at our expense and the families are covered by health insurance.

For each solar cooker sold we have two trees planted in a reforestation project in Madagascar.



National coordination centre



Training centre



New production centre



Wood working shop



Metal working shop

## Products

ADES is continuously developing new solar and energy-saving cookers. Actually we are selling the so called box-type cookers, the big solar cookers for schools and the parabolic cookers. In 2 years we developed energy-saving cookers for the economical use of wood or charcoal. There are 3 different sizes available, for pots with diameters of 28, 45 and 60 cm, the largest type aimed primarily at schools, homes, hospitals and so on. But our flagship model is the solar cooker with integrated electric charger, it went on the market end of December 2012. Presumably this fall it will be ready for marketing and we hope that still in this year we will be able to sell about 6 00 units. With this special solar cooker you can cook food and at the same time solar panels mounted on the glass recharge a battery, to which you can connect various devices to recharge or operate, e.g. a lamp, a radio or a cellular phone. In a country where only about 6% of the population have access to electric power, this is an important improvement!



Box solar cooker



Parabolic solar cooker



Box solar cooker with integrated electric charger



Start on the market, 15. Decembre 2015



Big box type unit for schools



Energy saving cookers for wood (left) and charcoal



Energy saving cookers for pot diameters of 28, 45 and 60 cm



This is the future product all made of material from Madagascar

## Sales/Distribution

From every centre instructresses formed by ADES visit neighborhoods, villages or markets in the cities and present the cookers by organizing cooking demonstrations. For the energy saving cookers we could already find a number of retailers. Our products are presented regularly in TV commercials and radio programs. In one region we even have one hour of radio time free of charge at our disposal every week.



Demonstration cooking with solar cookers



## Education

With various education programs of 2 to 6 days we educate and accompany the women who purchased a cooker, about the environment and cooking with solar power. We developed illustrated recipe booklets adapted also for illiterates. We train women, who will pass on their knowledge to others in their villages: this is called „femmes enseignent femmes“ (“women teaching women”).



Formation of women



## Schooling program

Since 2011 ADES has been going to the schools with a teaching program for the education on the environment, consisting of 4 lessons. The teachers are educated partly within their vocational training, or directly in their classes together with the children. It goes without saying, that we also put didactic material at their disposal. Actually there is a pilot project going on in a village, where the big solar cookers for schools are being tested.



School program



## CO<sub>2</sub> emission certificate

We are a tax-exempt non-profit organization; as one of the first solar cooker project we have been registered at the Gold Standard Foundation ([www.cdmgoldstandard.org](http://www.cdmgoldstandard.org) - supported by our project partner, the climate protection organization "myclimate").

Every year ADES undergoes a strict monitoring by external experts. This is done locally by an independent certification organization.

In 2011 about 24'110 tons of CO<sub>2</sub> were compensated thanks to ADES. In 2012 this are about 63'000 tons. In 2013 this are 116'382 tons.



Kitchen test ...



... and monitoring



### **ADES Organization**

We are a Swiss association with a committee and about 50 volunteers here in Switzerland. All work without remuneration. The general manager, her assistant and a fund raiser are employed part-time, together sharing two full-time jobs. The raising of funds is a great part of our work in Switzerland. This year we have a budget of CHF 2.4 Mio (about 2 Mio Euro). Due to the worldwide financial crisis we have great difficulties to reach this target.

(Translatet from German, Hans Wiedemar)

For more information:

### **ADES**

Regula Ochsner, general manager and founder  
Association pour le Développement de l'Energie Solaire  
Suisse-Madagascar

Im Grindel 6

CH-8932 Mettmenstetten

Switzerland

[www.adesolaire.org](http://www.adesolaire.org)

[regulaochsner@adesolaire.org](mailto:regulaochsner@adesolaire.org)

25.3.2014