

1 / 2023

BULLETIN

EDITORIAL

Dear Reader

In recent years, ADES has achieved many milestones and impressive growth. However, the situation in Madagascar remains tense. So we cannot sit back - on the contrary: we are actively looking for new ways to protect even more forest and bring even more people into the forest. To achieve our goals, we are constantly expanding our infrastructure, our distribution network and our employee base.

At the same time, we are also thinking about the future. Madagascar's population is growing rapidly and the demand for energy will continue to increase. In order to protect the forest in the long term, our energy-saving cookers are not enough. Another source of energy other than wood or coal must become available for cooking. ADES wants to return to its roots here and is actively researching with two partners on a new generation of solar cookers that can store solar energy and bring a number of other improvements. We would like to dedicate the focus of this bulletin to this topic.

On behalf of the ADES Board, I would like to thank you for your loyal support. You make our daily work for Madagascar possible.

Your
Herbert Blaser
President of the ADES Association

SUSTAINABLY EFFECTIVE FOR MADAGASCAR

ADES RESEARCHES A NEW GENERATION OF SOLAR COOKERS

It is half past six in the evening in Antananarivo. Voahirana is cooking for her family. Today, she relies on coal, because the sun set 30 minutes ago. In the future, she will be able to use the solar energy stored in the afternoon. To make this possible, ADES is pursuing two different approaches with two different research partners:

The company Power-Blox AG has set itself the goal of developing energy solutions for the global south. On behalf of ADES, it designed an electric solar cooker with battery storage over the past six months and produced three prototypes. These will soon be tested on site in Madagascar.

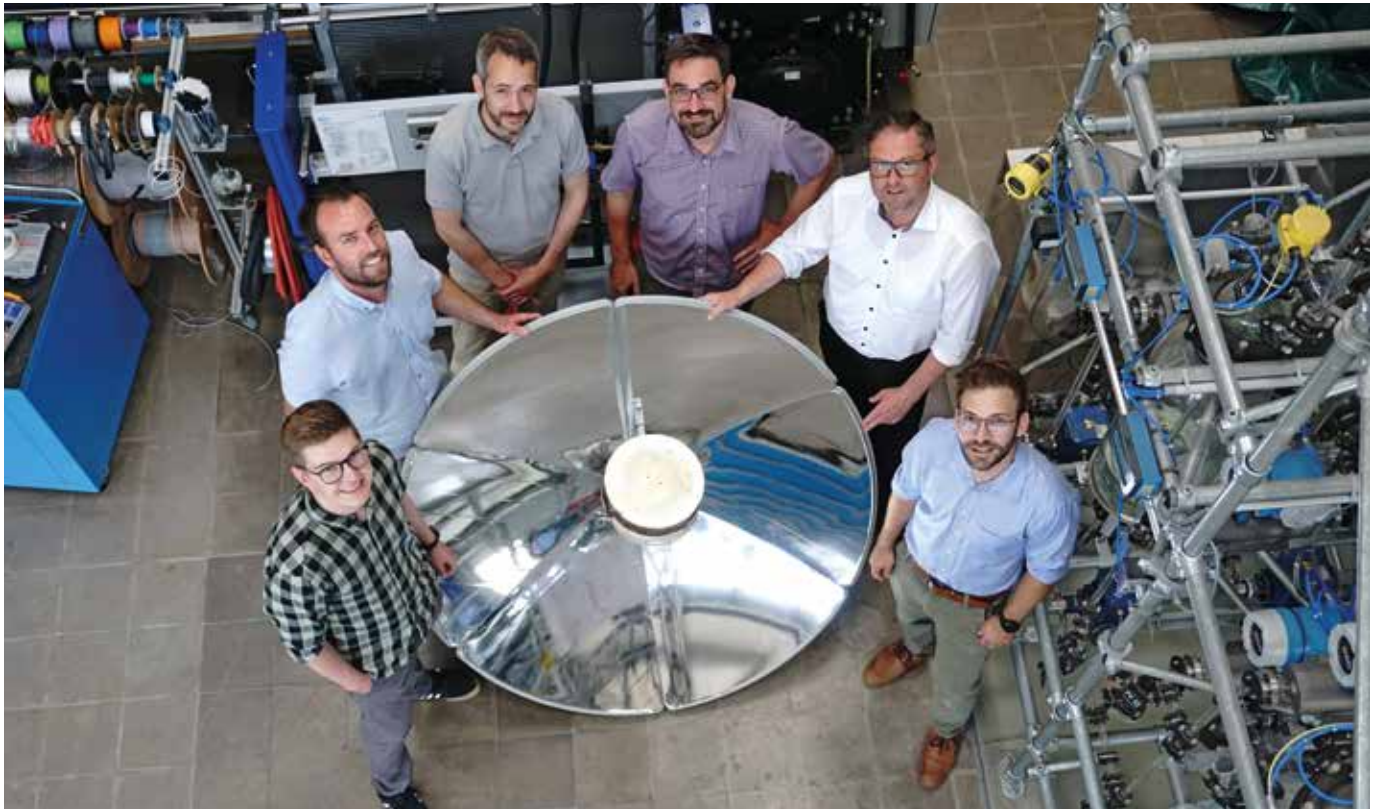
The ADES project with the Lucerne University of Applied Sciences and Arts is pursuing an approach without any electricity at all. Two students have developed a functional model for a solar cooker with thermal energy storage and researched the conditions for increased social acceptance of solar cookers. This forms the basis for further joint research.

Current solar cookers cannot replace energy-saving cookers

The two solar cooker models from ADES, the solar cooking box and the solar parabolic cooker, are not finding the large-scale distribution that we would like. The



Prototype of a Power-Blox eCooker



HSLU students Patrick Estermann and Julian Zoelly (front) present the functional model of their solar cooker with thermal energy storage to the HSLU and ADES project team (back).

main reasons for this are the dependence on direct sunlight, the big difference to traditional cooking and the price. At present, our solar cookers can only complement energy-saving cookers, not replace them. There are no market-ready products on the international market that meet our high requirements. That is why ADES has decided to research the next generation of solar cookers. There are many challenges: production costs must be affordable, quality must be as high as possible, the devices must be easy to use and require minimal maintenance, they must contain as few toxic substances as possible, and they must be similar in use to existing solar cookers. In addition, ADES wants to produce

the cookers in Madagascar as much as possible to create local jobs and value.

Electric solar cooker re-thought

The Swiss company Power-Blox has developed a technically complex, yet simple and effective system that can be used to electrify villages with solar energy and operate the plants even without engineering expertise. To this end, Power-Blox works with local partners, NGOs, and international development organisations in Africa and Asia. The system is also used in disaster relief. The name-giving storage cubes (Power-Blox) form a modular system and enable even small villages to electrify efficiently. As energy consumption increases, capacities can simply be increased. For ADES, Power-Blox is venturing into a new development. An electric cooker requires a much higher electrical output than light or a radio, in addition to the many requirements that ADES imposes. In the last six months, three prototypes have been created, which will soon be tested in Madagascar.

Thermal energy storage as an alternative to the battery

The Competence Centre for Thermal Energy Storage (CC TES) at the Lucerne University of Applied Sciences and Arts in Horw is one of the country's leading research partners for heat storage and temperature stability. Among other things, research is being conducted here on how Switzerland can become independent of fossil fuels and, thus, achieve its climate goals. Thermal energy storage is a key tool for this.

Bachelor's students Patrick Estermann and Julian Zoelly conducted research for ADES on a solar cooker that can store solar energy without converting it into electricity. They built a functional model, tested different materials for their behavior when changing their state of aggregation and examined how the social acceptability of solar cookers can be increased. On 20 June 2023, they presented their final the-

GOOD EFFECT

Would you be interested in leaving a lasting impact on the world even after you're gone? By considering a legacy or bequest to ADES, you have the incredible opportunity to make a meaningful difference for the people and nature in Madagascar.



ses. These form the basis for further research and collaboration. In a feasibility study, the HSLU is examining production costs, quality assurance, distribution strategies and whether mass production of the new cookers in Madagascar is realistic. These joint efforts aim to develop sustainable solutions for cooking in Madagascar and, thus, contribute to the protection of forests and poverty alleviation in the long term.

NEW REFORESTATION PARTNER: ADIE

The town of Ambalavao is located in the Haute Matsiatra region in the south of Madagascar. The town with about 30,000 inhabitants is located along the national road RN 7 between Fianarantsoa and Toliara. In the region around Ambalavao, there are still forests with a large proportion of old, indigenous trees. These forests are particularly vulnerable to any form of logging because of the slow growth of these tree species. Their condition is visibly deteriorating, even in protected areas. Due to population growth, the demand for wood is increasing every year. The imbalance between supply and demand leads to a dizzying increase in the market price of wood in the region. Soil quality continues to decline as forest loss continues. Sustainable reforestation is a method to protect the existing natural forests in the long term and at the same time to obtain timber for the local population.

Since January 2023, ADES has been working with a new partner in this region: the Association for Integrated and Sustainable Development (ADIE). Farming families, who are becoming increasingly aware of the extent and socio-economic impact of forest loss, are taking over the reforestation work on site. They are being trained by experts and are taking on more responsibility. ADIE's activities and work with the local population are in line with ADES' main themes: conservation



Members of the "Commune Ambinanindovoka" in the reforestation plot. The sign says "Sustainable planting".

DONOR PORTRAIT OF THE ACCORDEOS FOUNDATION

We are happy to present people who have been supporting ADES for a long time in our donor portrait. In this issue we congratulate and thank the Accordeos Foundation from Meggen, Lucerne, which has been supporting ADES for many years. The foundation is involved in three main areas: Women + Youth, Organ Culture and Ecology. We hand over the floor to the President of the Accordeos Foundation, Iris Utz:



ADES says Merci!

concern ecology, but also women and youth, our foundation was soon able to get involved in two thematic areas. As a result, we became involved in the further training of female resellers and in environmental education for young people. Over the years, we have also been able to support the expansion of the energy-saving cookers, the mobile centre, the planning of large kitchens and reforestation in the dry areas in the south of the island. Even though our annual contributions are not enormous, they have always been recognised and appreciated. It was impressive for us to see the great passion with which the management and the entire ADES team work. We always feel involved and receive the information and reports that are important for us. In this way, a valuable relationship of trust has grown that we would like to maintain even after five to ten years. It is hard to imagine Madagascar's development without ADES. ADES reflects on its own work, pushes it forward with the necessary diligence and also reacts to current events. In this way, work is done where it is needed and where people and nature benefit the most. We are proud to play a small part in this."

"Our contact with ADES and its initiator Regula Ochsner goes back a long way. The first request reached us in 2009. At that time, we supported the discounted distribution of solar cookers with a small contribution. In 2010, I was able to attend the presentation of the Dr. J. E. Brandenberger Prize to Regula Ochsner and ADES at the University of Zurich. She was thus honoured as an outstanding Swiss personality who is committed to the promotion and preservation of humanitarian culture. I was thus able to get to know Regula Ochsner personally and her impressive background in her work.

The Foundation Board also got to know ADES better and better. This is how a successful cooperation with ever-changing engagements has developed over the many years. Since ADES projects do not only concern

DONATE HOPE

ADES environmental education costs CHF 6 per child. CHF 220 is added per school visit. Support ADES today with a donation. Every contribution helps.

Thank you very much!



Source: Zazamalala Foundation

of natural resources, preservation of ecosystems and biodiversity, and engagement against climate change. ADIE's work not only protects nature, but also sustainably improves the ecological and economic livelihoods of the participating population.

In all its reforestation projects, ADES is careful to ensure that the villagers benefit at every step of a project. In order to improve the situation of the villages in the short and long term, fruit trees are planted in addition to timber and local, slow-growing tree species in the spirit of agroforestry. These improve the nutritional basis and enable the villagers to sell surplus fruit at markets. Through its positive experiences, ADES aims to change the behaviour of the rural population in the use of natural resources. In order to achieve the ambitious goals, experts train the villagers on topics such as reforestation techniques, forest maintenance and site protection. In a first step, 25 hectares of forest will be afforested, of which 20 hectares will be forest trees and 5 hectares fruit trees. To further increase the positive impact on the forests, the villages are given access to solar and energy-saving cookers from ADES. In the long term, new local resellers will ensure access to ADES products.

If the cooperation proves successful, ADES will examine whether the villages can also benefit from other measures such as environmental education.

AGENDA

Fri, 1. to Sun, 3. September: Watterfäscht, Watt near Regensdorf, www.watterfaescht.ch.

Sat, 9. September: O Sole Bio, Zug, 8 am to 6 pm www.osolebio.ch

ENVIRONMENTAL EDUCATION FOR 22,000 SCHOOL CHILDREN

In addition to protecting the forest by reducing the need for fuel through efficient cookers and reforestation, education is the third major area of focus for ADES. While the Corona crisis in Madagascar led to months of school closures, ADES developed a virtue out of necessity. Before the pandemic, specially trained ADES staff mainly visited the local schools for environmental education. During the school closures, ADES was forced to focus on training teachers and enabling them to integrate environmental education into their teaching in the long term.

The experience has been so positive that the training and support of teachers is now a central activity of our educational measures. This approach reduces the number of schools visited. In the long term, however, the teachers will become multipliers of ADES and we will reach significantly more school children. In 2023, 640 teachers will be trained and 22,000 children will benefit from environmental education.



Environmental lessons at a school run by our partner organisation ABC Domino.

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