



Dear friends and supporters of the Solar Energy Foundation,
at the beginning of a new, hopeful year, I would like to thank all donors for their support in 2020. Thanks to your help, we were able to continue our work successfully in the past year - although in a different way than planned at the beginning of the year.

That was our work in 2020:

- **Five solar villages in Kenya and Uganda:** The basic supply of an entire village with solar energy is a permanently important project: for village development, as an example of the possibilities of solar energy and for the support of local solar companies.
- **Health stations:** 42 more health stations in Uganda and Kenya now have a reliable power supply to care for sick people, attend births and last but not least: to carry out vaccinations.
- **Solar training:** Our training courses for solar technicians are very popular and will not only continue in 2021, but will be further expanded.

In 2021, we will continue our work to improve living and working conditions in our partner countries through the use of solar energy. **Three of our projects are:**

- New solar villages in Kenya and Uganda
- Solar energy for health stations
- Training of solar technicians in Uganda

Read more in this newsletter.

Enjoy reading and stay committed to us in 2021!

Freiburg, January 2021
Harald Schützeichel, Director

What we do

We promote the distribution of solar energy:

- On village development
- In schools
- In small and medium enterprises
- To improve the harvest
- For better health care

We promote the local solar trade:

- We train
- We support young entrepreneurs
- We create jobs
- We make micro-credits
- We alleviate poverty

Small and medium-sized enterprises are important factors in the fight against poverty and for job creation. Therefore, we always use our donation-funded projects to support local solar companies as well.

A dual approach that has proven its worth since 2004.

Here we are active

Country	Period	Our local partners
Ethiopia*	since 2004	Stiftung Solarenergie – Solar Energy Foundation, Addis Ababa SunTransfer Tech PLC, Addis Ababa
Kenya	since 2009	Stiftung Solarenergie – Solar Energy Foundation, Nairobi SunTransfer Kenya Investments Ltd., Nairobi
Philippines	since 2010	FREED/Stiftung Solarenergie Philippines, Manila HSSi. Hybrid Social Solutions Inc., Manila
Uganda	since 2015	Association of Sendea UG Ltd., Kampala

* Due to the continuing insecurity of the domestic political situation in Ethiopia, we have decided not to carry out any projects there until further notice. It had already become apparent during the last project (installation of solar systems in health stations) that the safety of our local employees is not sufficiently guaranteed.



Training course 2019



In Uganda, more than 90 % of the rural population has no access to a secure and stable power supply. It is unlikely that the relatively widely scattered households will be connected to the state power grid in the near future. A power grid that is also known for its high unreliability.

This opens up opportunities for off-grid energy solutions, which play an important role in providing reliable and affordable access to modern energy supplies.

The growing local solar sector in Uganda needs more and more well-trained specialists. But there is no independent training facility that offers continuous training in solar technology, sales and financing.

For a long time, solar companies operating in Uganda trained their new employees on their own. On the one hand, this is costly for the companies, and on the other hand, it only offers employees a knowledge base that is closely aligned with the company's needs.

The Sendea Academy, which we launched in 2020, has changed this situation. The independent training center for solar energy is operated by the Ugandan cooperative Sendea, an association of local solar companies. In total, more than 80 solar technicians have already been trained and received a nationally recognized certificate.

The courses received substantial support from these organizations:

- Schöpfung nachhaltig bewahren e.V. (DE)
- Rivera Stiftung (DE)
- DOEN Foundation (NL)
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (DE)



Training course 2020



A special feature of the training courses is the combination of theory and practice: the theoretical teaching of solar technology is complemented by practical training and experience opportunities in solar companies. The internships also offer local solar companies the opportunity to get to know potential employees (and vice versa).



Closing ceremony of the solar training in December 2020

And what happens after completing the solar training?

The training in solar energy improves the professional opportunities of the participants:

- Many of the participants already had a job with Sendea member companies at the start of the training and continue to be employed there after the training with a better salary. At the same time, the professionalism in the solar company was increased.
- Some of the participants found employment with national or international solar companies in Uganda after the solar training, usually with much better salaries than they had had before.
- Others have set up their own businesses and offer services ranging from installation to maintenance and service.
- And finally, some graduates have decided to pursue an engineering education at university. Two students have received a scholarship from the Solar Energy Foundation to cover part of the costs.

One of our graduates: Nabwire Dorah



Nabwire Dorah had received her state certification as an electrical technician in 2018 and successfully completed our multi-week continuing education course in solar technology a year later.

This helped her get a job with a local solar company, for which she is now responsible for installing solar systems. Thanks to the solar training she has completed, her salary is significantly higher than what she previously earned.

"I've made a lot of new friends in the solar industry and I'm better connected now," says Nabwire Dorah, explaining another benefit of the solar training.

More than just technical training

In addition to solar technology, the Sendea Academy will also offer further training for employees in **sales and finance** from 2021.

In addition, there are courses in **business management** for CEOs of local solar companies.

In December 2020, we were also able to hold a very well-demanded training in procurement (see image below).

We will continue to offer such special courses in 2021.



December 2020: Participants of the training for the solar entrepreneurs of the Sendea cooperative in Uganda.

An important focus of our work is the **promotion of startups** in the field of decentralized solar energy supply. Together with numerous East African solar associations, we are organizing an "Energy Camp" in the summer of 2021: selected startups from East Africa will receive several weeks of support in developing their business idea and business plan.

The final event is a workshop lasting several days in Uganda's capital Kampala with a presentation to investors and an award for the best business ideas.

In Freiburg, a similar Energy Camp for startups will already take place in spring 2021, organized by the University of Freiburg. Two of the startups participating there will be invited as guests to the Energy Camp in Uganda. In return, two of the Ugandan startups will have the opportunity to participate in the next Energy Camp Freiburg (November 2021).

In this way, we promote equal exchange between young entrepreneurs in Germany and East Africa.

More information: www.Startup|Energy.

Some of our East African partners for the Energy Camp in Kampala:





Basic medical care

In rural areas, health stations provide the basis for medical care for the population:

- Treatment and diagnosis of diseases
- Preventive care and vaccinations
- Care after accidents
- Care for pregnant women and support during childbirth

Together with its local partners, the Stiftung Solarenergie has already equipped more than 150 health care facilities in Africa and Asia with solar systems for lighting and cooling since 2004.

The solar equipment we install varies according to need and local possibilities. Wherever possible, we install solar-powered refrigerators for medicine cooling in addition to indoor and outdoor lighting.

We were always able to rely on experienced local partners who, in addition to the installation, also took over the maintenance of solar systems and training of the healthcare personnel.

COVID-19 response

The health stations also have a special significance when it comes to slowing or preventing the spread of the Corona virus:

- They are centers for informing the population about health and protection measures;
- They serve as initial contact points for assistance coordinated by the state and international aid organizations;
- They facilitate and support the delivery of immunizations.

International aid is deployed first where there is reliable infrastructure and staff. Trained employees, in turn, are sent first to places where there is a developed infrastructure. This always includes a sufficient power supply for light and communication.

Thanks to your support, we were able to supply more than 40 health stations in Kenya and Uganda with solar energy in 2020 alone. We would like to continue this successful work in 2021.



Our successful concept for village development: **a basic solar supply for an entire village.**

The Solar Energy Foundation provides all households with a basic power supply with solar energy as a start-up aid at a subsidized price: it consists of 2 LED lamps as well as the possibility to charge a cell phone.

The price to be paid by households is based on what the poorest families in the village can afford. This is to ensure that every family receives a basic electricity supply.

The solar system is paid in monthly installments over a period of 6 to 12 months. People use the system and now pay for solar power instead of kerosene. After completion of the installments, the solar systems become the property of the families.

In many solar villages, public buildings (school, health stations, churches) received solar energy in addition to households. Furthermore, solar water pumps or street lamps were installed.

Sustainable success is ensured by having local technicians on site for maintenance and service.

The **aim of the Solar Village Program** is to give an impulse to the development of an entire village community.

Our experience since the first solar village in 2005 has impressively demonstrated how much the solar basic supply advances village development.

The mayor of one of our solar villages describes it this way: "The goal in this world must be to improve living conditions in order to alleviate poverty. But you cannot change life without energy and light. That is a fundamental need. And we can now satisfy that for the first time."



What we want to achieve ... and what the residents say

Health:

“I have lung problems. I was often sick because of the smoke from the kerosene lamp. Why? Because every morning I spit out black slime that was in my lungs through the smoke of the kerosene lamp. But since I have solar light, I feel better.”

Education:

“Before we got solar light, we also learned in the evening, but much less than today. Today we can use the extra time for both: homework for school and to help our parents do housework.”

Security:

“The crime rate is significantly reduced, not only because of the street lamps, but also because of the solar light inside the huts. That keeps many thieves away. Even the hyenas are no longer coming.”

Income:

“With the solar light, I can do handicrafts in the evening, for example sewing clothes or baking bread. So I have significantly improved my income. At the same time, the cost of light has decreased because the solar light is cheaper than the kerosene lamp.”

Water supply:

“In the past, our women and children had to go long distances during the day to get water from the source. With the solar energy and the water pump, this strenuous path is no longer necessary every day. Time can now be used much more productively.”

Communication in the village:

“Before we got solar light, we didn’t meet so often in the evening to talk. Now we use the light to come together, discuss and exchange experiences. “

Communication with the world outside:

“We now have the opportunity to stay in touch with the outside world. For example, we can easily charge our mobile phones. The operation of radios is also much easier, because we no longer need dry batteries. Solar energy has taken our village a big step forward.”

**We switch
the lights on!**



Our solar villages since 2005

<p>Ethiopia Arso Amba (2014) Dire (2009) Rema (2007) Kechemober (2005)</p>	<p>Cambodia Chbar Chros (2015)</p> <p>Kenya Barimbate (2020) Kibera (2017)</p>	<p>Uganda Buwagi (2019/2020) Nakibano (2019/2020) Bududa (2019/2020) Rwenjeru (2019/2020) Sironko (2017)</p>	<p>Hima (2017) Kinoni (2017) Isukwe (2017) Luwero (2017) Kasozi (2016)</p>
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Our plan: four new solar villages

In 2021, we will realize further solar villages. Our partners in Uganda and Kenya are responsible for selecting suitable villages. They also take care of the installation and maintenance of the solar systems.

You can contribute to the success with your donation.



This is how you can support us:

- Send this newsletter to interested people.
- Invite us to give presentations.
- Donate to our work:
 - 200 Euro: Light for a household (solar village)
 - 400 Euro: Training of a solar technician
 - 1,000 Euro: Solar light for a village school
 - 2,500 Euro: Solar light for a health station
 - 4,500 Euro: Solar fridge for medicine cooling in a rural health station
 - 25,000 Euro for a whole solar village

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Our work is recognized as non-profit by the Freiburg-Stadt tax office.