

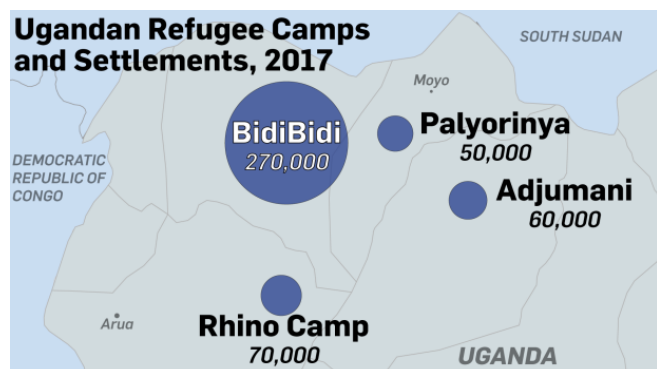
Solar cookers for refugees in Uganda

For many years there is a partnership between EG Solar and BSPW (Bicycle Sponsorship Project & Workshop) in Jinja / Uganda and "Jugendhilfe Ostafrika" which founded and supports the workshop. Through SES operations, EG Solar experts have brought the solar cooker technology into this metal workshop. Since then there is a very trustful cooperation with the reliable and competent head of the plant.



Workshop at BSPW 2004

For some time now, there have been reports of drastically increasing numbers of refugees from neighboring countries (mainly South Sudan in northern Uganda) and the rapid growth of what is now the world's largest refugee camp, BidiBidi. EG Solar encouraged our partner BSPW in Jinja to explore whether it would be useful, feasible and feasible to support people in the camp with solar cookers. In the summer of 2017, a Jinja team's reconnaissance trip to the far north could be held with a solar cooker for demonstration purposes.



Quelle: UNHCR

Maxime Hinschberger, who at that time stayed as a volunteer of "Jugendhilfe Ostafrika" at BSPW / Jinja was allowed to accompany his boss and reported deeply impressed:



Kleiner Ausschnitt aus dem Flüchtlingslager BidiBidi

"More than 270,000 displaced people live there, most of them from southern Sudan, where civil war and hunger prevail. The refugee families receive a piece of land from the government and settle down. As far as the eye can see, the self-made huts can be seen. Firewood has become scarce ... "

"The enormous influx of people into the otherwise sparsely populated northern region of Uganda has visible consequences for nature, humans and resources ... "

The partly untouched nature thus succumbs to the basic needs of the refugees, but after some time these capacities have also been exhausted "... that is, the deforestation is progressing dramatically.



Assembly of the solar cooker SK14

He further reports: "During our visit to the BidiBidi Refugee Settlement, we were able to demonstrate to people the functionality of a solar cooker - the subsequent reactions were simply overwhelming ...



Presentation in the camp BidiBidi

People did not believe their eyes, some even considered it magic and wanted to convince themselves of it. One felt the relief of the people and the fascination of the simplicity of this idea. Due to the strong sunshine, this technology could take away from people the everyday burden of the desperate search for firewood and solve many other problems. "



Solar cooking in the Camp

There were intensive discussions about the sustainable implementation of a solar cooker pilot project with the employees of the German aid organization ADRA in the settlement. ADRA has agreed to cooperate with the pilot project. ADRA recruits volunteers from reliable refugees in the camp, who speak the language of most of the people and have direct access to their culture, needs and problems. Such volunteers should regularly visit and supervise the users of the solar cookers as part of the agreed project. Monitoring will work better this way.



Wasserversorgung im Lager

In February 2018, a pilot project will start:

- EG SOLAR wants to send a larger number of reflector sets for the SK14 from here to Jinja and sponsor the production costs at BSPW, as well as the transport costs of the cooker kits to the BidiBidi camp (about 800 km).
- BSPW will organize the construction of the cookers and equip the volunteers of ADRA with sponsored and labeled bicycles. As ambassadors of solar cooking, they can easily cover the often miles-long paths in the camp.
- Jugendhilfe Ostafrika will take over the bicycle sponsorship and organize the financing and production of enough warming baskets in the camp.

Years ago, we have made very good experiences in Nepalese refugee camps. In the final phase, 7,000 SK14 were used there for more than 100,000 people (1 SK14 for 2 families).

The following advantages resulted from the Solar cooker use in the refugee camps in Nepal:

- Enormous cost savings as little fuel needs to be purchased
- no conflicts with the local population about the scarce wood stocks in the vicinity of the camps
- significantly less respiratory diseases
- Cleanliness, less soot particles in huts and clothes, no sooty pots
- lower risk of fire than by open fire
- less CO2 emissions

After a successful pilot phase, it is planned to expand the solar cooker project in the camp. The result could be a training workshop in the camp, where young refugees should be taught basic knowledge of metalworking, including the construction of solar cookers and wood-saving stoves. The trainees should also gain the necessary knowledge to install and maintain small PV-systems for a decentralized power supply.

Please support with your donation the introduction of solar cooking in the refugee camp (keyword: "BidiBidi")

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50 solar cookers completed

Employees in our partner workshop BSPW (Bicycle Sponsorship Project & Workshop) in Jinja / Uganda have now completed the first series of 50 solar cookers.

In order to enable the production of the 100 solar cookers as professionally as possible, we have financed a new drill for the workshop.



Foto BSBW/Jinja

With a simple bending aid the quarter rings are bent:



Foto BSBW/Jinja



Foto BSBW/Jinja

To protect against corrosion, the frame parts are painted with anti-rust paint.



Foto BSBW/Jinja

Individual frame and reflector parts are pre-assembled.

100 sets of sheets arrived in Uganda

It took 3 months until we were able to send the reflector sheet sets, packed in 3 wooden boxes, without paying horrendous customs fees. Originally, the import duty was over 80% of the value of the goods. We were not prepared to spend several thousand euros of your donations, which should benefit the refugees in the BidiBidi camp, for delivery purposes.

EG-Solar, 01.09.2018

50 solar cookers SK14 distributed in refugee camp Palyorinya

On October 5, our partner Edwards Kyambaddee - returning to the BSPW in Jinja - announced that the first half of the pilot project had been successfully completed: In September 50 solar cookers SK14, 50 pots, 50 isolating bags and the first bicycles (for the project supervisors in the large camp) were transported by him and his team on rented trucks over 600 km on mostly bumpy sand tracks to the refugee camp Palorinya / District Moyo in the north of Uganda. The journey alone lasted two full days. They had opted for Palorinya because it was possible to cooperate reliably with the local authorities to ensure longer-term support for the project. In northern Uganda, a huge refugee camp joins the next. Thus, the Palorinya camp alone extends to about 25 to a maximum of 45 km and currently has over 124,000 inhabitants - a logistical challenge for our partner team, which would hardly be possible without organizational support of local people.

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Foto BSBW/Jinja

The solar cookers were completed with the reflector sheets in the camp, solar cooking and the use of the isolating bags were demonstrated.



Foto BSBW/Jinja

Some women were instructed as "promoters" for solar cooking and monitoring. Their task is to oversee the solar cookers and their users for a longer period of time.



Foto BSBW/Jinja

Thanks to a generous donation from the Rotary Club Mühldorf-Ampfing, the second part of the pilot project is now financially secured. The next 50 solar cookers are currently being built in Jinja and transported to the Palorinya camp at the end of November. Then the first reports on the use of the solar cooker on site should be available.



Foto BSBW/Jinja

EG-Solar, 03.11.2018

Great interest in the solar cookers

Uganda's Deputy Prime Minister, Moses Ali has asked us to provide another 1,000 SK 14 for the Palorinya camp to counter the environmental degradation caused by deforestation. In the Moyo district where Moses Ali is from, the number of refugees and asylum seekers (300,000) has now surpassed the number of local residents (225,000). One month later, a letter from Health Minister Kwiwucwiny Grace Freedom, responsible for Northern Uganda, reached us to ask for another 2,000 solar cookers. They are to be used in elementary schools, hospitals, for older disabled citizens and refugee camps. Also for the victims of the nick-disease, which is a previously under-researched disease first described in the 1960s in Sudan. It is a fatal neurological progressive disease that occurs almost exclusively in children and causes mental and physical disabilities.



The desire to meet 3,000 other Sk14, of course, represents a major financial (the reflector sheets alone cost € 180,000) and logistical challenge for us. In addition, a training workshop in the region must be created and a network of trained supervisors. Before we further develop the initiated solar cooker project in the refugee camps, we await the results of the evaluation of the pilot phase with the 100 solar cookers. Only when these are promising, we will continue to engage.

EG-Solar, 15.02.2019

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Another 50 solar cookers distributed in the refugee camp Parolinya in northern Uganda

At the end of May our partner Edwards Kyambaddee visited us in Altötting and reported in detail on the preparation and execution of the second part of the pilot project: Transport and installation of another 50 solar cookers SK14 during the Easter week in the refugee camp Palorinya/Moyo District/Northern Uganda. Following the delivery of these solar cookers donated by the Rotary Club Mühldorf-Waldkraiburg, all 100 solar cookers planned as a pilot project are now available in the refugee camp.

Using many descriptive photos, Edwards explained the process, familiarized himself with the local conditions, and introduced us to co-workers and administrators of the base camp subordinate to the Prime Minister of the Moyo District Court. This cooperation has proven to be very effective. The solar cooker project is very welcome to the local government and will be supported as much as possible. The solarcooker kits manufactured and brought to Jinja were unloaded at the base camp along with the Prime Minister's staff, partly assembled, loaded again on leased trucks and distributed in different zones of the Palorinya camp.

The camp now extends over a radius of 50 km and is divided into individual zones. Approximately 7 SK14 were delivered per zone. On the advice of the "environmental committee" (environmental council), "most vulnerable persons" received a solar cooker with promotional t-shirt and isolating bag. In each zone, an introduction to solar cooking and cooker handling was made.



Men of District (Mr. Patrick Drama), responsible for fisheries there, was very involved in the presentation of the idea of solar cooking. He has authority in the camp, people are listening to him. Edwards mentioned as special example a woman named Lucy, who had received a SK14 in the first phase in the fall of 2018. She shared her cooker with 10 other families - each sun-hour was used. As eager solar cooks these families have each one now received one recycled SK14 with promotional T-shirt and

warming basket and now share in turn with other families.



The T-shirts have proven to be very popular and effective. For the second part of the project, Edwards has 100 more shirts printed with a new inscription: they equally serve as publicity and education about the meaning and purpose of the SK14.



When looking after the SK14, which were already delivered in the fall of 2018, only one cooker was noticed, which - robbed of its colorful fastening wires - lay ragged and bent slightly behind a hut: The children had taken the colorful little wires, with which the reflector sheets are attached to the frame, and thus secretly gradually dismantled them and used them to play games. Thus, the SK14 was no longer usable. He was taken away from the family, repaired by the Jinja team and given as a reward to Lucy's disabled husband, who now cooks for his family while his wife is doing a little "business" abroad with the other solarcooker.



For solar cooking, it makes sense to use an outside dull black pot, which optimally absorbs the radiation. To make the local pots ready for solar use, the team had painted the outside with black oven paint. The women's urge for cleanliness in the camp turned out to be counterproductive in this case: they scrubbed even pots blackened by soot from the wood fire. A focus in the introduction of solar cooking therefore must be to explain the heat-absorbing function of the black color.



Summary of the pilot project so far:

- The solar cookers are very welcome and well used.
- An extension of the project would be very appreciated by the local government.
- Nevertheless, monitoring over a longer period of time seems sensible to prevent problems that arise in the future and build a network of informed and dedicated people in the camp.

Next steps and wishes of our partner in Jinja:

- At the moment, monitoring is the most important key aspect to encourage people and to win them over for solar cooking, for a constant "talking to them" and more education
- Black pots (possibly cast iron) should be included with the solar cookers
- more warming bags to use individual SK14 for multiple families
- Neutral colored mounting wires for the reflector sheets, so they will not be misappropriated by children as jewelry or toys.
- A motorbike to better handle the wide bumpy and mountainous dirt roads leading to the camps.
- If the project will be expanded with a larger number of solar cookers, it would make sense to build a small chain store in the north where the solar cookers are built and could be repaired. This could very simply consist of two parallel old containers, in between a covered courtyard. Tool and material could be securely locked in it.



Foto: BSBW/Jinja

Edwards Kyambaddee and his team are happy to help. Commitment in this direction, however, depends on the expectations of EG Solar and the financial support. Edward would therefore very much welcome an EG Solar representative to come to Uganda for a few days to see for himself and achieve the ability to measure distances and conditions.



EG-Solar, 13.07.2019

Now the next frames for SK14 solar cookers are already being built:

After the positive pilot project "Solar cooker for refugee camp in northern Uganda" with 100 SK14 and the vivid reporting by our Ugandan project manager Edwards Kyambaddee during his visit in May 2019, the Rotary Club Mühldorf / Waldkraiburg has promised us the funding of a further 100 solar cookers, which are currently being built in our partner workshop BSPW in Jinja.



At the same time, EG Solar will send 220 sets of reflector sheets to Jinja, for which the funding is already secured by donations. The costs for customs clearance in Kampala, a larger remaining amount for complex monitoring and evaluation visits to users (concerns Pilotphase), as well as for a moped, which is absolutely necessary for upcoming actions of this kind in the impassable extensive area, we transferred a larger amount in November 2019, as well as a budget

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or material purchases and labor costs for the construction of the first 50 solar cookers.

Workshop planned in northern Uganda:

Edwards Kyambaddee's proposal to build the cooker together with bicycles in a branch workshop to be founded in the Moyo district / northern Uganda when the project was expanded was discussed and very much supported by our general assembly. Ways and costs would be saved in the future, solar cookers can be built and serviced near the refugee camp, and emerging problems can be dealt with locally and promptly.

Youth Welfare East Africa has already agreed to finance a combined vehicle workshop. With the appropriate support from donors, EG Solar would like to equip the solar cooker workshop with machines and materials. Two lockable containers provide space for the bicycle workshop and a small office, material and machines for solar cooker construction are housed in a third container. The 3 containers are set up in a U-shape, the free space in between is covered, so that a courtyard for work and activities is created.

Your donations are very welcome for this workshop equipment and the expansion of the solar cooker project in the Palorinya Camp (possibly later expansion to neighboring refugee camps). If you want to support us, please transfer to our donation account stating the purpose.

Thank you very much!

EG-Solar, 22.01.2020



Solar cooking is environmentally friendly, healthy and clean.

Sheets for 220 solar cookers arrived in Jinja

Packed in 5 boxes, we sent reflector sheets, a used roll bending machine and small parts for the construction of SK14 solar cookers by air freight to Entebbe. Each of the boxes weighs approximately 170 kg. It takes four men to handle a box.

All material arrived safely at the BSPW in Jinja.



Soon another 100 solar cookers - the frames are already completed - will be sent by truck on the long way to the Palorinya Camp.

20 sets of reflector sheets were not intended for the Palorinya refugee camp, but for **13 schools of "World Hunger Relief" in Uganda**. EG-Solar e.V. sponsored the mirror sheets, the frames were made in the workshop in Jinja ordered by Welthungerhilfe.



The girls' first contact with the solar cooker

In addition to preparing meals, the solar cookers were needed for a very special purpose: girls from poor parents' homes cannot afford sanitary napkins and therefore take rags. "Menstrual Cups" are then a significant improvement. After each emptying they only need to be rinsed out and then sterilized in boiling water at the end of the period.

The students in secondary schools all do boarding, i.e. they stay in schools all day and also at night. Boiling water is required for sterilization. Since everyone only boils their own menstrual cup, they do not need a large amount of water, perhaps only 0.5 to one liter each. But the water has to boil. Since the girls have little money and no time to collect wood, a solar cooker is the ideal solution.

EG-Solar, 22.03.2020

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