
*If we can not sustain
the environment, we
can not sustain
ourselves.*

Solar Foods is a pioneering eco-friendly social enterprise that works in the field of food processing. Solar Foods design and manufacture solar dryers and solar cooker. While drying organic vegetables, fruits and meat using industrial solar energy dryers, Solar Foods also sell the technologies to communities and provides capacity building on using solar dryer and cooker in Sudan.



Who are we?

Solar Foods

Contact Person

Alaa Hamadto, Founder and CEO of Solar Foods

Legal Status

Registered as LLC, located in Khartoum-North (Industrial Area)

Number of Employees

15 full-time, 15 part-time (88% females)

What are we doing? **Eco-Friendly and Clean-Energy Food Processing**

Problem Statement

Although Sudan is one of the biggest agricultural countries in Africa with fertile soil and the Nile river, sadly 40% of our production goes to rot as post-harvest waste because there is a lack of knowledge and practice in food preservation techniques. Food preservation requires high energy costs and energy availability, and we are currently lack both is in Sudan. This is definitely causing a high level of food insecurity as a lot of products do not have a long shelf-life, are not available in the agricultural off-season and the food rots very fast.

We have seen recently in Sudan high food prices have triggered the cost of living crisis that is driving millions more into extreme poverty, magnifying hunger and malnutrition. The number of people who are experiencing acute food insecurity and will need urgent assistance is likely to climb sharply in 2022.

In the same vein, with ongoing climate change and political instability leading to higher number of refugees and IDP's year by year. Roughly 9.8 million people in Sudan who are currently projected to be food insecure, and the expected increase during the upcoming years. As a result, knowledge and skills about drying and preserving food need be shared with people, the conventional drying is less hygienic due to flies and dust and the processing is very time consuming.

Vision

Our vision to create healthier community by connecting people to healthy food. SOLAR food aims to embark on continuous challenge of innovative and modern research utilizing food technologies, and practices to provide capacity building in utilizing food technologies, food science, recipes and food safety, in order to be made available nationally and internationally.

Mission

SOLAR foods strives to turn harvest loses to an advantage, accessibility in local market and set a standard of excellence in Sudan, in an environmentally suitable way while protecting our planet. SOLAR foods makes use of the knowledge in solar engorging and utilized the equipment we have to solve a real national problem.

Target Group

We target with our food products every person living in Khartoum, Omdurman and Barri who wants to use healthy products with a long-shelf live.

We target with our solar technology Sudanese people who live in rural areas or internally displaced people and refugees located in camps, and also in the post-conflict areas face major obstacles in terms of infrastructure, including low or no access to stable electricity. That means in reality that either fresh and healthy products are spoiling very fast or they even never reach them as a result of the said constraints.

Our products



Automated industrial solar energy dryers.



Solar cookers in 3 different sizes.



Dried fruits and vegetables.

What are we doing different from others?

Our Unique Selling Point

Drying food as a preservation method has been used in Sudan since ages. Drying fruits and vegetables have always been taken place at household level. Never have any business before focused on providing these (traditionally made at home supplies) at an industrial level.

SOLAR came up with the idea off adding value to our agricultural commodities, introduce food safety, and make it available to most household specially with the increasing rate of working class of women. The idea to make life easier for most women who no longer have the time to perform these task at home.

Knowledge & Experience

With 7 Years of Experience in food processing and 30 years of experience in manufacturing Solar Energy dryers Solar Foods combines its two specializations in one product.

Our Project Highlight from 2022



We manufactured and delivered 9 solar food dryer units (medium-scale) and 9 solar food cooking units (Dish type) for 9 communities (225 participants, mostly female) in South Kurdistan including capacity building on using and maintaining the devices.

What is the positive impact we create?

Social Impact

Marginalized Groups: Normally a female with young children and no formal education will have a difficult time to find a job. Most of them work as maids or tea women. Solar Foods provides them an on-the-job training and after that employment with flexible working hours.

Employment: Save jobs are being provided by *Solar Foods*, to 15 up to 30 employees at the same time. If the production increases, more people can be hired. If the production is low, for example during raining season, Solar Foods still provides them with a minimum salary.

Community: From the raw material that is being bought from local farmers, over the female employees until the end-consumer enjoying a healthy product, Solar Foods support the community along its whole value chain. With selling the technology and providing capacity building on the solar products, we give whole communities the chance to feed themselves.

Environmental Impact

Sustainability: Most food factories use fossil fuels for their energy consumption, not Solar Foods. Solar Drying is a technology that uses energy from the sun to dry food products which can be stored for longer duration. Alternative methods of drying vacuum, freeze and hot air drying. The Solar Cooker helps to prepare food within buying charcoal or collecting wood. The cookers are made of 100% steel, the usage and maintenance is very easy and all three cookers are adjusted to the weather conditions in Sudan.

CO2 Emissions: On average a solar drying system with the capacity of 1 ton per 3 days and a lifetime of 20 years can mitigate 1040 tons of carbon dioxide that can be translated into 52.000\$ of rare natural resources. The solar cooker has 0 emissions, unlike traditional ways of heating with charcoal and wood that make up 80% of energy consumption in Sudan.

Green-Economic-Cycle: Among the supply chain Solar Foods is independent from electricity for the drying. The goal is to transform from currently 65% solar based to 100% renewable energy company and a closed economy cycle.

