Shamsi

Solar Cooking made local

A community-driven solution towards mitigating mixed-waste burning and the excessive use of fossil-fuel and biomass, while promoting food security and local production.

Capture the sun.

Shamsi is a low-cost solar solution for clean cooking, built from locally available, health-safe materials and applies simple mechanisms.
The designed solar oven, cooker and dryer, uses direct solar radiation as a renewable energy source for baking and slow cooking, hence the name “Shamsi” (شمسى), the Arabic adjective for sunny, sun-bathed, or from the sun. By mere positioning into the sun, direct sunlight is captured within the oven chamber, where the heat is retained through the insulated box walls, reaching a record of 150°C compared to similarly-sized solar cookers on the market. Thereby, Shamsi upholds local cooking and baking traditions, while making clean energy accessible in rural areas.
By replacing the widespread habit practice of burning mixed wastes and the excessive use of biomass to fuel traditional cookers, Shamsi significantly reduces carbon emissions. Households are at lower risk of severe respiratory and cancerous diseases caused by smoke and fire. One module saves a household up to 75% of energy-costs after the first year.

Create opportunity.

Shamsi was first developed and tested in close collaboration with local communities, in multiple Southern Egyptian villages. Currently, it is being applied and tested in Tanzania in collaboration with the *Climate Action Network - Tanzania* research and innovation team. The *Shamsi-TZ Research Activity*, aiming to adapt the Shamsi Solar Solution within the Tanzanian context is supported by *Schwesternschaft der Evangelischen Diakonissenanstalt - Stuttgart*.
Shamsi is built exclusively from locally available, health-safe materials and applies simple mechanisms. Therefore, it can be easily produced and assembled by locals. This secures gender-equal income opportunities in Tanzania, empowering women towards self-sufficiency, especially in low-income rural or urban districts.
During the first project stage, material tests in local wood- and clay-workshops have been carried out and documented by Shamsi’s innovator, Mira Gayed. On-site visits in multiple clay-workshops and brick-suppliers have been conducted in the Morogoro region, known for it’s abundant clay natural resources and building know-how. Integrating local knowledge and establishing relations to local workshops and suppliers is key to achieving a locally adapted and sustainable solution. The first prototype has been presented at Nane Nane, introducing the new concept to local communities and potential stakeholders.

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www.shamsi.eco
www.cantz.or.tz

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