

DO IT YOURSELF SOLAR COOLING SYSTEMS

Why?

Around one third of the food produced worldwide never reaches the table but goes to waste.

In developing countries, 40 % of the losses occur post-harvest during processing, which is particularly due to inadequate refrigeration. Especially perishable food such as fish, meat and dairy products need continuous cold storage.

Solar powered cooling systems can offer a solution; however, they often need to be imported, which comes with high costs and the need for knowledge transfer.

Using the Do It Yourself (DIY) approach, only the main components are imported whereas the cooling system around is designed, constructed and marketed by local companies.

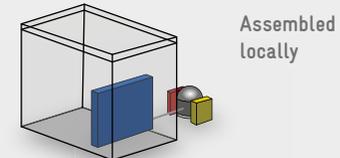
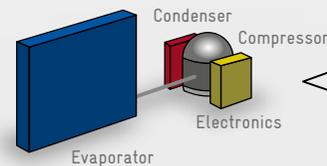
The DIY approach reduces the system costs, supports local businesses and provides cooling solutions adaptable to local requirements.

Where?

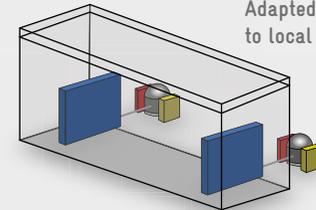
There is a great potential for this approach in a large number of developing countries. Workshops in Kenya and Mali were successfully held and the DIY approach attracted a great interest.

Solar cooling engines made in EU

(battery-free and PAYGO compatible)



Assembled
locally



Adapted
to local demand

What?

For the construction of a customized solar cooling system, only the main components, the cooling and control units, need to be imported by local companies (around 500 USD). With technical support, these companies can construct own systems with locally available materials, such as isolation, batteries or solar panels.

The cooling unit transforms the energy from the PV modules into cold energy, which can be used for different applications, depending on the system design.

More?

Energypedia: Solar cooling

https://energypedia.info/wiki/Do_It_Yourself_-_Solar_Cooling_Units



Three possible systems:
Ice maker, household refrigerator, water chiller.
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With whom?



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