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Local Income Solution



SOLAR DRYER
SYSTEMS



The Farmers Guide Uganda Limited

SOLUTION ENTREPRENEUR

MALE • MBALE, UGANDA

Established in 2018 by Oluca Geoffrey and Stephen Ekoom in Eastern Uganda's Mbale district, Farmers Guide Uganda Limited is a youth-led social enterprise dedicated to elevating local agriculture. Their core mission is empowering both small and large-scale farmers through sustainable post-harvest solutions, prominently solar dryers.

Over the past five years, they've distributed 500 modern solar dryers, benefiting 5,000 individuals across various Ugandan regions. These unique dryers efficiently dry crops using solar energy, reducing daily costs and being user-friendly for all farmers, which distinguishes them in the market.

Additionally, they've expanded into coffee farming, planting 200 coffee trees in Mbale District, and aiming to establish a coffee café. Their solar drying expertise enhances coffee quality, contributing to farmer livelihoods and environmental conservation by reducing food spoilage and pollution. Through Farmers Guide Uganda, jobs have been created, supporting sustainable agriculture, and aiding climate change.

FAVOURITE QUOTE

💡 *Farming means business*



INCOME FACTS

- Startup cost: 300,000 UGX (74.90 Euros)
- Selling price: 1 small size dryer is 400,000 UGX (99.87 Euros)
- Income potential: 1,500,000 UGX (374.51 Euros) monthly



SALE TIPS

- Make your solution innovative and flexible to meet the current needs of farmers.
- Make your product affordable and unique in the market
- Make your solution easy to access and manage.



POTENTIAL CHALLENGES

- The need for more awareness among farmers on the value of this product.
- Competition is high so marketing your product is important.
- Creating a large solar dryer requires a substantial amount of funding.

5-YEAR VISION

To scale the business to 10 branches and bring affordable solar solutions that will aid over 200,000 local farmers and benefit Africa's agricultural community.



LEARNING VIDEO

Click the video and learn how to do this income solution.



9 Steps TO MAKE SOLAR DRYERS

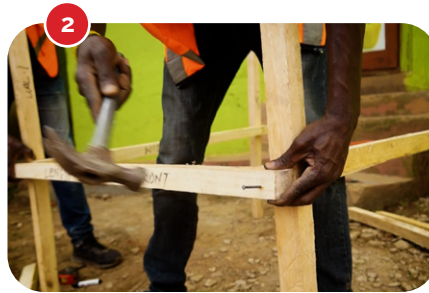
MATERIALS

Bow saw.....(1)	Scissors.....(1 pair)	UV Material.....(5mx2m)
Tape measure.....(1)	Marker.....(1)	Agricultural net.....(5mx2m)
Hammer.....(1)	1 1/2 inch nails.....(1/2 kilogram)	Black DPC polythene.....(2mx2m)
3-inch nails.....(1/2 kilogram)	Timber.....(5 pieces) (4mx2m)	



1 Create the frame for the solar dryer

Use timber of a height of 1.7m for the front and 1.5m for the back. This will make the front higher, allowing rainwater to slide off. Make two frames with these measurements. When attaching them, leave a 50cm gap at the lower end to keep rainwater out. Also, leave a 0.5cm space at the bottom for air circulation.



2 Connect the two frames together

Use 1.1m timber pieces to join the front and back sections at both the top and bottom ends of the frames. Strengthen the structure by attaching timber at the back, which will also serve as a tray holder. Maintain a one-foot (12 inches) gap between the trays.



3 Measure the door dimensions

The door is 1.1m wide and 1.3m tall, and it opens upward to keep water out. Strengthen the frame by adding a timber piece in the center.



4 Wrap the frame with a polycarbonate sheet

Trimming any extra parts. Be careful not to create holes and follow the instructions for proper placement (inside and outside). Seal the frame securely using small nails. Leave a 0.5m gap for air circulation.



5 Create a vent for air circulation

Use 1.1m timber pieces to join the front and back sections at both the top and bottom ends of the frames. Strengthen the structure by attaching timber at the back, which will also serve as a tray holder. Maintain a one-foot (12 inches) gap between the trays.



6 Create a door for the solar dryer

Cover the door frame with the polycarbonate sheet (UV plastic material).

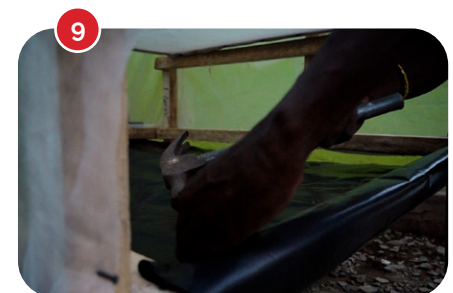


7 Create the drying trays

Use the remaining timber and attach the insect net. Each tray should measure 90 by 39 inches. The net allows air flow to dry the products. Place one tray higher and the other lower.



8 Connect the door to the dryer using door hinges.



9 Securely place the thick black polythene bag on the base.