

MIXED MODES SOLAR DRIER modified from UC Davis Solar Chimney Dryer

Emmanuel Ayua, 2018

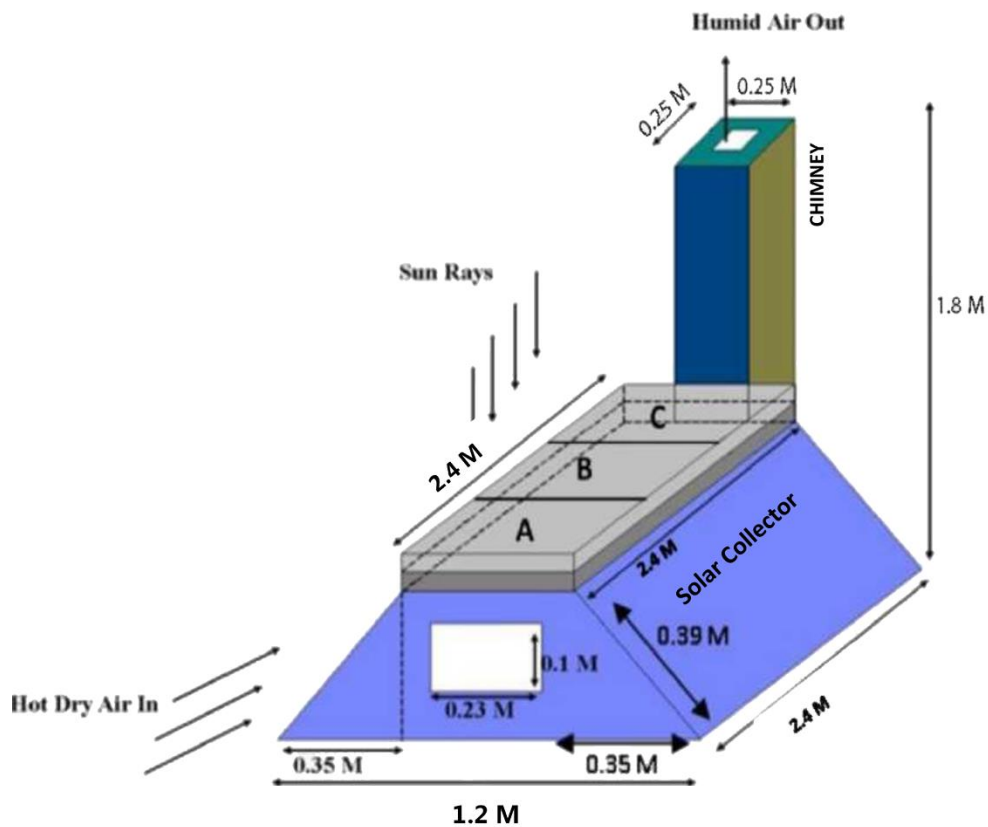


Figure 1: The mixed modes solar dryer used for drying vegetables.

The unit is constructed with a wood frame and covered with black plastic to create a solar radiation collector and a chimney. It contains a drying chamber (A,B,C) made with white plastic mesh on the bottom, and a clear plastic cover, holding hold three trays of produce.

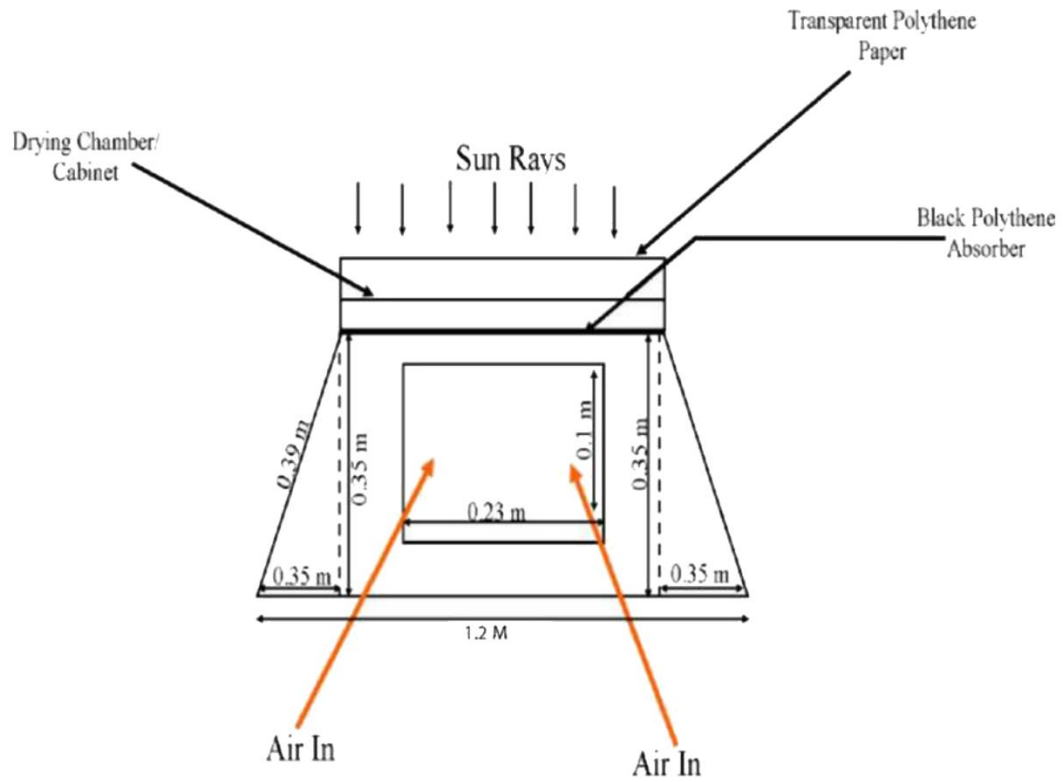


Figure 2: The drying cabinet of the mixed modes solar dryer.

Air flows into the front of the unit, under and up through the trays and out through the chimney (which is attached to the exit point at the back of the drying chamber cabinet).

Prototype photos with different sizes of air entry points –must be designed for air to flow under the unit and up through the trays of produce.



Photo credits: Emmanuel Ayua (Kenya, Purdue University), and Kodimah Issifu (Ghana)