

SOLARDRYER



**COCOA BEANS DRYING SYSTEM USING
NATURAL SOURCES:**

SOLAR, HEAT AND VENTILATION

IDEA

Drying up beans means to eliminate water contained in them to ensure their storage a long time before using them.

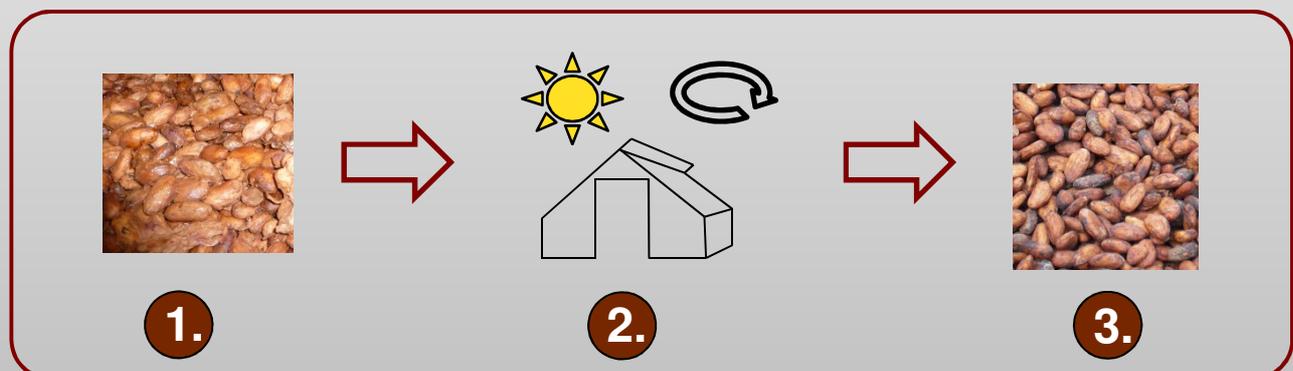
This aim is fulfilled by using elements, available in nature, like heat, offered by the variations in sunlight; this allows the evaporation of the liquids contained in the beans.

Our Solar Dryer uses sunshine in the most efficient and economic way to dry cocoa beans, coffee beans or other grains, which do not exceed a water content of 60%.



PROCESS

1. The wet cocoa beans come into the Solar Dryer
2. The cocoa beans are dried through the natural elements: sunshine and ventilation in a very efficient and economic way
3. After 5 to 6 days the cocoa is ready to be conditioned and exported



FEATURES

Side and superior windows control the microclimate inside the dryer allowing a correct ventilation.

The width and height of the beds of the dryer allows the manual removal and a visual control of the grains allowing the elimination fault grains during the process.

The telescopic system allows to fit the dryer easily to irregular grounds.



The roof is made of plastic material very resistant to rain, to temperature and to direct and prolonged exposure to the ultraviolet fraction of the solar rays.

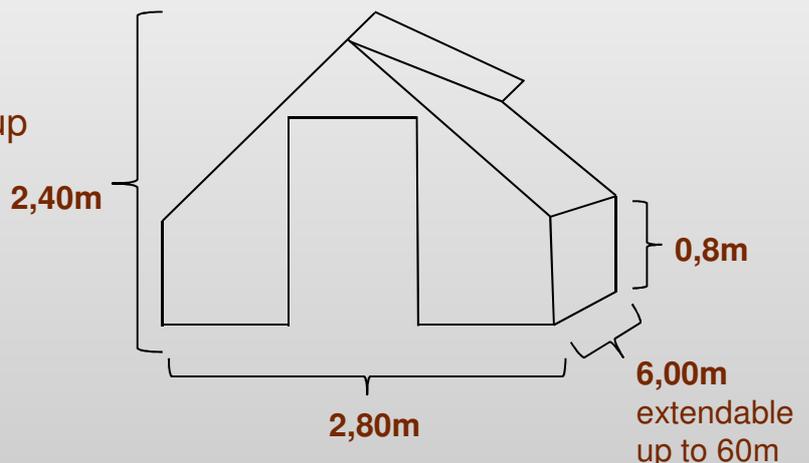
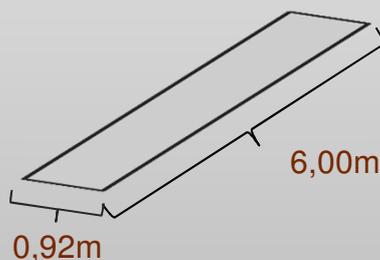
The modular structure allows adaptability of the system to satisfy the small, medium and large producers' demands

The materials which are in contact with the grains in the drying up process, are all atoxic

DIMENSIONS & CAPACITY

DRYER

- Outside Dimensions:
 - Length extendable up to 60m
- Dimension drying beds:



$$2 \times 5,52\text{m}^2 = 11,04\text{m}^2$$

Drying capacity: → 2000 kg per month wet cocoa beans.

ADVANTAGES

- The cocoa grains are dried up without undergoing thermal and mechanical stresses.
- It permits to dry up without exceeding 50 ° C.
- The system protects the organoleptic characteristics of the grains and their best utilization.
- The installation of the dryer does not require specialized labour.
- A dryer of useful surface of about 11 sq. m2. allows to dry up about 2000 kg per month of wet cocoa.



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