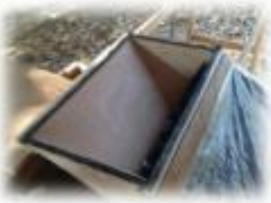
Creating small business to utilize the natural resources of the environment. Mangoes go to waste by the thousands each year. Why not dry them to eat later on ?

Feb 2014
Sierra Leone
West Africa

Solar Food Dehydrator



A food drier requires air movement and heat to generate necessary air flow to dry fruits and vegetables.

Instead of using an electric fan we created a heat exchanger using a sheet of roofing pan painted black . We encased it between two boards and covered it with clear plastic we found in the market place. This created a heat source and started a draft of hot air to blow over our food

The local carpenters became our buddies because without them this effort was futile. Every board had to be hand planed. A one inch board started out as a 1 ½ in board and had to be ripped by hand to size then hand planed to thickness. We didn't use any hinges in our construction but made sliding doors to open in the back and the top of the food drier. Multiple drying racks will be made each stacking on top of each other. This will allow a lot more food to be dried at once in the same drier. For now we just made one drying rack to test it.

We also mashed bananas into a paste and made fruit roll ups . We dried mango, banana, tomato and cabbage to see what the results would be. The drier worked well even when the box was placed under the shade. Mango season is coming soon so we will see what happens with a large quantity of fruit.