Renewable World
Transforming Lives Through Clean Energy

Technology Fact Sheet

Solar Dryer

The challenge: Farmers in rural areas often lack the facilities required to dry or safely store their produce. This means that they either suffer heavy post-harvest losses (as much as 25%) or they sell their crops immediately after harvesting, even if the price is low at that time.

The solution: Solar dryers allow farmers to effectively preserve foodstuffs such as fruit, vegetables, spices and meat. Dried products can be safely stored for longer periods without compromising quality. They can also be ground into powder for added value.

The technology: In the solar dryer, the air gets heated by the sun and blown through the drying chamber over the product to dry it. The air is blown by a small fan powered by a solar panel.

Illustrative output: The size of the solar dryer can vary, but a typical dryer can handle @50kg of product per batch. Roughly 8 hours of sunshine is required to dry each batch.

Lifespan? @25 years.

Why choose a solar dryer?

- ✓ Efficient, effective and environmentally friendly.
- ✓ Good for off-grid locations.
- ✓ Cheap to run and maintain.
- ✓ Dried crops can be stored for longer, command higher prices in the market, and give the farmer flexibility in terms of when to sell.
- ✓ Can be shared by cooperatives and farmers' groups.
- ✓ A quicker drying process and the exposure of food to solar radiation both help conserve the nutritional value of food.
- ✓ Food being dried is protected from rain, dust, contamination and birds/ animals.