Third International Conference CONSOLFOOD2020 Advances in Solar Thermal Food Processing

22-23-24 January 2020

INSTITUTE OF ENGINEERING; UNIVERSITY OF ALGARVE; CAMPUS DA PENHA; FARO-PORTUGAL

Solar Drying in Nimar Region of India : Leading by Example

Raghav S Deosthale, S.C.Deosthale, C.G. Deshpande

S M Village Enterprise Maheshwar, Madhya Pradesh, India



Leading by Example-

needs a success story and same is narrated here

In 2018, we came here, participated, interacted, leant, about solar drying etc.

We raised some questions and gave possible solutions.

- 1. Will farmers purchase a solar dryer?
- 2. Is capacity of the dryer sufficient?
- 3. Did using the dryer fit in his/her time schedule?

One common answer was "NO".



We gave possible solutions. We went back with a resolution..

"To Create a Brand and have a range of Solar Dried products for sale."

A company, **S M Village Enterprise**, was formed.



Brief Introduction







What we do?

Who we are??

Where we are?



Modus Operandi..



What changed after 2018?



<u>1. The Design of the dryer.</u>





3. Procurement procedur

2. Organizational Structure.



The Design



The Design...

Why this design?

- * Easier to use.
- * Has more product holding capacity.
- * Cost Effective.
- * Easier to fabricate.
- * Requires Lesser Maintenance.

Organizational Structure

Earlier an NGO, now a Partnership Firm.

We now sell dehydrated produce for **PROFITS**.

We are now leading in solar drying in our area i.e. NIMAR.

More entrepreneurs are taking interest in our project.



The Procurement Procedure

• Our approach to solar drying is entirely



"All our products are cultivated in house, using indigenous farming techniques."





"This is a herbal tea made from dehydrated lemongrass, basil, ginger and cinnamon."





This is a masala made from solar dried mint, ginger, green chili, coriander leaves and cumin seeds.

This can be added as flavoring agent to yoghurt, buttermilk, salads and chips.



This is lemongrass dried and cut to 1.5 inch pieces. This is grown in a farm less than half an acre.

This can be added to tea and soups for flavoring.

Apart from these 3 major products, we also dehydrate vegetables and herbs on special order.



SOLAR DRIED ROSELLE PETALS.



What is Leading by Exmaple?

Two things have to be kept in mind before taking a technology /business model to people in the villages.

- 1. Will using the technology fit into their time schedule?
- 2. Is the technology friendly enough for even a layman to operate?



What is the problem/need/ Opportunity?

Low Income of Farmers with Small Land Holdings Lack of "Appropriate Technologies at Right Places"

Problem-

Decreasing size of land holdings & income of farmers with small land holdings.

Need-

Allied income opportunities for rural populace.

Opportunity-

as allied

Opportunity to provide enhanced means of livelihood through core as well business

Rural Development and social change.

Proposed Solution

USE OF SOLAR DRYERS TO ADD VALUE TO AGRICULTURAL PRODUCES

* Organically grown and naturally processed food to provide a sustainable agrarian business model

- Use of solar energy for processing
- Small scale processing capability provided at doorstep
- No additional energy source or intensive training required

Natural processing of food for long term storage



What makes us different?



Sales of Dryer as well as Dried Produce

Research on crops and cropping pattern

• We sell only what we use

Where do we stand today?

We are promoting the benefits of solar drying amongst landless labors in nearby villages and are putting in sincere efforts to get funding for their solar dryers.

The dehydrated products will be acquired by SMVE.







Thank You!! Narmade Har!!