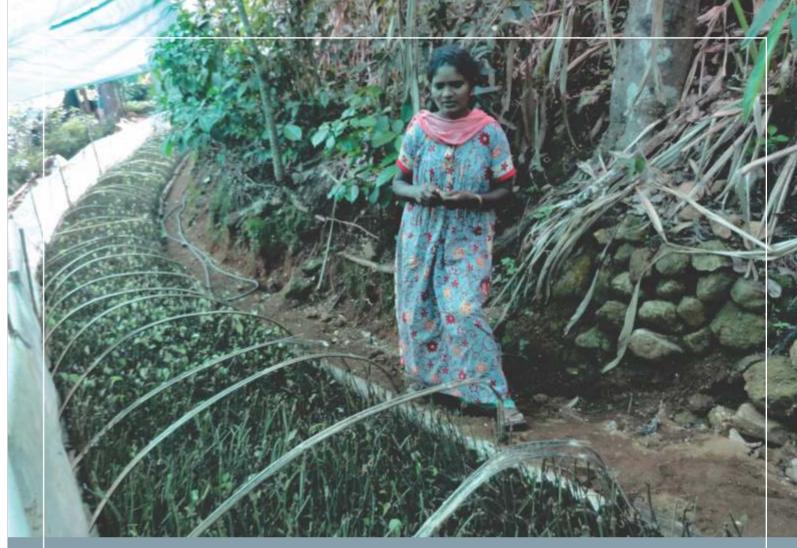


Problem

- No value addition of *Pheonix* leaves.
- The leaves were sold as raw.
- · Drudgery for combing.

Solution

- Trained 2 SHGs for broom making.
- Launched the broom in the market with trade name 'Vanasree'.
- Introduced combing tool.



Highlights from Core area 1: Tribal Development Technologies to promote organic farming and yield enhancement

To Disseminate/ Bring About Innovative Technologies Among Tribal Farmers to Make Them Up to Date In Agri And Allied Sectors.

CORE Support Programme (2008-2018)



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Department of Science and Technology
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Technologies

Highlights



Problem

• Exploitation of middlemen

Solution

- Started a Collection centre in 2012.
- The collection centre has become a registered Farmer Producer Organization – Hill Range Farmer Producer Company.



Problem

- Dependence on traditional agricultural practices.
- Poor quality of final products.
- Lack of machineries for ploughing the land for rice cultivation.
- Drudgery in processing of spices.

Solution

- Introduced following machineries
 - Pepper thresher
 - Cardamom polishing machine
 - RRL cardamom drier
 - Tiller for paddy cultivation



Problem

- Genetic erosion.
- Plant varieties with short life span and bearing.
- Adoption of chemicals against pest and pathogens.

Solution

- Introduced 10 varieties of underutilized crops having regular bearing habit and tolerance to serious pests and pathogens.
- Popularisation of organic cultivation techniques.



Problem

- Low productivity of traditional varieties.
- Repeated cultivation of same varieties in same fields resulted. in harbouring varieties of soil-borne infections.

Solution

 Introduced improved varieties of ginger, turmeric and black pepper from Indian Institute of Spices Research and Kerala Agricultural University.

Quality Planting Material Production Units For Coffee And Pepper



Solution

Problem

Established 5 nurseries of coffee and pepper.
 Introduced coffee varieties from coffee board. (Selection – 9 and Chandragiri).

• Farmers solely depend on stem cuttings of pepper and seedlings of

coffee from same fields with least desirable characteristics.

• Variation is high in coffee due to the chances of cross pollination

with tree coffee. • Drought susceptibility.

 Nursery plants with established root system reduce drought damage.

Organic Certification



Problems

- Dependency on chemical fertilizers, fungicides and insecticides.
- Exploitation of representatives from different chemical companies.
- Lack of inputs for organic farming.

Solution

- Established vermin compost units in 200 households.
- Introduced various bio-control agents such as *Trichoderma*, *Metarhizium*, *Beauveria*, EPN etc...
- 250 tribal cultivators have been certified as organic farmers.

Technologies for Nutrient management



Problem

- Lack of awareness on the importance of soil testing.
- Poor growth of plants.

Solution

- Trainings conducted on various aspects of soil management techniques.
- Soil samples were collected and analysed in PDS soil testing laboratory and recommendations were given for soil reclamation.

Soil and Water Conservation



Our role

- Introduced soil bunds, stone buds, rain pits and well recharging in the tribal areas through KKS project and NABRD supported TDF.
- Stone bunds 5783 m²
- Soil bunds 1257 m²
- Rain pits 4350
- Ponds 33

Crop Diversification



Problem

Dependency on coffee and pepper.

Our role

Introduced Cocoa, Paddy and Underutilized crops, Clove, Coconut and Nutmeg among tribal families.