

## Crop Protection through Community Solar Power Fencing

### Background:

Wild animals like Elephants, wild Boars, Deers are a major menace in crop cultivated areas of Hilly regions. The innovative project called 'Community solar power fencing' was demonstrated in Bargur area by SHGs and Federations in 2002, which enabled the people to get their estimated yield from their agricultural crops, without being damaged by the wild animals. A study conducted by KVK indicates that on an average 40% of crop loss occurs in every season, due to wild animal damage.

### Intervention

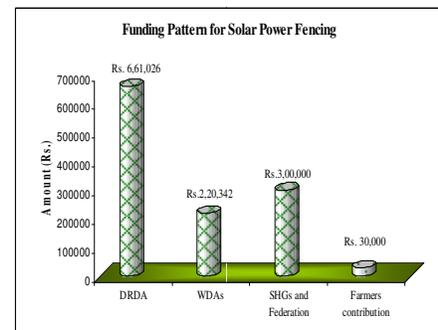
#### Process and technology:

**Involvement of watershed associations and SHG federations:** To mitigate the animal menace in water shed areas through solar power fencing, KVK imparted capacity building programmes to selected individuals of Watershed Development Associations (WDAs) on the need and importance of solar fencing, which includes post management aspects. The financial assistance for establishing solar power fence structures was provided on loan basis by the SHG federations to the farmers.



For the demonstration of solar power fencing, the partners involved are SHGs Federations, DRDA, Watershed Development Associations (WDAs) and the individual farm families. The total project cost for solar power fencing was Rs.12, 11,368/- . It was experienced that due to the involvement of people's institutions from the planning process till the end of the project, the sustainability of the program could be achieved.

**Location wise details of solar power fencing program:** KVK, with the support of DRDA has established common boundary solar fencing in 442 ha of Talavadi and Bargur hills. In the following villages, fencing structures were erected from the year 2002 with the participation of watershed development associations.



Sl.No	Name of the block	Name of the villages	Area (ha)
1	Talavadi	Chikally	140
2	Talavadi	Gandhinagar	6
3	Talavadi	Balapaduga	36
4	Anthiyur	Bargur Hills -Tamaraikarai, Devarmalai, Thattakarai & Sengulam	260

**Creation of Revolving Fund:** In Bargur hills, Solar power fencing was established in an area of 260 ha through federations of SHGs. 30 units were established by covering 15 villages in the forest area of Bargur Hills benefiting 55 farm families to protect their crop from wild animals.

The program was designed and executed through the federation to the Self help group members and to the individual families on loan basis. The members then joined with other selected members and together erected common solar power fencing to cover their lands. They repaid the loans, so that, other areas also could be benefited with the available fund.

Ensuring sustainability of the intervention: The respective area groups of the watersheds in the villages were involved in the post management of the fencing system. The management activities involved cleaning the land lying close to the fencing, maintenance of fencing machine, battery and fence wires. A management system on rotation basis involving all farm families has been developed for effective management of fencing structures.



**Committee's involvement in post management**

**Impact:**

**1. Reduction in crop loss:**

Village	Area(in Ha) prone to wild animal menace( Before installation of solar power fencing)	Crop loss(%) due to wild animal damage	Impact after erection of solar power fencing	
			Cropped Area(in Ha) under protection through solar power fencing	Amount of grains (Ragi in tonnes) saved
Chikalli	350 Ha	40%	140	280
Gandhinagar	20 Ha	30%	6	12
Balapaduga	40 Ha	90%	36	52
Bargur hills	110 Ha	35%	70	140

**2. Scaling up of the technology:** The concept of people's institutions like watershed association and SHG was better internalized by the local people after the implementation of solar power fencing programme. This strategy also motivated many other villagers for similar kind of programme. For example, in Iggalore village people have sent their request to DRDA for solar power fencing after seeing the successful implementation of solar power fence at Chikally watershed.

*By seeing the success of the solar power fencing, the forest department of Anthiyur also started installation of solar power fencing in 700 acres in Burgur hills in addition to the area covered by CBO's with the technical support of KVK.*

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