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FARMER'S NOTEBOOK

Reducing external dependency and increasing food security

Biofarm empowers the farmers to use common resources found locally

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For almost the last fifty years Indian agricultural practices have mainly concentrated on increasing yield, leading to the cultivation more mono crops (single crops).

This in turn has made the crops highly vulnerable to pest attacks, soil becoming barren, and ground water toxic.

Farmers have realized the gravity of the situation and are slowly turning to organic methods. From single farmers to entire villages, the organic movement is slowly gaining momentum in the country.

Organic methods

For example, if one visits Kozhikodupothai village in Kanyakumari district of Tamil Nadu, one can be convinced of this.

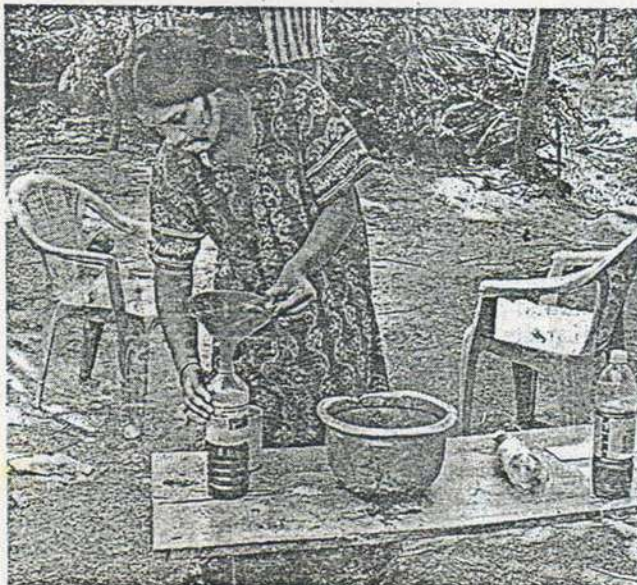
The village, which was once a major bowl for rose cultivation, has slowly switched over to growing vegetables through organic methods.

Initially a paddy growing area, the lure of more income from rose flowers from a major flower market nearby made the farmers shift to chemical rose cultivation.

Decreasing return

Though at first they were satisfied with the returns, over the years there was a decreasing return both in terms of yield and income, while at the same time the input costs were escalating.

It was then that the Vivekananda Kendra-Natural Resources Development Project (VK-NARDEP) went there as part of a project called biofarm.



SAFE AND SECURE: Women have been trained in the manufacture of low cost bio-liquid formulations.

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"The basic philosophy of biofarm is that the farm and home level diversity of sub-systems has to be increased. That is livestock, poultry, vermi compost unit and biogas plant are linked to the local ecological and economical context of the farmer," said Mr. G. Vasudeo, Secretary, VK-NARDEP.

By doing so, the external dependency of the farmer reduces progressively over the years, and his food security increases.

Biofarm empowers the farmers to use and take care of the local common resources. This was essentially achieved by revival of local knowledge systems with expert guidance.

Weekly meeting

Weekly meetings of the farmers engaged in sustainable agriculture were organized to discuss their problems, challenges, solu-

tions and experiences. These weekly meetings transformed into farmers' association which in turn linked with NABARD. One of the key features of weekly meetings is the high number of women participation.

Training women

The women underwent training in the preparation of herbal medicines from home herbal gardens and also livestock and local plant extracts based bio-liquid formulations such as *Panchagavya* and tri-leaf extracts.

The women found that these skills and knowledge empowered them more financially than just offering passive labour assistance to their men in the fields, according to Mr. S. Aravindan, Social scientist of the Institute.

According to Dr. Kamalasanan Pillai, bio technologist, two new concepts were also introduced to the farmers.

One was living water and the other was *Panchagavya*.

Living water

Living water is a mixture of seawater and biogas slurry with yeast. Essentially it is an enriched medium for the nutrient recycling microbes to multiply.

It is prepared by mixing about 20 litres of seawater, 1 litre of biogas slurry or 100gms of cow dung and 10 gm of yeast.

About one litre of living water is diluted in 10 litres of water and applied to the crops.

The total cost of manufacturing about 10 litres of living water comes to Rs. 15.

In the case of *Panchagavya*, the ghee component has been reduced and instead biogas slurry content has been increased.

Manufacturing method

Accordingly *Panchagavya* is made by mixing about 3 litres of biogas slurry, half a litre of cow's urine, ghee, sugar cane juice, and tender coconut water each, one litre of cow's milk and butter milk each, and ripe bananas (6 nos).

The total cost of manufacturing about 10 litres of *Panchagavya* comes to about Rs. 250.

Once known for its high debt rate of farmers and quarries in neighbouring hills, Kozhikodupothai village today stands transformed into a vibrant example of sustainable agriculture.

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