

PROMOTING ORGANIC CULTIVATION OF VEGETABLES THROUGH WOMEN GROUPS

There is an increasing demand for safe food including pesticide free fruits and vegetables even in rural areas. *In this good practice note, Dr. G.S Sreedaya, Dr. P.V. Habbeburrahman and Dr P.T Suraj reflects on an initiative on promotion of organic vegetable cultivation they piloted at KVK Malappuram with women groups.*

SYNOPSIS

‘Conscientization programme on organic cultivation of vegetables’ is a project implemented at Tanalur panchayat of Malappuram district in Kerala by the Krishi Vigyan Kendra (KVK) Malappuram (Kerala, India) during 2008-10. This initiative funded by the Kerala State Council for Science Technology and Environment (KSCSTE) was aimed at popularization of organic vegetables as well as empowerment of women. This initiative succeeded in both because of collaboration among a wide range of stakeholders.

CONTEXT

Agriculture is a major source of income for the majority of rural population in Malappuram district in Kerala. The main crops raised are Paddy, Coconut, Tapioca, Arecanut, Cashew, Banana, Rubber, Pulses, Ginger, Pepper and Betel vine. KVK

undertook a Participatory Rural Appraisal (PRA) exercise at Tanalur Panchayat and it revealed the following facts. The district is far behind in the production of vegetables. Moreover the vegetables that are marketed in the district contain pesticide residues above acceptable levels. In rural areas, many women are impoverished and only a very few women are engaged in some occupation. With this background the project ‘Conscientization programme on organic cultivation of vegetables’ funded by KSCSTE was implemented at Tanalur panchayat of Malappuram district.

PARTNERS

1. **Krishi Vigyan Kendra Malappuram:** KVK’s mandated activities include Front Line Demonstration (FLD), On Farm Trials (OFT) and trainings to unemployed youth and farm women. This activity was initiated by the KVK to address the issues identified during PRA.
2. **Kerala State Council for Science Technology and environment (KSCSTE).** It granted Rs 2 lakhs (US\$ 4000) for this initiative and this amount was used to fund construction of vermi-compost pits, rain shelters and to meet the cost of other items such as seeds, earthworms etc.
3. **Department of Agriculture (Krishi Bhavan, Tanalur).** It supported the KVK with technical advice and delivery services to the women groups.
4. **Ashraya-** It is a dairy based NGO at Tanalur and has a training institute where all programmes aimed at planning and capacity development were conducted. It also linked the women groups to market outlets.

5. **Tanulur Panchayat.** This local self government institution played a major role in the identification of trainees, formation of groups and construction of vermin-compost pits.

GOOD PRACTICE

1. Identification of beneficiaries

100 women beneficiaries below poverty line were identified with the help of Gram Panchayat from every ward. 75% of the identified women were having 1-2 cows. The selected beneficiaries were divided into ten groups based on their convenience by the KVK with the help of respective ward members.

2. Identification of land

The average size of land holdings of the beneficiaries was only 5-10 cents (0.05-0.1 acres). But each group needed 50 cents (0.5 acres) of land. KVK with the help of Gramapanchayat identified barren lands and brought the same under cultivation.

3. Organisation of training programmes

Different training programmes on vegetable seed production, vermin-compost production and preparation of organic pesticides and fertilizers were conducted at farmers training institute, Tanalur. The choice of the vegetables was done by the group members based on the local demand.

4. Material support

Each group was provided with vermi-compost pit (size 2x1.5x0.6 m³) of worth Rs 3000/ (US\$ 60) and earthworms for making organic manure. All the groups constructed vermi-compost pits and produced compost and vermiwash for using in their own cultivation. Tanalur is a low lying panchayat situated in the coastal belt and would be waterlogged almost half of the year which makes the vegetable cultivation difficult. As a solution, rain shelters (size 7x7 m²) worth Rs 2500/ (two thousand five hundred only) (US\$ 50) were provided to each group. Rain shelters are low cost UV stabilized polythene sheets which protects crop from rain and at the same time provided a controlled atmosphere for the crop. The studies conducted at KVK Malappuram revealed that yield from crops grown inside the rain shelter is almost triple than from the outside environment.

5. Market linkages

The NGO, Ashraya, linked the groups to Kottakkal Arya Vdyasala- a pioneering ayurveda institute (which has a very huge demand for organic vegetables), for selling their produce.

ECONOMICS OF CULTIVATION

Table 1: Average returns/group for the first season of vegetable cultivation (Aug, 08)

Crops	Area(cents)	Yield(Kg)	Amount(Rs)	Price/Kg(Rs)
Okra	20	700	7700	11
Bitter gourd	20	900	11700	13
Cucumber	10	500	2500	5
Total returns			Rs 21,900//	

Table2: Average cost/group for the first season of vegetable cultivation (Aug,08)

Sl:No	Item
Cost of labour	Self (As Tanalur is a low lying area, it was easy for the women to perform the cultivation by themselves including digging the barren land)
Cost of seeds	Rs 1000/(met from project funds)
Organic manure	(Prepared by the beneficiaries as 75% of them have at least two cows)
Organic pesticides	Rs 500/(met by the beneficiaries)
Net profit	Rs 21,400
Profit/person	Rs 2,140/

Table 3: Average returns/group for the second season of vegetable cultivation (Jan,09)

Crops	Area(cents)	Yield(Kg)	Amount(Rs)	Price/Kg(Rs)
Tomato	15	630	7560	12
Amaranthus	15	1100	14300	13
Salad cucumber	20	1100	7700	7
Total returns			Rs 29,560/-	

Table 4: Average cost/group for the second season of vegetable cultivation (Jan,09)

Sl:No	Item
Cost of labour	Self
Cost of seed	Rs 1200/(met from The project)
Organic manure	met from the project
Organic pesticides	Rs 500/
Net profit	Rs 29,060 /
Profit/person	Rs 2,906/

During the third season (Sep,09) vegetables were cultivated in the rain shelters and the crop selected was tomato only. The yield from tomato from one cent of land cultivated outside and inside the rain shelter is 42Kg and 88Kgs respectively.

IMPACT

Benefit and Impact

There is an increasing trend in the consumption of vegetables after the start of this initiative. The consumption of leafy vegetables per week increased by 0.9 kg, tubers by 0.1 kg and other vegetable (vegetable either cultivated or purchased by the respondents) by 0.7 kg (Fig 1). Though they are not cultivating tubers and leafy vegetables their consumption might have increased due to the better purchasing power and improved health consciousness.

Fig 1: Consumption of Vegetables/week before and after starting organic cultivation of vegetables (n=100)

By March 2010, the women have become self reliant in crop production and crop protection. They have become well versed in different aspects of seed production and crop protection. The other gains from these interventions include: improved health consciousness, increase in income, increase in area under cultivation, change in time utilization pattern, and social and economic empowerment.

CHALLENGES

Identification of suitable land for cultivation was a major challenge as some of the landlords were not willing to give land for cultivation without lease which was solved to an extent by the intervention of panchayat ward members.

Distance to Tanalur from the KVK and lack of co-ordination among group members initially constrained KVK. But these were addressed through the support of Krishi Bhavan and Gram Panchayat.

SUSTAINABILITY AND SCALING UP

This particular initiative addressed three core issues raised by the community.

1. Low production of vegetables
2. Consumption of vegetables having high pesticide residues
3. Poor economic opportunities for women living below the poverty line

The communities have the infrastructure, the technical knowledge and access to inputs and output market in this case and they can approach the KVK and the Krishi Bhavan for any technical help whenever it is required. Though the project ended in May,2010 cultivation of vegetables continues even today due to the above said reasons.

The local self government and technical institutions in other areas can initiate such projects not only in vegetables but also in other crops like banana and paddy and they could use the labor support offered through the Mahatma Gandhi National Rural Employment Guarantee Programme (MGNREGP).

LESSONS LEARNED

The demand for safe and wholesome food is high in almost all parts of Kerala. However, the production potentials of the same have not been utilized, except in a few localities. Initiatives as discussed above can stimulate production and consumption of organic vegetables. But such initiatives can succeed only with the co-operation of different stakeholders and therefore the agency leading this type of initiative should have adequate capacity for ensuring co-ordinated action.

Organizations like KVK needs strong linkages with local technical bodies (such as the Krishi Bhavan of the State Department of Agriculture) local NGOs (for organizational and training support) and local self government institutions such as Panchayat (for administrative and political support) if it has to effectively reach distant areas within the district.

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