TRAINING IN NURSERY RAISING, FODDER DEVELOPMENT AND RAISING FRUIT SAPLINGS

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Training in Nursery Raising, Fodder Development and Raising Fruit Saplings

C.P.R. Environmental Education Centre (CPREEC) was sanctioned a project to organize **Training in Nursery Raising, Fodder Development and Raising Fruit Saplings** among rural women in Kunnam Village, Kanchipuram District in the state of Tamil Nadu.

There is concrete evidence that women in several countries around the world are taking significant roles in sustainable agro-horticultural practices. There is also an increasing belief that development policies that do not involve women and men alike will not, in the long run, be successful. Even though there is a growing awareness of the need and importance of making women contribute to economic welfare of the family and society and planning of activities related to the sustainable development of their communities.

In addition to unrestricted exploitation of natural resources, unsound agricultural practices have had devastating effects on the environment and on people's health and quality of life. Women and children have been particularly affected.

In order to provide livelihood opportunities to the rural women and to improve their living conditions, CPREEC implemented the project in Kunnam Panchayat in Kanchipuram district in Tamil Nadu.

Kunnam panchayat in Sriperumbudur Taluk in Kanchipuram district is basically engaged in agricultural activities. The women are involved in agricultural activities and earn a living through the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) of the Government of India. The training programmes were conducted from April to July 2016.

**Objectives of the project**

- Strengthen the links between agriculture, skill and other sectors of the rural economy
- Provide entrepreneurial and skill training and other support to on and off-farm and other non-primary production activities.
- Develop sustainable ways to add value to agro-horticultural products locally and regionally.
- Establishment of agro-horticultural activities related to sustainable revenue generation cycles, while respecting the rights of rural communities.
- Encourage the use of land resources in a sustainable manner.
- Promote gender equality as well as take measures to achieve equal opportunities for women.
Scope for Women and agro-horticultural projects

There has been an increasing demand for horticultural crops more particularly fruit and ornamental plants in urban and rural areas of India. With this, the demand for good quality plant saplings has gone up and hence nursery raising activities developed rapidly in the recent years in our country. Nursery product is no longer restricted to orchards or large parks and gardens. It has entered into high rise buildings, offices, factories, business houses, hospitals, hotels, backyards, roadsides in cities, roof tops, etc. for decoration purpose. Heavy demand is observed during festive seasons and seasons of fairs and melas.

Topics covered in the training

Agro-horticultural projects

- Fundamentals of Agro Ecology
- Different types of plant propagation
- Fodder crop requirement and development
- Sustainability of agro-horticultural activity
- Rural economy and revenue cycles
- Nutrition for healthy life

The staff approached the village President, Mr. E. Ravichandran, and had discussions with the village president, vice president and former village president and explained in detail the proposed activities to be carried out and the various benefits to the village women. The Village president accepted to provide all help to CPREEC in executing the project. He mobilized the women to undergo training.
Earlier, CPREEC approached the Blue Cross of Kanchipuram to utilize their land at Kunnam village for raising fodder cultivation. Accordingly, two acres of land was selected for implementing the project.

The fenced land was first cleared of weeds. The land was levelled using an excavator, applied red soil and natural manure like neem cake. The land was further levelled and the land was ploughed for effective yield.

The land was divided into four equal parts and beds and rows were prepared for fodder cultivation. We approached the Post Graduate Research Institute in Animal Sciences (PGRIAS) at Kattupakkam near Chennai and procured seeds ideal for fodder cultivation at Kunnam land conditions. The mother plants were also sourced. They provided us the contact details of Mr. V. Balaji, a Member of the Local Farmers Group associated with PGRIAS.

Mr. Balaji, a farmer himself involved in fodder cultivation shared his experience in choosing appropriate mother plants, preparing buds and rows, watering techniques, weeds removal, applying manure, grass cutting / harvesting techniques, etc.
Resource materials

The following resource materials in Tamil were prepared for the project and distributed to all the women beneficiaries:

- A pamphlet on the title of the project was designed and printed.
- Booklets on *Fodder cultivation, nursery raising and raising fruit saplings* and *Women and Environment* were prepared and distributed.
- A disc on *Nursery raising, tree planting and after care* in Tamil was also distributed.
- The following posters were also distributed
  - *Reduce, Reuse, Recycle* (on vermicomposting)
  - *Let me live* (on the Tree)
  - *Women and health* (on Herbal plants)

Training programmes for women

With the help of the village president, the mobilized women underwent a training programme on fodder cultivation. The programme was organized at the Blue Cross of Kanchipuram. The village president, Mr. E. Ravichandran, Mr. Parthiban, vice president, former village president Mr. Krishnanandan and Dr. P. Sudhakar, Joint Director of CPREEC interacted with the women beneficiaries. Mr. R. Selvapandian, Environmental Education Officer, CPREEC briefed the women about the training and modalities to be followed in undergoing the training.

Dr. P. Sudhakar and Mr. R. Selvapandian held interactive meetings with the women beneficiaries in the presence of the village president and others
Mr. Balaji, Member of the Local Farmers Group associated with PGRIAS and a farmer himself, was invited to serve as an expert resource person and interact with the women beneficiaries.

Mr. V. Balaji sharing his rich experience on fodder cultivation techniques among the women beneficiaries

He interacted with the women beneficiaries and shared his rich experience on land preparation, preparation of buds and rows, applying natural manure, selection of mother plants to give a good yield based on the prevailing soil quality, the importance of watering the plants, after care, removing weeds, gap filling, casualty replacement of mother plants, appropriate time for harvesting, monitoring the growth of the plants, after care, harvesting techniques. Women beneficiaries collected the mother plants (seeds) for planting on the land.

Women beneficiaries collecting mother plants and assorting them for plantation at Kunnam for fodder cultivation
Mr. Balaji further requested the women beneficiaries to plant tree species such as *Sesbania grandiflora* (*Agathi*) *Leucaena leucocephala* (Subabul), *Erythrina Variegata* (Kalyana murungai) as intermediate crops in the land along with fodder crops. He suggested that the branches of these tree species may be given as supplementary food to the livestock during the hot summer months. He also gave a few examples of cereals like sorghum, maize, corn and pulses like cowpea and horse gram.

Mr. V. Balaji demonstrating the need of after care at the field

Mr. Balaji said that after care is very important for raising any plants. He said that out of the various varieties of plants available for fodder cultivation, the CO-4 variety is a fast growing plant and ideal for Kunnam land. He further said that this fodder is a good food supplement for livestock and provides the required nourishment. The women interacted with him and clarified their doubts.

The women beneficiaries are involved in after care of the land. As suggested by Mr. Balaji, the women had planted *Sesbania grandiflora*
(Agathi) and cowpea as intermediate crops. They regularly removed the weeds and applied manure.

Agathi planted as intermediate crop at the Kunnam land and women beneficiaries removing weeds from the land

Mr. M. Raman, Ramya Nursery Garden and Services, Villuppuram another expert resource person spoke in detail about the various nursery raising techniques. He dealt in detail about the pre-requisites for a nursery like water availability, soil type, manure, appropriate fencing, adequate sun shine and shade, selection of seeds, provision for excess water to drain, etc. He further said that mornings and evenings are the ideal time for plantation.

Mr. M. Raman, Ramya Nursery Garden and Services, Villuppuram interacting with the women on nursery raising techniques

He also demonstrated bed preparation, sowing of seeds, applying manure, removing weeds, watering, transferring the plants into plastic bags from the seed bed, etc.
Women beneficiaries involved in sowing seeds in the nursery and the saplings are ready for planting

Mr. N. Rajendran associated with the Tamil Nadu Horticulture Farm Nursery at Athur near Chengalpet was the resource person for grafting, budding, cutting and layering techniques. He demonstrated the various techniques used for various plants like mango, sapota, guava, lemon, rose and crotons. He also cleared the doubts raised by women in implementing the above techniques. He gave a few suggestions on the size of the plants, and the various techniques which are being successfully followed and which have given good results.

Mr. N. Rajendran demonstrating various plant cultivation techniques
Mr. N. Rajendran demonstrating various plant cultivation techniques

Mr. M. Subramanian, Project Officer of the CPREEC interacted with the women beneficiaries and spoke on the health benefits of herbal plants. He stressed the importance of growing medicinal plants in the kitchen garden and benefits of traditional food habits, growing small millets as the usage of small millets has increased in urban areas. He further briefed the gathering about the simple remedies being practiced in the villages.

Mr. Subramanian also explained in detail the importance of growing intermediate crops which will give additional income to the women. He taught them vermicomposting techniques and that the manure can be applied to the fodder being grown.

Distribution of saplings and seeds

In order to motivate the women beneficiaries to raise a kitchen garden and to earn additional income, the following saplings and seeds were distributed to all the women beneficiaries. Hybrid seed varieties were given to them.

Saplings

- Portia
- Pungam
- Guava
- Mango
- Lemon

Seeds

- Cluster beans
- Ladies finger
- Bitter gourd
- Drumstick
Women beneficiaries receiving seeds and the various seeds distributed to them

Fodder cultivation

After the plants attained the required growth in height and ideal for the livestock to consume, the women beneficiaries were provided with a sickle to harvest the fodder. The women beneficiaries harvested their hard work of labour and piled the collected fodder. The collected fodder was given to the Blue Cross of Kanchipuram for their fodder requirements to feed the livestock maintained by them.

Women harvesting the cultivated fodder; cultivated fodder being transported to Blue Cross shelters and the livestock maintained at the Blue Cross shelters consuming the harvested fodder
The women beneficiaries were provided with participating certificate (given below) for undergoing the training programme on fodder cultivation.

![Participating Certificate Image]

The women groups in rotation maintain the fodder crops and will harvest the same and give it to The Blue Cross of Kanchipuram shelters for feeding the livestock.

**Conclusion**

The women beneficiaries had participated enthusiastically in the programme and expressed their gratitude to CPREEC. The women further informed that the seeds and saplings given to them for raising in kitchen garden are growing well and have started yielding. The ladies finger and cluster beans yield have been very good.