

a comprehensive programme for rejuvenating the coconut economy of aryad-kanjikkuzhy blocks

Dr. M. P. Parameswaran

Introduction

Coconut farming and related agro industries- copra, oil, coir, cudgeons, activated carbon etc used to be at one time the backbone of Kerala economy. In fact the name Kerala itself incorporates the importance of *Kera* for the country. This is more so for coastal areas of Kerala and so, also, for Aryad and Kanjikkuzhy blocks. These two blocks consist of 8 grama panchayats with a total population of about 2.6 lakhs and an area of 170 Sq. KMs. Of the total cultivated land of 14,076 ha coconut alone occupies 11,213 ha (i.e. 80%), paddy, cashew and banana occupying 10%, 3.5% and 3.1% respectively. Disease like root-wilt has been reducing the productivity of coconut for the past two decades. The catastrophic fall in prices during the past three years has added insult to injury. The per hectare income has dropped to 20% or so of what it was. The major coconut based industry- coir- too has been suffering set backs. The area does not have, at present, any fall back option. The poverty level in the two blocks is one of the highest in the state, more than 60% are BPL. Apart from immediate poverty alleviation measures long term development will require enhancing the share of coconut both in percentage and in absolute terms. Most of the short term measures depend on primary sector- agriculture, animal husbandry and fisheries- and this requires land. This project is a planned intervention into the land use pattern of the area so as to address both short term and long term measures. It involves massive and planned replanting of coconut, substantial extension of vegetable and banana cultivation, diversification of crops etc in order to provide raw materials for the micro enterprises envisaged for SHGs. Since re-plantation involves cutting down tens of thousands of coconut trees every year, it should have an element to make use of the coconut timber through maximum value addition. So, a coconut timber / waste utilization complex too will be part of this project.

Coconut Replantation

Present Status:

Area	:	11313 ha
No. of plants	:	200 per ha
Productivity	:	4052 nuts per ha 20 per plant.

Reasons for poor productivity are:

- Disease
- Poor or degenerate genetic stock
- Poor management
- Extension to unsuitable, water logged areas.

A ward by ward and plot by plot survey will be made to:

- i. identify those “freak” plants which have survived all the adverse conditions, resisted disease and show a high level of productivity > 80 nuts or >100 nuts per year. These are to be preserved to function as the mother or elite stock.
- ii. identify areas which are totally unsuitable for coconut and where replantation should not be attempted.
- iii. assess the average age and size (height) of plants.

Later a ward by ward (and also plot by plot) proposal for felling and replantation will be worked out. This will be discussed in the ward level *Kera Karshaka Samithi* (If they don't exist they will be made) and will be adopted with suggested modifications.

The total number of plants	@ 22 lakhs
Freak elite plants about 10%	2 lakhs
Plants to be replanted	20 lakhs
	(About 1.5 to 2.5 lakhs per panchayat)

Assume a 10 year period for total replantation

Average trees to be cut per year » 2 lakhs

Assume that 30% of the area presently under coconut cultivation is thoroughly unsuitable for it and should be brought under different crops. This figure of 30% will be made pucca after the survey.

Replantation area effective	=	7000 ha
Area released for other cultivation	=	3000 ha
Planting material requirement	=	14 lakh plants
Planting per year	=	1.2 to 1.5 lakhs

Coconut Development Board and Kayamkulam Research Station shall be approached for help.

- Half of the plants shall come from local mother/elite plants. So, the nuts from these plants, especially the best plants, will be collected and used exclusively for seedling generation.
- 30per cent of the plants may be selected specifically for tender coconut purposes- dwarf, large size and plenty of sweet water.
- Rest of the plants may be good high yield, oil bearing varieties.

Clear felling can start from areas which are any way, unsuited for coconut cultivation. The cleared area can be used for cultivation of other crops- vegetable, banana / tapioca etc or for ponds and pisciculture.

The cut trees have to be uprooted fully, the area cleared and cleaned.

In each panchayat a Coconut Service Society- a *Kera Sewa Sangham* – can be established, as part of a future, larger, *Kera Soubhagya* project. It will provide the following services:

- Cut down coconut trees, uproot them and purchase root, stems and leaves.
- Will provide new planting material immediately or later.

(It is suggested that each plot should be given 3 to 5 years ‘rest’ from coconut, before replanting. This may help elimination of disease causing agents and also provide space for immediate seasonal crops)

- Will provide planting materials (seeds, seedlings) for other crops than coconut.
- Will provide simple, but reliable labour service to farmers (enter into partnership with them), provide total integrated services or take in their land on semi-long term (3 to 5 years) lease with the guarantee of the panchayat given to farmers etc.
- Will establish and run coconut timber complexes.
- Will establish and run coconut waste utilization complexes.
- Will purchase excess coconuts and husks etc.

The *Kera Sewa Samithi* will, thus consist of several number of specific service groups such as for :

1. Cutting, clearing and transportation.
2. Raising and planting new plants
3. Waste utilization complex – root stock, cudgeons, toppings and other wastes.
4. Coconut timber processing complex.
5. Coconut purchase and processing complex.

CCT

Assume that one CCT (Cutting, Clearing and Transportation) brigade to cut 40 trees per day, 250 days a year, 10000 trees a year. It will require one medium (5 Te) lorry. 40 trees with root stock will weigh anywhere between 10 to 20 tonnes. The lorry will make one trip to the waste utilization complex- WUC and one to timber processing complex (TPC).

Expenses of CCT:

1. Price paid to farmer 40 trees @ Rs. 250 (average)	Rs. 10,000 per day
2. Transportation (lorry hire or expenses for own lorry)	Rs. 2,000 per day
3. Wages 20 persons @ Rs. 100 per day	Rs. 2,000 per day

Rs. 14,000 per day

Income:

Sale of timber 40 x Rs. 300	Rs. 12,000
Sale of Waste (Firewood) 4 x 800	Rs. 3,200
	Rs. 15,200

(Capital investment Rs. 10 lakhs)

TPC (Timber Processing Complex)

A Coconut Timber Process Unit:

40 trees a day 5 to 6 meters per plant i.e. 200 to 250 meters of 4" /1" rafters. 4 to 5 splints. About 1000 meters per day.

Capital investment	Rs. 50 lakhs
Daily capital cost @ 20%	Rs. 4000
Electricity charges per day	Rs. 1000
Wages 40 X 125	Rs.10000
Salaries (supervision)	Rs. 1000
Raw material	Rs. 12000
Other charges	Rs. 1000

Total Rs. 29000

Income 70 cft @ Rs 450 per cft.	Rs. 31500
Net daily profit	Rs. 2500

WUC (Waste Utilization Complex)

Firewood	=	5 Te per day
Cudgeons	=	400 per day

Activities : Brick making (firewood used for that)
Treated Thatches : @ 300 pairs a day Brooms etc.

Income :	<i>Fire wood</i>	Rs. 6000
	<i>Thatching mats</i>	Rs. 800
	<i>Misc.</i>	Rs. 200
		Rs. 7000

	<i>Purchase cost</i>	Rs. 5000
	<i>Wages 10 x 100</i>	Rs. 1000
	<i>Other expenses</i>	Rs. 500
		Rs. 6500

Coconut Processing Complex

Basically copra making. Details to be worked out after assessing surplus (marketable) availability of nuts. Shell and husk will be sold separately. Assuming a production of 50 lakh nuts per year per panchayat 30% own consumption as nuts, 35 lakh nuts per year for sale. Assume a collection of 20 lakhs nuts per year or 8000 nuts per day.

Plucking coconuts: 2.5 lakh trees

@6 times per year = 15 lakh climbings
Per person 50 trees x 250 days = 12500 climbings per year

About 100 persons can be employed. They exist today.

Organize them on an enterprise mode.

I do not have any idea of steps /labour involved in raising plants. That is to be worked out later. If 10000 plants are raised by one unit, if the price at which they are sold is Rs. 20 and if labour component is Rs. 12 this can provide employment to 5 to 7 people.

The total employment potential is about 80- 100 per panchayat, with per capita annual income of Rs. 25000, generating surplus for insurance etc.

The total investment will come to about Rs. 70-80 lakhs i.e. about Rs. 80,000 per worker.

The annual turn over will be about Rs. 1.5 to 2.00 crores. Net value generation, about Rs. 80 lakhs, salaries and wages Rs. 25-30 lakhs.

This is a commercially viable proposition. The end products from TPC and others will be sold through the central marketing facility. Entrepreneur/ leadership will have to be given. However all the 80-100 workers will have to learn every aspect of the enterprise. This is to be a compulsory education process.