



A view of the Central Plantation Crops Research Institute, Kasargod

COCONUT in Indian economy

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Coconut, one of the five legendary 'Devavrikshas', has been rightly eulogised as 'Kalpavriksha' - the all giving tree - in the classics of India. Currently the country produces 59,610 lakh nuts annually from 11.2 lakh hectares of coconut plantations. More than half of the total coconut production is utilised at the subsistence level. The remainder is processed into copra, coconut oil, copra cake, charcoal, coir, etc. for further use in a wide range of manufactured products for human consumption and industrial use generating a significant amount of foreign exchange. From coir alone, India earns about 19.4 crore rupees in foreign exchange. Coconut culture and industry provide full or part-time employment to over one crore people in the country. Coconut contributes one per cent to the GNP and two per cent to the total agricultural income of India which ranks third in the world production of coconut.

The importance of coconut to the economy of our country cannot be judged from the above facts alone. It will have to be measured from the overall production this crop can generate per unit area of land, time and inputs, its manoeuvrability

for reducing the cost of production and risk factors involved in farming due to pest and disease losses and market fluctuations, opportunities that it can offer for additional employment and above all its amenability for the establishment of a balanced plant-animal-human eco system.

Being a perennial crop, coconut locks up the area planted for centuries. However, the canopy size of coconut allows the full utilisation of soil and sunlight through the cultivation of intercrops.

BETTER CARE PAYS

Coconut is one of the few crops that yields some income even when least cared for. That is why in many parts it is referred to as a "lazy man's crop". Surprisingly, this crop responds very well to irrigation and higher doses of fertilizer. The yield of coconut increased from 77.4 nuts to 148.6 nuts per palm per year over a period of 3 years, the mean response per year being 53.4 nuts. Besides, in the coconut-cacao crop combination the mean yield of 65.4 nuts per tree per year increased to 164 nuts over a period of 3 years with a mean response of 73.9 nuts per year. Thus

coconut responds exceedingly well both under pure cultivation and mixed cropping to better management.

In the inter and mixed crop combinations, in addition to the extra yield of coconut, there is the income from the intercrops as well. Results of experiments show that returns can be enhanced to as high as 300 per cent with appropriate crop combinations and good management as evident from the following table.

Input requirements and return of different crop combinations per hectare

Crop combination	Total cost of cultivation (Rs.) per year	Net income (Rs.) per year
A. Intercropping (Rainfed)		
Coconut monocrop	2400	4800
Coconut + tapioca	4800	5500
Coconut + Elephant yam	6100	7200
Coconut + Sweet potato	4450	5450
B. Mixed cropping (under irrigation)		
Coconut monocrop	3500	6050
*Coconut + cacao	6200	14300
*Multistoreyed cropping (Coconut + cacao + pineapple + pepper)	7520	17230

*Fertilisers are applied to coconut palms at double the normal dose.

Coconut, unlike most of other tree crops, comes to harvest every month and provides income to the farmer throughout the year. Such continued harvest also helps to serve as a safeguard against sudden market fluctuations affecting the economy of the farmer. If there is a decline in the price, the farmer can store the nuts until such time the prices become favourable, since tree ripe coconut is nonperishable in nature. The inter and mixed crops that are raised under coconut both under rainfed and irrigated conditions further help to improve the income and also stabilise the economy of the farmer.

GREATER EMPLOYMENT POTENTIAL

Coconut ranks first among the oil yielding crops of the world, as it is grown in as many as 76 developing countries. In India most of the coconut growing areas have surplus labour and finding a useful and remunerative employment for them becomes possible under different cropping

systems with coconut as pivotal crop. The increase in employment potential is over 600 per cent in some of the systems.

Annual labour requirement for different crop combinations/systems.

Crop combinations/systems	Annual labour requirement (No. of man-days)
A. Intercropping (Rainfed)	
Coconut monocrop	150
Coconut + Tapioca	285
Coconut + Elephant yam	310
B. Mixed cropping (under irrigation)	
Coconut monocrop	220
Multistoreyed cropping (Coconut + Cacao + Pineapple + Pepper)	360
C. Mixed farming (under irrigation)	
Coconut + Grass + Legume and dairy	1000

MANY PLUS FACTORS

One of the major handicaps in production today is the high cost of inputs, resulting in high cost of production of most of the agricultural commodities. These inputs, such as water and nutrients, if used with higher efficiency can bring down the cost of production. It has been observed from the experiments that most of these crop combinations generate considerable quantities of organic waste that recycles itself, thus improving the soil health and fertility. Besides, with the same quantity of water, more than one crop can be raised. The application of manures and fertilizers under such a system can also have a higher efficiency. These advantages should help the coconut farmers improve their economy.

Coconut is by and large a garden land crop mostly grown on small holdings. Owing to this reason, it is one of the most ideal crops for developing a balanced plant-animal-eco system. Fodder grasses and legumes grown in a hectare of coconut plantation can maintain 4 milch cows and find all the year round employment for a family of 3 members. It is not only the yield of palms that is increased by the recycling of the animal waste, the farm income also goes up by 61 per cent over a period of 3 years. The family can also produce simultaneously tubers such as tapioca and banana. The role that coconut palm can play in the overall economy of the country is indeed considerable.