Maintain high coconut prices to foster a sustainable rural economy

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The four southern states of India together account for 90 percent of the coconut production in the country. While the share of India in world production of coconut is 22 percent, Kerala contributes 42.2 percent of it by occupying 40.2 percent of the net cropped area of the state. Income from coconut is the main stay of 3.5 million families in Kerala, though its price was low and erratic for the past several years. It is only recently that coconut fetches an attractive price in the state. A variety of reasons are contributed to the present phase of the coconut economy of the state which is supposed to be temporary in nature. Production on loss owing to poor rainfall in the other southern states is the major reason behind sudden price hike, while Tumkur and Coimbatore based coconut processor's bulk purchases have also contributed to it. However, the present price of Rs. 15 to 20 per de-husked coconut is the price which the coconut farmers have been cherishing for long. Now the question is how to maintain this price for a longer period. It is possible through supply and demand management of coconut, provided the growers, the government and the Coconut Development Board work together and make combined efforts.

Supply Management

Coconut is a crop which is long neglected by the growers in Kerala owing to various deterrent factors like scarcity, high cost of labour, diseases and pests of coconuts, high price and non availability of inputs, lack of value addition etc. Advent of World Trade Organization was another fatal blow. WTO's principal objective of creating a fair and market oriented global trading system free from restrictions and distortions, considered as a panacea has in reality turned out to be a threat to the livelihood security of resource-poor farmers of developing economics. One consequence of the opening up of agriculture and import liberalization has been exposure of agricultural commodities to international price fluctuations and shocks. More than 80 percent of the agricultural commodities/products produced in Kerala are dependant on domestic and international markets (Swaminathan Report on WTO on Agriculture, P37). Amidst all these adversities, there are factors which could revamp the coconut sector.

Optimum output at minimum cost must be the moto to be pursued on the supply side. Vast majority of the coconut producers in India, especially in Kerala are small and marginal farmers. Therefore, subsidized inputs and technical extension services are necessary to take them to the track of optimum production. High Level Committee Report (1984) identified the need of proper tillage, soil analysis and leaf analysis to trace the presence and deficiency of various primary, secondary and micro-nutrients and the use of organic and inorganic manures along with uninterrupted irrigation to reach optimum yield levels through synergetic effect. While Salam et al(1990) developed soil and climate based irrigation scheduling for adult coconut Narayana et al(1991) found that irrigation delays the age at which the decline in productivity accrues. Further, Mary George(2008) found that uninterrupted irrigation can overcome lean and peak season productivity variation in coconut gardens. Swaminathan(1971) reports that synergy, the mechanism which makes the whole something very much more than the sum of the parts, is a potent tool in nature for getting a large effect from small resources. The release of synergestic interactions provides the best possible means of enhancing use efficiency of all inputs.

Availability of inputs at affordable prices is an inevitable condition of successful farming for small and marginal farmers. Yield of coconut very much depends on the right quantity of organic and inorganic manures applied to palms at right time accompanied by irrigation. The subsidy made available to Indian farmers (including the non-product specific subsidies and price support through government procurement) is at present below the permissible limit of WTO. The dependence of Kerala farmers on non –product specific subsidy is lower than the national average dispensation

(Swaminathan,2008). This is reflected in the lower level of fertilizer consumption in the state when compared to the national average. In 2007-08(comparable statistics are not available for the rest of the period) when the average fertilizer consumption at the national level was 117.07kg/ha; it was only 72kg/ha for Kerala. The recommended level of application of macro nutrients per palm is equal to 1:0.5 :2kg (which means 1kg nitrogen(N):0.5kg phosphate:2kg potassium) what this recommended level reveals is the importance of potassium(K2O) over other major nutrients in the consumption pattern of coconuts. At the same time, total potassium consumption in the state declined from 96,857kg in 2010-11 to 82,192kg in 2011-12, which means a decline of 15.14 percent in a single year. Through soil and leaf analysis, macro and micro nutrient deficiency should be identified and balanced nutrients along with uninterrupted irrigation, if provided would double the yield of coconuts, through synergy effect. In order to maintain high returns to scale, use of Pesticides and traps (eg: Pheromone trap) to destroy weevils many also be used efficiently.

Mixed / Inter crop possibilities.

Experimental studies have shown that the space around coconut tree can be utilized for raising mixed / inter cropping. When perennials are grown, it is called mixed cropping. When annuals or seasonal crops are grown it is characterized as inter-cropping. A combination of intercrops and mixed crops raised along with palms is referred to as multistoried cropping system. High Level Committee Report (1984) pointed out the way to use the air space in which its canopy at 10.30 metres from the ground forms the top floor and the pineapple forms the ground floor. In between there can be a judicious combination of other crop varieties. Thus crop diversification programme not only raises the palm productivity and generates more employment but also raises rural income. When coconut as a monocrop creates 157 days of employment, coconut as inter / mixed crop garden creates employment for 960 man days. Thus, supply side management permits small and marginal farmers to enjoy increasing returns to scale through synergy in input use, create more man days through mixed / intercropping and more rural income through combined effect of the two.

Demand (Market) Management

From the fruits of 'Kalpavriksha' there are a number of products that could be produced and marketed. Kerala had enjoyed flourishing international trade mainly through coconut and coconut related value added products. Following table illustrates the fact.

From the table it is clear that between 1925 and 1935, coconut related products constituted 31 to 35 percent of the export trade of Kerala. In the 1920's if there are only 9 items of coconut export, there has been a manifold increase in value added products now, thanks to technology led advances in consumer demand. The quality of the coir rope is accepted as excellent in the international scenario from long past. It can still make a grand come back as nations are increasingly becoming environment conscious. Once again coir spinning should thrive as a cottage industry all along the shores of back waters, with 'appropriate' technology and decent wages so that women are economically and socially empowered and family income rise to make a 'decent living'.

On the basis of research on coconut, many new uses have been identified and products are developed. Such products include virgin coconut oil, coconut cream,

Value of Exports of Coconut based Products for selected years. (in RS.)

SL No.	Artilces	1925-26	1929-30	1934-35
1	Copra	10,887,047	67,43,419	25,38,301
2	Coconut	10,88,,734	14,54,998	7,95,488
3	Coir	95,37,422	1,10,17,135	67,42,341
4	Coir Fibre	38,981	47,372	5,119
5	Coconut Husk	1,07,146	33,788	21,626
6	Coconut oil	75,85,503	81,56,131	75,98,457
7	Punnac	10,24,428	15,08,398	8,75,681
8	Coir mattings	28,14,758	39,13,429	37,33,223
9	Coir mats	25,13,328	41,90,803	350
10	Coconut & coir related total	3,55,80,547	3,70,65,473	2,58,11,189
11	Coconut & coir related total as percentage to total reports	34.66	32.82	31.14

Source: Travancore State Manual Cha. XXIII P.609

spray dried coconut milk powder, prescribed and packed tender coconut water, coconut water based vinegar, coconut chips and many others. Consortium of Women Self Help groups may be formed under the guidance of management and engineering institutes. 'Subhiksha' which is a consortium of Kudumbasree micro enterprises of seven panchayats of Perambra block of Kozhikode district may be taken as a model. It is understood that around 41 coconut based value added products are turned out. Kudumbasree micro enterprises across the state are engaged in value addition of coconut products. Women self help groups should be trained, encouraged, infrastructure facility given and properly monitored frequently by external agencies to assure international standards.

Neera can offer a prosperous future for coconut growers in the country. Palm sugar, palm jiggery etc are products which can attract domestic and international demand.

Technology Transfer

Coconut related value addition requires technology transfer and infrastructure development. Participatory methodology may be used at the village level to determine the type of coconut products rural families are interested in producing. Identify the standard, appropriate technology needed for it and the necessary training shall be given for the same. Coconut Development Board and other scientific institutions shall observe the world demand and identify coconut related value added products with the market potential. Needed technology should be evolved and transferred to the interested potential farmers and entrepreneurs. Follow up and evaluation of technologies on the basis of the quality of the product and its marketability shall also be done.

In conclusion, it may be noted that there are various constraints like labour shortage, technology gap and lack of synergy in input use on the production side of coconut which affect the farming operations adversely. Integrated input management can bring about synergistic impact in the production. Cost minimization and output maximization options can persuade coconut growers to continue in farming operations. Canopy cultivation through the adoption of inter/mixed cropping pattern can improve soil fertility environment and income of the farmers. On the marketing side value addition to suit the national / international requirement is the urgent need of the hour. Various value added products can be developed from broomstick to virgin coconut oil. Door delivery of technology is needed. Improved production coupled with diversified demand would keep the coconut prices high which in turn lead to a prosperous coconut economy

Coconut Replanting for Sustainable Coconut Industry

Shri. Uron N. Salum Executive Director, APCC in his message in Cocommunity Vol. XLIV No.3 March 2014 published by APCC made special mention of the various programmes being implemented Coconut Development Board . Excerpts of the message of Shri. Uron N. Salum.

The Government of India through Coconut Development Board has embarked on several interesting modular programs in coconut sector. One initiative drawing acclaim is the involvement of youth in the 'Friends of Coconut Tree' program where young men and women are trained with new innovative tree climbing equipment for the safe harvesting of coconut palms. Important to note was also the successful models in the mobilising of growers at farm level in viable groupings for the purpose of collective farm practices, processing and marketing which has positive impact on increase in productivity. India has opened doors to share some of its successful models with its fellow APCC member countries.

Source: Cocommunity