



Farmer Organizations: Collective bargaining for prosperity

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Due to price fluctuations and increase in cost of production, coconut farmers have become non-competitive in the recent years. In spite of the steep increase in the production cost, the price of the produces are stagnating. Impact of liberalization and globalization are also affecting the agriculture sector strongly. Farmers continue to get the same old price where as the cost of production has increased manifold. Enterprise diversification and community level value addition are the suggested measures to overcome this situation. To strengthen the value chain involving production, community level processing of coconut, and marketing has to be taken up in an aggressive manner. Being a perennial crop with preset harvesting cycle, coconut ensures the regular supply of raw materials for the processing units uninterruptedly. The basic raw material is mostly non perishable and can be stored without elaborate in-frastructural facilities. It is not liable to heavy losses during storage and transportation. It is the single raw material for production of various by-products such as kernel products, shell, husk- based products, and water based products.

Collective bargaining, without competition, has the potential to increase economic power in the farm sector. Collective bargaining means a face-to-face negotiation between a powerful farmer collective unit. Farmers may reach at an agreement for selling coconut or copra at not less than



Lamps made out of coconut shell

a certain price. Farmers might agree to sell no coconut at all to a company that is investing in ways that will help foreign competitors. Success could bring about higher prices in the long run. Collective bargaining could also be used with powerful input suppliers, not necessarily to use less of an expensive input, but rather to pay a lower price. Farmers could also bargain to change the behavior of suppliers. A strong farmer organization could bargain with the government for laws that would better suit their purposes. For example, a bargaining unit could negotiate for beneficial trade agreements rather than for government subsidies.

Knowing the fact that the farmers on their own will not or can not work together to increase their own well-being, Coconut Development Board acted on their behalf to initiate formation

of coconut farmer groups and raised the potential of farmers acting collectively to take charge of their own economic interests. This results in intense concern by farmers and farm organizations over the changing scenario of coconut in the national economy and strengthening the bargaining power of farmers. To improve the existing level of productivity with small and marginal holdings, the Board took initiative to form coconut farmer collectives in the form of Coconut Producer Societies (CPS) during 2011 on a small scale on experimental basis in Kerala. As on date 3807 CPSs have formed in the four major coconut growing states in south India. It is also scaled up by federating CPS into the Coconut Producers Federation (CPF) and its apex body Producer Companies. 142 CPFs and 6 Producer Companies are now registered with the Board.



Various brands of tender coconut water

Production and utilization pattern of coconut is being changed. The price fall is continuously observed during the peak producing season. By taking advantage of such situations, more procurement can be undertaken during this season and the same can be processed into various value added products for getting better price. Integrated processing units for coconut can be set up for utilizing all parts of coconut. Beyond copra and coconut oil, this sector has vast scope in value added products and byproducts which no other crop offers.

Many of the CPSs have already started making copra using modern dryers and availing themselves the benefits of Minimum Support Price procurement. CPS, CPF and PCs can initiate various coconut processing activities like processing of tender coconut water, virgin coconut oil, desiccated coconut, coconut milk, milk powder and coconut milk cream. Neera, a product from

unopened spathe of inflorescence of coconut has high potential for value addition and will ensure remunerative price to coconut farmers. Value added products like palm jaggery and palm sugar can be produced from neera by the farmer collectives. The farmer collectives must take initiative and shoulder the responsibility for setting up such units. As a facilitator, Board is providing the latest technologies and capital subsidy to the tune of 25% under

Technology Mission on Coconut. The demand of the farmers for a fair and remunerative price for their produce can be achieved only through better value chain.

For marketing of the produce, an individual farmer has to face many obstacles and has no power to bargain. Aggregation of produce in a CPS with a well formulated production and marketing plan will result in better bargaining power by reduced marketing expenses and less intermediaries. The value chain in coconut through technology development, technology integration and stakeholder participation for production and marketing of value added products, can be taken up by the CPFs and PCs. Common infrastructure for better post harvest handling, processing and value addition can also be created. Small scale value additions viz dehusking of coconuts, copra making, units for chips, convenience food, vinegar and sale of husk & shell undertaken at farm level will generate additional return. Farm level processing of tender coconut water bottling, aerated drinks from tender coconut water, minimal processing, tender

Project cost with a capacity to process 10,000 nuts per day (Rs. In lakhs)

Components	Tender Coconut Water (2500 litres)	Virgin Coconut Oil	Desiccated Coconut Powder	Coconut Milk	Cocout Chips
Land (acre)	1.00	0.50	0.50	1.00	0.40
Building (sq ft)	6000	2500	2000	6000	2000
Plant & Machinery	55.00	35.00	25.00	75.00	18.00
Electricals	8.00	5.00	5.00	25.00	3.00
Pre-Operative expences	5.00	5.00	2.00	15.00	1.00
Working Capital Margin	12.00	10.00	10.00	40.00	4.00
Total	80.00	55.00	42.00	155.00	26.00

Coconut based convenience foods

There is a huge potential for coconut convenience foods. Micro and small enterprises with a capacity to process 500 nuts per day can be set up with an investment of 2 to 3 lakhs. Technology and training is provided by the Technology Development Centre of the Board.

Coconut Chips : Coconut kernel packed in the form of chips has a high potential market in the northern, western and eastern parts of India. The coconut kernel is cut into the form of chips using a chipper. The cut chips are soaked in sugar or salt solution for about forty minutes. The chips are then baked in a hot air oven till the product attains a golden brown colour and packed.

Coconut Biscuit : Coconut biscuit is a ready – to-eat product prepared from dried grated coconut with addition of maida, sugar, baking powder, confectionary fat, cardamom powder and a pinch of salt. The ingredients are mixed in the proper proportion and dough is formed, which is rolled in to a sheet form. It is then cut into pieces and baked in a baking oven until the colour turns brown. The product is packed in polythene covers. Coconut cookies have a potential market as a fast moving snack food.

Coconut burfi : It is a snack prepared by roasting coconut gratings. A procedure for the preparation of coconut burfi was standardized. Coconut gratings (after extraction of fat) were roasted, then added fat at the rate of three per cent and sugar at ten per cent gave it highest organoleptic qualities. The product has good nutritive value with protein (10.23%), ash (2.1%), fat carbohydrates (60.87%).

Coconut Candy: Coconut candy is prepared from grated coconut mixed with coconut milk. It has a high fibre content, and may help prevent intestinal sluggishness.

Coconut Jam : Coconut jam is traditional high sugar coconut food product in the Philippines, commonly consumed as desert, bread spread, and rice cake topping. It is light-to-dark brown in color, thick yet spreadable in consistency, with a rich, creamy coconut flavour. It is traditionally prepared by cooking sweetened coconut milk to a very thick consistency at low heat with constant stirring. House-wives and small scale producers generally use brown sugar or jaggery as sweetening material.

Coconut Water Squash / lemonade from Coconut Water : Coconut water squash is prepared by mixing coconut water, sugar, lemon juice and ginger extract in appropriate ratio and then heated to the required consistency. Sodium benzoate is added as a preservative after cooling. The prepared squash is filtered and packed in sterilized bottles.

Coconut Vinegar : Vinegar is the product obtained by fermentation of alcohol containing solutions. It is used in the pickle industry, in salads, sauces and various condiment preparations as a preservative and flavouring agent. Vinegar aids in digestion and improves the quality of cooked meat and fish.

Nata-De-Coco: Nata de coco is a Spanish term which literally means “coconut floating matter”. It is a cellulosic substance formed by the micro organism, *Acetobacter xylinum* on the surface of diluted coconut milk or coconut water medium mixed with sugar and acetic acid. It takes 14 to 21 days for the nata to grow at ambient temperature. Nata-de-coco is mainly used as a desert and ingredient in ice cream, fruit cocktail and frozen delights. It is also packed into a delicious cream pie and mixed with beverages, wine and liquor.

coconut beverages, snack foods in different flavours from immature kernel of coconut etc. can also be undertaken by the farmer collectives in a remunerable way. Apart from this, by products like, shell, husk, fronds and wood also

can be put to diverse uses or bargain high cost.

Raw material aggregation has always been a constraining for coconut processing units. Since well assured supply of good quality raw material is readily

available with CPS, the processing units can be run smoothly. Integrated coconut units ensure maximum utilization of each part by converting all the parts to products and by products which

**Project cost with a capacity to process 5,000 nuts per day
(Rs. In lakhs)**

Components	Minimal processing of tender coconut	Virgin Coconut Oil	Desiccated Coconut Powder	Cocout Chips	Coconut vinegar (1000 litres)
Land (acre)	0.5	0.3	0.3	0.2	0.2
Building (sq ft)	3000	1500	1800	1000	1500
Plant & Machinery	6.00	25.00	18.00	10.00	4.00
Electricals	1.00	2.00	2.00	1.00	1.00
Pre-Operative expences	3.00	2.00	1.00	0.50	2.00
Working Capital Margin	6.00	5.00	5.00	2.00	1.00
Total	16.00	34.00	26.00	13.50	8.00

adds to the income of the farmer.

It would be difficult to market a product effectively, in terms of transport and handling costs, and for fixed investments by individual farmer in farm level processing. In some cases shortage of labour prevents farmers from embarking on otherwise attractive value-adding activities. Smallholders often have limited technical skill and not much access to training on production and processing and information on market requirements can be solved in the group approach. Integrated processing park for coconut with all common facilities and single window clearance will be an advantage for the farmer collectives. Product developed from farm level processing will definitely fetch high demand and the farmer collectives should have a bargain for them.

The advantages of consuming coconut and its products need to be highlighted for enhancing domestic consumption. But an unorganized sector like coconut farmers, doesn't have a strong platform to raise their concerns. The only possible way out is to unite, develop and bargain to

create a paradigm shift in this scenario. Other organized sectors of agriculture are ensuring a fair and reasonable price for their produce. People's representatives may be apprised by farmer collectives to take up the problems of the coconut farmers on a top priority.

Interventions related to enhancing productivity and

profitability from coconut based cropping systems through higher resource use efficiency is being implemented through the CPS. Similarly Self Help Groups of women can be formed in the groups to implement production and marketing of small scale products like chips, convenience foods and vinegar. Integrated processing units for virgin coconut oil with by products like dietary fibre from defatted coconut gratings, coconut water vinegar, novel food items or convenience foods, shell handicraft units and leaf midrib brooms can be taken up without wasting any part of the coconut palm. Small pollution free coconut shell charcoal units can also be taken up at community level.

Individual farmers lack bargaining power and as a result any value added to their products by processing will not benefit them directly as it is often distributed to all in the marketing chain. Economies of

**Projects in a nutshell
(Capacity 1 MT of finished products)**

No.	Product	Raw material	Investments (Excluding land)	Returns
1	Tender Coconut Water	5000 Tender coconuts	45-50 lakhs	20%
2.	Desiccated Coconut	10000 coconuts	50-55 lakhs	18%
3.	Coconut Milk	5000 coconuts	60-65 lakhs	18%
4.	Spray Dried Coconut Milk Powder	20000 coconuts	330-350 lakhs	22%
5.	Virgin Coconut Oil	16666 coconuts	75-80 lakhs	22%
6.	Copra	7000 coconuts	10-12 lakhs	15%
7.	Shell Powder	12,000 shells	55-60 lakhs	16%
8.	Shell Charcoal	300000 shells	25-30 laksh	16%
9.	Activated Carbon	3T of shell charcoal	470 - 500 lakhs (9T capacity)	24%
10.	Coconut Chips	10000 coconuts	40-45 lakhs	22%

scale resulting from the formation of community based organisations could address these problems. Through collective action, smallholders are able to pool their resources and market their products as a group, so overcoming transaction costs resulting from their small scale. Such farmer collectives can help improve access to resources such as inputs, credit, training, transport and information.

Choosing collective action will require a new way of thinking, a

great deal of organizing effort to gain economic power, and economic analysis to learn how to use that power effectively. Through an increased volume and wider range of products the societies has a stronger negotiation position than the individual members would have on their own. The joint venture also increases mutual trust and friendship amongst the members, who would otherwise be competitors. Emphasis need to be given to reduce cost of production

and scaling up the production of selective items which has a huge market domestically across India and abroad. All these require correct attitude, right approach, true handholding, excellent environment and exact support mechanism. Then only formation of collectives would bring about development of skills, adoption of scientific management, product diversification, market development, price negotiation, value realization leading to the overall prosperity of the coconut farmers. ■