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Coconut for Healthy Living

Indian Coconut Journal

Coconut Producers' Society for better prosperity

Enjoy this Onam with Tender coconut Pradhaman

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Cluster and Coconut Producers Societies is the main theme of the Indian Coconut Journal, August Issue

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Coconut Producer's Society for a prosperous future

Dear Coconut Farmers,

'Unity is strength' is an age old saying. There are many examples before us to underscore that togetherness has won always. But the coconut farmers are yet to realise the importance and significance of this old saying. Coconut is one of the most important commercial crops of the country. The state of Kerala holds the number one position in area (7.87 lakh ha) and production (5802 Million nuts). Productivity per hectare per annum in the descending order is as follows: Lakshadweep (19630 nuts), Pondicherry (14619 nuts), Tamilnadu (13771 nuts), West Bengal (12430 nuts), Gujarat (9851 nuts), Andhra Pradesh (9327 nuts), Maharashtra (9338 nuts), Assam (7824 nuts) and Kerala (7365 nuts). The National average is 8303 nuts. This productivity level indicates that the average number of nuts per tree is only 47 nuts. Let us think of a situation where the per tree production reaches 150 nuts/tree per annum. This would translate the per hectare productivity to 26250 nuts/ha! Even the best productivity of 19630 nut/ha of Lakshadweep is only 112 nuts/tree/annum which shows that there is tremendous scope for improving the productivity in our country. If we make serious efforts India can lead the world in productivity and production of coconut!

What could be the reasons for this low productivity? Many reasons are attributed to this phenomenon. Most important among them are highly fragmented holdings, pest and diseases, unstable price, unsteady market, lack of scientific management practices, lack of irrigation facilities etc. Another reason which is equally or even more importantly responsible is the unorganized and weak nature of coconut producers'.

Let us start from the weak unorganized farming sector. It may not be possible for a farmer to solve his issues individually. He cannot increase the area of cultivation or can reduce the cost of cultivation in isolation. But a strong network of Coconut Producers' Societies (CPS) in the coconut farming can do wonders in these areas. The idea and knowledge of each farmer can be exchanged easily; novel ideas can be formed on competitive grounds; the cost of cultivation can be reduced through collective procurement and supply; harvesting operation can be synchronized etc.

The idea of producer society is not a novel one in the coconut sector. There are already 114 CPS that are registered with the Board and 742 coconut clusters all over the country. What is required now is a clear, focused, timely and collective activity. Minimum 3000 CPS must be formed during this year itself. The Board is targeting a milestone of 1000 CPS in Kerala, 500 CPS in Tamil Nadu, 500 in Karnataka, 500 in Andhra Pradesh and 500 in other coconut growing states in this financial year itself. Those farmers who are having minimum 10 yielding coconut palms can be made members of the CPS. There can be around 40-100 members in a CPS. Each CPS should have 4000-5000 yielding trees under its operational area. The CPS cannot work smoothly if it is having only few members or the number of CPS is large. Each society must be registered under the Charitable Societies Act and later on must register with the Board. The Board has already prepared the bye laws for forming the CPS. The Board is targeting to have 40-50 lakh yielding coconut palms under the CPS during this financial year itself.

What would be the possible activities of the CPS? The members can take up anything as per their knowledge, imagination and creativity for the betterment of the coconut farmers. But there must

be some similarity and unison in the basic and core functioning of all the CPS. It would be ideal that all the members follow the minimum scientific management practices in cultivation, soil testing, pest and disease control measures, group harvesting, aggregation and marketing operations, efforts to stabilize price and processing as well as value addition through the CPS.

The Board is targeting atleast one third of the palms and farmers to be brought under the purview of the CPS in a span of three years. Can we bring down the cost of production by 15 - 20% and increase productivity by 50%? Can't we try for processing and value addition of at least 25% of the produce? Shall we try for harvesting 20-25% of the nuts as tender coconut? Can we send 10-15% of our production to the retail markets in various cities and towns and other urban centres through the CPS or even through a network of the CPS? Can we create at lest 10 major tender coconut markets and facilities for selling raw coconut in 500-600 markets in each state? Farmer to consumer difference in price could be rationalized if CPS start taking initiatives.

CPSs can also collect husk and shell on a large scale and get a stable price for these products. The coir producers are running around in search of husk and fibre. There are many more such things to be added to this list. Coconut and coconut farmers would have enjoyed better attention if a million of them were part of the network of CPS. Those who are able to extend help and those who are responsible to offer help will surely come forward if the CPSs were functioning. If there existed a large network of the CPS and Federations in all the 18 coconut growing states and 3 union territories, there would have been more allocations in the budget provisions for coconut in the states as well as central governments.

The members of the CPS have to meet once in every month and charter their programmes. They must concentrate on planning and implementation of activities collectively. Calendar of operations must be prepared well in advance of each crop season. Maximum 'convergence' must be assured in consultation with the Panchayaths and Urban Local Bodies. Collective application of fertilizer and pest and disease control measures can be included in the activities of the CPS. Various schemes and awareness programmes on coconut farming, intercrops and value addition can be organised jointly with the Local Self Government Institutions.

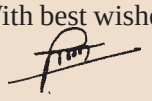
Next step is the strengthening of the CPS. Federation of 15-20 CPS can help in monitoring and coordination of CPSs. As a next step we must focus on forming Producers' Companies, in coconut sector. If we can form 20-25 Producers Companies, we can excel in processing, marketing, value addition and in the export front thereby ensuring better and steady price for the producers. CPS would be the only rescue for the producers to have a command over their products and market.

The active cooperation of the member farmers, CPS, the Federations and the Producers' Companies are essential while making recommendations to the government for various schemes, programmes and policies. This is an uphill challenge ahead of us. We have to inform, inspire and motivate farmers to take up this challenge themselves. The teething problems at the initial stages must be addressed. Board has to offer facilitation, support and to show opportunities to them. The Board would be there with you to offer all help in this endeavor.

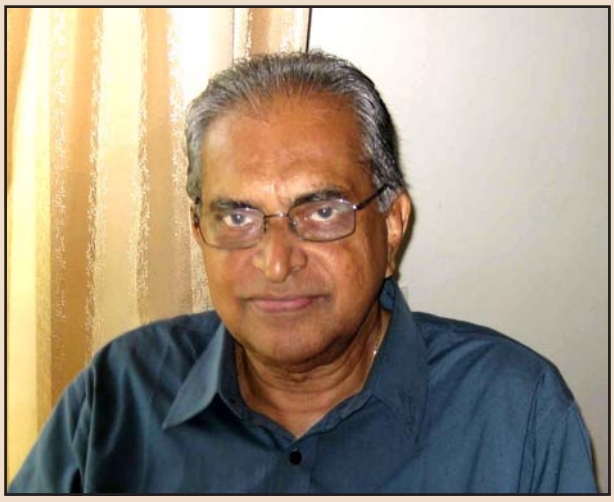
Let us take up the task of creating 3000 CPS all over the country this year itself. I am confident that this can be made easily possible provided you are ready to work little extra. We have the success stories of Rubber Producers Societies (RPS) well before us.

Expecting your whole hearted cooperation in the formulation and successful implementation of the CPS,

With best wishes,



T K Jose IAS
Chairman



Producers' Societies essential for farmers welfare

Shri P.C. Cyriac, IAS (Retd.)
former Chairman of the Rubber Board who conceived and started the RPS narrates how he introduced the concept

What made you to think of Rubber Producers' Society (RPS) in 1985-86? Have you had any past experience?

The decline of price for rubber in 1985-86 was a grave issue. In order to arrest this price fall the Rubber Board made attempts to ensure a reasonable price for rubber. There should be some agencies to buy and sell products. Pala Marketing Society, Meenachil Rubber Growers Society and other co-operatives in the Rubber Marketing were working since 1950. But even after 30 years of its existence, they could handle only 7-8% of the production. These societies were functioning at district and taluk head quarters where rubber farming was undertaken. But it had no roots in the villages where the farmers were living or where the rubber farming was done. It was not practically possible for the villages to bring their products for selling to the town. Hence the Rubber Board created this platform for the cooperative Rubber Marketing Centres in their own villages.

During that period most of the farmers were selling their products to the private agencies. They were getting only a meager price for their products. Those farmers who were making best quality rubber even could not fetch good price. These private agencies were working as agents of the tyre companies. The farmers were getting the price fixed by the tyre companies that too after deducting their margin. Those co-operative rubber marketing societies which were not having collection centres were depending on these agents for collection. It was while thinking on making the basic infrastructure facilities without much investment for the cooperative marketing centres, the idea of RPS in lines with that of AMUL, Gujarath, came to my mind.

Was there any protest when this idea was first introduced? What was the response of the Central Government, media, farmers and the common men? What was the response of the Rubber Traders Co-operative Societies and business men?

The idea behind the formulation of the RPS was a society of rubber farmers run by rubber farmers themselves. Chairman of the Board wrote articles in dailies and discussed this idea with the officials of the Board. The Board was not having enough staff to attend to the increasing number of farmers. Hence the research and extension activities could not be carried out effectively. Timely inspection of the plantation and subsidy distribution was also delayed. Hence the idea was introduced to make the research and extension activities more useful and also for the timely inspection and subsidy distribution.

It was felt essential that in each area 100-150 farmers should be brought together to form RPS. The objections of the officers were ruled out when they were briefed on the necessity of forming the RPS for making the research and extension activities

more effective. As other agencies are having many interests, an agency exclusively for rubber is essential and through this only the interests of the rubber farmers are protected.

The objections were raised by some rubber marketing societies also. They complained to the Commerce Ministry that the Chairman of the Rubber Board is trying to abolish the Co-operative Societies. The Ministry was informed that the Board is going ahead with small projects of Rs. 10 lakh on an experimental basis.

Pala Rubber Marketing Society, Meenachil Society and Karukachal Rubber Marketing Society co-operated with the idea of RPS.

What were the initial programmes of the RPS? How was the expenditure met?

Initially it was decided to form societies of 50-200 farmers in a particular area. More than one society was not allowed in a location. There was an agreement in the memorandum that the farmers must give their produce to the society itself. There was a director board of the society consisting of 7-8 members which include farmers of the area as well as field officers of the Board. The President of the society was selected from among the farmers themselves.

In January 1986, 8-10 Societies were registered under the Travancore Kochi Charitable Society Act. The Board gave the platform balance machine as well as the laboratory equipments free of cost to the societies. Around Rs.10000 was the expenditure incurred for each society.

The Chairman of the Board had powers to sanction only upto Rs.10 lakh. Hence for 100 societies, the Board gave Rs.10000 each. The Board also gave subsidy for other rubber tapping items like plastic cups, rain guards, adhesives etc. The rain guards were popularized by the societies.

The societies took the initiative in applying the fertilizer only after testing the leaf and soil. The demand was increased when the laboratories of the Board were working through the RPS. Around ten laboratories were established for soil testing and leaf analysing. There were also mobile laboratories. The dose of fertilizer was restricted according to the test results of the soil and leaf. The cost of fertilizer could be reduced as there were bulk purchases. The Board also gave a 5% subsidy for fertilizer.

What was your time frame action? What was the targets?

The initial objective was to form 500 societies in each year. 2000 societies were formed by 1990. Target was assigned to each field officer of the Board. The farmers who were interested by the works of the producers' societies also came forward with request to form societies.

How was the formulation and stabilization of RPS benefited by the large network of the Rubber Board with its Regional Offices and Field Offices?

The Field offices of the Board in different areas were a very favorable factor. All the employees of the Board worked hard. Chairman encouraged the officers in the meetings and all of them worked hard together for achieving the goal.

Can an organization like CDB which do not have any field network can form and implement this idea successfully? What are the steps to be taken in advance?

If we are availing the services of the local farmer groups, we can successfully form societies even in the absense of field offices. All the farmers of the area, including those who are not members of the clusters of the CDB should be made members of the producers' societies. These societies should be registered with the Board. Later the societies can work of their own. The farmers themselves must take the initiative. A field level overview of the Board would suffice. All the initiatives and steps taken for formulating the RPS can be adopted in formulating the Coconut Producers' Society also.

The Coconut Development Board should have its own research wing. The Research wing of the CPCRI or the KAU may be brought under the Board. At present the Board does not have enough officers for the extension activities. The Board must immediately recruit 100 agriculture graduates and gradually it must be increased.

The Board must undertake research activities in order to address the problems of the farmers. Extension activities are essential for disseminating the research results to the farmers. The Board should have its on marketing strategies too. More results can be reaped if the farmer's societies are working in association with the Coconut Development Board.

The powers and structures of the Board is equally important as that of the farmer's societies.

What are the significance and opportunities of the CPS in today's Kerala scenario.? What are the steps to be taken formulate and stabilize the CPS?

CPSs have great relevance now. If the farmers are buying the agriculture inputs collectively, the cost can be reduced to a greater extent. The CPS will pave the way for the successful implementation of the scientific coconut cultivation. There will be enough opportunities for processing and marketing. These societies can control the price of the coconut products. The societies should not have any political, caste or religious interests. There should not be two societies registered at the same place. If such a situation arises, both the parties should be called for a discussion and their area of operation should be specifically separated.

Could the RPS strengthen the rubber farmers and make remarkable achievement in rubber trading sectors?

The RPS could play a major role in strengthening the rubber farmers. As I have told earlier, from the fertilizer application to the grading of rubber sheet and milk, the farmers can make better returns thorough the RPS. They could reduce the quantity of fertilizer application through the proper testing of the sand and leaf. The rain guarding was popularized through the RPS. This made possible the tapping of rubber even during rainy reason. The Board gave sprayers at half the rate to the societies. The societies gave the sprayers on rent to the farmers. The societies also organized training programmes to the farmers.

The meetings of the society were convened once in three months. It was suggested that the meetings should be convened in the gardens itself. These meetings were good research and extension platform where the farmers could gather practical experience on the pests and diseases of rubber.

The societies were into product marketing also. Meenachil Rubber Factory and Karukachal Society procured the produce from their own areas. The rubber farmers could get good price for their products after the establishment of the RPS.

Some societies even .entered into value addition. The RPS in Pothanikkad near Muvattupuzha and Aykomb Rubber Producers' Society near Pala have started producing rubber bands and balloons. The working of the societies could play a major role in controlling the prices and in the export of rubber products.

What were the steps taken for forming the Rubber Producers' Company from the RPS? Do you had this in mind during the initial stages? What are the possibilities of transforming supported from the CPS to the Producers companies?

Even though many rubber marketing societies the producer's societies, a few were not ready to buy the products. Decision was taken to register apex bodies of the producers' societies. Private limited companies were registered in six locations having 49 Rubber Producing Societies plus Rubber Board as its member. This was done in 1987-88. Each company was taken as a project by the Board and was given Rs. 10 lakh each. Each society deposited Rs.50,000 each in the Rubber Board and thus the 24.5 lakh was generated as the Societies' share. The Board's share of Rs.10 lakh was also added to the working capital. The balance was taken as loan from the bank. Thus a project of Rs. 1 crore was made and factories were setup for making centrifugal latex and crub rubber. Periyar Latex near Muvattupuzha, Kavanar Latex near Munnilavu. Ponmudi Rubbers near Thiruvanathapuram, Bharathapuzha Rubbers and Pazhashi Latex in Malabar areas are such companies. Around 10 companies were registered by 1990.

The aim of the Rubber Producers Company was the integration of the responsibility of the public sectors under the vast aegis of the co-operative sector and the private sector. Shares were issued in the name of the Producers' Societies on remitting Rs.50000. The director board of the company was constituted with 4 representivies of the RPS and 2-3 officers of the Rubber Board. An officer of the Rubber Board was made the Chairman of the company and another officer was made the full time Managing Director of the Company. Those companies who were not having enough working capital were doing trading only.

If enough working capital can be raised, producers' companies can be established on share basis. This will open up opportunities for product

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Producers' Societies - the best extension tool

The Rubber Board is happy to co-operate and associate with all the endeavours of the Coconut Development Board in making Coconut Producers' Societies for the sustainable development of the farmers. Excerpts from the interview with Smt. Sheela Thomas IAS, Chairperson, Rubber Board

Rubber Producers' Society (RPS) has done commendable service in stabilizing the market share, and in the growth of the rubber-based industries. As the Chairperson of the Rubber Board, how do you assess the situation?

The concept of Rubber Producers' Society was conceived and started in 1986 during the tenure of Shri. P. C. Cyriac IAS when he was the Chairman, Rubber Board. The RPS was formed to address the problems of small farmers at the production and marketing front. Rubber co-operative societies were functioning even before the formation of RPS. But these co-operatives did not reach to the villages where the crop was growing, hence to help the farmers RPS were formed under the Charitable Societies Act.

The RPS was linked with processing and trading companies under cooperative sector in the year 1988 itself, which acts as apex bodies. Around 11 lakhs farmers are benefitted under this network. RPS also functions as an extension wing of the Rubber Board and it is well grounded with one of the Rubber Board officers as member of the Director Board. Our RPS is a role model for other rubber growing countries.

RPS is completing 25 years now. 2011 is the silver jubilee year of the RPS. As a result of the intervention of RPS and companies floated by the Board, the Indian farmers realized 97 percentage of the price, whereas in other countries it is only around 70%.

A study of the working of RPS was undertaken by experts as part of the 12th Plan requirement and has recommended its continuance.

How do you analyze the working of the RPS during the last 25 years?

Rubber Board was established in 1947 and RPS in 1986. When the RPS were formed the area under rubber was 3.8 lakh ha with a production of 898 kg / per ha. Now the area has grown to 6.87l lakh ha with a production of1784 kg/ha.

Presently India holds the number one position in the productivity of rubber in the world. This is an achievement, which no other crop could get so far. The contribution of the Rubber Board as well as the RPS in achieving this goal is commendable.

What is the role of RPS in implementing various schemes of the Board. How does the Board carry out its research and extension activities?

The Rubber Board is implementing 50 schemes for the betterment of the rubber industry in the country. Board's extension activities are carried out with a special theme. Mass campaigns are arranged through RPS for people's participation and for the out reach of the message to the growers.

Board is giving equal importance to its Research and Extension activities. Rubber Board carries out research through its research labs which are of international repute.

Q5. How many successful RPSs are existing now? How much time it takes for a Producer Society to become self sufficient?

At present 2304 RPS are functioning and catering around 11 lakh small scale farmers who hold on an average less than 0 .52 ha land. Board has 32 model producers' societies, 142 common processing centres, 5 companies which are doing the processing and 11 companies which are into trading only. It takes around one to two years for a society to run successfully.

Which are the best performing RPS? How do the Board encourage the RPS?

Karikuzhi RPS in Nedumangad, Pooyapally RPS in Kottarakkara, Pallikkara RPS in Adoor, Ayykomb RPS in Pala, Chirakadavu RPS in Kanjirapally , Kakomb RPS in Thodupuzha, Elvanpadam RPS in Palakkd, Karalayi RPS in Nilambur and Chundaparamb RPS in Srikandapuram are some of the best RPS s functioning across the state. The Board is giving away the Survarna Sangham award for the best RPS once in three years as an encouragement and recommendation for their contribution.

What is the attitude of the Government of India and also the State Governments?

Government of India has approved and supported all the proposals submitted by Rubber Board. Assistance from Panchayts and local bodies is being sought for Local Self Help Groups working with RPS for training tappers and also for making plant protection operation more effective.

Which are the activities of the RPS of the rubber growers.

The Board has taken maximum efforts in the initial period for the formation of producers' society. Now seeing the working and benefits accrued by the farmers, many farmer groups are coming forward for setting up new societies.

Scientific cultivation has to be practiced from the very beginning. Selecting quality planting material is of prime importance. Many societies have come forward for making available genetically good proven planting material to farmers at reasonable cost.

The Board is also distributing inputs like fungicides, pesticides, sprayers etc through the societies at subsidized rate. Timely pest and disease control measures is another factor attended by the RPS.

Another field where they have contributed is planting in absentee farmers lands. Many farmers in the rubber sector who don't have access to cultivate the land personally have benefited with this programme. This is a new initiative of RPS. It is a kind of contract farming.

How is RPS linked to Rubber Processing Companies? How many Processing Companies have been established and what is their role in stabilizing the price?

RPS was linked to processing companies in the year 1988 within the second year of its establishment as an apex body for processing the raw material purchased from the primary societies. If the companies absent themselves from marketing, there is a tendency of the price going down drastically. There are 5 processing companies registered and working with the Rubber Board under the Companies Act. Our domestic requirement of natural rubber is estimated at 9.3 lakh tonnes. Out of this India produces around 8.31-lakh tonnes. Even though a deficit in production is observed, at the time of price crash India exported around 25000 tones of rubber.

How does we compare the schemes of the Rubber Board with that of other countries? Is any other country following this pattern?

Member countries of the 'Association of Natural Rubber Producing Countries' are adopting the RPS schemes of India. Recently Malaysian Rubber Board, Director General had visited the Rubber Board office at Kottayam to study the schemes of the Board. A delegation from Malaysia is coming again in September. Right now the Chairman, Rubber Board holds the position of Chairman, ANRPC and IRSG. This is a recognition to the country as well as to the Rubber Board.

What is the role of the RPS in processing and value addition?

RPS has played a major role in the outreach of extension activities of the Board. The Board carries out mass campaigns on specific themes every year. These messages reach to all farmers' through the involvement of RPS. Likely, the betterment of grading of rubber sheets ensures better price to the farmers. The societies play a major role especially through the 140 common processing centers in producing quality sheets. RSS-1x *is* the best grade of the sheet rubber. There are few RPS, which are producing 1 x rubber. The Board aims to increase the number of producer societies for making RSS-1x rubber.

Now 1000 societies are collecting latex from the farmers and process at common centers and giving better returns to its members. RPS also buys rubber sheet from farmers and grades it for additional income. It is shared between its member farmers.

What is your view on the formation of Coconut Producers Societies and to what extent Rubber Board can collaborate?

The Rubber Board is happy to cooperate and associate with all the endeavours of the Coconut Development Board especially in grounding the Coconut Producers'Society for sustainable development of small and marginal farmers.

Rubber Board can depute officers for taking up class for the formation of producer's societies. Coconut and coconut oil are essential things for a common man. In sustainable agriculture, all crops have its own role. Further, Rubber Board also promotes the idea of planting few dwarf coconut seedlings in the homestead gardens of rubber growers for its refreshing natural tender coconut water.

Interviewed by Shri. Rajeev. P. George, Dy. Director, and Smt. Sona John, Sub Editor, CDB, Kochi-11

A kick start for the 'Friends of Coconut tree'

The Coconut Development Board conducted 10 training programmes for the Friends of Coconut Tree at various centers across the state. The 6 day technology based training programme started on 17th August and concluded on 22nd August 2011. 194 trainees from Thiruvanathapuram (20), Kollam (20), Alappuzha(13),Kottayam(21), Ernakulam (20), Thrissur(20), Palakkad(21), Kozhikode(18), Kannur (21) and Kasargodu (21) completed the training. The second batch of the training programme will commence on 29th August 2011. The Board is also giving insurance coverage to trainees and trainers under the Kera Suraksha Insurance. The Board is planning to train 5000 friends of coconut tree through its 25 training programme during the current year.

Training in progress in Kozhikode district

Unemployed healthy persons without disability in the age group of 18-40 with minimum seventh standard educational qualification are considered for the training. Minimum 30% of trainees can be women. The training is conducted in batches of a minimum of 20 for six days and the training is residential which include technical, managerial and practical sessions. The programme covers coconut climbing techniques, coconut harvesting and crown cleaning, spraying and pest control operation, pollination and hybridization techniques, plant protection measures, identification of tender nut, mature coconut and seed nut, developing leadership quality and communication skills, entrepreneurship development skills and savings management.

Training in progress in Ernakulam district

The following officers are in charge of the training programmes.

Smt. Nisha G (9496145812) Trivandrum
Shri. Jayanath R (9446028889 Kollam
Smt.Reshmi D.S.(9446484014) Alapuzha
Smt.Deepthi Nair S (9495675679), Kottayam
Smt.Leenamol M.A. (9447818993), Ernakulam
Shri.Sasi Kumar C, (9995521054), Thrissur
Shri.Sebastian K.S, (9446211460), Malappuram
Shri.George Peter J (9946255915), Palakkad
Smt.Mridula K (9946947725), Kozhikode
Shri.Vijayan K.M (9447100149) Kannur
Shri.Chandrasekharan V.G (9846635765) Kasaragod

Smt. Mini Mathew, Publicity Officer (9447665105) is the coordinator of the training programme for Thiruvanathapuram, Kollam, Kottayam, Alappuzha and Ernakulam Districts. Shri. Sreekumar Poduval, Processing Engineer (9895816291) is in-charge of Thrissur, Malapuram, Palakkad, Kozhikode, Kannur and Kasaragodu districts. Those who are interested in participating in the training programme may forward an application form along with their address and Phone number to the Chairman, Coconut Development Board, Kochi-11.

Empowering Farmers for Direct Market Interventions

Thomas J*

RPS have gained the capabilities as service provider by undertaking contract planting, plantation management and even providing skilled tappers for undertaking tapping work in plantations. It is not far that many of the absentee rubber growers may lease their plantation to the societies for its management.

The greatest success of Rubber Producers Societies (RPS) amongst other things, to me, is the success in enabling high farm-gate price realization for rubber compared to any agriculture commodities in the country. Producer's societies of the farmers, by the farmers and for the farmers are much relevant in the present day agriculture. Wherever, selfless and committed leadership was provided by the farmers themselves, the RPSs have excelled in serving the farmer member's cause. The successful RPSs have diversified its activities to cover all activities that the farmer desires for his farming where governmental/ or non-governmental agencies have failed to provide. Timely purchase and supply of quality agri-inputs at reduced rates through collective bargaining, assurance on the quality of inputs, production and supply of certified quality planting materials as well as supporting technical inputs are provided to its farmer member. Very recently, RPS have gained the capabilities as service provider by undertaking contract planting, plantation management and even providing skilled tappers for undertaking tapping work in plantations. It is not far that many of the absentee rubber growers may lease their plantation to the societies for its management. RPSs join to form Group Processing Centres where the produce could be processed to required quality with assured linkages directly with consumer. Capital is realized from raising shares/contributions from the farmer members so that every member feels the ownership of the society and their company. These companies could also intervene in the market at times of crisis by engaging in processing and exporting to keep psychological buoyancy in domestic markets.

A similar model, with the same objective of empowering farmers is being tried in the spice sector as well, where the major focus is on exports. With the purpose of directly purchasing quality spices from farmers, FLAVORIT SPICES TRADING LIMITED (FSTC), a Company Limited by Shares and incorporated under the Companies Act, 1956, with the Chairman Spices Board as CMD was floated by Spices Board. Presently the company aims to purchase quality spices from farmers directly and sell under Flavorit brand with quality assurance provided by Spices Board. First retail outlet of FSTL is presently functioning at the premises of Spices Board, Cochin and FSTL plans to open such retail outlets through out India either directly or through franchise for ensuring availability of quality spice and spice based products for domestic market.

Spices Parks are another mode of Spices Board's market intervention to support better returns to the spice farmers, at the same time provide quality spices to the consumer. The regional crop specific Spices Parks is a well-conceived approach to have an integrated operation for cultivation, post harvesting, processing for value addition, packaging, storage and exports of spices and spice products. The Spices Park will ensure a better pricing for the produce by eliminating intermediaries from the supply chain system currently followed locally for trading of spices. The facilities available in the Spices Park can be utilized by the farming community for selling their produce directly to the exporters by improving the quality of the products.

Spice Parks are intended to function as a common facility centre for development of spice industries. The basic objective is to provide common infrastructure facilities for both post harvest and processing operations of spices, which also aims to

backward integration by providing rural employment. All the Spices Park will have processing facilities at par with international standards in which the produces could undergo cleaning, grading, sorting, grinding, packing, warehousing etc. Apart from this, Board will develop the common infrastructure facilities like roads, uninterrupted water and power supply system, fire fighting and control systems, weighing bridges, effluent treatment plants, facilities for Bank and Post office counters, Restaurant, Business centers, Guest house etc. Spices Park will also render educative services to the farming/trading community. Spice Park provides training programmes to the farmers on GAP, Post harvest operations, advanced processing practices and global food safety and quality standards. The management of Spices Park is undertaken in two modes. In one mode, like Spices Park in Puttady, Idukki, Kerala meant for cardamom and pepper, the common infrastructure has been created by Spices Board and the facilities are given out on contract basis to be run by FSTL. The second mode is when sufficient land is available under the Spices Park, the park is being developed in Public Private Partnership mode. Under the concept of the Spice Park, Board will lease out the land available in the Spice Park to private entrepreneurs for developing their own processing plants for value addition. The Private entrepreneurs will develop their processing plants in the Spices Park. The grower community can make use of these facilities for selling their produce directly to the exporters so that they can avail the premium price for their products. On the other side, exporters can develop a link with reliable farming community for an uninterrupted supply of raw material for their business. Moreover the establishment of the processing plants by the exporters will create local employment opportunities.

As Indian agriculture consist of largely small and marginal farmers, enterprise with very low investment capacity, the only way for empowering the farmers in market intervention is through producer societies or companies. Kannan Devan Hill Produce Co. Munnar, Kerala is another successful case study of farmer empowerment, which resulted in a win-win situation for all. With such successful models in place, Coconut farmers may regroup themselves through Coconut Producers Societies with the support of Coconut Development Board for a greater hold on the market.

**Rubber Production Commissioner, Rubber Board, Kottayam*

contd. from page 6

diversification and value addition. The societies can make available the raw materials required for the companies. The coconut farmers can ensure reasonable price for their products as well as better income. They can also utilize the opportunities of the export sector.

How do you evaluate the various stages of the RPS groups from formulation to its present stage? Is there is a change in the objectives of the RPS now?

Since the inception of the RPS in 1986 its various activities could lead India to the first position in the productivity of rubber in the world.

Later on most of the RPS have slowed down their activities. There would have been around 5000 RPS functioning now. But there are only 2500 RPS which shows that the process is not moving well.

Since the globalization has changed the situation, what do you see ahead for the growth of the RPS. Which are the areas where RPS would have significant roles?

The planning of the RPS as well as the short term programmes for productivity improvement could reap good results. Programmes for productivity improvement are essential even after globalization. These are essential for stabilizing the competitiveness as well as for ensuring good quality standards.

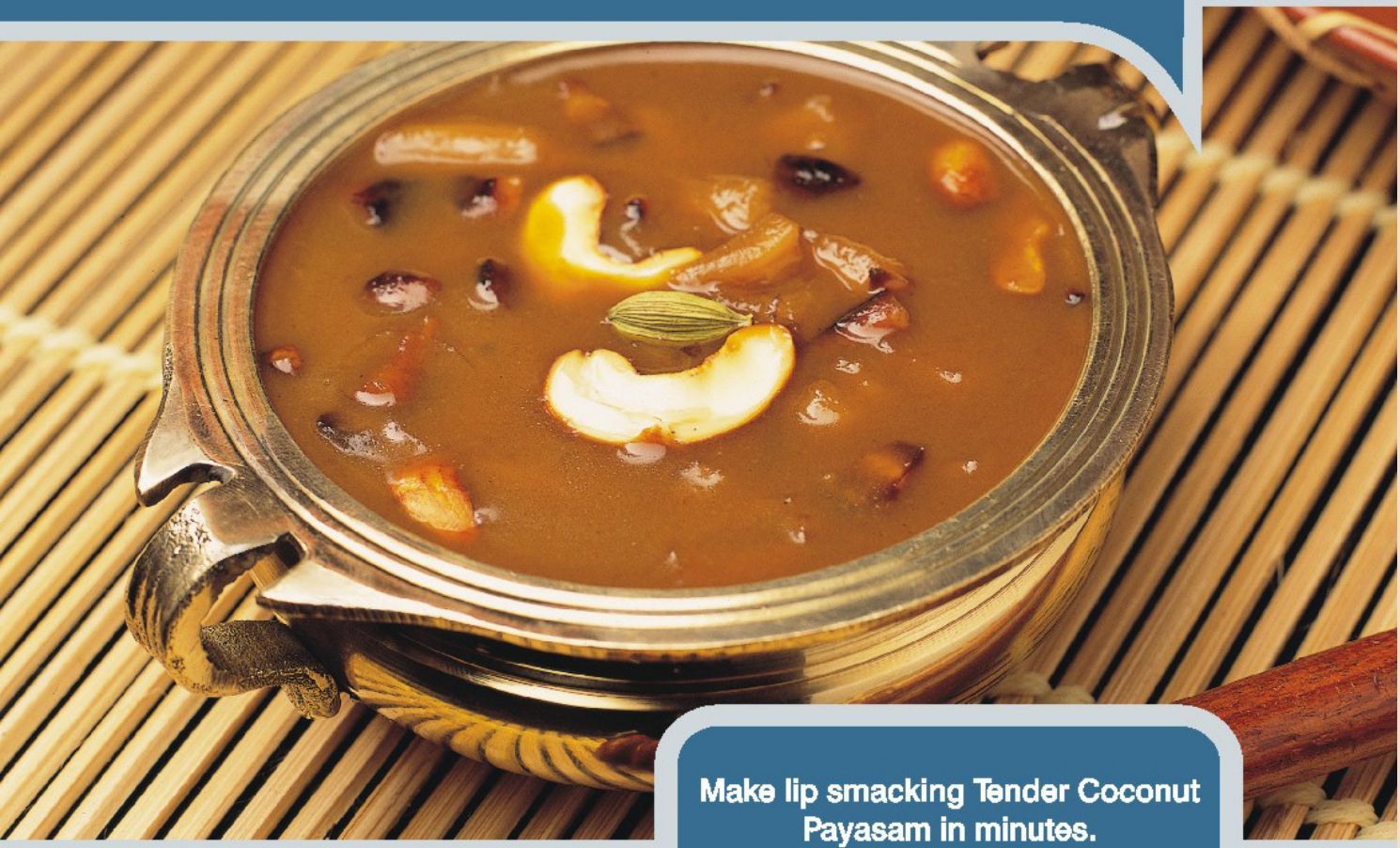
The RPS can do many things especially in controlling the prices and in the export. RPS is essential for the proper implementation of the research and extension activities in the rubber sector.

The rubber farmers are not anxious about the ASEAN agreement or on the import of rubber now. They have the solid set up of the RPS which has made good productivity improvement. Other farming sectors should also evolve lessons from their success story.

Interviewed by Shri. Rajeev P. George, Deputy Director and Smt. S. Beena, Sub Editor, CDB, Kochi

Eat your way to good health. With Tender Coconut.

Tender Coconut is not just a tasty and wholesome drink, it is also a good source of carbohydrates and other nutrients. Tender Coconut kernel has minimum fat, making it an ideal health food even for those who avoid fatty diets. What's more, it is rich in dietary fibre and good for muscle development. So, make Tender Coconut a part of your diet and enjoy a healthier life.



Make lip smacking Tender Coconut Payasam in minutes.

Ingredients: Tender coconut meat (6-7 months old nut, pared and sliced into small pieces): 0.5 kg, Ghee: 50 gm, Jaggery: 700 gm, Coconut milk (1st and 2nd milk): 3 cups, Cashew nuts: 50 gm, Kismiss: 50 gm, Coconut (sliced and roasted in ghee): 1 tsp, Cardamom: 10 nos, Rice flour: 2 tsp.

Method: Heat a thick bottom cookware and put 25 gm of ghee. Add tender coconut meat pieces and stir for 15 minutes in low heat. Add the thick syrup of jaggery and stir for another 10 minutes. When the jaggery sticks to the tender coconut meat well, add the 2nd milk of coconut. For thick consistency add rice flour mixed in coconut milk through a sieve and stir well. Continue stirring and when about to boil add the first milk. Remove from fire and add roasted cashew nuts, kismiss, sliced coconuts and cardamom powder.

Farmers in Transition

From Clusters, Co-operatives to Producer Societies

*Rajeev P George**

With a population of 1.21 billion and rising disposable income, the demand for food is ever growing. Why then the farmers in India are in distress and commit suicide? One reason could be that the value addition in agricultural commodities happens only in the post-production. The farmer disposes off his produce in unprocessed form at the farm gate. There is no adequate storage, market intelligence or collective mechanism for procurement, processing and marketing. Hence no plough back of surpluses from value addition goes back to the farmer. Intermediaries or processors enjoy the benefit. Trading in agricultural commodities takes place at different levels and forms. This also undergoes continuous change. Even at the time of free trade regime, not much progress has happened to the farmer. Economic down turn has slowed down the prospects. India being an agricultural country it has vast potential and impact on agricultural trade. We need to understand the challenges and opportunities ahead. In this special issue an attempt is made to describe the different types of trade channels emerged or adopted in major commodities to motivate the progressive coconut farmers to take up the initiative to organize themselves to own production, processing and marketing channels to safeguard growers or producers interest with little or with no outside interference.

The progress of the Indian Coconut Sector has successfully transformed three distinct phases since the inception of Coconut Development Board in 1981 ie. area expansion, growth in production and productivity of coconut in the country and finally addressing the problems of low income from the coconut holdings. The Coconut Development Board initiated direct implementation of the scheme 'Integrated Development of Coconut Holdings for Productivity Improvement' in the year 2004-05 and 2005-06 through the coconut clusters. The group approach has resulted in bringing economies of scale in farm activities and thereby improved the economic efficiency of holding, enhanced the input-wise efficiency and reduced the cost of cultivation. Guiding the individual farmer, to make farmers group for Producer societies and finally linking to "Producer Companies" is the new road map for sustainable growth.

Coconut Co-operative Societies

For trading coconut, co-operative movement started in the Andaman and Nicobar in 1926.Further, a Central Cooperative Welfare Society Ltd was established early in 1948 in Andaman& Nicobar Islands. The cooperative movement played a dominant role in the development of tribal community of Andaman and Nicobar Islands. KERAFED was formed in Kerala in the year 1987.Its coconut oil complex at Karunagapally in Kollam district is one of the biggest such units in India, with a capacity to produce 200 tons oil per day. KERAFED is the apex co-operative Federation of coconut farmers in Kerala and is a large producer of coconut oil in India. The objective of the Federation was to bring the coconut farmers of the state under co-operative sector and to augment their income base by integrating production, productivity, processing, marketing and value addition of coconut and coconut products. The Federation procures copra directly from coconut growers in Kerala.

In addition, half a dozen cooperatives with a production capacity to process around 25000 nuts per day are established in Kerala. Major players in the cooperative sector are Kallamkunnu cooperative society, Karalam co-operative Society, Vellur cooperative Society and Urugattugiri cooperative society. Co-operative societies in commodities are not very popular among the farmers owing to various administrative reasons.

Producer societies in Rubber sector

Rubber growers Marketing Cooperative Societies were formed in 1960's. These societies could not reach to a large number of growers in the rural areas as the area under rubber increased in the country.

To overcome this, Rubber Board promoted formation of voluntary associations of small growers registered under the Charitable Societies Act called the Rubber Producers' Societies (RPS) early in 1986. This concept has been widely accepted by the grower community and at present, there are 2304 RPS in the country. RPS functions as self-helping group at village level under the guidance of the Rubber Board. RPS can help devolution of extension functions leading to empowerment of the grower community. Distinguishing features of RPS are that they operate in small compact areas having a radius of 2 to 3 kms and membership ranges from 50 to 200.

In order to integrate and strengthen the activities of the RPSs, the Rubber Board took the initiative in 1987 to set up processing companies and trading companies in the predominant rubber growing areas in Kerala. While most of these are private limited companies jointly promoted / owned by the Rubber Board and Rubber Producers' Societies of the concerned areas with majority equity participation by the Rubber Board, a few of them have become public.

Formation of Producer Companies

The Companies (Amendment) Act 2002 introduced the 'Producer company' which is based on the recommendations of an expert committee. The committee's recommendations were in response to the government's demand that it first frame a legislation that would enable incorporation of cooperatives as companies, and the possibility that existing cooperatives be converted into companies and second, that the proposed legislation accommodate the unique elements of cooperative business within the Companies Act. At the core of the design of the producer company are its members, who have to be primary producers, that is, persons engaged in an activity connected with, or related to, primary produce. The design also introduces new systems for accountability and transparency in what are otherwise still community-based organizations committed to co-operative values.

Since the amendment made in 2002 about 150 producer companies have been established in different parts of the country covering a host of commodities ranging from agriculture and plantation crops to milk, poultry, meat, eggs and handicrafts.

Following are some of the Producers' Companies running sucessfully in various sectors.

Indian Organic Farmers Producer Company Ltd. Aluva (IOFPCL) Kerala.

Farmers' producer company for Organic farming in Aluva was formed in 2004. Only producers with organic certification are eligible for membership of the company where patronage for one share is fixed at Rs.40,000. Thus, the holder of one share can market his/her own organic products worth maximum of Rs.40,000 through the company. There are around 5000 farmers involved in the activities of IOFPCL now and it is expected to increase to 10000 farmers. IOFPCL so far exported 60 tons of organic cocoa, 3 tons of organic vanilla, 16 tons of organic coffee, 22 tons of organic coconut oil and 100 tons of organic pepper to Switzerland, U.S and Germany. IOFPCL is expecting 100% growth during this financial year (Contact person Shri K J Thomas Phone 09446236523)

Vanilla India Producer Company Ltd (VANILCO) Kalamassery – 682033 Ernakulam dist., Kerala

Indian Farmers Movement (Infarm), a charitable society with over one-lakh farmer members has promoted VANILCO catering to the long-term interests of the vanilla farmers. VANILCO works in tandem with vanilla growers to produce and market the best and choosy vanilla beans and extracts. The company procures, processes, and markets the members' produce to ensure handsome dividends and bonuses for its shareholders and also intervening in the market through pool procurement. Infarm has also formed BIPCL with a broader objective of "building brand equity for the 25 varieties Indian bananas cultivated in different parts of India at the international level. The company plans to promote each variety of bananas as exotic varieties of India Banana. The sole owners of BIPCL are the primary farmer-producer farmers of the country. VANILCO is a Producer company with the twin objective of

promoting vanilla production and processing vanilla as per international standards. Farmers own VANILCO and it works in tandem with them to produce and market the best choice vanilla beans and extracts. VANILCO is the most reliable supplier of natural Vanilla in the market. (Contact person Shri T V Thomas Phone 09446926008)

Coinonya Farms Producers Company Limited for turmeric and Karbi Farms Producer Company Limited Assam.

The Spices Board launched the producers company in 2010 for ginger and chilli under the new provision in the Companies Act that give primary producers' the flexibility to organize themselves as a normal company but on the basis of a one man-one vote principle. Producers' Company combines the economic advantage of a corporate entity with the social benefits of a cooperative and the provision of it was introduced. The new two companies, where the Spices Board owns 49 percent stake will initially have a plantation area of 1000 hectares that will be cultivated over a five-year period. (Contact person-Shri. Percy Ingty- 09435066633 and Shri. Francis Ingty- 09612165647, 09436101971)

Vegetable and Fruit Producer's Society, Delhi.

To meet the growing demand for fresh fruits and vegetables in Delhi, the Mother Dairy Fruit and Vegetables Limited (MDFVL) was established in 1988 as a subsidiary of the National Dairy Development Board. MDFVL sells 250 metric tons of fresh vegetables and fruits to about 75,000 customers every day sourced from over 150 producer associations comprising 18,000 farmers. MDFVL helps producer associations procure improved seed varieties, fertilizer and chemicals and provides extension services. It links producers with input dealers for the supply of production inputs at wholesale rates. It also organizes training programmes for farmers on good agronomic practices to increase production and minimise the use of chemicals. MDFVL has established quality standards for fruits and vegetables and the produce are graded and priced as per agreed norms.

Flower Growers Self Help Group, Ernakulam.

Around 1200 farmers of Ernakulam District

Cooperative and Producer Company - Key Differentiators

Features	Producer Cooperative	Producer Company
Registration	Cooperative Societies Act	Companies Act
Membership	Open only to individuals and cooperatives	Only those who participate in the activity
Relationship with Other Corporates / Business Houses /NGOs	Transaction based	Producers and corporate entity can together float a producer company
Shares	Not tradable	Not tradable but transferable
Voting Rights	One person, one vote, but Government and RCS holds veto powers	One-person one vote. Those not having transactions with company can't vote
Reserves	Created if there are profits	Mandatory to create every year
Role of Registering Authority	Significant	Minimal
Administrative Control	Overbearing	None
Borrowing Power	Restricted	More freedom and alternatives
Dispute Settlement	Through cooperative mechanism	By arbitration

formed the flower self-help group in the year 2002 August. Director board of 13 farmers mange the activities of the group. A turn over of Rs 50 lakhs/ per year is reported. (Contact Person- President - Shri. K. Gopalakrishna Pillai – 9847464842 and Secretary -A.K. Bose- 9446719559)

Coconut Clusters

A farmer participatory demonstration and training programme assisted under Technology Mission by Coconut Development Board during the period 2003-06 indicated that the yield of coconut in the root wilt area improved by more than 90% i.e. from 25–30 nuts to 53 nuts/ palm/ year. The community action has also resulted in increased income generation through intercropping and coconut product diversification. Keeping in view the findings of Integrated Management Practices through group action and the need to replicate the success in other areas, the Board started implementing Integrated Farming Scheme directly on a compact area of 25 hectares with the larger participation of farmers, clubs, NGOs, Voluntary Organizations, Co-operatives etc from 2005-06 onwards in the major coconut producing states of India.

Outcome of CDB Clusters

Through farmer participatory approach, a technology transfer mechanism was evolved through capacity building of master farmers in the technology as well as production and distribution of critical inputs. The area was transferred into a learning site for small and marginal farmers of other area for observation, experience sharing and mutual learning. Weekly meetings of groups and periodical meetings of group leaders and Board's officials for reviewing the farm activities ensured active participation of all stakeholders. Farmers pool their resources and capability to raise the scale and scope of their existing production systems. The mobilization and organization of resources through group action has resulted in reducing the cost of cultivation considerably. The coconut cluster programme implemented by the Board has created a positive impact in the adoption of scientific management of coconut cultivation. The yield of root wilt affected trees was increased by more than 90% over a period of 3 years and additional income was generated through intercropping. The coconut clusters of the Coconut Development Board in Malapuram and Kozhikode district have ventured into value addition. In Malapuram district 20 small scale driers were distributed to the cluster farmer with 50% subsidy. By using these driers the clusters produced 60 tonnes of copra. In Kozhikode district 19 clusters were engaged in copra making. 1356 tonnes of copra was supplied by the clusters.

Many farmers' organizations, producer groups, and cooperatives have to work more closely with business groups, forging new partnerships and collaborations.

Concept of the producers company has been accepted & adopted by various agencies. Rubber Board introduced Rubber Producing Societies in 1986 and Producers Company in 1987, Organic Producers Company in 2004 and Spices Producer's Company in 2010.

Suggested strategies

More producers' societies need be formed to pool resources for better opportunities in trade. Partnership MoU with established business houses will make possible long term buy back arrangements. Infrastructure for community processing centers can be established for farmers groups and its implementation schedule for the first four or five years has to be spelt out. The progress of implementation should be periodically reviewed to allow adjustments and corrective measures. Producer Companies and Keraparks should be located in the production catchment area to minimize transport cost. Considering the perishable nature of coconut and its byproducts cold chain has to be established.Assistance should be provided for modernization of industry and formation of new industries. Market information may be provided to the farmers and agro-processors.

The Board is creating a platform for farmers groups for collective pooling of their recourses, value addition and marketing through initiatives like producer societies. Let us join together to form Coconut Producer's Societies in the major coconut growing regions to bring back the lost glory of the coconut sectors.

**Deputy Director, CDB, Kochi - 11*

Farmer groups for better production and marketing

*N. Vijayan**

VFPCK constantly encourages Self Help Groups to take up activities such as creating awareness, providing information, training on new crop production methods, group marketing etc.

Vegetable and Fruit Promotion Council Keralam (VFPCK) was formed as a successor organization of the project the "Kerala Horticulture Development Programme (KHDP)". The core concept underlying VFPCK strategy is for promoting overall development of vegetable and fruit farmers through enhancing production and providing better marketing by way of formation and strengthening the self help groups(SHGs).These SHGs can otherwise be called as clusters of fruit and vegetable farmers who are thinking together, working together for improving and enhancing income and living standards. This functional unit consists of 15-20 farmers who voluntarily join together on neighbourhood principle to adopt technologies and practices for improving production and there by their income level. The group members will have common concerns and common objectives, thus having homogenous charactors. The Self Help Group (SHG) formation was started from 1993 onwards. The SHGs provide a platform for the group planning and implementation of the activities of the council. VFPCK is so far having 7510 SHGs with 145528 farmers in 14 districts of Kerala. This achievement is made by systematic planning and facilitation by the staff working in the field level.

SHGs are constantly encouraged and facilitated to take up activities such as creating awareness, providing information, training on new crop production methods, group marketing etc. Self help groups take their origin from the concept of solving common problems through group efforts and there by becoming self reliant. The concept of 'self-help' is applied in empowering the farmers and improving their standard of living.

Before the formation of SHGs in an area, VFPCK conducts area feasibility survey and socio-economic survey of the area. Based on the survey report, VFPCK decides to take up its activities in the selected area and groups will be formed and farmers will be inducted. VFPCK has certain criteria for inducting farmers in the self help groups. Farmers cultivating 300 banana

Group marketing of the produce

Training to the farmers

plants or cultivating vegetables in 50 cents in two seasons or 25 cents in three seasons will be inducted in to groups. 3 Master farmers will be selected by the SHG ie MF (Production), MF(Marketing) and MF(Credit), and these Master Farmers will lead the SHG in three major activities related to Production, Marketing, Credit disbursement and crop insurance of SHG members. There will be regular monthly meeting of the SHG to identify and solve problems of the farmers. Master Farmer(Marketing) will be an executive committee member in the Swasraya Karshaka Samithy' (Registered Farmer Markets run by the farmers and supported by VFPCK).The tenure of Master Farmers will be two years and hence every member will get an opportunity to be a Master Farmer and thereby all farmers will be empowered to nourish their leadership skills.

For sustainability of SHG constant facilitation is required. Council is taking care of this and the farmers are experiencing the following benefits:

- Better technical know-how to improve cultivation practices and thereby increasing income level.
- Enhancing bargaining power in getting reasonable price for their produce by implementing group marketing concept.
- Reduced dependence on local moneylenders by implementing participatory credit and insurance packages.
- Better pest &disease management.
- Inculcating a feeling of oneness among group members.

Advantages of the groups are:

- Common platform for discussing and solving problems by themselves
- Better marketing facilities and better price for produces by increasing the bargaining power by adopting the concept of group marketing of VFPCK by these SHGs
- Common purchases of inputs reduces the total cost of cultivation
- Participatory credit and insurance of VFPCK which is being adopted by SHGs are helping the farmer groups in getting the credit facilities and insurance support easily and the banks are able to ensure the end use of the loans in the production sector itself.
- Monthly meetings of these groups helps VFPCK in getting the first hand information of the requirement of the farmers.

SHGs/clusters can initiated for farmers who are cultivating different crops including coconut so that the whole farmer community in our country is benefited.

**CEO, VFPCK, Kakkanad, Kochi*

Meeting of the members

Unite to triumph than perspire to succumb

*Deepthi Nair S**

The Coconut Development Board initiated the formation of coconut clusters with the objective of bringing the farmers together for increasing the production and productivity of coconut from unit holdings.

India is often described as an agricultural economy with majority of the population depending on agriculture for their livelihood. But the agriculture sector often faces setbacks owing to diverse factors. The growth registered in the agriculture sector indicates a diminishing trend. The measures declared during various instances by the policy makers to aid the farmers like write off of loans, declaration of minimum support price etc often play the role of a pain killer, while the real disease ie., lack of profitability in farming sector due to lower prices and higher production expenses remains as a hidden systemic disease. Even though policy makers are offering huge subsidy and higher procurement prices, the benefits are not reaching the real farmer which will keeps the farmer crippled ever. The only way out to address such situations is to empower the farmer to produce quality product and undertake joint efforts as a team in production, value addition and marketing of the produce adhering to world standards.

Constraints faced in coconut cultivation :

Coconut cultivation in the country is characterized by many handicaps in the production and marketing side, which decelerate the development of the sector. With regard to the production of coconut, in traditional coconut growing states like Kerala and other coconut growing states in the north east, cultivation is undertaken in small, fragmented and non commercial holdings. The gardens are not scientifically managed or are not uniformly managed resulting in unstable yield. The traditional system of subsistence farming is followed, resulting in low productivity and low quality of produce. Cultivation is taken up as a non-remunerative venture by the farmers. The gardens consist of senile and unproductive palms which reduce the productivity. The heavy investments, both recurring and non recurring, in the pre bearing stage act as a deterrent to the farmers since the crop has a long gestation period. Above all these factors, the fluctuations in prices with least stability leads to better management of gardens during price hike and neglect of gardens in price fall. In other coconut growing states like Tamilnadu, Karnataka etc where gardens are better managed too, price instability is a regular feature.

On the marketing side, scattered holdings offer less scope for pooling of produce at a common point. The solitary coconut farmer lacks bargaining power and is at the mercy of the middle man or commission agent in the supply chain. The excess production occurring during peak season is subjected to distress sale rather than undertaking product diversification and value addition. The excessive dependence on copra and coconut had led to a situation wherein price of coconut is ruled by the price of coconut oil which is in turn ruled by the prices of other vegetable oils. Coconut oil also faces the problem of stiff competition from cheaper substitutes which are also used for adulteration. The adverse propaganda for coconut

oil coupled with policies for the liberalized import of palm kernel oil reduces the market prospects for coconut oil.

The marketing of coconut is mainly coconut and copra based except for product diversification to a limited extent in the form of tender coconut, packed tender coconut water, dessicated coconut powder coconut chips etc. There is no organized market for coconut or its byeproducts like coconut husk and shell which have much demand for coir making and production of activated carbon. The farmer or the small scale entrepreneur is also not aware of the conversion technologies that we have in production of value added products on a commercial scale.

A concerted effort from all stakeholders in the development of coconut cultivation is vital for inducing a sustained progress in the sector which can be accelerated by promoting grass root level farmer institutions.

Promotion of farmer institutions – Coconut Producers Societies:

There are many myths prevalent in agricultural development that farmers cannot be helped without subsidies, gap between institutional research and farmers problems is unbridgeable. A nonsubsidised, knowledge based and farmer centred approach will result in effective organization of farmers into grass root level institutions with cohesivity which will render a unity for all activities related to crop production and marketing. Creating a habit of the farmers coming together, discussing and analyzing their common problems and finding solutions for the same will pave them to a different path from the traditional stereotype of waiting for the Government to intervene and finding out solutions for the problems of the farmers. This approach has a sustainability and will also lead to the emergence of a self confident farmer group equipped to manage their farming as a profitable business. Functioning as a group will educate the farmers to care and share and lead as a group which itself will move many obstacles that they face. Formation of such farmer groups on a neighbourhood principle will provide a platform for thinking alike, planning alike and implementing alike in acquiring improved agriculture practices, quality input procurement, increased bargaining power through improved marketing system, small scale processing and value addition, product diversification, better bye-product utilization to produce intermediate products or final industrial products etc. When groups of farmers maintain cohesivity inspite of the fact that they believe in various ideologies or belong to different caste or religion, the attainment of sustenance is assured.

A concerted effort from all stakeholders in the development of coconut cultivation is vital for inducing a sustained progress in the sector

The Coconut Development Board had initiated the formation of coconut clusters with the objective of bringing the farmers together towards increasing the production and productivity of coconut from unit holdings. The cluster programme facilitated the adoption of appropriate coconut based farming systems and promoted farm level processing for value addition on a community scale. The clusters not only created a platform for the implementation of various coconut developmental programmes of the Board, but also reduced the cost of cultivation by pooling scarce resources and inputs thus enhancing the input use efficiency. The group approach enabled better technology transfer, motivated farmers to adopt technologies and also improved the reach of the technology to the farmer. As an extension to the cluster approach, the Board advocated the concept of Coconut Producers Society(CPS). Through the CPS, the Board foresees to attain the following goals

Total inclusive growth : Production of any agricultural commodity should be always based on market demand. We have started from a period of subsistence farming and moved on through marketing of surplus produce and now the motto should be production for market demand. The marketing concept should start from market demand, focusing on the customer need and evolving an integrated marketing strategy. To develop a potential market strategy, estimation of optimum levels of supply is essential. A vertical coordination involving a synchronization of the successive stages of production and marketing regarding the quantity, quality and

timing of market flows will enable the establishment of a successful marketing system. The positive factors identified in the successful marketing models of organisations like NDDB, ITC, AMUL, HOPCOMS, RYTHU BAZAR, Rubber Board, VFPCK etc have revealed that a totality of treatment of the commodity with a commodity specific approach aimed at inclusive growth gives fruitful results. This approach supported by the development of a strong supply chain network, empowering the growers for market oriented production leading and market led growth and development and the use of Information Technology for demand assessment, market study and price fixation. The Board aims to follow this approach in the establishment of CPS of doing as little as possible by way of provision of services, and as much as possible by way of capacity-building, networking, linking and mainstreaming. The coconut growers residing within an area of operation with distinct geographical boundaries are grouped to form societies registered under the Charitable Societies Act with an objective to work for the socioeconomic upliftment of the member farmers. A coconut grower with not less than 10 bearing coconut palms can become a member of the society. Such a consolidation of holdings will enable pooling of scarce resources especially labour, integration of activities in production and marketing, group sourcing of quality inputs and technology, timely and effective management of cultural operations, synchronizing of harvesting activities etc. The CPS can even make use of the palm climbers trained by the Board thus sourcing manpower for cultural operations in an effective manner.

Disintermediation of the supply chain with optimum number of intermediaries with the functional motto of mutual coexistance will benefit all the stakeholders in the supply chain.

Group approach : The immediate objective foreseen is that aggregation of producers into groups will provide opportunities for aggregation of the produce at a common point at the village level and the individual farmer doesn't have to depend on agents to market small lots. Direct dealings of wholesale traders or manufacturers or exporters with farmer groups is encouraged reducing the length of the supply chain and thereby ensuring a major part of the producers share of the consumer rupee. The group approach will increase the bargaining power of the farmer and ensure an enhanced and sustained income. The farmers are empowered and facilitated to take more effective decisions with regard to the marketing of their produce. The farmers also enjoy the benefits of reduced transportation and handling costs, proper grading and handling, accurate weighing and timely payment. More importantly the farmers save the time and efforts that they would be spending in doing these activities. On a wider and longer perspective, group approach will provide scope for mechanization and post harvest operations, avenue for farmers educated in improving productivity, undertake grading and packing to meet global standards and ensure prices that compensate with the value addition and risk borne by the farmer.

Development in infrastructure and reduction of wastages : The fragmented and unorganized nature of the supply chain generates wastage of produce and poor logistics management. Smaller harvest lots do not bring economies of scale in transportation and lower net realization. Establishment of a grass root level institution like CPS will enable infrastructure development, upgrading technology and practices in the entire value chain including production, packaging, grading, storage and logistics. Infrastructure for copra drying at the CPS level, networking of CPS to form apex level federations equipped with processing of shell and husk will generate rural employment and additional income. Commercial utilization of wood, fronds etc can also be made possible by providing infrastructure support for the same.

Mutual Coexistance : Disintermediation of the supply chain with optimum number of intermediaries with the functional motto of mutual coexistance will benefit all the stakeholders in the supply chain. This will result in multifaceted desirable positive changes in the system. The process of elimination of intermediaries can be traded for an approach of

mutual coexistence where optimum numbers of intermediaries are maintained and all are benefited. Direct marketing of coconut, copra, shells, husk or other products by the CPS will result in the farmers having a direct understanding of the market demand in terms of volumes, standards, timely supply etc and in turn production planning can be undertaken to cater to the demands of the buyers. For instance, a CPS can have tieups with tender coconut sellers and advocate for harvesting of tender nuts to reduce over production and price fall due to market glut in the peak seasons. CPS can have institutional tie ups with organized buyers in the retail chain thereby assuring a permanent market. CPS can ensure timely supply of quality produce which a single farmer cannot accomplish whereas the relation can also be maintained by sticking on to the commitments . The small retailers can effectively differentiate themselves by providing customised product mix, superior customer service and focusing on convenience shopping.

Diversification owing to market information support : From the part of the farmer, lack of information on end consumer requirements and pressures from consolidators force him to make inefficient decisions on crop selection and pricing. With organised marketing setup through the CPS, there is scope for development of a self sustainable agrarian system that is market led rather than production led. This will call for diversification to suit customer needs thereby reducing dependence on coconut and copra. The farmers themselves will diversify their planning to suit the needs of the society.

Enhanced exports : Export linkages can be established by the CPS or a federation of CPS as relationships develop with local suppliers. The concept of nurturing the local fresh producers have already had a very positive impact on modernizing and enhancing the food value chain. Small scale industries will be greatly benefited since large volumes will be sourced from them. Their marketing problems are solved and they can even resort to developing brand through partnering. Modern trade creates vital market access for small scale suppliers. It also imparts necessary training and investments in improving the productivity of SSIs and for adoption of best practices

Estimation of the expected transaction in a CPS

Number of farmer members in a CPS	: 40-100
Average number of coconut palms	: 4000-5000
Expected average yield in a year	: 238000 coconuts in an year (approximately)
Number of coconuts per harvest	: 29750 (taking 8 harvests in a year)

A production plan can be made based on demand for the product and harvest of tender coconut, mature coconut etc can be streamlined on a group basis.

If 50% of the coconuts are used for copra making,

Number of coconuts used for copra making	: 14875 nuts
Quantity of copra produced	:2 MT
Quantity of shell produced	: 1860 kg
Quantity of coconut water	: 3000 l approximately

Institutional arrangements can be made with buyers for copra, coconut shell and coconut husk. A centralized facility for the production of shell charcoal from coconut with a capacity to process around 1 MT of shell can be established by associating around 10-15 CPS in the vicinity. Similarly a unit to process around 2500 l of coconut water can be installed by associating 10-15 CPS. The CPS can make use of the processing facility in a planned manner so that production is undertaken in the unit on all days and there is potential for a continuous supply of product to the customers based on demand. The CPS as a group can even go in for production of other processed products from coconut and have export/ institutional linkages with established buyers.

Thus, through a plannedWhat is a Coconut Producers' Society (CPS) approach, the farmer can emerge as the biggest gainer with the advent of CPS. He gets better price realisation for his produce, exposure to best practices, high quality farm inputs at competitive prices, market access for his produce, global crop real time information at his doorstep, and last but not the least, many options to spend his hard-earned money.

**Marketing Officer, CDB, Kochi - 11*

What is a CPS

*Sebastian K.S.**

Even though Co-operative movement is deep rooted in many of the coconut growing States, most of the coconut farmers are unorganized even now. As such the efforts taken for increasing the production and productivity of coconut from small and marginal holdings are showing poor results. It is felt imperative that a movement in the nature of Society of small and marginal farmers will help to improve both the production and productivity. With this objective in view the Coconut Development Board has come forward to encourage the farmers to form Coconut Producers' Societies (CPS). The Board anticipates that these Societies will collectively enter into procuring, processing and marketing activities. The Board is planning to unite the small and marginal farm holders and to register them under the Charitable Societies Act.

Benefits of CPS

The CPSs are expected to enable the farmers to follow scientific management practices. They would have the opportunity to get acquainted with the new technologies in production, plant protection, processing and marketing. The cost of cultivation can be brought down considerably through group activities. Quality planting material, fertilizer, pesticides etc. can be made available on a reasonable price. There would be enough opportunities for procurement, pooling and marketing of tender coconuts. The farmers can establish small and medium scale nurseries. CPS can avail financial assistance to establish organic manure units and copra dryers. It is expected that better opportunities for marketing can be created. The farmers under the aegis of the CPS can participate in study tours and exhibitions.

Prospective future benefits

The CPS offers its members the priority for financial and technical assistance for the establishment of coconut processing units, better facilities for marketing their own products, opportunity to establish medium scale units through the federation of Societies and the export of coconut and coconut based products through the Societies, their Federations and Producers' Companies. The CPS can act as a recognized copra/ coconut procurement agency at the time of Price Support Scheme Operations of the Government. Opportunities would be created to form Producer Companies wherein the CPS or their federations would be the share holders. These companies can invest in projects requiring high investments using technical and financial assistance of the Board.

Who can be a member?

Those farmers who are having at least 10 bearing palms can become a member of the CPS. There can be around 40-100 farmers from a contiguous area. The operational area of each society must be demarcated by natural/ geographic boundaries. The societies would have to be registered under the Charitable Societies Act. The admission fee will be Rs.100 and the annual subscription is Rs.20/-.

The societies should not have any political interests and should function democratically. An executive committee comprising of an elected President and six executive committee members shall govern the Society. Such societies should be registered with the Coconut Development Board. Prior permission from the Board should be obtained for making amendments in the bye laws of the Society.

An application in prescribed form shall be submitted along with the true copy of the certificate of the Registration made under the Charitable Societies Act, a copy of the bye law and Memorandum of Association of the Society, minutes of the meeting which took the decision to register the Society with the Coconut Development Board, details of the members in the prescribed form and a neat & clear self prepared sketch of the operational area of the Society.

Societies found eligible for registration with the Board shall pay Rs.200/- by way of demand draft drawn in favour of the Chairman., Coconut Development Board, Kochi-682 011 payable at Ernakulam/Kochi. The validity of the registration shall be two years. Societies should renew their registration at least one month prior to the expiry of the registration by paying Rs.100/-. This renewal will be valid for 2 years . Application for registration as CPS with the Board should be submitted to The Chairman, Coconut Development Board, Kerabhavan, SRVHS Road, Kochi-682 011

**Asst. Marketing Officer, CDB, Kochi -11*

Bongaigaon model for diversification of agriculture economy

*Shantanu P. Gotmare, IAS**

District Rural Development Agency, Bongaigaon is introducing for the first time in Assam, a wholly organic coconut - cocoa farming system under MGNREGA in Boitamari and Srijangram Development Blocks through the Agriculture Department, Bongaigaon as implementing agency in association with the Coconut Development Board, India. The project is called Udyan Vikas. The technical support would be provided by the Foundation of Organic Agriculture and Rural Development (FOARD), an NGO from Kerala. The project is expected to ensure, in the long run, livelihood security to resource-scarce farmers in these blocks. This project is designed as a convergence scheme with focus on individual beneficiaries. The target groups are from BPL households, small and marginal farmers, SC/ST households and IAY beneficiaries covering an area of 1000 acres. (3024.96 Bighas)

There would be perceptible increase in employment generation by developing the orchard of one thousand acre by way of harvesting, processing, loading, un-loading, transportation, distribution and marketing. There is a component of beneficiary contribution designed to simulate sense of ownership towards implementation of the project in the form of labour for providing crop shed and fencing.

FOARD will provide technical expertise and training to the beneficiaries in preparation of bio-fertilizers and bio-pesticides from locally available materials, in addition to hand-holding support for seven years. They would also arrange for extension services such as value addition, product processing, organic certification and marketing linkages with Amul, Campco and other end-users of cocoa. Coconut Development Board arrange supply of seedlings as well as *in-situ* training and demonstration of planting. The Board will also provide subsidy to farmers who apply for it as per norms.

Productivity of cocoa (estimated)	1 kg per plant or 200 kg per acre
Productivity of coconut (estimated)	80 nuts per plant or 4800 nuts per acre
Sale price of cocoa (present market price)	Rs. 150 per kg or Rs.30000 per acre
Sale price of coconut (present market price)	Rs.8 per nut or Rs.38400 per acre

This project will create visible outcome in terms of better farm income, increased standard of living, and concomitant positive impact on health and education. The area will be brought under perennial crops that will provide dense canopy and crop diversity. The practice of mixed cropping in organic culture is expected to improve the soil fertility and conserve the soil. In the long term, it would prevent soil erosion and thus conserve the environment.

Once the project is successfully implemented, Bongaigaon model may be replicated for the rest of the state for diversifying its Reaping success by agricultural economy.

*District Collector, Bongaigaon, Assam

Total estimated cost of the project in Rupees	Project Cost per acre in Rupees	Person-days to be generated by the project in three years	Year wise expected income from intercropped farm in one acre plot in Rupees				
			3rd yr onwards	5th yr onwards	8th yr onwards	Total area of the project	Consulting Partner
474.43 lakh	47443	1,87,423 days @ Rs. 130 per day (inclusive of beneficiary contribution)	7500	44,400.00	68,400.00 (30,000 from cocoa and 38,400 from coconut)	1000 acre	FOARD, Kerala and Coconut Development Board, India

Reaping success by good extension practices

*Shri. Binesh V R**

Kulasekarapuram Panchayat is situated in the state of Kerala in the northern part of Kollam District in Karunagapally Taluk.

Despite the panchayat being primarily an agrarian society, people were reluctant to take up farming, and many expressed their discontent with its lack of lucrative returns. Since its topography is not conducive to any major industrialisation, more and more young population were migrating to other parts. Coconut was the major crop grown here in an area of 1090 ha covering about 75 % of the total geographical area. Tubers (Colocacia, Amorphophalus, Dioscorea &Tapioca) cover 80 ha and the rest is paddy. Though coconut was the major crop the per hectare annual productivity was only4800 nuts (28 nuts per palm) whereas the national productivity was 7747.

It was under these circumstances that I took charge as Agriculture Officer in 2007. My extension work aimed to maximise economic, ecological and social benefits from the existing investment and infrastructure, and to motivate current and future farmers by showing that farming is essential to remain self-sufficient and self-reliant, without compromising on standards of living. For achieving this, convergence and synergy of various schemes of the Department of Agriculture, Local Self-Government, State Horticulture Mission and the Coconut Development Board was implemented in the area. The reasons for the decreased yield in the area were the abundance of senile and unproductive palms which has crossed its economic life, root wilt affected palms, low productivity due to pests and diseases, non-adoption of recommended practice of irrigation and fertilzation, high density plantings and growing big trees like Anjili, Thespesia, Jack fruit tree, Cashew etc which forms a canopy creating inadequate sunlight. The priority was to redress this situation.

To increase the productivity of coconut, the senile and root wilt affected palms were cut and removed and the gardens were rejuvenated by adopting Integrated Pest Management (IPM), and Integrated Nutrient Management (INM) practices including organic manuring and intercropping. Awareness was created among the farmers on irrigation methods, collective method of working, product diversification and by-product utilisation. Introduction of equitable access of people to benefits and equitable sharing recorded a stupendous success.

The Replanting and Rejuvenation scheme of the Coconut Development Board was implemented in the area .The Panchayath took it as a challenge and conducted a series of meetings with traditional farmers, women groups and other eminent persons and chalked out an action plan to divide the wards into four mini clusters with each cluster consisting of 10-15 farmers with a convenor. The cluster was entrusted for the door to door survey and for identifying and to mark the palms for removal. Training was given to identify the Root (wilt) affected and palms. The officials of Coconut Development and the Krishi Bhavan worked together and finally a farmer friendly scheme was implemented at the grass root level with the active people participation. The then Panchayat President Smt. Jagadamma Govindakurup and her team received the first assistance from Shri Sharad Pawar , Union Minister for Agriculture in presence of the then Union Minister of state for Agriculture Shri K. V. Thomas, Minister for Agriculture and Shri Mullakkara Ratnakaran. The scheme was implemented in an area of 1109 Ha having 282058 palms wherein 39240 senile and root (wilt) affected palms were cut and removed. The uprooted coconut wood was procured by an agency fetching Rs 18/mt for the heartwood. On the whole the scheme had benefited 11693 farmers. 5000 TXD coconut seedlings were replanted for increasing the production. For keeping alive the interspaces in coconut upland paddy was cultivated in coconut garden covering 1550 acres. Banana was also cultivated here with the assistance of the panchayath.These practices are still continuing as measures to increase income from unit holding. A group of farmers were taken to Pollachi under the training and visit scheme of the Coconut Development Board with the objective of experience sharing and knowledge upgradation. This was instrumental in taking up more and more agriculture ventures in the Panchayat. Now a panchayath which was on the threat of urbanization is witnessing a strong coming back to agriculture now.

** Agriculture Officer, Krishi Bhavan, Kadakkavoor, TVM*

Coconut sector experiencing a price rise regime

Jnanadevan.R and Jayasekhar.S***

Introduction

The coconut palm is called as Kalpavriksha –'the tree of life' in Indian classics. India has produced 15730 million nuts in 2009 from 1.94 million hectare with a per hectare productivity of 8303 nuts (CDB, 2010). Kerala is the leading coconut producer in the country with an annual production of 5803 million nuts, followed by Tamilnadu which produces 5365 million nuts annually. Coconut production in the country has increased from 12678 million nuts during the year 2001 to 15730 million nuts in 2009 with a 3.5 percent compound growth rate in production. Productivity also has shown an upward trend from 6952 nuts per hectare in 2001 to 8303 nuts in 2009.The compound growth rate of productivity was found to be 2.74 percent during the period. The coconut palm exerts a profound influence on the rural economy of the many states where it is grown extensively and it provides sustenance to more than 10 million people. The export earnings derived by India from coconut are around Rs.13370 million, mainly through the export of coir and coir products. The processing and related activities centered on the crop generate employment opportunities for over two million people in India. In addition, the crop contributes Rs.83000 million annually to the Gross Domestic Product (GDP) of the country. As an oil seed, coconut holds 15.2 per cent share of the total oilseed value output in the country. As far as regional economy is concerned, coconut sector contributes around 21 percent of total agricultural GDP of Kerala, thus inextricably linked to the agricultural economy of the state.

Endeavoring to prioritize the issues associated with coconut, we realize that coconut farmers are more confronted with market-related difficulties such as low and highly fluctuating prices and difficulty to find favorable market outlets for their products rather than the technological challenges which result in low productivity in the farm. The failure to move up the global value chain and there by resisting the market pressure on domestic prices in an open economy environment as indicated by Lathika and Ajith kumar (2009), is arguably one of the major causes of the price rigidity experienced in the coconut sector for a decade or so. Contrary to this, what we are witnessing in the coconut sector in recent times could be arguably termed as a price rise regime. A considerable increase in prices of coconut oil was observed in 2010-11. The price averaged at US$ 2118 /MT which was up from US$1107/MT a year ago or an increase by 91.3% (Cocommunity, 2011a)

Table 1. Price trend in coconut and coconut oil

Month	Average price of coconut(Rs/ 1000nuts)	% increase in coconut price	Average prices of coconut oil (Rs/qtl)	% increase in coconut oil price
Apr-10	4773		4964	
May-10	4840	1.40	5040	1.53
Jun-10	5030	3.93	5240	3.97
Jul-10	5048	0.36	5377	2.61
Aug-10	5500	8.95	5778	7.46
Sep-10	5500	0.00	6475	12.06
Oct-10	5540	0.73	6943	7.23
Nov-10	7712	39.21	7571	9.05
Dec-10	9077	17.70	8102	7.01
Jan-11	10000	10.17	9060	11.82
Feb-11	10000	0.00	9704	7.11
Mar-11	10000	0.00	9704	0.00
Apr-11	11000	10.00	9713	0.09

Although some of the researchers defining off as just a bubble (see Vinay Chand, 2011) the price rise regime in the case of coconut in recent times has certainly caused puzzlement among all the stake holders of coconut sector. Hence, it is pertinent to seek out the reasons behind such a price escalation, especially after having experienced long time price stagnation. A variety of factors certainly have contributed to the persistence of this price rise regime about which not much is still known. A modest attempt has been made in this study to analyze some of these factors.

Price Rise Regime

The coconut market in India is always unstable and uncertain due to frequent fluctuations in prices. Usually fluctuation in price occurs due to change in market conditions aroused in response to seasonal and annual variation in production apart from competition from other edible oil particularly palm oil. Maximum price is reported in the month of November which is the lean production period and minimum price in April – May which is the peak production period. Both these seasonal variation in prices of coconut and coconut oil are more due to supply factors than due to demand factors. Usually, the magnitude of fluctuation is higher during lean period compared to peak period. As seen in table.1 the price of coconut in October, 2010 was Rs.5500 per1000 nuts which has been increased to Rs.7712 per 1000 nuts in November 2010. The increasing trend continued and has reached the ever recorded higher price of Rs.11000 per 1000 nuts in April 2011. Normally price should decrease in the peak production period, contrary to this, during the last season increasing trend very well continued in the peak season as well. The prices of coconut oil are inching towards the historic mark of Rs 11,000/quintal as the south Indian market is facing supply crunch of copra as well as coconut oil. According to leading wholesale traders the retail price of coconut oil had already crossed Rs 100/kg and the wholesale price is likely to cross Rs 11,000/quintal mark by July 2011. The huge price wedge of coconut and coconut oil between 2009-10 and 2010-11 is also noteworthy (Fig1&2).

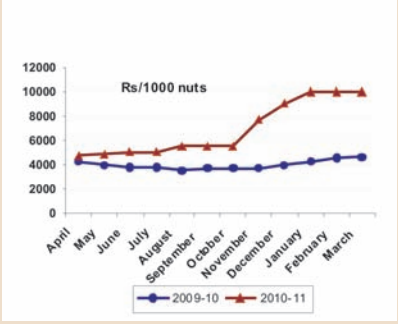


Fig 1. Price comparison of coconut between 2009-10 and 2010-11

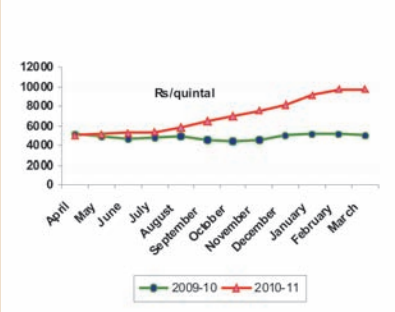


Fig 2.Price comparison of coconut oil between 2009-10 and 2010-11

Major Factors Behind The Price Rise

From 2007 onwards we certainly have experienced a shortfall in global coconut production (Fig 3). According to the Asian and Pacific Coconut Community, coconut production has been affected globally by climate changes during the last two years, of which the rise in temperature has hit the palms more hard. As a result, the production in all major coconut producing countries such as the Philippines, Indonesia, and Sri Lanka have been declining. The Sri Lankan government has banned export of coconut owing to rise in domestic price. The world average price of major coconut products have maintained fluctuating trends showing significant increase in trend in 2010-11 when compared to that in 2009-10. Consequently the domestic prices have increased appreciably during this period, to help the farmers, and thus reduce the overall supplies to the world market.

Lower coconut production in the two main producing countries (Philippines and Indonesia) in 2010-11 had reduced export share of coconut oil to the world market. It is expected that the total export volume of the two countries would be down to 1.55 MT from 2.07 MT of last year. Consequently the world total export of coconut oil for 2011 is expected to decrease to a level of 1.86 MT. Short supply of lauric oils in the world market in the early part of the 2011 was

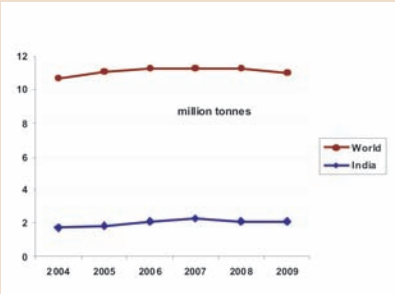


Fig 3. Coconut production in copra equivalent

one of the main causes of skyrocketing prices of coconut oil and palm kernel oil. The estimated production of the lauric oils for January-February 2011 was 34000 tonnes and the consumption of the oil is 56000 tonnes (Cocommunity, 2011b).

The global edible oil production in general has declined in recent times. Tremendous shortfall in all edible oils have been experienced internationally which subsequently, resulted in spiraling prices of edible oils. The widening gap between demand and supply of edible oils compelled India primarily to have higher import of soybean and palm oil, though this could have a softening effect on price of coconut oil and copra, the constraints in copra availability have kept the coconut prices on the upper side. Palm oil is the closest substitute of coconut oil as far as industrial and culinary purposes are concerned. But unfortunately, Malaysia, from where major fraction of palm oil is imported to India, has been experiencing production deficits due to unsavory climate and acute labour shortage. This in turn, had curbed the price advantage enjoyed by palm oil. Usually a sharp increase in coconut oil price leads to an adulteration with other oils. However, the price of palm kernel oil which is used to adulterate coconut oil has also been rising and as of now the price difference between two is meager (Fig 4).

A considerable increase in prices of coconut oil was observed in 2010. The price averaged at US$ 1,130 /MT which was up from US$729/MT a year ago or an increase by 55.7%. Like coconut

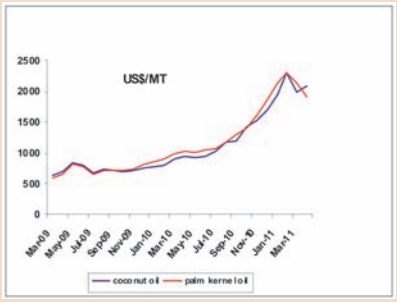


Fig 4. Price trends of coconut oil and palm kernel oil

oil, the price of palm kernel oil in 2010 also significantly increased by 68.7% to reach US$ 1,184/MT as against US$ 702/MT in 2009. Coconut oil had a discounted price at 4.5% over the price of palm kernel oil in 2010. Due to the price discrepancy between these two oils in the world market the demand for coconut oil has certainly increased. This was indicated by the increasing import demand of coconut oil in European countries amounting to 167,000 tonnes in 2010 over the import volume of the same commodity in 2009 or rise by 21.5%. As the total import demand of lauric oils is higher than the export supply, it is predicted that the price of coconut oil in the world market for the coming months will remain high (Amrizal Idroes, 2011).

Domestic factors

At the domestic level, the price rise regime of coconut could be very well linked to the decline in production of coconut by about 10-15% in Kerala. Kerala's share in the total production of copra in the country has been declined to 46% from 90% fifteen years ago. The area under coconut has been shrinking continuously since 2000 due to various factors. Area under coconut has declined from 898 thousand ha to 779 thousand ha in Kerala during the period from 2005-06 to 2009-10 (Table 2). Similarly the production in the state has come down to 5667 million nuts in 2009-10 from 6326 million nuts in 2005-06 with a negative average growth rate (-2.6%).

Table 2. Area, production and growth rate of coconut in Kerala

Year	Area (000' ha)	Production (million nuts)
2005-06	898	6326
2006-07	873	6054
2007-08	819	5641
2008-09	788	5802
2009-10	779	5667
Average Growth Rate	**-3.5**	**-2.6**

Shift in cultivation to other more remunerative crops like rubber[1], high cost of cultivation and low return from coconut, high price of rubber, prevalence of pests and diseases like root wilt, bud rot, etc could be attributed as the reasons for negative growth rate in area and production of coconut in Kerala. It is also noteworthy that, being a land scarce economy with high land prices, Kerala faces the danger of diversion of land resources for other profitable ventures notably real estate and other development initiatives. Rapid urbanization undergoing in the state which causes conversion of coconut area for housing and construction of commercial building, roads etc. (Sumalatha and Nirmal Roy 2010). Hence the magnitude of shortfall in production in Kerala, the major coconut producing state is much higher than the earlier estimates because of reduction in area.

Besides depressed price prevailed in the last few years, shortage of labour, high wages, and incidence of diseases have caused negligence of this crop by the farmers and resulted in decline in production. The change in climate pattern and shortage of labour had also affected the crop management in the state. Rain fed nature of the crop is considered as one of major reasons for low productivity of coconut in major coconut growing states. There is ample scope for wider adoption of irrigation system in the country especially in areas where rain fall is scanty and water is the limiting factor and thereby enhances the production and productivity of coconut.

The price spurt in competing edible oils has also contributed to the rise in coconut oil prices. Palm oil prices have risen to Rs.75 and palm kernel prices are currently quoting at around Rs.85 kg. Palm oil and palm kernel oil prices are not likely to weaken immediately as the crop reports predict a fall in Malaysian production. There is some expectation on the part of traders that coconut oil prices could rise further following other competing edible oil prices.

The introduction of Technology Mission on Coconut (TMOC) Programme[2] on coconut by Coconut Development Board (CDB) since 2001-02, has given adequate emphasis on product diversification and market promotional activities in the coconut sector. Increased consumption of tender coconut as a health drink, demand of fresh coconut and coconut kernel and various value added products have undoubtedly helped to improve the price of coconut to certain extent by shifting the normal pattern of pricing depending on coconut oil. The increase in consumption of tender coconut water could be attributed as another reason for increase in trend in price shown during the last peak season. Aggressive promotional activities have also created awareness on the health aspects of coconut products and as a result, enhanced market potential for coconut products both in domestic and international markets.

Coconut oil production happens to be the major area which depends on the annual coconut production. With the development taken place as a result of implementation of TMOC scheme, multi-filtered packed and branded coconut oil production has increased many folds during the last five years. Currently it is the buying support from the branded coconut oil segment which is keeping the prices at reasonably higher level. Many consumers have moved from loose to branded oil for purity and safety. This could be another reason for rise in demand of copra and coconut. Short supply and a sharp rise in demand have led to increase in prices of coconut oil which to a large extent determines the prices of coconut.

Trade related factors

It is a matter of fact that the grant of an Export Promotion Council (EPC) status to the Coconut Development Board (CDB) in 2009 led to rise in the export of coconut and its products. We may observe that (Table 3) the average growth rate of fresh coconuts from India for the last four years was 152.5% and in the case of total export of coconut and its products the last four years average growth rate was 30%. Especially in the year 2010-11 India's coconut exports have increased, triggered by the export ban on shipments of the produce by Sri Lanka. During the last couple of months, the export of fresh coconuts from India to Middle East has increased considerably. Earlier Sri Lanka was the main exporter of fresh coconuts to Middle East. Of late, due to steep rise in domestic price Sri Lanka had put an interim ban on their coconut exports. In addition to this, the supply constraints in other major coconut countries like Philippines, Indonesia, Thailand, and Malaysia are also working in favour of India's surge in exports. The exports commitments and increased exports are real welcome gestures but certainly not advisable in a price rising regime. It is certain that the rising exports would add more supply deficits to

Table 3. Export of coconuts from India

Year	Fresh coconuts(tonnes)	Coconut & products - Total (million rupees)
2006-07	1043	—
2007-08	2838	—
2008-09	6814	3298
2009-10	16729	4425
2010-11	—	5523
Average growth rate (%)	**152.5**	**30.0**

the already supply scarce sector.

Conclusion

Through this study we have attempted to characterize the price rise in coconut sector during the past one year and also delineated the major possible reasons behind the price rise regime. The analysis revealed that steep rise in coconut price is associated with less supply due to decline in productivity and high demand for export and processing units with in the country. In a nut shell five major reasons could be attributed to the recent price escalations which are 1) the supply deficits, 2) price rise in substitute oils, 3) surging industrial demand 4) high volume of exports and 5) a global shortfall in edible oil supply. Oil production is expected to reach peek in South India during January to March end. Nevertheless, the insufficient stock to cater to large industrial demand and delicate demand-supply balance will keep the prices firm at least in short period. However a systematic study on the various factors associated with the rise in coconut price is required to prove the extent to which the above factors affect the magnitude of rise in price of coconut and its sustainability.

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[1] Although we are not in a position to provide the accurate data, the invasion of rubber plantation in the tracts where earlier coconut had grown is a widely observed pattern during our field surveys in Northern Kerala and Southern Karnataka

[2] 136 new coconut Processing Units with a capacity to process 1082 million nuts per year has been established under the programme for value addition and by product utilization and thereby extended opportunities for diversification of coconut products. Besides Infrastructure facilities created for farm level primary processing of coconut by installing 1758 copra dryers with a capacity to process 5 million nuts per year; popularized use of Packed Tender Nut water & other convenience foods. Eight tender coconut preserving and packing units were established with a capacity to process 33 million tender nuts per year. More over, 12 activated carbon unit with capacity to produce 14880 tones per year earning foreign exchange of Rs.200crores and 24 virgin coconut production unit with capacity to process 36 million coconut per year have also been established.

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***Scientist (Sr Scale), CPCRI, Kasaragod.*

Nutrients of Coconut

Coconut water is termed as the liquid endosperm. According to the USDA Nutrient Data Library, 8 ounces of coconut water contains about 600 milligrams of potassium (more than a large banana), a small amount of sugar (6 grams) and a fairly high amount of natural sodium (about 230 milligrams). It is virtually fat-free with only 50 calories per cup along with a little protein and assorted other vitamins and minerals. Coconut milk is a liquid made from grated coconut and water. One cup contains 445 calories and 43 grams of saturated fat. Coconut oil is the fat extracted from the coconut. One tablespoon contains 120 calories and 12 grams of saturated fat.

(http://www.modbee.com)

Water divining with coconut

It may sound odd, but a coconut engineer suggests the correct place for a bore well. He carries a tender coconut and moves in all direction in the field. The location where he drops the tender coconut is the spot of the water spring. Shri. Srinu of Verrguntaalli of Chintalapudimandal in West Godawari district, does this job of engineer. He earned reputation for his work from farmers of the district and neighboring districts. Out of 600 farmers who approached him, 565 farmers said his prediction proved the correct. (Source:The *Hans India*-8th Aug.11)

Demonstration cum Seed Production Farm for Coconut, Mandya- A model farm

*M.K. Singh**

The Demonstration cum Seed Production (DSP) Farm in Mandya in Karnataka is the first DSP Farm established by the Coconut Development Board.

The Demonstration Cum Seed Production Farm for Coconut, is situated 110 k.m. from Bangalore, 50 k.m. from Mysore and 10 k.m. from Mandya town. The Board is running this farm in the Lokasara village of Mandya. The farm was initiated in the year 1982 in the 50 acre land alienated from the Government of Karnataka. The farm is depending on the canal water from the Krisharajasagar dam for irrigation.

A view of the farm

The 50 acre farm is divided into two blocks of 30 and 20 acres. The farm is having more than 3600 palms of which 3,200 palms are yielding. Cultivars like Tiptur tall, West Coast Tall, Tamilnadu, Laccadive Ordinary , Benalium Tall, Chowghat Orange Dwarf, Malayan Yellow Dwarf, Chowghat Green Dwarf, Malayan Orange Dwarf, Hybrids and other varieties including Exotic varieties are grown in the farm. The Farm is also having to its credit, exotic cultivars like Fiji, Santramon, Philippines, Laguna, Strait Settlement Green etc. The Farm is taking proper care of the palms by following all scientific cultivation techniques including irrigation.

Production and distribution of good quality planting material is one of the major activities of the Board. The Karnataka is one of the major coconut producing areas of the country and there is a huge demand for good quality seedlings in the state. Keeping this in view, the Board is maintaining a nursery which is capable of producing and distributing around 40000-50000 seedlings. The nursery is functioning as a reliable source for the planting materials by the farmers.

Mandya District received nearly 700 m.m. rainfall during last year and the temperature ranges between 35 and 40^0c. The irrigation is mostly carried out by canal water. The farm is having three bore wells also. All the palms of the farm have started yielding. During the last year 3,78,249 coconuts were harvested which includes Tall, Exotic, Dwarf and Hybrid varieties. Under the Hybridized programme 51008 nuts were harvested from 8685 numbers of inflorescence emasculated and pollinated during the previous year. Out of the harvested seed nuts 169088 Tall, Dwarf and Hybridized seed nuts sown in the farm. During last year, the farm supplied 106545 seed nuts to the State Department of Goa and DSP Farms, Coconut Development Board, Neriamangalam, Vegivada and Pitapally and 101895 coconuts were sold. The

average yield recorded in the Farm was 118 nuts per year. This is the highest productivity of the farm since its inception.

The Farm is having the crop combinations viz. Coconut, Cocoa, Nutmeg and Pepper, Papaya and coconut and Cocoa. Among the various crop combinations cocoa is found performing well under Mandya conditions. The Farm is making good profits from the various intercrops grown along with coconut. A Parasite Breeding laboratory is maintained at the Farm for controlling leaf eating caterpillar in the Farm and also for sale under LODP projects. During 2010-11, 990025 lakhs Parasites were produced by the farm.

A Commercial nursery is maintained at the farm for production of coconut seedlings of different varieties and cultivars. Under the Hybridization programme inflorescence are emasculated and pollinated using Dwarf as Mother palm for the combination of COD x Tall. During the last year nearly 1.5 lakhs coconut seedlings were sold and 1.70 lakhs seed nuts of different varieties were also sown in the nursery. A Commercial nursery is maintained at the farm for production of coconut seedlings of different varieties and cultivars. During last year 132001 coconut seedlings were certified. 1,69,088 seed nuts of different varieties were also sown in the nursery. Production of 2 lakhs seedlings is the target for the next year.

Another view of the farm

The Farm is under the administrative control of the Regional Office of the Board at Banglore. The Farm Manager is in charge of the Farm. The Farm is having 11 employees as well as 25 labourers.

DSP Farm Mandya is an invaluable genetic source of best quality planting material. The Board is planning to develop it as a research and development centre for coconut having international standard. For more details contact Shri. M.K. Singh, Farm Manager, DSP Farm, Mandya, Pura Village, Loksara P.O., Karnataka - 571403, Tel: 08232-234059

**Farm Manager, DSP Farm, Mandya*

Green fuel developed from coconut shells

Coconut shells are providing an alternative source of fuel and jobs for some of Cambodia's poorest people. It's hoped the new green energy scheme will stop illegal tree felling across huge areas of the Cambodian rainforest in order to make charcoal. Charcoal is the main form of fuel for millions of Cambodians.

Started in January 2010, a non-profit company in the capital has been making fuel briquettes from the discarded husks. At the same time, the initiative is creating jobs for some of the country's poorest people. The project is addressing many of the big problems in Cambodia at the same time. The briquette factory is set up next to Phnom Penh's municipal dump. All fourteen of the factory's workers are former garbage collectors. For them, the project has provided a lifeline. The factory works with local coconut sellers to collect used shells. Once dried and crushed, the shells are carbonized in a specially designed burner. Additional heat from the process is captured and reused to dry the briquettes, maximizing energy efficiency. The tubular shape of briquettes makes them more effective than traditional charcoal. They burn longer with no sparks, no smell and no smoke. The company claims to prevent about 1,600 tons of greenhouse gases from entering the atmosphere every year, while at the same time helping to preserve Cambodia's natural forests.(http://www.china.org.cn)

Value added coconut products - Coconut chips

Coconut chips is a ready to eat snack food. It is prepared in salted and sweetened forms. Coconut kernel packed in the form of chips has a high potential market in the northern, western and eastern parts of India. It is used as an edible snack food item and in the preparation of sweets, kheer and pan. During winter season, dry coconut is eaten quite often because of its oil content, preventing the dryness of mouth.

The Coconut Development Board in collaboration with the Central Plantation Crops Research Institute, Kasargod has standardized the process for preparing, preservating and packing coconut chips. Fully matured coconuts are used for the preparation of chips. The coconut kernel is cut in to the form of chips using chipper. The cut chips are soaked in sugar or salt solution for about 40 minutes. The chips are then backed in hot air oven till the products attains golden brown colour.

The plant and machinery required for a Coconut Chip unit are :Coconut Slicing machine, Hot air oven, Mixing tank for sugar coating, Steel utensils and vessels and Nitrogen flush packing machine Total cost of the machinery is around Rs. 16.00 Lakhs approximately.

Industrial building structures for coconut godown,

production unit, Oven, packing unit etc. are to be constructed. Although the structure will vary according to the technology selected and the capacity of the coconuts for production.

The Board is extending financial support to the units which come forward for adopting the technology and starting chips manufacturing units. The assistance will be in the form of credit linked subsidy limited to 25% of the project cost.

Good response for coconut products in USA

Coconut Development Board participated in the 57th Summer Fancy Food Show at Washington DC from 10th to 12th July 2011. The event showcased around 180,000 specialty food items from across the globe. The event was organized by National Association for the Specialty Food Trade [NASFT] at Walter E Washington Convention Center. This is an annual event where different specialty products like confectionaries, cheese, coffee, snacks, spices, ethnic, natural, organic specialty food products from the manufacturers, importers, distributors, brokers, retailers, caterers, hoteliers, etc. were showcased. This is one of the best attended shows having participation from across the globe.

A view of the Board's stall in Summer Fancy Food Stall

The Indian contingent of participants at the Show was led by Indian Trade Promotion Organization (ITPO). There were 15 exhibitors in the Indian Pavilion which included Coconut Development Board, Cashew Export promotion Council, APEDA along with individual exporter-manufacturers who exhibited and displayed the various products manufactured by them.

The Board was represented in the show by Shri. M Thomas Mathew, Chief Coconut Development Officer and Shri. K S Sebastian, Assistant Marketing Officer. M/s KLF Nirmal Industries, Kerala and M/s. Pure Tropic, Tripur also participated in the Board under the aegis of the Board.

The Board displayed attractive posters depicting the various benefits, uses, and properties of various coconut products and samples of consumer packs of spray dried milk powder and coconut chips. Brochures and business cards of various coconut manufacturers were also distributed. Promotional literature and commercial information were provided to the visitors. The Board officials briefed the visitors on various coconut products.

Shri. M. Thomas Mathew, Shri. K.S. Sebastian and the entrepreneurs in the Board's stall

Her Excellency Ms Meera Shankar, India's Ambassador to the United States and Dr Bala Bhaskar Counsellor, Commerce, Indian Embassy visited the Board's stall and keenly watched various products displayed. There were good enquiries for desiccated coconut powder, cender coconut water in cans/tetra packs and coconut milk powder. There were also enquiries for organic coconut products. One of the attractions of the Board's stall was the 'Tendo' coconut water, which has already fetched a market in the United States. The 57th Summer Fancy Food Show created a huge visibility for the Board and the various coconut products which has niche as well as retail markets. The buyers from around 80 countries across the world visited the Board's stall and held discussions with the officials of the Board.

Project approval Committee of the Board clears 25 projects

The 36th meeting of the Project Approval Committee (PAC) on Technology Mission on Coconut (TMOC) held at Kochi on 12th August 2011 cleared 25 projects. Shri. T.K. Jose IAS, Chairman, Coconut Development Board chaired the meeting. Four projects under 'Pest and Disease Management' at a cost of Rs.54.40 lakhs, three projects under the Development of technology for Processing and Product Diversification at a cost of Rs.73.584 lakhs and 18 projects under Adoption of technology for Processing and Product at a cost of Rs.1620.925 lakhs with an eligible subsidy of Rs.320.99 lakhs were approved by the committee.

Dr. Devendra Kumar Dhodawat IAS, Secretary Agriculture, Government of Kerala, Sri. K.B Dundi, Joint Director of Hort, (Plantation Crops & Plant Protection), Karnataka, Dr. R. Chandramohanan, Head, Crop Protection Division, CPCRI, Kasargod, Shri. Joseph S Pynadath, General Manager, NABARD, Shri. M.M. Jose, Senior Marketing Development Officer, Directorate of Marketing & Inspection, Kochi, Dr. KSMS Raghavarao, Head, Department of Food Engineering, Central Food Technological Research Institute (CFTRI), Mysore, Mr.Karupuswami, AGM, IOB, Ernakulam, Shri. K. Mohan Kumar, Indian Overseas Bank, Kaloor, Kochi and Shri. D.N. Nirranjan Kani, Managing Director, Holista Transworld Ltd, Chennai attended the meeting.

National Awards 2010 will be distributed on the World Coconut Day

The National awards 2010 of the Coconut Development Board will be distributed on 2nd September 2011 at Guwahati, Assam. The Board is recognizing 15 persons and institutions who have excelled in coconut farming, industry and other coconut related activities.

The awards are given under the following categories

The Best Coconut Farmer, National
The Best Coconut Farmer, South West
The Best Coconut Farmer, North East
The Best Coconut Processor (Conventional Products)
The Best Coconut Processor (Non Conventional Products)
Best Research Worker
Best Craftsman
The Best NGO / Cooperative Society
The Best Development Worker
The Best Exporter of Coconut Products

The Board is also organizing a coconut festival on 2nd and 3rd September at Guwahati. Display cum sales of the various coconut products will be held as part of the coconut festival. Every year 2nd September is observed as the World Coconut Day by all the member countries of the Asian and Pacific Coconut Community (APCC).

Major Coconut Producing Countries of APCC

The Asian and Pacific Coconut Community (APCC) is an intergovernmental organization established in 1969 under the aegis of the United Nations of the Economic and Social Commission for Asia and the Pacific (UN-ESCAP). The APCC has 17 coconut producing member countries accounting for over 90% of world coconut production and exports of coconut products.

The APCC member countries include: Federated States of Micronesia, Fiji, India, Indonesia, Jamaica, Kiribati, Malaysia, Marshall Islands, Papua New Guinea, Philippines, Samoa, Solomon Islands, Sri Lanka, Thailand, Tonga, Vanuatu, and Vietnam. Jamaica is an associate member of the APCC. An introduction on Philippines is given in this issue.

Philippines

A. GENERAL INFORMATION

1. Capital	:	Manila
2. Total Area (Ha)	:	29,817,000
3. Population	:	90,457,000
4. G D P (Peso Million, at current price)	:	7,497,535
5. Currency Unit	:	Peso
6. Exchange rate to 1 US$ (Average)	:	44.45

B. COCONUT INDUSTRY

1. Area Under Coconut (Million Ha)	:	3,380
2. Total Coconut Production		
2.1. - In Million Nuts Equivalent	:	12,573
2.2. - In Copra Equivalent (MT)	:	2,399
3. Estimated Domestic Consumption		
3.1 - In Million Nuts Equivalent	:	4,324
3.2. - In Copra Equivalent ('000 MT)	:	0.825
4. Export Volume (MT)		
4.1 -Fresh Coconut	:	1,662
4.2. -Copra	:	No Export
4.3. -Coconut Oil	:	847,626
4.4. -Copra Meal...	:	435,244
4.5 -Desiccated Coconut	:	142,626
4.6 -Fatty Alcohol	:	21,323
4.7 -Fatty Acid	:	16,826
4.8 -Methyl Ester	:	1,525
4.9 -Alkanolamide	:	1,871
4.10 -Shell Charcoal	:	21,979
4.11 -Activated Carbon	:	20,259
4.12 -Coconut Milk (Powdered)	:	1,000
4.13 -Coconut Milk (Liquid)	:	1,310
4.14 -Nata de Coco (Processed and Raw)	:	5,113
4.15 -Virgin Coconut Oil	:	1,639
4.15 -Coconut Water	:	647,336
5. Total Export Value (Million US$)	:	1,493
6. Percentage Contribution to National Export Earnings (%)	:	3.04

September

Monthly operations in the coconut gardens

Andaman & Nicobar Islands: Plough in the green manure crop and incorporate it into the soil. Apply organic manure such as dried compost /cow dung/poultry manure @ 25 kg/tree in the basin taken around the palm. Cover the manures with soil. New planting of quality seedlings can be undertaken now. Prevent accumulation of rain water in the seedling pits. Clove, nutmeg, cinnamon, pepper and banana can be planted in the inter spaces. Control rhinoceros beetle by adopting IPM package consisting of extraction of beetle using a beetle hook from the affected palm, proper disposal of breeding materials of the beetle and biological suppression using microbial agents like *Baculovirus of Oryctes* and *Metarhizium anisopliae*. Incorporation of the weed plant *Cleodendron infortunatum* in the breeding grounds has been found effective as it disrupts larval development and finally reduces pest population. Fill the youngest three leaf axils with a mixture of 250g powdered marotti/neem cake with equal volume of sand or deposit 10 gm naphthalene ball (4 balls) per palm and cover with sand.

Andhra Pradesh : Plough the land and sow cowpea or any pulse crop or vegetable crops. If stem bleeding disease is noticed: (1) remove the affected bark tissues on the stem and apply 5 per cent calixin on the wound and also apply warm coal tar, (2) root feed the affected palm with 5 percent calixin @100ml solution at quarterly intervals, (3) apply 5 kg neem cake per palm per year along with the organic manure; and (4) provide drainage during rain and irrigate during summer. If the attack of the mite is noticed, spray neem oil - garlic - soap emulsion 2 percent (20 ml neem oil + 20 gm garlic emulsion + 5 gm soap in 1 litre water) or commercial botanical pesticides containing azadirachtin 0.004 per cent @ 4ml per litre of water on bunches, especially on the perianth region of buttons and affected nuts or root feed neem formulations containing azadirachtin 5 per cent @ 7.5 ml with equal volume of water.

Assam : Apply the second dose of fertilizers @ 334 g urea, 666 g single super phosphate(SSP) and 666g muriate of potash(MOP) with neem cake @ 5 kg/palm/year in the coconut basin. Remove ungerminated nuts and dead sprouts from the nursery. Slow growing and late germinated seedlings are to be removed from the nursery. Apply vermicompost/ cowdung @ 25-50 kg for each adult coconut palm. Gap filling can be done during this month.

Bihar / Madhya Pradesh : Search for bud rot disease. If found infected remove all the affected tissues in the crown and apply bordeaux paste. Check for the incidence of stem bleeding. If stem bleeding disease is noticed : (1) remove the affected tissues on the stem and apply 5 per cent calixin on the wound and also apply warm coal tar, (2) root feed the affected palm with 5 percent calixin @ 100 ml solution per root at quarterly intervals, (3) apply 5 kg neem cake per palm per year along with the organic manure during the post monsoon period; and (4) regulate optimum field moisture by providing drainage during rains and irrigating the palms during summer. New planting of selected quality seedlings can be continued during this month. Support the newly planted seedlings by providing suitable props. The gaps caused by the death of seedlings of previous/current year planting should be filled up preferably with polybag seedlings.

Chhattisgarh : Drench the basin of the transplanted seedlings with 0.05 per cent chlorpyriphos twice at 22-25 days interval against the attack of termite. Remove excess soil from the collar region of the seedlings for preventing collar rot. If the palm shows the symptom of stem bleeding, (a) remove the affected bark tissues on the stem and apply 5 per cent calixin on the wound and also apply warm coal tar, (b) root feed the affected palm with 5 percent calixin @100ml solution at quarterly intervals, (c) apply 5 kg neem cake per palm per year along with the second dose of fertilizer ;and (d) provide drainage during rainy season and irrigate during summer. Mulch coconut basin with coconut wastes and green matters.

Karnataka : Ideal time for planting of new seedlings, opening of basins, digging of pits and gap filling if any in the existing plantation. Mulch coconut basins with suitable green leaves. Continue to procure quality seed nuts from the identified mother palms and sow in the nursery. Intercultural operations have to be undertaken to keep the plantation free of weeds. Suitable intercrops like banana, vegetables, tuber crops etc. can also be raised in the coconut gardens to increase the income per unit area. Search for bud rot disease and remove infected tissues in the crown and treat with bordeaux paste. As a prophylactic measure spray 1 per cent Bordeaux mixture on the healthy palms in the vicinity of affected palms. Apply Phorate 10 G @ 100 g/ palm or drench the root zone with chlorpyriphos 20EC @ 2.5 ml/litre to control white grubs in case of its incidence. Control rhinoceros beetle by adopting IPM package consists of extraction of beetle using a beetle hook from the affected palm, proper disposal of breeding materials of the beetle and biological suppression using microbial agents like *Baculovirus of Oryctes* and *Metarhizium anisopliae*. Incorporation of the weed plant *Cleodendron infortunatum* in the breeding grounds has been found effective as it disrupts larval development and finally reduces pest population. Fill the youngest three leaf axils with a mixture of 250g powdered marotti/ neem cake with equal volume of sand or deposit 10 gm naphthalene ball (4 balls) per palm and cover with sand.

Kerala/Lakshadweep : In low lying areas, plant coconut seedlings in shallow pits or on raised mounds. Apply the second dose of fertilizers in rainfed garden and one-fourth of the recommended dose in irrigated gardens. Apply cattle manure or green manure @ 25-50 kg to each adult palm if not done during previous months. Apply magnesium sulphate @ 500 gm per palm along with second dose of fertilizers and cover the basin completely. Dig out or plough the garden. Fill the youngest three leaf axils with a mixture of 250g powdered marotti/ neem cake with equal volume of sand or place naphthalene balls 10g/ palm and cover them with sand against rhinoceros beetle and red palm weevil. If the attack of the mite is noticed, spray neem oil - garlic - soap emulsion 2 percent (20 ml neem oil + 20 gm garlic emulsion + 5 gm soap in 1 litre water) or commercial botanical pesticides containing azadirachtin 0.004 per cent @ 4ml per litre of water on bunches, especially on the perianth region of buttons and affected nuts or root feed neem formulations containing azadirachtin 5 per cent @ 7.5 ml with equal volume of water.

Maharashtra/Goa/Gujarat : Apply second dose of fertilizers in basins dug around the palms. Apply green leaves at the rate of 25kg per palm. Give a third round of prophylactic spraying with bordeaux mixture to all palms. Remove ungerminated nuts and dead sprouts from the nursery. Discard seedlings exhibiting poor growth and delayed germination.

Orissa : Sow green manure crop seeds in the coconut basins. Keep the nursery free of weeds. Clean the crown from pest/ disease attack. Undertake all plant protection measurers. If the attack of the mite is noticed, spray neem oil - garlic - soap emulsion 2 percent (20 ml neem oil + 20 gm garlic emulsion + 5 gm soap in 1 litre water) or commercial botanical pesticides containing azadirachtin 0.004 per cent @ 4ml per litre of water on bunches, especially on the perianth region of buttons and affected nuts or root feed neem formulations containing azadirachtin 5 per cent @ 7.5 ml with equal volume of water.

Tamil Nadu/Pondicherry : Start intercultural operations like taking basins, ploughing etc. Apply second dose of fertilizers, 500 g urea, 800 g single super phosphate and 800 g muriate of potash per adult palm under rainfed conditions. If the attack of the mite is noticed, spray neem oil - garlic – soap emulsion 2 percent (20 ml neem oil + 20 gm garlic emulsion + 5 gm soap in 1 litre water) or commercial botanical pesticides containing azadirachtin 0.004 per cent @ 4ml per litre of water on bunches, especially on the perianth region of buttons and affected nuts or root feed neem formulations containing azadirachtin 5 per cent @ 7.5 ml with equal volume of water. Strengthen bunds of the pit of the newly planted seedling to avoid rain water accumulation in the pit. Take adequate care of the newly planted seedling by providing support/ irrigation etc.

Tripura : Clean the crown to protect the palm from any pest/disease attack. The entire crown should then be sprayed with one per cent bordeaux mixture. Second dose of fertilizers should be applied during the month. After application of fertilizer if there is no rain, irrigation should be done.

West Bengal : Hand-weed the nursery and provide partial shade to seedlings. Continue harvest of matured nuts.

Market Review July, 2011

Highlights

- The price of milling copra, ball copra and coconut oil expressed a mixed trend at all the major markets during the month under report.
- The international price of coconut oil expressed a downward trend during the month under report. The domestic price of coconut oil at Kochi market was about 21 percent higher than that of the international price.

COCONUT OIL

The price of coconut oil quoted at all the major marketing centres in the country expressed a mixed trend during the month under review. The weekly average prices at Kochi market varied between Rs.8417 and Rs.9583 per quintal. The monthly average price of Rs.9010 per quintal was about 9 percent lower than the price in June 2011 and was higher by about 68 percent when compared with the price in July 2010.

The price of coconut oil at Alappuzha market also moved in tune with the price behavior of Kochi market. The weekly average prices ranged from Rs.8400 to Rs.9517 per quintal.

The weekly average prices of coconut oil at Kozhikode market, varied between Rs.8517 and Rs.9967. The monthly average price of Rs.9180 per quintal was about 8 percent lower than the price in June 2011 and about 66 percent higher than that of the corresponding month last year.

The monthly average price of coconut oil at Kochi market projected by the First Commodities Exchange of India Ltd. for the month of July 2011, during April '11, May 2011 and June 2011 were Rs.8446, Rs.9504 and Rs.9321 respectively, while the average spot price ruled at Kochi was Rs.9010 per quintal.

The Futures Prices quoted for August September and October during the July month by the First Commodities Exchange of India were Rs.8616, Rs.8690 and Rs.8721 respectively.

MILLING COPRA

The weekly average prices of price of FAQ copra at Kochi market ranged from Rs.5500 to Rs.6292 per quintal. The monthly average price of Rs.5894 per quintal was about 11 percent lower than that of the previous month and about 64 percent higher than that of the corresponding month last year. The weekly average prices of Rasi copra at Alappuzha market varied between Rs.5333 and Rs.6358 per quintal. The monthly average price of Rs.5858 for Office Pass copra at Kozhikode market was lower by about 12 percent when compared with the price in June 2011 and higher by about 62 percent when compared with the price in July 2010.

The weekly average prices of milling copra at Ambajipeta market in Andhra Predesh ranged from Rs.3500 to Rs.3550 per quintal.

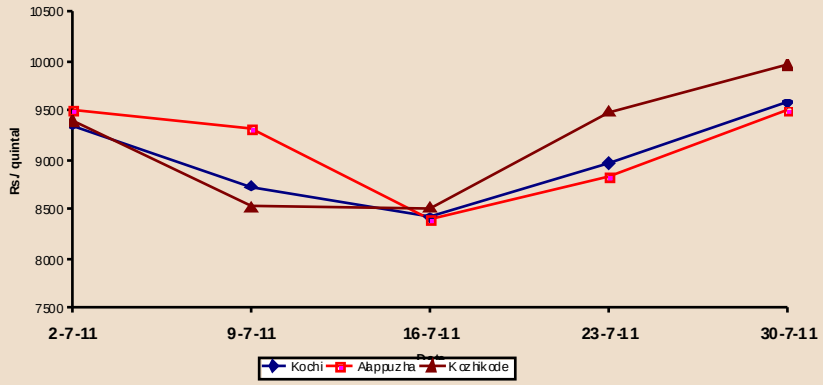
EDIBLE COPRA

The weekly average prices of Rajapur copra at Kozhikode market varied between Rs.7342 and Rs.7992 per quintal. The monthly average price of Rs.7647 per quintal was marginally lower than that of the previous month and about 67 percent higher than that of the corresponding month last year.

The weekly average prices of ball copra at Kozhikode market varied between Rs.6633 and Rs.7300 per quintal.

The weekly prices of ball copra at APMC market Tiptur, in Karnataka varied between 6470 and 6723. The monthly average price of Rs.6535 per quintal in June 2011 improved to Rs.6608 in July 2011.

The weekly average prices of ball copra at Bangalore market ranged from Rs.5600 to Rs.6000 per quintal. The weekly average price of Ball copra at Arsikere APMC market, varied between Rs.6580 and 6700 per quintal.



Price behaviour of coconut oil during July 2011

DRY COCONUT

The monthly average price of Rs.6590 per thousand nuts for dry coconut at Kozhikode market was about 6 percent higher than that of the previous month and about 89 percent higher than that of the corresponding month last year.

COCONUT

The weekly average prices of dehusked coconut at Nedumangad market varied between Rs.8000 and Rs.9000 per thousand nuts..

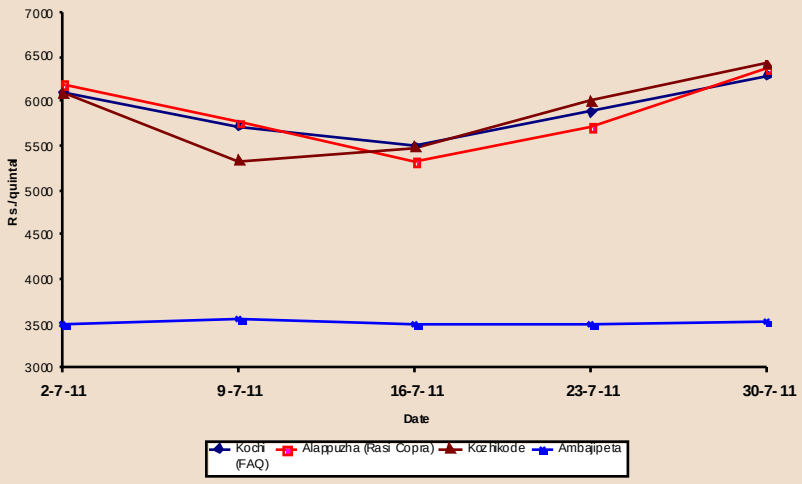
The monthly average price of partially dehusked coconut at Arsikere APMC market in July 2011 declined to Rs.7044 per thousand nuts from Rs.7098 in June 2011.

The weekly average prices of partially dehusked coconut at Bangalore APMC market ranged from Rs.6050 to Rs.6200 per thousand nuts.

The monthly average price of partially dehusked coconut Grade-1 quality at Mangalore APMC market in July 2011 improved to Rs.9470 from Rs.9327 in June 2011. The weekly average prices ranged from Rs.9000 to Rs.9875 per thousand nuts.

TENDER COCONUT

The weekly average prices of tender coconut at Maddur APMC market in Karnataka varied between Rs.5283 and Rs.7000 per thousand nuts.



Price behaviour of milling copra during July 2011

INTERNATIONAL PRICE

The monthly average price of US $1673 per MT for coconut oil in Europe (C.I.F. Rotterdam) for the month of July 2011 was lower by about 7 percent when compared with the price in previous month and higher by about 62 percent compared to that of the corresponding month last year. The monthly average price of US$ 1138 per MT for copra was about 4 percent lower than that of the previous month and about 65 percent higher than that of the corresponding month last year. The domestic price of US$2032 for coconut oil at Kochi market was about 21 percent higher than that of the international price.

The domestic price of coconut oil during the month of July, in Philippines was US$1665 per MT and in Indonesia; the price was US$1444 per MT. The international price of Palm oil, Palm kernel oil and Soybean oil were US$1095, US$1378 and US$1341 per MT respectively, while the price of coconut oil in international market was US$1673 per MT and the domestic price in India was US$2032 per MT.

Market Price

Date	Coconut Oil			Milling Copra				Edible Copra	Ball Copra				Dry coconut	Coconut	Partially dehusked coconut			Tender coconut
	Rs./Qtl.												Rs./1000 nuts					
	Kochi	Alappuzha	Kozhikode	Kochi (FAQ)	Alappuzha (Rasi Copra)	Kozhikode	Karkala	Kozhikode	Kozhikode	Tiptur	Bangalore	Arsikere	Kozhikode	Nedumangad	Arsikere	Bangalore	Mangalore (Grade-1)	Madhur
2-7-11	9350	9500	9400	6088	6200	6088	3500	7625	7000	6589	5600	6580	5950	9000	6500	6100	9000	7000
9-7-11	8733	9317	8533	5717	5758	5325	3550	7342	6633	6470	5600	6580	5783	8667	6750	6067	9133	5283
16-7-11	8417	8400	8517	5500	5333	5467	3500	7408	6650	6554	5600	6630	5567	8000	7583	6200	9500	6042
23-7-11	8967	8833	9483	5875	5717	5996	3500	7992	7300	6704	6000	6700	7917	8000	6425	6183	9842	5667
30-7-11	9583	9517	9967	6292	6358	6417	3525	7867	7167	6723	6000	6700	7733	9000	7963	6050	9875	6417
Average	9010	9113	9180	5894	5873	5858	3515	7647	6950	6608	5760	6638	6590	8533	7044	6120	9470	6082

Source : **Kochi:** Cochin Oil Merchants Association and Chamber of Commerce, Kochi - 2, **Kozhikode:** The *Mathrubhumi* daily **Alapuzha:** The *Malayala Manorama* daily, **Arsikere :** APMC, Arsikere
Price quoted for *office pass* copra at Kozhikode and *Rasi* copra at Alappuzha markets. NT : No transaction

Prepared by P.O. Baby, CDB, Kochi-11