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Need 'Collective Convergent Action' for the success of projects in coconut sector

Dear Coconut Farmers,

An upward movement in the price of coconut is seen during the last four weeks. Though the price has not yet reached the level where it was an year ago, there is some enthusiasm in the market. Along with global factors, collective efforts by farmers, state governments and elected representatives also played a significant role in this. In order to ensure a fair, reasonable and stable price, we need to think of various strategies which are appropriate and specific to coconut sector. Improving productivity, intercropping and mixed cropping in coconut gardens for supplementary income to farmers, maximum possible harvesting of tender coconut, processing mature coconut to various value added products outside the usual cliché of copra-coconut oil, marketing of coconut products on a Pan Indian urban market and optimal use of by products were discussed in the previous issues of Indian Coconut Journal. In this issue, we are focusing on a different topic, which we may call as Convergent Collective Action. Convergence and Collective Action are not new concepts; yet to be successfully tried in the coconut sector. As majority of our 10 million coconut farmers fall into the category of small and marginal farmers, individual farmers are unable to influence the market and prices. That is why we started looking forward to have farmer collectives in coconut sector. By experimenting the 3 tier farmer collectives (CPS-Federation-Producer Company) in Kerala, we have gained necessary confidence to scale up same to the other major coconut growing states. It is expected to have at least 5500 CPS (3000 in Kerala, 1000 in Tamil Nadu, 1,000 in Karnataka and 500 in Andhra Pradesh) by 31st March 2013. It is planned to federate 5500 CPSs into 225 Federations (100 in Kerala, 50 each in Tamil Nadu and Karnataka and 25 in Andhra Pradesh) and around 20 Producer Companies at national level. Through these collectives we are trying to address some of the hurdles which coconut farmers are facing due to small and marginal holdings. How to move forward from here to an improved performance is our objective, when we discuss about convergence.

If we keep a small pile of cotton wool in open in sunny days, it will not get fire. But if we focus the parallel rays of sun using a convex lens on this pile of cotton wool the temperature will rise and it will start

burning. The sun rays which are parallelly falling on the cotton wool is not capable enough to ignite a fire. But by converging the very same rays using an appropriate glass lens, it will get ignited. Many schemes intended for farmers are parallelly touching the farming community but often unable to create a fire; i.e., sufficient economic prosperity. Millions of farmers in our country are suffering not because of lack of projects, programmes and schemes for them; but are not converging enough on the appropriate stake holders. Scattered, small and marginal farmers, are individually unable to get the parallel ray like programmes focused on their field. Many often, even educated people are unaware of all the programmes intended for them. Even when they have information, individually they are unable to access these programmes.

Inform, inspire and motivate the farmers through creating capacity and confidence through their collectives is the objective of 'Convergent Collective Action'. Through well organised, trained, capacitated and networked collectives, it would be much easier to access various programmes aimed at coconut farmers. The stepping stone for this is a well functioning CPS. In fact one of the focus themes suggested to the CPSs during their first year of operation was convergence of various programmes intended for farmers, at CPS level.

First step to create a convergence is to know about various schemes, projects and programmes implemented by central and state Governments and various agencies under them, intended for agriculture, especially for coconut and other horticultural crops. Gathering the information and sharing such knowledge at CPS level is to be initiated by unit offices of CDB. Who are the officers in charge of such schemes and institutions, where are they, their contact details etc need to be gathered and shared with farmer collectives. CDB has to initiate this step at respective states, befriending with these offices and officers and convincing them to use the launch vehicle of coconut farmer collectives (CPS – Federations – PCs) for reaching out to farmers especially for implementing their schemes in coconut sector. Such an effort may take some time to start yielding results. Empowering the farmer collectives by informing, inspiring and motivating them to make use of the schemes of various departments and agencies of both central and state

Governments is also a slow process. Coordinated efforts at all the three levels viz., external departments/agencies, CDB and farmer collectives are necessary to kick start such initiatives.

Thinking together, planning together and working together on the platform of farmer collectives need a serious attempt. Day by day we are facing shortage of resources and unless we make effective use of available scarce resources, it is difficult to create successful impact in coconut sector. These types of collective convergence need to be given a try in the production and productivity front, pest and disease management front and aggregation of products and processing. How fast we can convince both farmer collectives and external departments to come together for the betterment of coconut sector is the big question we need to address. It is our responsibility to facilitate such a programme and if you do not initiated there may not be other institutions to do so.

Coconut farmers outside Kerala are raising a query that they are having slightly bigger farms and can manage some of the issues which coconut farmers are facing now. What is the need for forming CPS which is supposed to have 40 to 100 farmers and having 4000-6000 yielding coconut palms. A rational answer to this query is that we do not want to form CPS to stop there. It is planned to have further integration of CPSs to Federations and thereafter integrate into Producer Companies. On an average it is expected to have around one lakh yielding coconut palms within the jurisdiction of a Federation and around 10 lakh yielding palms under a Producer Company. Farmers in states like Tamil Nadu and Karnataka having bigger holdings can think of straight away forming Federations and thereafter to Producer Companies. Existing Coconut Growers Association and Welfare Societies also can think of directly moving to the Federation level. When holding size is big enough to have the required number of palms, we can form Federations without the route of CPS to Federation. Whatever be the mode, strong collectives is the need of the hour.

Many of the problems faced by the sector can be addressed more effectively and efficiently through the collectives. Collectives are not for getting some grants or subsidies to farmers; it is envisioned to play better and bigger role, especially in the processing sector, to move ahead in the value chain for ensuring better future price; to develop technical and managerial human resource needed in the sector; to ensure availability of coconut products in all the major and minor markets on a pan India basis and to explore the markets which are existing and emerging, are some of the objectives

with which we have designed farmer collectives. If farmer collectives wish so, they can directly enter into processing for value addition. If not entering into processing directly, they can ensure adequate supplies to processors at predetermined price. Influencing the markets and price realisation through collective planning and action is possible. Individually farmers look like and feel like helpless, but when well organised they can put across their points to appropriate levels for policy making, at state and national level. Getting farmers consulted on farm policy, export import policy, agri-food processing policy and taxation policy making through the three tier collectives is achievable. In the absence of such collectives it is unthinkable! Advocacy and lobbying for a fair and reasonable price is unthinkable without collectives for scattered and individually operating farmers in the coconut sector.

Proper orientation and developing managerial and leadership skills through training and systematic functioning of the collectives is the need of the hour. Let us try to collaborate with good management institutions for such training and handholding of coconut farmers' collectives. Research in the field on real, burning problems of coconut sector, can be addressed through collaboration with state agriculture universities and capable departments of universities and colleges in the states.

Let the collectives try to request the state Governments to consider 'Coconut Parks' in the state budget in all the districts having the area of 25,000 ha or more under coconut cultivation. Let us request for an extra 25% support from state side, over and above the subsidy from CDB under TMOC. Let us request for a five year VAT holiday for the new processing industries coming up in coconut sector. Don't you feel it is good to seek 25% equity contribution each from state and central Governments when farmers raise 50% equity in their Producer Companies? Can we seek support and facilitation to coconut processing sector like what Governments used to extend for IT sector 20 years back? Opportunities for collective actions are enormous. What we have to do is get awakened from the present scenario of feeling helpless. Only answer to the issues of raising the self esteem, developing their capacities and instilling enough confidence in them is through a convergent collective action. Let us collectively act together to achieve this goal.

With regards,

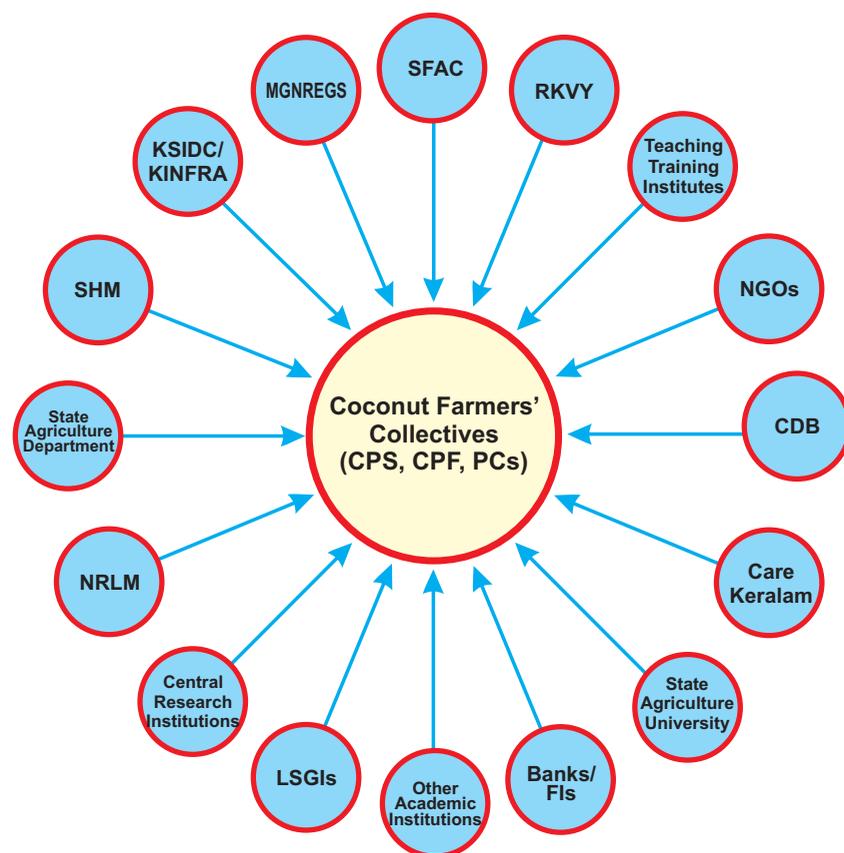


T K Jose
Chairman

Convergence and Collective Convergent Action

In our country, various departments and agencies are implementing many developmental programmes for farmers. But it is often felt that they are not reaching to the intended beneficiary, as the end users are very often unaware of them. We must educate and equip the farmers through their collectives for increasing their awareness about the programmes developing their capacities and for instilling confidence in them and thereby ensuring that they are really getting benefitted by these programmes in the fullest manner. It is not because that we do not have schemes or programmes, our progress is slow but the targeted stakeholders are most often unable to access them in a time bound manner. It would be wise to adopt a Collective Convergent Action (CCA) method to implement the programmes for realizing the optimal benefit to the intended stakeholder. Let us look into what is meant by convergence in coconut sector.

The small and fragmented coconut farmers are mostly spread across the country. Through convergence, Board is intending to bring the coconut farmers under the a three tier structure of Coconut Producers' Societies at the primary level, Federations at next higher level and the Producer Companies at its apex. Through this three tier set up, Board is trying to 'inform, inspire and motivate' the farmers and stakeholders on the various



programmes of the central and state governments, which can be converged at farmer collectives for the betterment of coconut farmers.

Let us look which are the departments and agencies that are having schemes and programmes intended for the coconut sector. In various states, alongwith Coconut Development Board, Department of Agriculture / Horticulture is implementing many programmes for coconut farmers. State Horticulture Mission, Small Farmers' Agri Business Consortium (SFAC), State Agriculture University, Central Plantation Crops Research Institute (CPCRI), state

level research institutes and the three tier Local Self Government Institutions are having various schemes to help coconut sector. There are other central sector schemes like RKVY, BRGF, NRLM and MGNREGS for the betterment of small and marginal farmers. Financial institutions and banks are also extending assistance through Kissan Credit Card and various other schemes. Farmer collectives can also make use of the various schemes of agencies which promote and support industrial investments in the state for initiating coconut based processing and value addition.

Educational and research institutions can be encouraged to take up projects related to coconut sector. Recently many Non Governmental Organisations (NGOs) have come forward to be associated with the Board in the implementation of various programmes. The MoU executed between CDB and 'Care Keralam' is a recent example for such convergence. Coconut sector would definitely be revived if more government departments, financial institutions in public and private sector and NGOs are coming forward to associate with CPSs, Federations and Producer Companies.

Farmers can seek support for intercropping of coconut gardens with nutmeg and pepper with the assistance of Spices Board. Cocoa can be intercropped with coconut with the support of Cocoa and Cashew Directorate. State Horticulture Mission is having schemes for encouraging cultivation of vegetables and fruit crops. For the procurement and marketing of these products, the farmer collectives can work in association with agencies involved in vegetable and fruit promotion and State Horticulture Product Development Corporations. Shortage of fruits and vegetables in various parts of our country can be solved to a certain extent through the convergence approach of cultivating fruits and vegetables as intercrops in at least 25% of the existing coconut gardens.

Thus through convergence, Board is trying to create the

platform for a combined and conducive working atmosphere wherein a collective action will bring in better results. This doesn't mean that other departments and agencies shall directly transfer their schemes or funds to Coconut Development Board or to coconut farmers. Coconut Producers' Societies and their Federations can be designated as the implementing agencies of these programmes. Expect that this would create awareness among end users, would make the implementation speedy, smooth and trouble free which would render better result enabling the farmer to make maximum productivity and income.

Coconut Development Board through our Charge Officers and State Centres will provide maximum information to CPSs and Federations on the programmes and schemes mentioned above, such as which agency is implementing the scheme and how to prepare the

project report, how to access them etc. This information shall reach the farmers through the monthly meetings of CPS and Federation. Farmer collectives can even think of inviting representatives of these agencies to the Federation meetings for mutual understanding and better facilitation. Farmers shall ensure that they are actively taking part in the Gramasabhas and persuade the Local Self Government Institutions authorities to initiate development programmes for coconut farmers. The three tier Panchayths and other agencies will definitely come forward to work in association with the farmer collectives, if they are working in a united and organized way. Everybody would like to work with efficient, performing and successful organisation. So let us make our farmer collectives, vibrant, dynamic, efficient and successful in performance. Let us hope that the farmer collectives will take the lead in creating a Collective Convergent Action (CCA).

2% export incentive for coconut shell based activated carbon

Coconut-shell-based activated carbon has been notified under Focus Product Scheme and is now eligible for 2 per cent export incentive. This notification of the Director General of Foreign Trade enables the activated carbon exporters to enjoy 2 per cent incentive with effect from January 1, 2013. Coconut-shell-based activated carbon has great demand in the global market and India holds the premier position in the global export of activated carbon. The

country exported 38,500 tonnes of activated carbon valued at Rs 347.60 crore during 2011-12.

Milk, milk cream and various milk products including coconut milk, milk powder and cream which are in Chapter 4 of ITC (HS) code which were not allowed to export due to ban has now resumed exports due to the lifting of ban. Coconut Development Board had made relentless efforts with DGFT to issue the notification which has greatly benefited the coconut industry.

Convergence of schemes and coconut sector

Sugata Ghose

Chief Coconut Development Officer, Coconut Development Board

A *scheme* is a plan or arrangement made by a government (or other organisation) to benefit many people so as to bring in improvement in the society. **Convergence** is the act of bringing two or more things together. Convergence of schemes is a cohesive strategy to achieve more than the sum of its parts.

Government usually adopts multi-pronged developmental strategy to promote economic growth by addressing the needs of the marginalised groups in the country. There are several government schemes formulated at various times in different departments to address the needs of the people. To maximise outcome of these schemes and effectively address the issue, there is need to optimize efforts through inter-sectoral approaches.

Government schemes usually address specific issues, such as water, agriculture or health. But specific issues are usually just one component of rural development. This means that any one service or scheme can only address a part of a problem. By combining the efforts and resources of different departments and schemes, rural development can be addressed much more effectively. Combining efforts are always more efficient, saves time and make best use of funds available.

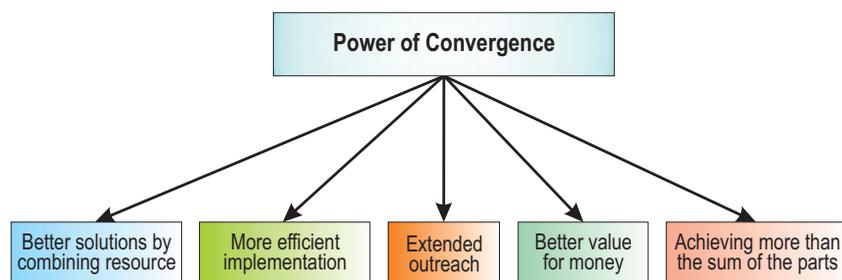
Combining resources also means government can reach out further and extend services to larger target groups that would otherwise have been neglected. A better understanding of what is available for development helps farmers to plan more effectively. Likewise, when government departments get a better understanding of community needs, they can work together, resulting in synergies and more effective use of schemes and resources.

Why Convergence

Many of the government programmes planned and executed by different ministries / departments / agencies often have nearly similar objectives and target almost the same group and area. This plethora of efforts results in wastage of resources and failure to achieve synergies.

When policy demands slightly off centre scheme formulation for an agency, often it was found that

Power of converging various government schemes are many



Objectives of convergence

Avoid duplication of efforts and redundant actions, enabling sharing of resources for common objectives, enhancing effectiveness of programme delivery, improving quality of service provided, developing effective linkage with various development initiatives, helping to identify new opportunities and options, ensuring transparency and accountability in governance and effective monitoring of outcomes are some of the objectives of convergence.

in a hurry to follow the directives, the designated agency sometimes adopt less productive technologies and ignores limited institutional capacities. Development planning process being sensitive to these challenges should try to bring together other agencies having capabilities and technical competence. Convergence particularly assumes importance to address these areas of concern.

Attempts were made by some departments, officials and institutions to overcome some of

the above mentioned constraints by trying to bring together related activities in one platform. But these efforts were isolated and sporadic and did not last to deliver positive impact in a sustainable manner. Therefore it was felt that organised attempts are needed to institutionalise the same. Such initiatives have paved way for the emergence of 'convergence planning' concept and this planning process aims at achieving maximum and sustainable benefits to the community and the poor from various development programmes. This is possible by pooling human, capital and technical resources in an organised and participatory manner for convergent action by all the stakeholders.

How Convergence

1. Identify target beneficiary:

In bringing together of schemes for convergence, the first step is to identify in clear terms for whom we are planning to work, that is, to identify the target beneficiary. Instead of individuals a community should preferably be aimed at.

2 Identify goals

Once the target is fixed the next step should be convergence planning to bring together multiple goals to a single objective, keeping in view maximization of returns from several available options, sustainable development, meeting the unmet needs of the community etc. Adopt a participatory planning process of targeted beneficiary community to identify the local needs, problems and other issues. Based on the feedbacks received a common goal shall be set up.

3. Identify schemes for convergence

Study and discuss the existing perspective/annual plans of various schemes of all the related ministries / departments / agencies/ in the selected area among the target beneficiaries and participating organisations. Identify useful schemes after detail consultations to meet the local needs and common goals.

4. Identify Technologies for convergence

Introduction of appropriate technologies is an integral part of the convergence planning. Technology base of various schemes available with different institutions involved, need to be brought together to a common platform and evolve to a single protocol. The protocol should address the concern of the functionaries as well as the need of the community. The characteristics and consequences including risks of the technology evolved have to be shared with all the partners as well as with the target community and need to be further improved based on the opinion and need of the stakeholders.

5. Fix time frame (Gantt chart)

A *Gantt chart* is a type of bar diagram that illustrates a project schedule and the start and finish dates of the terminal elements and summary elements of a project. Terminal elements and summary elements comprise the work breakdown structure of the project. Developing a time chart for converging schemes, work breakdowns that will be taken up during

the project time-frame, under the schemes considered for convergence is a pre-requisite for all partner agencies.

6. Design task schedule (PERT chart)

Project Evaluation and Review Technique (PERT) is a flow chart diagram designed to analyze the involved tasks in completing a given project. It is a graphic representation of a project's schedule, showing the sequence of tasks, sub-tasks that can be performed simultaneously and the critical path of tasks that must be completed in time. The chart allows implementing team to avoid unrealistic timetables and schedule expectations, to help identify and shorten tasks that are bottlenecks and to focus attention on most critical tasks.

The convergence planner decides which milestones should be the major events and their sequence. The events are presented in a logical sequence and no activity can commence until its immediately preceding event is completed. Two consecutive events are linked by activity arrows. The planners should also make provisions to allow the later insertion of additional events

A well designed PERT chart of a project brings greater role clarity among the functionaries and also creates appreciation of the relevance of others' role. Such participatory process ensures better coordination among the departments. This also provides an opportunity to resolve the problems/irritants among the stakeholders.

Forms of Convergence and CDB schemes

1. Co-convergence (Gap filling):

All the aspects of development sometimes are not covered under one specific scheme. Like the scheme implemented by the Coconut Development Board (CDB) named “Laying out of demonstration plot in coconut gardens for productivity improvement (LoDP)” do not include irrigation component. To fill the gap of irrigation component in LoDP, this scheme could be co-converged with the scheme “National mission on micro irrigation (NMMI)”.

2. Additive convergence (Dovetailing)

“Integrated wasteland development programme”(IWDP) is implemented to improve various types of wasteland by developing or improving quality of vegetation cover. The programme is run by the Ministry of Rural Development, Department of Land Resource. It is implemented through DRDA on project basis. Area Expansion Programme (AEP) is a CDB scheme. In the areas having sufficient rainfall for improvement of pasture, scrub uplands, coconut could be a suitable crop and AEP could be dovetailed with IWDP as additive convergence.

3. Convergence plus (Value Addition)

The ‘Laying out of demonstration plot in coconut gardens for productivity improvement (LoDP)’ scheme of



Coconut Development Board (CDB) is implemented in clusters of 25 ha or 4375 yielding palms. A Coconut Producer’s Society (CPS) is formed with the member beneficiaries of the LoDP cluster. CPSs are encouraged to set up organic manure producing units by availing subsidy under CDB scheme of ‘Establishment of organic manure units by utilizing coconut farm refuse biomass (OMU)’ and coconut nurseries under the scheme ‘Aids to private coconut nurseries (PCN)’. Convergence of OMU plus PCN in LoDP clusters adds both physical and financial value in the cluster area and helps to improve productivity of coconut in the demonstration plots.

4. Multiple convergence (Scaling Up)

Kerala State Industrial Development Corporation (KSIDC) has undertaken a project to set up ‘Coconut Parks’ in Kerala. Along with the basic infrastructure facilities like road, electricity, water etc KSIDC plans to provide

common facilities for quality testing laboratory, packaging centre and warehousing in the park. Investors willing to setup coconut processing units will be provided industrial plots at a reasonable rate in the park. Coconut Development Board (CDB) is running a scheme called ‘Technology Mission on Coconut (TMoC) wherein coconut processing units are provided with 25 % subsidy. Subsidy is provided only after assessing feasibility of the project and sanction of loan from a bank. It is a credit linked back ended subsidy. An investor setting up a coconut processing unit in the coconut park of KSIDC availing TMoC subsidy of CDB and loan from Bank is an example of multiple convergences scaling up the project for the benefit of the entrepreneur.

Thus convergence would definitely bring about salutary impact in coconut sector. We hope that collective and convergent efforts definitely would lead India to become the world leader in coconut production, productivity and export.

Convergence of programmes of Coir Board and CDB through Coconut Producers' Federation

Coir industry in India assumes greater significance in view of its contribution to foreign exchange earning and employment generation. Sustenance and success of coir industry strongly depend on the availability of coconut husk which in turn relates to coconut production in the country. In this way Coir Board and Coconut Development Board are sister concerns and should work hand in hand for the benefit of coconut farmers. Prof. G Balachandran, Chairman, Coir Board in conversation with Shri. K S Sebastian, Assistant Marketing Officer, CDB

Coconut sector is passing through a crisis. What is your opinion on the present status of coconut farming?

Coconut enjoyed the prime position in Kerala's economy since time immemorial. Majority of people from Malabar, Kochi and Travancore depended on coconut farming for their livelihood. Eventhough coconut farming could not make drastic changes in the economic upliftment of the farmers, it could ensure them a decent living. But now the price fall, low productivity and unscientific cultivation practices are issues which remain as stumbling blocks to the betterment of coconut farmers.

Do you think that the spread of other cash crops have adversely affected coconut farming?

Coconut farming is not done on a commercial scale as in the case of rubber, tea and cardamom. Coconut farming was restricted to small holdings or as homestead. Farmers pay scant attention to timely farming practices, irrigation, fertilization etc which are increasing the production. The introduction of stable and better income generating crops like rubber have also negatively affected coconut farming.

Is it worth following the cultivation practices adopted by



Prof. G. Balachandran, Chairman, Coir Board

the neighboring states?

While this situation was continuing in Kerala, other states like Tamil nadu, Karnataka and Andhra Pradesh started cultivating coconut on a commercial scale. They started cultivating high yielding varieties by following scientific cultivation practices. This in turn increased their production and productivity. Later on they gradually ventured into processing and value addition. Many units were started in these states using coconut and husk as raw materials. Thus these farmers started benefiting from the additional income they could generate through value addition and byproduct utilization.

Don't you think that the pest and disease attack as well as the low

productivity is making coconut farming unattractive in Kerala?

Eriophyid mite and root wilt diseases have severely affected the productivity of coconut in Kerala. Prevalence of large number of old and senile palms also aggravated the situation. Non availability of labourers for harvesting as well as the unstable and non remunerative price for coconuts make coconut farming unattractive.

How was the coir sector affected by the problems of coconut sector?

Coir sector is very much affected by the crisis in coconut sector. Coir product manufacturers of Kerala are heavily depending on Tamil nadu for raw materials now. The climatic conditions and

industrial atmosphere in Tamil nadu is deciding the future of Kerala's coir industry. The recent price increase for coir fibre and the resultant changes observed in the sector are good examples for this.

Eriophyd mite and rootwilt disease have affected the quality of husk also. But in Kerala, husk is not being collected even from areas which are not affected by these diseases. Will Coir Board collect husk directly from farmers' field?

Majority of Kerala's coconut farmers are small and marginal farmers. So collecting husk from these small holdings is difficult and economically unviable. If the farmers of an area can collect the husk to a particular centre, procurement shall be easy and viable.

Has the Coir Board started any initiative for procuring husk from a common center?

Revolutionary changes can be made in the sector if husk could be collected through the newly formed Coconut Producers' Societies. Procurement will be a hassle free affair as the CPSs are active in all major coconut growing districts.

Does Coir Board have any scheme to encourage the CPSs which are into procurement of husk?

None of the coconut farmers in Kerala are getting reasonable price for husk. Hence it is predominantly used for burial in the basins or used as fuel in households. If the husk is procured as raw material for coir, farmers will get an additional income of around Rs. 1 per husk.

This itself is an attraction.

Will Coir Board or any other organisation buy husk directly from CPSs?

Coir Board does not directly buy the husk. Coir Board will facilitate as an intermediary for linking procuring agencies with the CPSs and also for ensuring the best price for coir fibre.

Mechanization is required for making coir from husk. Will it require hefty investment for establishing mechanization?

The cost of a defibering machine with the capacity to process 4000 husk per day is only Rs. 1.5 lakhs. This can generate 320 kg coir fibre per day. The present market price

of its high moisture retention capacity.

Will the Coir Board extend subsidy for establishing coir defibering unit?

It is hoped that the defibering machines will be of great help to Coconut Producers' Societies venturing into processing activities. The husks of large volume of coconuts procured for processing could be converted to coconut fibre, which could fetch better price and in turn enhance the profitability of the project. Coir Board is extending 40% of the cost of the equipment as back ended credit capital subsidy. Coir Board will also give the model project and if needed shall recommend to bank for issuing loan.



A modern defibering machine

for coir fibre is about Rs. 15 per kg. Coir pith is another byproduct which fetches around Rs. 3-4 per kg. Coir pith could be easily converted in to manure by adding pith plus. If this manure is applied in coconut basins, frequency of irrigation could be reduced in view

The yearly average productivity of a Society is less than four lakhs coconuts. Hence a Society will have the raw material for running the defibering unit for maximum 100 days. So how can they make this economically viable?

The technology for mobile defibering unit which costs around Rs. 5 lakhs is available now. Coir Board is extending 40 % subsidy for this unit also. Three or four Societies together can own a mobile unit which could transport husk to different places within the Societies for producing coir fiber.

Coir Board is implementing this scheme for individuals. Will there be any technical difficulties for extending this programme to CPS?

Coir Board is implementing the programme on individual basis. However the office bearers or even CPS members can individually approach Coir Board for financial assistance. Banks are not demanding collateral securities for the loan amount extending to this project. The beneficiary only will have to pledge the machinery procured using the credit extended by the Bank. They need not pledge any other assets to the Bank in this regard.

Can CPSs which doesn't own any land also start such ventures?

Coir Board is also extending subsidy to units which are set up on leased land. The lease shall not for less than 10 years. The scheme is operating almost in the same pattern of Technology Mission on Coconut of Coconut Development Board. While CDB is extending 25% of the project cost as financial assistance, Coir Board is extending 40% assistance under this programme.

It is felt that these defibering units are not sufficient for processing the large quantity of

husks aggregated by the Coconut Producers' Federation and Producer Companies in the event of setting up of coconut processing units of higher capacity. What could be the alternate arrangement?

Federations having annual production of more than 50 lakh coconuts and around one lakh coconut palms under its operational area would have to install higher capacity defibering machines. Coir Board is extending 25% subsidy for such units also.

More than 100 Federations will be formed in Kerala alone during this year. Will Coir Board be able to extend subsidy to all the Federations?

Coir Board doesn't have financial constraints for this project. Identifying beneficiaries of the scheme from Kerala is the main issue facing by the Coir Board. There would have been plenty of employment opportunities, if we had atleast 100 defibering units having capacity to process 10,000 husk per day. This would add up to our foreign exchange earning also.

The domestic usage of coir and coir products is meager in India. Will the increase in production will lead to price fall?

It is true that the increase in the domestic usage of coir and coir products is not very attractive. But there are immense possibilities for enhancing the demand for these products. The demand will increase manifold if markets are identified for the environment friendly coir products in all Indian cities. Coir Board is keenly observing the

innovative marketing strategies being adopted by Coconut Development Board. Coir Board is eager to associate with Coconut Development Board in such initiatives. Coir Board would also participate in national and international exhibitions along with Coconut Development Board.

What are the possibilities of coir products in international market?

Indian coir and coconut products have good demand in international market. The export of coir products from India has crossed Rs.1050 crores. In 2012-13 it is expected to grow further. We used to get plenty of enquires on Indian coconut products while we participate in international exhibitions. I personally feel that both the Boards should explore the possibilities of jointly taking part in international exhibitions.

Are you optimistic in the momentum going to gain for coir and coconut products?

Since natural fibers are having high demand in international market, the export of coir and coir products will definitely increase in the coming years. Coir Board would like to work in association with Coconut Development Board in its innovative strategies for marketing coconut products in all Indian cities. The efforts to popularize all coconut products in the Indian cities will definitely work in favour of coir and coir products as well. This effort is expected to make spurt in the domestic market share for coir and coir products.



Unite, Think big and Win big

Deepthi Nair S.

Marketing Officer, CDB, Kochi

Coconut farmers were passing through a tragic period due to severe price crash since the last one year. Concerted efforts from the Central and State Governments are crucial to revive the sector from the aftermath of the crash. Various programmes of the state and central schemes have to be dovetailed to recoup the coconut sector to the status it occupied as an important revenue generating crop. The coconut farmers are also now aware of the need to break the copra coconut oil nexus and move on to other promising diversified products from coconut. The number of CPSs and Federations taking initiatives in coconut processing is increasing day by day. Under these circumstances, it is essential to conceptualise and implement projects for the sustainable development of the sector with priority for the promotion of more processing units in coconut.

Talking of diversification, the most important value added product from coconut that has sought the attention of all the stakeholders in coconut is Neera. There have been many arguments both in support of and opposing the production of Neera. The potential of value addition of Neera and the urgency for product diversification to save the sector from the economic crisis it is facing has led to the weakening of the voices that opposed Neera. The situation is ideal for conceptualizing programmes for promotion of production of various value added products from Neera.

Since independence, a multitude of programmes have been implemented by the Central and State Governments for the development of the primary sector, agriculture. The programmes have been able to make the country

emerge the leader in various sectors of agricultural development. But at times, resources have been pumped in from various sources for achieving the same objective, each functioning in an independent way. This results in non optimal utilization of the physical and financial resources of the country. A convergence of the various plans and schemes pertaining to the development of a sector will enable optimal utilization of the financial outlay of the country for the betterment of the community. Also the results achieved will be sustainable and long lasting since the activities of various related institutions are converged for the purpose. Concentrated efforts by various institutions towards achieving a common objective will not only provide more strength for the activities, but also will make the monitoring and further progress

possible in a viable manner. Team work pools in ideas, financial resources and man power which will help in implementation in an ideal manner.

The nutritious non alcoholic drink, Neera has enormous market potential. The various value added products from Neera like palm syrup, jaggery and sugar have prospects in both domestic and export market. Neera production is permitted in Maharashtra and parts of Karnataka. Neera is sold in Maharashtra as a health drink. The Karnataka Department of Horticulture has introduced in the market packed Neera in pouches. The State Governments in major coconut growing states have been approached by CDB for permitting Coconut Producers Societies/Federations to tap Neera and produce various value added products from Neera. Government of Kerala has constituted a high level committee for exploring the possibilities for production of Neera and its products. In this context, a well conceived action plan is vital for implementing Neera production through Coconut Producer Societies/Federations/farmer groups etc.

Neera production is to be undertaken in a well disciplined manner. The whole production process demands transparency, efficiency and accuracy. Entrusting well functioning CPS/ Federations/ farmer associations with production of Neera will enable production in an efficient manner. Also, Neera

production can be done under the auspices of CPS and processing into various value added products can be undertaken by the Federation.

The tapping of Neera and its recovery is a process which requires skill and care. Skilled work force trained specifically for tapping Neera in a scientifically approved manner is required. This select group of Neera technicians can be trained in coordination with the developmental programmes of the State/Central sector. Training programme can be devised with a preconceived and finalized schedule so that technically equipped skilled personnel are developed for entrusting the work of Neera tapping.

CDB can work in convergence with the National Rural Livelihoods Mission (NRLM), referred as Aajeevika. The key objective of NRLM is poverty elimination through social mobilization, institution building, financial inclusion and a portfolio of sustainable livelihoods. NRLM extends short-term placement linked, market driven training for 6 to 12 weeks to rural poor youth between the age of 18-35. Capacity building of selected rural youth through such trainings can develop skilled Neera technicians.

Community managed sustainable agriculture (CMSA) under NRLM holds immense promise in coconut cultivation. With initiation of Neera tapping, in order to increase the production of both Neera and coconut, moving on to a

sustainable way of farming is important. The rejuvenation of senile plantations can be undertaken with inclusion of natural farming, multi layer cropping, high density planting, poly crop models etc for food security and sustainable livelihoods under this programme. Convergence with MG NREGS to improve soil and moisture conservation and soil fertility can be undertaken.

The Rural Self Employment Training Institutes (RSETI) under NRLM provide unique opportunity to train and nurture micro enterprises. Production of value added products from Neera can be promoted in association with this programme. The support of Entrepreneurship Development Institutions and other organizations working on micro enterprises can be converged to make the mission successful. Since Neera is a health drink and palm sugar has many nutritive and medicinal attributes, convergence with the Nutrition Programme of Social Welfare Department also holds prospects for popularizing production of such products.

Convergence of activities for community development of NRLM for promotion of Neera will enable rural employment generation, revenue generation and development of coconut sector. A planned systematic approach is needed for the same which will pave the way for the development of a concrete industry based on coconut.

Possibilities of convergence of coconut schemes in Tamil Nadu

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Coconut situation in Tamil Nadu:

Coconut occupies 4,10,149 ha. with a production of 5,89,421 nuts and productivity of 14371 nuts per hectare in Tamil Nadu. Among the major crops grown in the State, coconut ranks second in position next to paddy. Coconut is grown in all 31 districts of Tamil Nadu. Major coconut growing districts having more than 20,000 ha are Coimbatore (19.7%), Tirupur(12.1%), Thanjavur(8.1%), Dindigul (6.9%), Kanyakumari (6.1%) and Vellore(5.4%). There is an average annual increase of 10,000 ha of area under coconut in the state. There are 22 state coconut nurseries at

Navlock Farm at Ranipet, Vellore for producing coconut hybrid seedlings. Tamil Nadu Agriculture University has established two Coconut Research stations at Veppankulam, Pattukkottai, Thanjavur District and Aliyar Nagar, Pollachi, Coimbatore district to look after the overall research activities in the State. These Research stations have released VHC-1(1982), VHC-2(1988), VPM-3(1994), VHC-3(2000) and ALR (CN) 1 (2002) varieties of coconut. TANFED is a state nodal agency for procurement of copra under minimum support price announced by Government of India. There are three power generation

units using coconut biomass at Pollachi (Coimbatore- leaf frond), Pattukkottai (Thanjavur- coconut husk) and Sempatty(Dindigul-coconut Husk) .

Coconut Development Board has played a pivotal role in bringing more area under coconut, improving the production and productivity in the state by providing financial assistance to the state by the implementation of schemes directly and through Agriculture Department. Under the Technology Mission on Coconut, Board extended financial assistance to 57 processing units in Tamil Nadu besides other components.

Coconut Schemes in Tamil Nadu:

In Tamil Nadu, various State Government departments and Coconut Development Board is implementing various schemes for the overall development of coconut industry. Department wise and scheme wise details are given below:

Sl. No	Schemes	Fund Pattern (%)		Implementation By
		GOI	State	
Coconut Development Board				
a)	Production and distribution of planting material			
i)	Regional coconut nurseries	50	50	Agriculture Dept
ii)	production and distribution of hybrids/other released varieties	50	50	Agriculture Dept
iii)	Financial assistance to private & Seed garden	100	00	
b)	Expansion of Area under Coconut	100	00	Jointly by Agri Dept. & CDB
c)	Integrated farming in coconut holdings for productivity improvement	100	00	Both Agri. Dept & CDB
d)	Information Technology	100	00	CDB
	Participation in Exhibitions /Seminars / formation of CPS / Friends of Coconut Tree			
e)	Technology Mission on Coconut			
i)	Management of insect pests and disease affected gardens,	100	00	CDB on project basis
ii)	Processing and product diversification	100	00	CDB on Project basis
iii)	Market Research and Promotion	100	00	CDB on Project basis

Sl. No	Schemes	Fund Pattern (%)		Implementation By
		GOI	State	
2) Department of Agriculture				
i)	Integrated coconut Development Programme	00	100	Agriculture Dept
ii)	Thane cyclone Programme in Cuddalore and Villupuram districts			Agriculture Dept
a)	Removal of fallen coconut trees	00	100	Agriculture Dept
b)	Replanting of coconut seedlings (NADP)	100	00	Agriculture Dept
c)	Rejuvenation of affected gardens (NADP)	100	00	Agriculture Dept
iii)	Distribution of Tall and Hybrid seedlings at subsidized rate (NADP)	100	00	Agriculture Dept
iv)	New initiative for promotion of DxT hybrid seedlings by out-sourcing under NADP	100	00	Agriculture Dept
v)	Improvement of infrastructure facility to State coconut nurseries (NADP)	100	00	Agriculture Dept
vi)	New initiative for Erection of 50 nos of solar tunnel copra driers (NADP)	100	00	Agriculture Dept
vi)	Precision Farming in coconut holding during current year under NADP and MIS	100	00	Agriculture Dep
vii)	Implementation of ATMA Programmes	90	10	Agriculture Dept
3) Department of Agriculture Marketing and Agri business				
i)	Scheme for Technology Upgradation / Setting up /Modernization /Expansion of coconut (food) processing Industries- under National Mission on Food Processing	75	25	Dept of Agri business
ii)	Established coconut Complex (about 20 acre) at Pattukkottai, Thanjavur under Market Committee and State Government fund and drying yard at Pethappampatty in Tiruppur district	00	100	Dept of Agri business
iii)	Establishment of Copra drying facility in PPP mode at Pollachi with a farmers share capital contribution of 25% by the government	NA	NA	Dept of Agri business
iii)	Setting up of Food Parks-Department/ MoFP/ SIDCO	30	70	Dept of Agri business
iv)	Established Domestic and Export Market Intelligence Cell (DEMIC) in collaboration of TNAU for benefit of farmers. Coconut Prices at various markets are accessible	00	100	Dept of Agri business
4) Department of co-operation				
i)	Procurement of milling copra under Minimum Support Price through TANFED	100	00	Dept. of Co-operation
ii)	Established three Solar tunnel Copra driers in Coimbatore district on Pilot basis	00	100	Dept. of Co-operation
iii)	Commercialized 22 Solar copra driers in 10 districts - NADP	100	00	Dept. of Co-operation
5) Agriculture Engineering Department				
i)	Providing subsidy for coconut dehusker, coconut shredder etc - NADP	100	00	Agriculture Engineering Dept
6) Department of Horticulture				
i)	Financial assistance for intercrop/mixed crops in coconut gardens under NHM	85	15	Hort. Dept

Apart from the above, other departments viz., Department of Industries, TEDA, Department of Science and Technology etc. are also providing financial assistance for

establishment of coconut industries, power generation using coconut biomass as non-conventional energy, innovation of technologies and commercialization.

Need for convergence of coconut schemes:

A multi-pronged coconut developmental strategy is adopted



Banana intercropped with coconut



Farmers from Kerala visiting coconut farms in Theni

by the Coconut Development Board through its various schemes by addressing the problems relating to planting material, management of pest and disease, information technology, collection of data, dissemination of technology through demonstration and mass media and participation in exhibitions and trainings. The scheme "Technology Mission of Coconut" converges numerous ongoing schemes in departments and build up synergy through vertical and horizontal integration of existing programmes and bridge the gap through appropriate new programmes in a mission mode to ensure adequate, appropriate, timely and concurrent action. This results in innovation technologies, products, marketing etc. Implementation of these schemes by Coconut Development Board resulted in the demand for quality hybrid/ dwarf seedlings, rejuvenation of existing gardens and establishment of coconut industries. The financial assistance earmarked for ongoing schemes of the Board is not state/ district specific to be converged with the schemes of the state government to attract more investors in

establishment of coconut industries in the State. But there is possibilities for convergence/ of resources available to Tamil Nadu under various schemes in the Agriculture Sector Viz., National Horticulture Mission, RKVY, National Mission on Micro Irrigation, National Mission on Food Processing, MNEREGA, NRLM, etc, besides State Plans. Establishing convergence and synergy among various development programmes with CDB schemes through proper linkages in the process of planning and implementation could maximize investment in infrastructure for processing and marketing sector so that coconut farmers can be protected from severe price fall in coconut and encourage the farmers for value addition rather than depending on the coconut-copra-coconut oil linkage.

Reports of the work study groups on RKVY, NREGA, ATMA, and Decentralized Planning in Agriculture for XII plan emphasized the importance of convergence in all resources viz., human, financial, and physical and

even ideas and concepts should tend to move towards one point which is technically considered as convergence. In planning, convergence of services can be possible when integrated approach is applied. This convergence is very important for achieving intended outcomes and impacts of the projects proposed in the action plan. But unfortunately more divergence than convergence is seen at the grass root level due to reluctance of sharing of powers, responsibilities and resources at the sectoral level. On the other hand, implementation of the programme in a compartmentalized manner rather than convergence runs the risks of duplication of efforts and sub-optimal output leading to wastage of scarce resources.

Possibilities of convergence of coconut schemes:

A) National Agriculture Development Programme: In order to achieve 4 percent annual growth in agriculture, a new additional central assistance scheme (100%) introduced by Government of India in 2007 to draw up plans for agriculture sector

more comprehensively, taking agro-climatic conditions, natural resource issues and technology into account and to provide flexibility autonomy to states in the process of planning and executing agriculture and allied sector. The NADP is a state plan scheme. In the planning process each district has to formulate a District Agriculture Plan (DAP) and each state has to prepare a State Agricultural Plan (SAP) converging with other programmes indicating the resources. Main areas which can be focused on coconut are agriculture mechanization (Palm climbing machines, dehusking machines, coconut shredder, copra driers, sprayers etc.), activities related to enhancement of soil health (micro nutrient demonstration, training to farmers for promotion of organic farming, amelioration of soils affected with conditions such as alkalinity and acidity etc), integrated pest management schemes (training of farmers / awareness programme of coconut), encouraging non-farm activities which include assistance to agri entrepreneurs of coconut, strengthening of market infrastructure and market development (construction of coconut complex, establishment of tender coconut market and tender coconut parlors in the state), study tours of farmers (LODP plot, CPS and coconut industries) and innovative schemes which are not included in the above categories. Area of focus under NADP is an indicative list. The State may choose other components / activities. Under the scheme 50% has been extended as subsidy to beneficiary. Tamil Nadu Water Development Agency (TAW

DEVA) is a nodal agency for NADP and schemes implemented by various departments. Chief Secretary is the Chairman and the Agriculture Production Commissioner is the Vice-Chairman of State level monitoring committee.

B) National Horticulture Mission:

The National Horticulture Mission (NHM) was launched during the year 2005-06 to provide thrust to the development of Horticulture in the state in which the Government of India contributes 85% and 15% is met by the State Government. In the operational guideline it is indicated that, programmes for development of coconut will be implemented by Coconut Development Board. Chairman, Coconut Development Board is a member of the Executive Committee of National Horticulture Mission. Coconut Development Board will be involved in programmes related to coconut based farming systems for intercropping of vegetables, flower, spices, aromatic plants, medicinal plants etc. Rejuvenation / replacement of senile coconut plantation can also be brought under NHM. Bee-keeping for pollination can also be included. State level / national level seminar, farmer's exposure visit and HRD can also be taken up for coconut based farming system. Schemes in NHM can be implemented in Coconut



Orient Green Power Company Limited Pollachi, a power generating company using coconut leaf frond as Bio-mass

Producers' Societies with the help of Horticulture Department, Government of Tamil Nadu. The financial assistance under NHM to coconut growers is @ 50%. Tamil Nadu Horticulture Development Agency (TANHODA) is a nodal agency for NHM.

C) National Mission on Food Processing (NMFP): Ministry of Food Processing Industries (MoFPI), Government of India launched a centrally sponsored scheme (CSS) with the state government participation with the financial assistance in the ratio of 75:25 during 12th Five Year Plan. NMFP is being implemented by Tamil Nadu government with effect from 1st April 2012. The main objective of the scheme is to encourage Food Processing Industries. This includes units processing coconut water and kernel based products viz., virgin coconut oil, packed tender coconut water, desiccated coconut powder, coconut oil, copra, coconut chips etc. The assistance will be @ 25% of the cost of plant and machinery and technical civil works subject to maximum of Rs.50.00 lakhs. In order to attract more investors to coconut food processing sector, the

schemes of NMFP and CDB may be dovetailed as is done in Precision Farming in Tamil Nadu by dovetailing NADP and MSI. Under NMFP, entrepreneurship development programme and workshops can be organized for support and these can also be converged with Coconut Development Board programmes. The Department of Agriculture Marketing and Agri business is the nodal agency for implementation of the scheme.

D) National Mission on Micro Irrigation: A centrally sponsored scheme on the micro irrigation was introduced in January 2006 to increase the area under improved methods of irrigation for better water use efficiency to provide stimulus growth for increasing productivity. Govt of India decided to impart further thrust to this scheme by implementing it on a Mission mode as the “National Mission on Micro irrigation (NMMI)”. The mission will help to converge micro irrigation activities under major government programmes such as NHM, RKVY etc to create integrated water harvesting structure for increasing water use efficiency. NMMI is a centrally sponsored scheme in which 40% of the cost of the MI system is borne by the central government and 10% by the state government and additional assistance of 10% in respect of small/ medium farmers. In Tamil Nadu, considering acute shortage of water for agriculture purpose, Government of Tamil Nadu increased its share to 50% for small/medium farmers and 35% to other farmers. At present in Tamil Nadu small and marginal farmers

are getting 100% subsidy where as other farmers are getting 75%. This scheme is being implemented in coconut gardens. TANHODA (Tamil Nadu Horticulture Development Agency) is the nodal agency for NMMI in Tamil Nadu. This scheme can also be converged with Laying out of Demonstration plots in coconut gardens and for inter /mixed crops.

E) National Rural Livelihoods Mission (NRLM) was launched by the Ministry of Rural Development (MoRD), Government of India in June 2011. Aided in part through investment support by the World Bank, the Mission aims at creating efficient and effective institutional platforms of the rural poor enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services. In Tamil Nadu, NRLM is implemented as Tamil Nadu State Rural Livelihoods Mission through Tamil Nadu Corporation for Development of Women. TNCDW has been nominated as project implementation agency (PIA) and Managing Director is the Chief Executive Officer. 265 blocks will be covered under TNSRLM in three phases. The funding pattern is 75% from Government of India and 25% from Government of Tamil Nadu. Under TNSLRM, training/ awareness programme on coconut chips, vinegar, coconut convenience food, etc can be given and units can also be established in the existing clusters from the fund of TNSLRM. It is expected to extend financial assistance for Friends of coconut tree (women) who are below poverty line. Marketing of coconut

food products produced by the clusters can also be marketed through their Marketing Department through fairs at state and regional level.

F) ATMA (Agriculture Technology Management Agency): Tamil Nadu state is implementing the ATMA as a support to the state extension programmes. It is implemented in all the districts except in Nilgiris and Chennai covering 381 blocks. The fund is shared between the Government of India and the State government at the ratio of 90:10. Respective departments undertake various activities like training of farmers within the district/state/ inter-state, demonstrations in agriculture and allied sector, exposure visit of farmers, group formation, capacity building and providing revolving funds for income generation. Coconut farmers of Tamil Nadu are also benefited from the scheme and also can be converged with CDB schemes.

Thus there is ample scope for convergence of Coconut Development Board's schemes with the state government schemes. We need to work on how various schemes could be converged to effectively address the issues of the sector for better results. A unique integration of programmes across key departments related to coconut farming and industry will definitely ensure enhanced and sustained income and increased productivity paving the way forward to the country to excel in coconut production, productivity, value addition and export.



Convergence of schemes of Horticulture Department, Government of Karnataka

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Karnataka state is leading in horticulture development in the country. In the state, Horticulture crops are grown in an area of 19 lakhs ha which accounts to the production of 150 lakhs tons of produce realizing a revenue of Rs.20,000 crores generating employment opportunity to nearly 75 lakhs people directly or indirectly. About 12 lakh families are dependent on horticulture. Even though the state is leading in horticulture development, there are some lacunae which include, lack of adoption of precision farming in production, scientific management and effective utilization of water, inadequate post harvest technology, processing, value addition, marketing and export of the produce of different crops. For the effective implementation of different schemes in the state and effective visual impact of scheme, we should have convergence with the schemes of the related departments.

Comprehensive Horticulture Development in Karnataka

The Chief Minister, Government of Karnataka has announced a special package for Comprehensive Horticulture Development for which a provision of Rs.305 crores is earmarked for three years starting from 2012-13. The objective of this package include increasing the horticultural production and productivity by adopting comprehensive scientific management practices, reducing the loss of different horticulture crops and to promote processing and value addition, financial upliftment of farmers, improving marketing outlets for crops which requires storage in effective manner and overcoming the lacunas in production of quality produce.

State sector schemes:

Under this scheme, financial assistance @ 50% of the cost of the chemicals or Rs.1000/ha for individual beneficiary upto maximum of 4ha. is provided for

overall control of pest and disease in horticultural crops providing plant protection chemicals and for mechanization in horticultural activities wherein the beneficiary will get 50% or upto Rs.50,000 for purchase of improved implements / equipments. For procurement of coconut seeds and nursery management the Department will provide quality certified coconut seedlings at the rate fixed by the department to the farmers. Under special package scheme, vegetable seeds worth Rs.2500 will be provided.

Centrally Sponsored Scheme – Drip Irrigation

Under this scheme the total allocation of the annual action plan for this scheme for 2012-13 for horticulture is Rs.19459.57 lakhs out of which the central share is 10500.37 lakhs and the matching state share is Rs.8959.20 lakhs. The sharing pattern under the scheme for drip irrigation, small and marginal farmers are entitled to 50% of total cost as GOI share and

30% as state share and remaining 20% to be borne by the beneficiary. There is another scheme wherein Government of India's share will be 40%, 40% as state share and the remaining 20% will have to be met by the beneficiary. The same pattern is followed in case of sprinkler irrigation also. For general farmers for both drip and sprinkler irrigation, subsidy will be provided at the rate of 80% to all the category of farmers upto an extent of 2ha per beneficiary. The subsidy will be 50% upto an extent between 2ha to 5ha. For demonstration, assistance will be provided @ 100% of unit cost for a maximum of 0.5ha per beneficiary with 75% GOI share and 25% state share. Around 30% of the budget allocation is earmarked to women beneficiary farmers. For the adoption of organic farming, the farmer will be provided with 50% with ceiling of Rs.10,000/ as assistance in three installments. For organic certification, a unit of 50ha will be provided with Rs.5.00lakhs assistance in three installments for promoting organic farming.

An amount of Rs.30,000/ is provided as assistance for vermin compost units of 20 ft x 4ft x 2ft of 8 units or 50% of the cost of the unit. In addition to promotion of vermin compost units, the department is promoting bio-digester with the same guidelines as that of vermin compost. For increasing the pollination in the plants, the department is promoting rearing of Honey bees in different gardens including coconut garden for increasing the setting percentage and to concurrent increase in the yield of the crop for which an

amount of Rs.800/ per box or 50% of the cost for maximum of 50 boxes is provided as assistance.

RKVY Programmes

Under the scheme, the department is implementing precision farming to promote Banana cultivation either as pure crop or as inter crop in other horticulture crops including coconut. All the small and marginal farmers belonging to SC and ST groups who adopt precision farming will be provided with 50% of the cost or Rs.45000/- per acre for a maximum limit of 2 acres. Under the scheme components like, leveling of the land, pit taking, cost of the plant including transportation, cost of planting, bio-inputs and bio-control agents, plant protection chemicals, application cost, stakes and tying strips, inter cultivation, weeding and drip irrigation for which the farmer can avail subsidy separately under micro-irrigation scheme. The Director of Horticulture shall ensure that 16.2% and 8% of the funds are targeted for Scheduled Castes and Scheduled Tribes farmers/beneficiaries respectively, and at least 30% of the budget allocations are earmarked for women beneficiaries/farmers.

NRLM schemes

NRLM's mandate is to reach out to all the poor families, link them to sustainable livelihoods opportunities and nurture them till they come out of poverty and enjoy a decent quality of life. Towards this, NRLM puts in place a dedicated and sensitive support structures at various levels. The mission of NRLM is to reduce poverty by enabling the poor households to

access gainful self-employment and skilled wage employment opportunities, resulting in appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots institutions of the poor.

Convergence and partnerships

NRLM would place a very high emphasis on convergence with other programmes of the Ministry of Rural Development and other Central Ministries and programmes of state governments for developing synergies directly and through the institutions of the poor.

Funding Pattern

NRLM is a Centrally Sponsored Scheme and the financing of the programme would be shared between the Centre and the States in the ratio of 75:25 The Central allocation earmarked for the States would broadly be distributed in relation to the incidence of poverty in the States.

Financial Assistance to SHGs

NRLM would provide revolving fund and capital subsidy fund to the institutions of the poor. The provision of these funds is expected to strengthen their institutional and financial management capacity and build their track record to attract mainstream bank finance.

Convergence of CDB schemes with NRLM

In Karnataka coconut is grown in almost all the districts but mainly grown in Tumkur, Hassan, Chitradurga, Mandya, Mysore, Chamarajanagar, Udipi, Dakshina

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Production and distribution of quality planting materials of coconut from DSP farms

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Introduction

Coconut Development Board under the Ministry of Agriculture was established in 1981 for the development of coconut cultivation and allied industries. The Board commenced implementing developmental programmes from 1982-83. Board is maintaining seven Demonstration-cum-Seed Production (DSP) Farms with the objective of producing quality coconut seedlings of Tall, Dwarf and Hybrid of different parental combinations suited for different agro-climatic conditions. The Farms also serve as demonstration centres for scientific coconut cultivation. The 20 ha DSP farm at Mandya (Karnataka) is the first farm established by the Board. The other farms are at Abhayapuri (Assam), Madhepura (Bihar), Kondagaon (Chhattisgarh), Neriamangalam (Kerala), Vegiwada (Andhra Pradesh) and Pitapally (Odisha).

The growth rate in area under coconut in the country during the past decade was 0.8%. In the coming years also this trend is expected to continue and there are possibilities for expanding area under coconut in Maharashtra, Chattisgarh, Meghalaya, Assam, and other North Eastern states. The present area under coconut is 1.89 million ha. Taking into consideration an average growth rate of 1% an additional area of about 18900 ha

is to be brought under new planting. Considering the planting density of 175 palms per ha the annual requirement of planting material is around 3.3 million seedlings. Thus the annual requirement of seedlings



in the country is estimated to be around 10 million. For the production of 10 million seedlings about 15 million seednuts are to be collected and sown in the nursery.

Seedling production scenario

High yielding varieties and hybrids of different parental combinations of Dwarf x Tall (DxT) and Tall x Dwarf (TxD) have the potential to yield at least 25-40% more than the locally cultivated Tall. Though many hybrid combinations of DxT have been released and their performance is much superior to local cultivars their availability is limited. DxT seedlings have also got high acceptance

among the farmers, due to their early bearing character, semi tall nature and high yield. The non availability of dwarf mother palms is one of the major constraints in the production of DxT hybrids.

Presently there are very limited numbers of coconut gardens where dwarf palms are available. Dwarf nuts are preferred for tender nut purpose and they fetch higher price. Board at its Demonstration-cum-Seed Production (DSP) Farms is producing quality coconut seedlings of Tall, Dwarf and Hybrids of different parental combinations suited to different agro-climatic conditions.

DSP Farm, Mandya (Karnataka)

This is the first farm established by the Board in 1982 in an area of 20 ha. It is situated 10 km away from Mandya town. The soil is red

sandy loam with Moram gravel, which is well suited for coconut cultivation. The average rainfall is 743mm. However the farm is maintained under irrigated conditions. The main water source is KRS Dam for irrigating coconut palms and coconut nursery.

The total palm population in the Farm is 3654 of which 3200 are yielding. The major cultivars are Tiptur Tall (908), West Coast Tall (199), Tamil Nadu Tall (138), Laccadive Ordinary (66), Benalium Tall (120), Chowghat Orange Dwarf (1182), Malayan Yellow Dwarf (161), Chowghat Green Dwarf (297), Malayan Orange Dwarf (154), Hybrids (308), and other varieties including Exotic (121).

Different hybrid combinations like COD X TT, CDG X TT, MOD X TT and MYD X TT are produced in this farm. The hybrids produced from this farm have wide acceptability in South India because of their high yielding capacity.

The main mandate of the farm is production of quality planting materials. The farm has produced 4.50 lakh coconut seedlings of different varieties since 1999. In 2012-13 around 2.50 lakh seedlings were produced and supplied to farmers of southern states. The production target of the farm for 2013-14 is 2.40 lakh seedlings.

The Demonstration Plots established in the Farm promote multi species cropping in coconut to enhance the net return from the unit area. Crop combinations of (a) coconut, cocoa, nutmeg, pepper and papaya and (b) coconut and cocoa are well maintained in the plots.

Among the various crop combinations cocoa is found performing well under Mandya condition.

A parasite-breeding lab is maintained in the Farm for the control of leaf eating caterpillar and also for sale under LODP projects. The average yield recorded in the Farm during 2012-13 was 135 nuts per palm per year with its highest productivity of the Farm since its inception. The Farm is under the administrative control of CDB, Regional Office, Bangalore.

DSP Farm, Abhayapuri (Assam)

The 40 ha Farm, established during 1986-87 is located at Batabari Village in Bongaigaon District about 3.5 km away from Abhayapuri town and 200 km from Guwahati. The Farm is under the administrative control of the Regional Office, Guwahati. The total palm population is 4080, of which 3028 palms are bearing. The farm has red soil with a pH range of 5.5-6.5. The annual average rainfall received in farm is 1300mm. During the year 2011-12 a total of 2.85 lakh seed nuts were procured and sown in the commercial nursery attached to the Farm and 16,507 quality seedlings (Tall - 11946, Dwarf - 3284 and Exotic - 1277) were certified for distribution to farmers. The Farm is under the administrative control of the CDB Regional Office, Guwahati.

DSP Farm, Madhepura (Bihar)

This 40 ha farm was established in 1987 at Singheshwar in Madhepura District of Bihar. The farm is situated 7 km away from the District Headquarters,

Madhepura and 300 km from the State Capital, Patna. The farm has red loamy soil. The annual average rainfall received in the farm is to the tune of 1300-1900mm. The major source of irrigation in the farm is bore wells. Out of the 40 ha, 31 ha is covered under coconut plantation in three blocks. The present palm population in the farm is 3511 out of which 3006 palms are yielding. Various horticulture crops like litchi, mango, guava, orange, arecanut, pomegranate etc. were maintained in addition to the cultivation of other intercrops like turmeric, amorphophallus and spices like cinnamon, black pepper, etc. The farm is under the administrative control of CDB Regional Office, Guwahati.

DSP Farm, Kondagaon (Chhattisgarh)

This DSP farm in 40 ha was established in 1988 with a view to produce quality coconut seedlings suited to the area as well as to promote scientific coconut farming through demonstration of the production and processing technology. The farm is situated 3 km away from Kondagaon town and is situated 571metres above MSL. The soil in the farm is laterite sandy with a pH range of 5.5 to 6.3.

The existing palm population in the Farm is 5096, of which 3622 palms are yielding. A total of 79073 nuts (49792 Tall, 11377 Dwarf, 16428 Hybrids and 1476 Exotic) were harvested of which 18461 mature coconuts were selected as seed nuts from the identified mother palms in the Farm and sown in the nursery during 2011-12.

Various perennial intercrops viz. mango, lemon, litchi, amla, tamarind, coffee, jack fruit, karonda, cashewnuts, cinnamon, black pepper, cocoa and other seasonal crops like colocasia, sweet potato, turmeric, elephant foot yam and pineapple were maintained in the farm. Besides, demonstration of coconut cultivation and production of seedlings the farm produces good quality vermin compost from coconut leaves.

DSP Farm, Neriamangalam (Kerala)

This Farm was established in 1991 in the land provided by the Government of Kerala free of cost. It is situated 70 km away from Kochi and the extent of the Farm is 20 hectares. The river 'Periyar', one of the biggest perennial rivers in Kerala is flowing along the northern boundary of the Farm.

A total of 1896 coconut palms of different cultivars are planted in an area of 12.93 ha. The present palm population is 1896, of which 1326 are in the yielding stage. An inter-se block of WCT, CGD and COD planted inside the Farm by the CPCRI during 1997 for future hybridization programme to evolve disease resistant hybrid combination, is maintained inside the farm.

Perennial crops planted in the Farm are maintained well. Important crops among them are coffee (1718), nutmeg (45), pepper (534), cocoa (560), garcinia indica (3), cashew graft (230), mango (4), jack (8), mangosteen (10) and arecanut (154). Crops like turmeric, elephant foot yam and cow pea are also grown as seasonal intercrops and banana as annual/biannual intercrop.

Quality seedlings of different varieties are produced in the farm from the coconut nursery maintained in the farm. 16088 seedlings comprising of 1222 Tall, 416 Exotic, 12926 Dwarf, 1069 DxT and 455 NCD were produced during last year. The farm produces quality seedlings in thousands and these are distributed to farmers. Three organic manure units were maintained with a total production of good quality vermi compost which is applied to the coconut palms and intercrops.

DSP Farm, Vegiwada (Andhra Pradesh)

This Farm was established in an area of 40 ha in 1994-95 at Pedavegi, in West Godavari District of Andhra Pradesh which is situated about 23 km away from Eluru town. The net area planted was 25 ha with a palm population of 3991 coconut palms of different cultivars. About 3083 palms are flowered and started yielding. The farm has red loam soil. The palms are grown as rainfed along with irrigation from bore wells. The annual average rainfall received in the farm is 800-1100 mm.

Intercrops like cocoa (4822), guava (28), black pepper (531), amla (112), drumstick (72), custard apple (155), cashew (234) are also maintained. During last year 166480 seed nuts were sown in the nursery which include nuts procured from the various farmers' fields of Srikakulam district of Andhra Pradesh (Tall 73150) and own source (Tall - 1,43,100, Dwarf - 28,680). A total of 61,198 seedlings were certified in the nursery including - 57,453 Tall, - 3,557 Dwarf and 188 NCD.

DSP Farm, Pitapally (Orissa)

The DSP Farm Pitapally was established in an extent of 40 ha during the year 1999-2000. The planting was commenced in August 2000. The farm is situated on the side of NH-5 between Khurda and Bhubaneswar. Total area brought under coconut planting is about 33.92 ha. The present palm population is 3834 comprising of Tall, Dwarf and Hybrid. So far 2914 palms have come to flowering. The perennial intercrops like mango, guava, sapota, cashew, cocoa and other seasonal intercrops were also maintained well in the Farm. During year 2011-12, 75 ton vermi compost was produced and utilized in the farm itself.

During last year 3,70,235 seed nuts were procured from the DSP Farm, Mandya, farmer's fields in Brahmagiri and Arsikere and sown in the nursery. Total seedlings certified were 17,083.

Considering the huge demand for planting materials, Coconut Development Board is implementing a special programme for raising quality planting materials of different varieties especially dwarf and hybrids under the programme enhanced nursery programme under commercial nursery scheme. The target of 13 lakh seedlings is fixed for 2012-13. It is expected that, Board is equipped to meet 10% of the annual requirement of quality planting materials of coconut. Hybridization programme is also intensified to explore the possibility of producing high yielding hybrid varieties in all the seven DSP farms. Board has set the target of producing 1.5 lakh hybrids by crossing 24,000 inflorescence during 2012-13.

'Bongaigoan model' of convergence in coconut based farming system

Sugata Ghose

CCDO, CDB, Kochi

Assam is traditionally rich in horticultural produce due to its diverse and unique agro-climatic conditions. Horticulture crops occupy 15% of the gross cultivated area. Coconut and arecanut are the high value commercial crops grown here.

The coconut cultivar prevalently grown in Assam is 'Assam Green Tall' named Kamrupa. The other varieties released under the agro climatic condition of the state for cultivation are Bengal Hazari, Bengal Selected WCT and TXD hybrid 'Chandrasankara'. Coconut cultivation is still a homestead practice in the state in the northern banks of the river Brahmaputra and selected areas in southern bank in a sporadic manner. The productivity of coconut in Assam is low. CDB helps the farmers in scientific cultivation for increasing the area and productivity of coconut in the state. CDB, Directorate of Horticulture, CPCRI, Kahikuchi, Horticulture Research Station, Kahikuchi and different identified NGOs from different districts of Assam are the functionaries in distribution of quality planting material in the state.

The research on coconut in Assam was first initiated by the Department of Agriculture at Rajabari in the year 1957. Later the project was shifted to the Regional Fruit Research Station. The scientific research work on coconut actually started in the year 1973. Assam Agriculture University is

doing coconut research and has been maintaining a large number of germplasm including exotic types. At present Horticultural Research Station, Kahikuchi is maintaining more than 1000 palms in the station.

Hitherto Cocoa cultivation was the monopoly of the south. But now north-east is all set to embark on massive cocoa cultivation. To start with, cocoa will be grown in about 1,000 acre of Assam's Bongaigaon district and the produce will be exported to Swiss chocolate companies. Shri. Shantanu P. Gotmare IAS, former District Collector, Bongaigaon was instrumental in initiating this project.

Bongaigaon district administration has targeted 1,000 families belonging to the Scheduled Tribes, Scheduled Castes and the Below Poverty Line categories and planned to involve them in cocoa cultivation as part of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) - ensuring that the marginalized families get 100 days' work

District Rural Development Agency, Bongaigaon is working in the district and is doing coconut-cocoa farming system here for the first time. Agriculture Department, Bongaigaon is the implementing agency in collaboration with CDB under the banner 'Udayan Bikas' with the technical support of the Foundation of Organic Agriculture and Rural Development, an NGO from Kerala. The project will give

rise to the income and food security to the farmers in the area. This project is mainly focused to give a convergence on individual farmers with the target group from small and marginal coconut holding farmers and BPL families.

It is for the first time that coconut-cocoa cultivation has been undertaken in the northeast with government initiative. The aim is to provide work as part of MGNREGA and to ensure good returns to the marginalized families through export. Cocoa cultivation in Bongaigaon district was initiated with the convergence of three schemes under MNREGA, Coconut Development Board and the horticulture department. Cocoa cultivation will be carried out in a mixed way along with coconut and black-pepper. Thus from within five years, farmers can get the benefit from these three crops.

At present, one kg of cocoa fetches about Rs 160/-. After five years, each family is expected to get Rs 76,000 by selling cocoa.

About 2.5 lakh improved varieties of cocoa saplings are ready for plantation covering 1,000 acres. The formal inauguration of this new crop variety was held on August 3, 2012

Cocoa cultivation in the district is being carried out in an organic way. International agencies will be roped in for certifying the produce as organic.

Cocoa starts yielding from the third year of cultivation. Buy-back arrangement is already made with the Indian Organic Farmer Producers' Company Ltd (IOFPCL), which in turn will export the produce to Swiss chocolate company.

The drop in production in leading cocoa producing countries like Ivory Coast and Ghana, has escalated the price of cocoa in the international market. Leading chocolate companies are turning to India's cocoa producing states, mostly in south India.

Coconut-Cocoa cultivation is going on in a big way in southern states such as Kerala, Tamil Nadu, Karnataka and Andhra Pradesh. Kerala has an estimated area of 10,708 hectares under cocoa cultivation, while Andhra Pradesh has 14,061 hectares and Tamil Nadu has about 6,000 hectares, Karnataka is also increasing its area under cocoa cultivation. Now,

Assam is all set to become a coconut-cocoa farming state under MGNREGA.

Several studies have been made on the agro-climatic conditions for cocoa cultivation along with coconut in Assam and it is found that the condition in Assam is equally suitable for cocoa production and hence District Rural Development Agency, Bongaigaon has taken up this project for the first time in Assam.

Since the north-east has already proved its potential for rubber production, it is expected that the project will yield its results positively in a big way to reach the target group.

FOARD (Foundation of Organic Agriculture and Rural Development) will provide technical expertise and training to the beneficiaries in preparation of bio fertilizers and bio-pesticides from locally available materials for a period of seven years. FOARD

will also extend other support like extension services in value addition, produce processing and marketing linkages with various famous companies. CDB also has come forward with the supply of seedlings and training apart from providing subsidy to the farmers. The practice of mixed cropping in organic way is expected to improve the soil fertility and conserve the soil as well. In the long term, it would prevent soil erosion and thus conserve the environment.

There are lots of expectations on the outcome of the project earmarked for Bongaigaon District for the betterment of the small and marginal farmers and people in BPL groups. Once the project takes off smoothly and give the expected result within the prescribed period, this project may be treated and implemented as a model project in the rest of the state and country where congenial coconut-cocoa agro-climatic condition exists.

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Kannada, Uttara Kannada, Davanagere, Chickmagalur, Ramanagaram and Shimoga. The common variety grown in Karnataka is Tiptur Tall which usually grows upto a height of 25 to 30 Mtrs. Making harvesting of nuts is very difficult. The farmers in Karnataka are in the habit of harvesting coconut by using big bamboos i.e., traditional method followed in most of the districts. The services of climbers are also utilized wherever available. The climbers charge exorbitant rates for harvesting and cleaning of the crown. Coconut Development

Board is giving training to unemployed youths in palm climbing and plant protection operations in a massive way in Karnataka during the current year in the name of "Friends of Coconut Tree" for creating sufficient coconut tree climbers. Those who have completed the training successfully are considering this as a serious profession. Most of the trained personnel earn Rs.500 to Rs.1000 per day.

To implement this massive training programme, we can converge this programme with

NRLM under training head. This programme will definitely help the unemployed rural youths in skill development and will provide employment opportunity in coconut industry and will help ensure sustainable self employment opportunities. The trainees also can be used for neera tapping, pest and disease management, and thus most sustainable income could be generated which would stabilize the coconut economy as a whole. With the above training programme we can elevate the social and economic status of unemployed rural youths belonging to BPL families.

Convergence of Coconut Schemes in Odisha

Khokan Debnath

Assistant Director, CDB, DSP Farm, Pitapally

Introduction

Odisha is bestowed with vast natural endowments which is predominantly agrarian. Agriculture and allied sectors contribute about 18.4% of the Gross State Domestic Product (GSDP) and continue to be the backbone of the State's rural economy. Agriculture plays a critical role in the economy of the state and livelihood of majority of its population. Major coconut growing districts of Odisha are Puri, Ganjam, Cuttack, Nayagarh, Khurda, Jagatsingpur, Jajpur, Kendrapara, Gajapati., Balasore and Bhadrak. Considering the poor status of coconut production and coconut-

growing farmers, Coconut Development Board has established one of its State Centres and a Demonstration cum Seed Production (DSP) Farms at Pitapally, which has been working on increasing the area under coconut cultivation and improving the production and productivity of coconut in the state.

Need for convergence

A multi-pronged developmental strategy has been adopted by the Central Government and State Government to promote coconut sector by addressing the needs of the marginalised groups in the state. The Central and State Governments

are spending large amounts for the development of coconut cultivation and improving the livelihood conditions of the people. Several programmes have been launched to achieve these objectives. Many of the programmes planned and executed by different Ministries, Departments and Agencies have almost similar objectives targeting the same groups and areas. Procedures and processes are similar in many ways in these programmes. But the approval system and implementing agencies are different. The convergence of different programmes like, Rashtriya Krishi Vikas Yojana (RKVY), National Horticulture

CDB Schemes in Odisha

Scheme	Target		Remarks
	Physical	Financial (Rs.)	
Expansion of Area Under Coconut (Direct implementation)	300 ha	33 lakhs	Rs.8000/- per ha, in two installment Rs.4000/- ha in first year and Rs.4000/- ha in maintenance year. (160 palms/ha)
Laying out of Demonstration plot (Direct implementation)	200 ha	43.75 Lakhs	As two installment Rs. 17500/ha in first year and Rs. 17,500 in maintenance year. (175 palm/ha)
Laying out of Demonstration plot (State Govt. implementation)	100 ha	35 Lakhs	As two installment Rs. 17500/ha in first year and Rs. 17,500 in maintenance year. (175 palm/ha)
Organic manure unit (Direct implementation)	5 Nos	5 lakhs	Rs. 20,000 per unit (Size – 15x 1.5 x 0.70 m)
Extension activities – Trainings	5 Nos	0.50 Lakhs	Trainings at LODP clusters
Production and distribution of TxD hybrids (State Government)	25,000 Seedlings	3.125 Lakhs	-
Establishment of Regional Coconut nursery (State Government)	50,000 Seedlings	6.25 Lakhs	-
Coconut Palm Insurance Scheme	2.09 lakh palms	4.80 lakhs	50% CDB share (Rs. 2.40 lakhs)
Technology Mission on Coconut	On need basis		

Mission (NHM), Agricultural Technology Management Agency (ATMA) and National Rural Livelihood Mission (NRLM) with Coconut Development Board schemes will enable better planning and effective investments in coconut sector. Convergence also brings synergy between different government programmes and schemes in terms of planning, processing and implementation of programmes and schemes.

To effectively address the issue of coconut cultivation, efforts need to be optimized through inter-sectoral approaches. Funds available with RKVY, SHM, ATMA and NRLM can be dovetailed with CDB funds for the betterment of coconut farmers. However CDB funds should not be used as substitute resources by different departments and agencies for their own activities. In Odisha different departments and agencies are having several schemes for developing the coconut sector in the state.

State plan Schemes on Coconut

Realising the growing demand of coconut & coconut products in the state, the Government of Odisha has started a very ambitious project on coconut under the dynamic leadership of Dr. Sanjeev Kumar Chadha, IFS, Director, Directorate of Horticulture, Government of Odisha, Bhubaneswar with an outlay of Rs.834.98 lakh during 2012-13. Dr. Chadha is of the opinion that Odisha is having vast potential in expansion of area under coconut as well as in improving the productivity of the existing old coconut plantation. It emphasizes the need for processing and value

addition for ensuring a better price for coconut and its products. During 2012-13, the Directorate of Horticulture has implemented the following programmes on coconut for the overall benefit of the farming community in the state.

Name of Scheme	Target	Rate per ha/ unit (Rs.)	Assistance per ha/unit (Rs.)	Total Assistance (Lakh Rs.)
Area Expansion	2000 ha	48000	24000	480.00
Laying Out Demonstration plot	1220 ha	49000	24500	298.90
Organic Manure Unit	200 ha	56000	28000	56.00
Miscellaneous				0.08
Total				834.98

Norms of Assistance under State Plan

The financial assistance under AEP, LODP and OMU under state plan is being provided to the farmers having irrigation facility with due representation of ST/SC/ women farmers. Farmers should take up plantation of minimum of 10 palms upto 2 ha for Area Expansion Programme and cluster approach for LODP programme and having minimum of 5 coconut plants for organic manure units (OMU). The size of the OMU unit should be 15m x 1.5m x 0.70 m which may be modified to 10m or 5m in length keeping breadth and depth intact. The assistance will be modified proportionate to the pit size. The coconut plantation may be grown in clusters. The farmer has to deposit 50% cost of the planting material as advance with the concerned horticulturist/AHO and obtain the money receipt and quality planting material shall be supplied by the AHO. Farmers will be

insisted on for taking up drip irrigation in coconut plantation by availing subsidy under NMMI. Intercropping is to be done in all fields under LODP and AEP programme

Pattern of assistance

The Director of Horticulture shall provide the fund to the Horticulturist/AHO and the Horticulturist/AHO will release the subsidy to farmers after deducting 50% of the cost of planting material. Under LODP programme subsidy will be released only after getting completion certificate from concerned AAE. Under AEP Rs. 24,000/- and under LODP Rs. 24,500 per ha of coconut plantation is being provided as subsidy during the first year itself.

MGNREGS (Mahatma Gandhi National Rural Employment Guarantee Scheme)

The Directorate of Horticulture, Govt of Odisha, Bhubaneswar has initiated a scheme under MGNREGS for establishment of Coconut orchard for small and marginal farmers of the coastal districts of Odisha. Under the scheme an area of 0.2 ha with a palm population of 35 plants at a

spacing of 7.5x7.5 m is being selected by the concerned DDH/ADH. An amount of Rs. 52,800/- is being provided per beneficiary in three installments @ Rs. 31,300/-, Rs. 12,700 and Rs. 8,800 in three years respectively. During 2012-13, 203 ha. has been covered in Jagatsinpur (20ha) and Kendrapara District (183 ha). The Directorate of Horticulture is planning to cover 570 ha during the next financial year 2013-14 in Jagatsinpur (200ha), Kendrapara (200 ha), Puri (60), Balasore (20 ha), Badhrak (30 ha), Cuttack (15 ha), Ganjam (25 ha) and Jajpur (20ha) districts.

NHM - National Horticulture Mission

National Horticulture Mission is a centrally sponsored scheme in which Government of India provide 100% assistance to the state mission. In Odisha, National Horticultural Mission (NHM) has initiated the following components during 2012-13

NRLM - National Rural Livelihood Mission

NLRM support grants to SHGs and their federations to help the poor to start new livelihoods or improve existing ones-particularly in the agriculture and allied sectors like crops, livestock/dairying, and inland fisheries. Under NRLM, Odisha Livelihood Mission is working in the state of Odisha with a financial outlay of about Rs. 300 crores during 2012-13.

Agricultural Promotion and Investment Corporation of Odisha Ltd

Agricultural Promotion and Investment Corporation of Bhubaneswar, Odisha is formed by

the Government of Odisha to bring in a shift from subsistence agriculture to commercial agriculture by motivating the farmers and entrepreneurs on commercial Agri Enterprises and to provide an interactive coupling between technology, economy, environment, institution and society for speedy development of Agriculture. Subsidy pattern of 25% fixed capital (excluding the cost of land) subject to a limit of Rs. 25.00 lakh (33%) limited to Rs. 25.00 lakhs for SC/ST/Women/Graduates of Agriculture and allied disciplines is provided for any agriculture based industry.

Shri. Rama Ranjan Baliarsingh, Chairman and Shri. Om Kar, Managing Director, APICOL Bhubaneswar have mooted a proposal for convergence of their schemes with the Board's schemes particularly under TMOC for promoting the coconut based industry in the state.

Scope for Convergence

Since improving the livelihood opportunities of farmers is the core of these programmes, there is immense scope of convergence between the programmes. Friends of Coconut Tree (FOCT) programme of Coconut Development Board can be converged with the training component of NRLM. Training may be given to FOCT trainees under NRLM/OLM. The fund for training will be met by NRLM and cost of the machine can be met by Coconut Development Board. OLM can provide the fund for capacity building only and they can not provide any machineries/equipments to the trainees as per the norms of NRLM.

Adoption of organic farming and certification of organic farming under NHM/SHM Odisha can be converged with the target group of

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Schematic convergence of coconut schemes in Chhattisgarh

R.S.Sengar

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Chhattisgarh, the newly formed state of India is rich in its natural recourses. The climatic and soil conditions of the state is congenial for growing vegetables, spices and medicinal plants. The atmospheric condition of Chhattisgarh especially of Bastar, Jashpur, Ambikapur and Mahasamund is most suitable for cultivating coconut. A survey conducted by Coconut Development Board during the nineties identified that Chhattisgarh and Madhya Pradesh are having the potential for coconut cultivation in 2.5 lakh ha. Out of this around 2000 ha. is already under coconut cultivation.

Climate

Chhattisgarh is situated between 17 to 23.7 degrees north latitude and 8.40 to 83.38 east latitude. As is usual with the tropical climate, the summers in Chhattisgarh are warm and humid and the winters are cool. Chhattisgarh also receives a fair amount of rainfall with the average rainfall of around 1400 mm. The rainwater is the major source of irrigation and a large variation in the yearly rainfall adversely affects the crop production. The metrological data recorded at DSP Farm Kondagaon indicates that the agro climatic condition is favourable for coconut cultivation in Chhattisgarh state with special reference to Bastar region.

Scope for Convergence of State & Central by sponsored scheme

State and central sector schemes put together can help to avail assistance from both at a time. It seems in many of the states where state government provides training and tools under the programme and central government provides working capital or raw material to make a sustainable growth of the sector.

There is scope for convergence of schemes with the schemes of Coconut Development Board and centrally sponsored schemes implemented by the state government like MGNREGS, ATMA, RKVY, NHM, NRLM, Mukya Mantri Kausal Vikas Yojna and RADP.

MGNREGS

It is a national level programme implemented throughout the country to provide job to the rural unemployed youth for their livelihood.

ATMA

This scheme is implemented through the concerned state agricultural departments with a district level officer as the nodal officer. The programme provides training and visit programme within and outside the state for technology and skill development of the

farmers, participation in exhibition in state and national level with their produce, demonstration of plots, formation of self help groups with a grant in aid of Rs. 10, 000 and seed distribution.

RKVY

Rastiya Krishi Vikas Yojna is implemented in the state through state Horticulture Department. The Department is utilizing the fund for providing planting material to the farmers. During the year 2011-12, under this scheme, state horticulture department has purchased about one lakh quality coconut seedlings from Coconut Development Board's DSP Farm Kondagaon.

NHM

This scheme is also implemented in the state through state Horticulture Department which utilised the fund by providing planting material to the farmers. This is meant for horticulture development programme in the state for processing, marketing, training and visit, distribution of quality planting material etc.

NRLM

This scheme is not taken up in Kondagaon district on a large scale. However DRDA is planning to extent the scheme throughout the district to provide livelihood to the rural people particularly BPL families.

Mukya Mantri Kausal Vikas Yojna

This is a new programme launched by the Government of Chhattisgarh. Under this scheme, component for training is provided to make unemployed youth sustainable after the training. The training also provides job opportunity after the training based on their training.

RADP

This scheme called Rain fed Area Development Programme provides Fisheries, Horticulture, Agriculture, Veterinary, Farm forestry etc. Under this scheme there is scope for planting of horticultural crops in individual

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farmers under LODP/AEP on a cluster basis. Adoption of intercropping/ mixed cropping of coconut gardens with different fruit crops like mango, guava, sapota and beverage crop like cocoa can be converged with the AEP as well as LODP schemes.

There is long stretch of irrigation canals available in the state. AEP scheme of the Board can be converged with the MGNREG scheme for development of coconut plantations on the canal banks which will be allocated to the neighbouring farmers of the canal for improving their livelihood. Adoption of micro irrigation like drip as well as sprinkler can be converged with the scheme under NMMI being implemented by the SHM of Odisha. Coconut Development Board can also implement this scheme by obtaining funds from NMMI, Krishi Bhawan, New Delhi.

farmer's field based on the proposal approved by the district authority.

Coconut Development Board's Programme

Coconut Development Board is implementing area expansion programme in the state with a subsidy @ Rs.8000 per ha. in two equal installments.

DSP Farm Kondagaon

Coconut Development Board has established a 40 ha. Demonstration cum Seed Production Farm located in Kopabeda village in Kondagaon district in 1987-88. The DSP Farm has a total palm population of 4996 of different cultivars.

Coconut based industries like packaging of tender coconut water, virgin coconut oil, activated carbon, shell charcoal, coconut oil expeller unit etc can be established by converging the financial assistance of the Board under TMOC and financial assistance provided by the APICOL, Bhubaneswar. Capacity building programme of the coconut farming community can be converged with the schemes of CDB and other organizations like Odisha Livelihood Mission, Odisha Rural Development and Marketing Society, State Horticulture Mission, Agricultural Technology Management Agency, Orissa Tribal Empowerment and Livelihoods Program etc

The technical know-how on coconut production technology as well as quality planting materials can be provided from the DSP farm, Pitapally for the beneficiaries of the MGNREGS implemented by the Directorate of Horticulture, Odisha.

Name of the cultivar	No. of plants
Tall variety	3439
Dwarf variety	874
Hybrid	472
Germplasm collection	211
Total	4996

DSP Farm is now producing quality planting materials on a large scale for the farmers of Chhattisgarh state. DSP Farm is also providing training on scientific coconut cultivation technology to the farmers from time to time.

Convergence of Central and state schemes are essential for effectively addressing the coconut sector. The collective approaches would definitely bring in better results for the coconut farmers and stakeholders.

Conclusion

Since a number of programmes are being implemented concurrently by different agencies of the government in central as well as state scheme for increasing the area, production and productivity of coconut in Odisha, the convergence of schemes is the need of the hour for extending maximum benefits to the farming community and coconut based industries in the State. The coconut farmers are facing serious problems in marketing of their produces and are getting only a very low price at the farm gate. There is very few coconut based industries in the state, which are essential for augmenting the price of coconut. The scheme of Coconut Development Board under TMOC should be converged with the state sector schemes of APICOL and any other suitable agencies of the State of Odisha for realizing a better income to the coconut farmers and stakeholders.

Coconut Neera production and processing in Karnataka

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Introduction

The Neera Board was constituted by the Government of Karnataka to market the value added products made from neera in the state. The Board consists of representatives from the neera industry, i.e. farmers, state government officials and neera training institutes. The key objective of the Board is to inspect and control the quality of neera and its products, give approval to labels and come out with various schemes for the sale of neera and its by-products in the international market.

Horticulture Department, Government of Karnataka prepared a neera policy for commercial production of neera as a sweet beverage to be promoted as nutritious energy drink. The Government is planning to promote it as an energy drink with medicinal values. The government came up to promote neera following the crash in prices of coconut and copra. Department of Horticulture, Government of Karnataka during 2002-03 sponsored a grant-in-aid project on “Technologies for enhancing the shelf life of coconut sap (neera)” through Central Food Technological Research Institute (CFTRI), Mysore and Defence Food Research Laboratory (DFRL), Mysore. The CFTRI & DFRL have worked together and developed a methodology of packing and preserving neera up to 45 days

in refrigerated and 30 days in ambient conditions. In order to commercialize the technology developed by the CFTRI & DFRL a project for demonstration of technology for processing and packing neera at a cost of Rs.115 lakh was sanctioned with a sharing pattern of 25:75 between Coconut Development Board, Government of India and Government of Karnataka for establishing a pilot plant at Horticultural Farm, Tumbe, Dakshina Kannada district. The pilot plant has already started trial production and packing of neera. Attempts are also made at packing in different flavors as per the customer’s preferences.

In the state of Andhra Pradesh the Khadi and Village Industries Commission (KVIC) is promoting ‘neera’, as a health drink, so as to uplift the depressed toddy-tappers economically. The central government is trying to develop neera clusters under the scheme of Fund for Regeneration of Traditional Industries (SFURTI). The Gramodyog Sangh, which undertakes programmes to help those who tap the palm trees, has under its fold 50 co-operative societies or institutions. The Khadi and Village Industries Commission (KVIC) implements the scheme. Apart from increasing the availability of the drink, the Neera cluster aims at generating more employment for tappers.

What is Neera?

Neera, otherwise called Sweet Toddy is a sap extracted from inflorescence of various species of toddy palms. Neera is a natural and non alcoholic beverage, high in nutritional value and an instant thirst quencher. It is sweet, oyster white, and translucent. It is obtained by slicing the spathes of the palmyra, coconut and sago palms, and scraping the tender most part, just below the crown. It requires neither mechanical crushing, as in the case of cane, nor leaching like that of beet-root. This palm nectar is widely consumed in India, Sri Lanka, Africa, Malaysia, Indonesia, Thailand and Myanmar. This sweet sap of the palm, is fast becoming a popular drink on account of its highly nutritive value, delicious taste and agreeable flavor. The chemical percentage composition of neera varies, depending on various factors, namely, place, type of palm, mode and season of its collection. Neera is considered as a nutritious drink as it contains a number of minerals and salts and is high in protein. It contains acids like ascorbic acid (one form of vitamin C), nicotinic acid (vitamin B3 and vitamin PP) and riboflavin (vitamin B2)

Composition of Neera:

Neera is rich in carbohydrates, mostly sucrose (table sugar), and has a nearly neutral pH. It has a specific gravity ranging from 1.058

to 1.077. Composition of neera is given below:

Substance	Concentration (gms per 100 ml.)
Sucrose (table sugar)	12.3 - 17.4
Total ash	0.11 - 0.41
Protein	0.23 - 0.32
Ascorbic acid	0.016 - 0.030
Total solids	15.2 - 19.7

Production of Neera

Neera is collected every morning just at sunrise. The sap is extracted and collected by a tapper. The sap is collected from the cut flower of the palm. A container is fastened to the flower stump to collect the sap. The white liquid that initially collects tends to be very sweet and non-alcoholic. Neera is brought down from the top of the tree in either earthen pots or vessels, and then poured into stainless steel containers and bigger vessels, after being filtered through a fine mesh cloth or wire-mesh. Neera collected as above contains all the constituents of a cool and healthy drink with food and mineral value. It keeps the human system cool and improves digestion. Fresh neera, as it trickles from the tree, is easily

susceptible to fermentation at ordinary temperature, unless it is quickly treated with some preservative.

Technological Developments:

Neera is highly susceptible to natural fermentation at ambient temperature within a few hours of extraction from palms. Once fermented, it transforms to toddy with 4% alcohol. Using several technologies developed by various research institutes, neera can be processed and preserved in its natural form to retain the vitamins, sugar, and other nutrients beneficial for health. To preserve and extend the shelf life of neera, heat preservation techniques such as pasteurization are used. A special filtration technique to enhance the shelf life of neera was developed by the National Chemical Laboratory, Pune, and technologies for the preservation and processing of neera was developed by the Central Food Technological Research Institute, Mysore.

Value added products from Neera

Palm Syrup: Palm syrup is produced when fresh neera is heated and concentrated into syrup.

In many countries, palm, syrup is used as a health and wellness drink and is prevalently used in Ayurveda and other systems of medicine. The fresh neera is rich in carbohydrates with sucrose as its main constituent.

Palm wine: Palm wine is an alcoholic beverage created from the sap of various species of palm tree such as the palmyra, date palms and coconut palms. Palm sap begins fermenting immediately after collection, due to natural yeasts in the pores of pot and air (often spurred by residual yeast left in the collecting container). Within two hours, fermentation yields an aromatic wine of up to 4% alcohol content, mildly intoxicating and sweet. The wine may be allowed to ferment longer, up to a day, to yield a stronger, more sour and acidic taste.

In India, palm wine or toddy is served as either neera or padaneer (a sweet, non-alcoholic beverage derived from fresh sap) or kallu (a sour beverage made from fermented sap, but not as strong as wine). Kallu is usually drunk soon after fermentation by the end of day, as it becomes more sour and acidic day by day. Spices are also added in order to brew and drink and give it its distinct taste.



Processed neera



Packing neera



Packed neera

Palm Jaggery

Neera converted into a solid or a semisolid crystalline mass ready for direct consumption is called Palm Jaggery. It has got wide use as sweetening agent in Indian village food products. Palm gur has a characteristic smell of its own. Traditionally, Palm Jaggery is made by boiling raw palm sap in large, shallow, round-bottom vessels. The raw juice is heated at 40°C in a pan and this juice is then delimed to neutrality i.e., pH by adding either phosphoric acid direct or triple super phosphate solution slowly and stirring all the while. Boiling of the filtered juice is done over open-fired improved furnaces using metal pans of 20 to 24 gauge thickness. As boiling proceeds, the froth and foam coming up to the surface is removed by means of a perforated ladle. The juice is stirred at intervals to facilitate mixing and rapid evaporation. When the juice thickens, the fire is judiciously controlled in order to prevent it from caramelizing. Correct strike temperature is judged by patting a small quantity of the thickened mass in water and rolling in into ball shape. If ball forms into a hard one, the strike is over and the mass is moulded into moulds. The strike temperature can also be controlled through the use of thermometers. In order to facilitate easy removal of the blocks from the moulds, the moulds are either moistened with water or besmeared with fresh sweet oil before putting the thick mass into them. After allowing the gur to set for some time, the gur is removed from the moulds and packed. The quality gur is always hard, crystalline and golden-coloured.

Liquid Palm Jaggery

Palm Jaggery is in liquid form or semi solid form. It is very fine and Chemical free liquid syrup.

Palm Honey

It is produced at 78 Brix level. It is thick liquid syrup like honey. It is used as a table syrup as a sweetener in confectionary items like ice creams. It is a rich source of iron for anemic patients and hence it is mainly used in pharmaceuticals formulation.

Palm Sugar

Crystalline sugar made from Neera or Palm Gur with or without clarification is known as Palm sugar. Ordinary Palm sugar has a polarisation value of 96° to 98°. The initial process of sugar making is practically the same as that of gur. In this case also, juice is delimed, filtered and boiled. Chocolates, toffees and confectionery items are made by Palm Sugar

Palm Candy

Like palm gur, palm candy has also its importance among the products of neera. It is being produced and used since procuring sweet neera from palmyra has been known. It has got its various uses in Ayurvedic medicinal preparations.

Molasses

Palm molasses is a sweet syrupy material obtained as a by-product of palm sugar. Golden syrup and cattle feed are the other products made from Molasses. Bio-chemical products like ethyl alcohol, acetic acid, citric acid etc., can be prepared out of molasses by fermentation methods.

Palm Vinegar

Coconut vinegar can also be produced from the inflorescence sap other than from matured coconut water. Fresh sap is poured in a wide large plastic container with clean – netted cover to allow aeration and prevent entry of dirt and foreign objects. After about ten days fermentation in well ventilated room, the sap can be harvested as vinegar. Vinegar has extensive use as preservative in pickle industry and flavoring agent in food processing sector. The palm vinegar has good export potential as compared to the synthetic vinegar.

Promotion and marketing of Neera

Neera can be promoted as a soft drink.

If neera could be filtered properly using a simple scientific method and if some preservatives added immediately after extraction, neera could be bottled or canned and stored for 45 days.

Chilled neera is a nutritious drink. It contains a number of minerals and salts; acids like ascorbic acid, nicotinic acid and riboflavin; and also proteins and vitamin C. It has less calorific value, apart from being sweet and delicious. It has been medically proved that neera is better than mineral water.

Once the shelf life of neera is increased properly stored and packed, the drink could be transported to longer distances. Neera could become a nutritious drink offering a healthy alternative to aerated beverages.

Coconut in Parliament



Mini Mathew

Publicity Officer, CDB, Kochi

During the financial year 2012-13, various issues on Coconut got highlighted in both houses of Parliament, as coconut industry was passing through a situation of uncertainty. The Members of Parliament representing various constituencies mainly from traditional coconut growing states raised several questions on plethora of issues connected with coconut industry in various sessions of Parliament, Budget session, Monsoon session and in Winter session. Issues were mainly related to seeking more impetus to coconut farmers who were hopelessly affected by unprecedented fall in prices. The houses of Parliament, the supreme legislative body of India heard the plea of agrieved coconut growers through people's representatives.

Print/ electronic media all over the country gave extensive coverage to various issues on coconut.

Coconut industry consisting of more than 10 million small and marginal farmers has been playing an important role in the economic development of the coconut growing states. India has a production of 16,000 million nuts; the second largest coconut producing country after Indonesia. Coconut is also an oil seed crop which is perennial while other oil seeds are mostly seasonal. Eventhough the price of seasonal crops are getting remunerative, coconut is severely afflicted by price fall.

Recently, in the winter session of Parliament held from Nov 22 to Dec20, 2012, a number of issues on coconut were discussed on the floor of both Houses. Members of

both, Lok Sabha and Rajya Sabha, expressed their concern on the plight of the coconut farmers who were suffering for want of adequate price.

Nowadays, the situation of coconut industry is inconsistent due to several issues viz., low demand, huge stocks, acute price fall, sturdy competition from palm oil which reached out to coconut oil markets, industrial markets, etc. While export of coconut oil was limited to Kochi port only, palm oil could be imported to India through all ports except Kerala port. However unloaded palm oil consignment reached Kerala through roads.

During the current year as many as 14 starred questions and 10 unstarred questions, were raised both during Question Hour and Zero Hour. "Calling attention notice"

was also raised by a Parliamentarian drawing the attention of the august house to the instability in coconut prices. Low demand for copra and coconut oil, impediments for exports, and relatively better scenario of coconut industry in the competitive countries were also highlighted. Discussions were also held based on programmes and activities of Coconut Development Board viz., cultivation aspects, TMOC schemes, CPS programmes, FoCT programmes, area expansion, replanting and rejuvenation, export and import, Board's role as an Export Promotion Council etc which resulted in bringing awareness on problems of Coconut Industry before parliamentarians, government, bureaucrats etc.

Issues and suggestions raised by Honourable Members

Questions based on import and export of coconut products, palm sugar produced from neera, copra procurement, schemes for providing subsidy to coconut farmers, replanting and rejuvenation, initiatives taken by the Government for finding markets for tender coconut, procurement of coconut directly from farmers, declaration of tender coconut water as a national drink, availability of seedlings and seednuts from Coconut Board, Technology Mission on Coconut (TMOC) projects and promotion of coconut industry in the country, enhancement of MSP, inclusion of coconut oil in Public Distribution

System (PDS) and distribution at the rate of 2 litre/month at a subsidized rate, inclusion of coconut oil in the mid day meal programme, restriction of palm oil imports through southern ports, enhancement of import duty of palm oil, incentives for export of coconut oil etc were contemporary topics on coconut raised by the honourable MPs in various sessions especially during question hour and zero hour.

COLLECTIVE EFFORTS

Collective efforts of farmer representatives and honorable Parliament Members and Coconut Board could create certain impact on various issues related to coconut. In order to get maximum impact, full co-operation of MPs for the upliftment of coconut growers/ stakeholders all over the country especially from traditional coconut growing states, is solicited. During 2012 the repercussions of price fall was brought out well by all print and electronic media. Series of media coverages on alarming situations mainly based on price fall have been noticed by the Honourable MPs.

The UPA (United Party Alliance) Chairperson Smt. Sonia Gandhi engaged a study team under the chairmanship of Honourable Union Agriculture Minister Shri. Sharad Pawar to look into the issues seriously. Sincere efforts of Smt. Sonia Gandhi in favour of coconut growers are praiseworthy. There was very good involvement of Shri. A.K. Antony, Honourable

Defence Minister, Government of India for initiating discussions based on price fall. Accordingly a stakeholder's meet on coconut plantation was held at Chennai on 26th October which was inaugurated by Honourable Union Agriculture Minister. The meeting discussed about the issue of price fall and chalked out ways to arrest price fall. Recently memoranda have been faxed / telegraphed by the representatives of coconut farmer collectives - CPS / CPFs to the parliamentarians requesting to enhance MSP of copra and coconut and thereby to stop price fall. It is expected that interventions of honorable MP's may result in enhanced MSP (Minimum Support Price) of coconut and copra which is yet to be declared by CACP (Commission on Agriculture Costs and Prices) by the beginning of 2013. A substantial enhancement in MSP is expected, taking to account the hike in cost of inputs and wage rates. A slight enhancement in price of copra (12.84%) and coconut oil (12.83 %) during the month of December 2012 was recorded in comparison to October 2012 which recorded the lowest rate. Certain decisions have been taken to solve the problems in coconut sector and some of them are still in pipeline stage.

IMPACT

1. 2.5% import duty on crude palm oil:

Till recently crude palm oil had *zero import duty* and refined palm

Table-1. Realigned tariff value of palm oil with international price

Sl. No.	Chapter/ heading/ sub-heading/ tariff item	Description of goods	Tariff value (Per metric tonne 03/2013-Cus (NT) 15.1.2013	Tariff value (Per metric tonne 03/2013-Cus (NT) 23.1.2013
1.	1511 10 00	Crude Palm Oil	447	802
2.	1511 90 10	RBD Palm Oil	476	853
3.	1511 90 90	Others – Palm Oil	462	828
4.	1511 10 00	Crude Palmolein	481	860
5.	1511 90 20	Others – Palmolein	863	863

Courtesy: Customs- Non Tariff Circular 03/2013-Cust (NT) dated 15.1.2013 and 08/2013-Cust (NT) dated 23rd Jan 2013 issued by Central Board & Excise & Customs, New Delhi in File No. (467/01/2013-Cus. V).

oil had an **import duty of 7.5%**. Now Government of India has decided to impose 2.5 % duty on imports of crude palm oil. The cabinet committee on economic affairs declared this on 17th January 2013. This will be beneficial to the ailing coconut and coconut oil markets in South India. The benchmark price for calculating the tariff has been changed for the first time since 2006 on all edible oils. The tariff value will be aligned with international oil prices.

The customs vide notification 08/2013-Customs (NT) dated 23.1.2013 have changed the tariff values. The different values notified on 15.1.2013 and 23.1.2013 are shown in Table-1.

2. 2% export incentive for coconut shell based activated carbon under Focus Products Scheme:

This notification of the Director General of Foreign Trade enables

the activated carbon exporters of India to avail 2% incentive with effect from 1st January 2013.

3. Adhoc increase in MSP:

The Government of Karnataka announced an interim enhancement of Rs.700/- per quintal for ball copra from Rs.5350/ ,the original declaration of CACP, thus making the MSP for ball copra at Rs. 6050/- per quintal. Government of Kerala has also announced an additional support of Rs.500/- per quintal of copra procured at MSP by Service Cooperative Banks and societies under the Price Support Scheme to support the farmers for production of FAQ grade copra in the procurement process.

4. Promoting export of coconut oil:

The export market prices have turned competitive for coconut oil since domestic prices of coconut oil and international prices are almost on par. 20,000 MT of edible oil in

consumer packs up to 5 kg has been permitted for export through all EDI (Electronic Data Interchange) ports up to 13-09-2013 as per the notification of DGFT dated 19-10-2012. A large number of coconut oil exporters has been using this route for exporting coconut oils. At the same time, bulk quantity of coconut oil can be exported without any restriction through Kochi port.

5. Restriction on Palm oil import:

Import of Palm oil through Kerala ports continued to be prohibited resulting in increased consumption of coconut oil.

Coconut sector needs to take advantage by going in for high value addition. Venture into new export markets through niche products will accelerate growth of coconut industry. In this regard the support of our Parliamentarians is very vital. This will be beneficial to the coconut industry's overall growth.

Kissan Credit Card, a boon to farmers

K.S. Sebastian

Assistant Marketing Officer, CDB, Kochi

Agriculture is the backbone of the Indian economy, with nearly 67 per cent of the population of the country continuing to depend on it either directly or indirectly for their livelihood. Considering the dominant role of the sector and the importance of credit as an input, a multi-agency approach has been adopted by the Reserve Bank of India (RBI) for ensuring credit flow to the sector. In spite of several improvements in the delivery systems that have been undertaken over time, making institutional credit available to a large number of farmers, particularly small and marginal farmers, continues to be a challenge to the banking industry. Financing for agriculture has been a gigantic task for banks, given the enormity of the credit requirements on the one hand and vagaries of nature on the other. Both RBI and National Bank for Agriculture and Rural Development (NABARD) have taken several initiatives for simplification of systems and procedures and designing of innovative credit delivery products in dispensation of agricultural credit. However, the traditional system of procedures, documentation etc. adopted by the banking system had rendered availing of credit by the farmers rather cumbersome. Provision of timely, adequate and hassle-free credit to farmers

continues to be one of the major tasks for banks in India.

In this context, the Kissan Credit Card (KCC) scheme introduced in 1998-99 was a step towards facilitating the access to Short Term (ST) credit for the borrowers from the financial institutions. The scheme was conceived as a unique credit delivery mechanism, which aimed at provision of adequate and timely supply of ST credit to the farmers to meet their crop production requirements. The objective was to provide an instrument, which would allow farmers to purchase agricultural inputs

such as seeds, fertilizers pesticides and also withdraw some cash for meeting their production related requirements.

Under the earlier system, disbursement of short-term credit to agriculture was mostly through demand loans, but some banks had adopted system similar to that of cash credit, the facilities were, however, given for the period of one year or less, which necessitated execution of fresh documents for

each season. The withdrawals under both the systems were permitted largely through debit vouchers or through withdrawals from the saving accounts where the cash components were credited. As far as the 'kind component' is concerned, payments were made through bankers' cheques. As a result the withdrawals were usually bunched at the beginning of the crop season and the repayments at the end of season, when the farmers



were able to generate cash after harvesting and marketing their produce.

The main weakness of such short term credit delivery system were :

- i. a lot of paper work was required on account of filling separate applications in each season;
- ii. as the facility was largely available as loan but not as cash credit, the system did not allow

the borrowers to credit funds into their accounts, in case they received funds in advance and there was no scope to withdraw money from the account as and when required;

- iii. payments were effected directly to the input suppliers of the bank's choice, thus leaving a scope for affecting the quality of inputs; etc.

Given the above circumstance, the introduction of KCC has brought in several advantages over the traditional system of loan disbursement.

Salient features of the Kisan Credit Card (KCC) Scheme

1. Eligible farmers to be provided with a Kisan Credit Card and a pass book or card-cum-pass book.
2. Revolving cash credit facility involving any number of withdrawals and repayments within the limit.
3. Limit to be fixed on the basis of operational land holding, cropping pattern and scale of finance.
4. Entire production credit needs for full year plus ancillary activities related to crop production to be considered while fixing limit.
5. Sub-limits to cover short term, medium term as well as term credit are fixed at the discretion of banks.
6. Card valid for 3 to 5 years subject to annual review. As

incentive for good performance, credit limits could be enhanced to take care of increase in costs, change in cropping pattern, etc.

7. Each withdrawal to be repaid within a maximum period of 12 months.
8. Conversion/rescheduling of loans also permissible in case of damage to crops due to natural calamities.
9. Security, margin, rate of interest, etc. as per RBI norms.
10. Operations may be through issuing branch (and also PACS in the case of Cooperative Banks) or through other designated branches at the discretion of bank.
11. Withdrawals through slips/cheques accompanied by card and passbook.
12. Crop loans disbursed under KCC Scheme for notified crops are covered under Rashtriya Krishi Bima Yojna (National Crop Insurance Scheme), a crop insurance scheme introduced at the behest of Government of India to protect the interest of the farmer against loss of crop yield caused by natural calamities, pest attacks etc.

Advantages of the Kisan Credit Card Scheme to the farmers

- Access to adequate and timely credit to farmers.
- Full year's credit requirement of the borrower taken care of.
- Minimum paper work and simplification of documentation

for withdrawal of funds from the bank.

- Flexibility to draw cash at any time and buy inputs as per the need of the farmer and also to repay as and when surplus fund is available.
- Assured availability of credit at any time enabling reduced interest burden for the farmer.
- Sanction of the facility for 3 years subject to annual review and satisfactory operations and provision for enhancement.
- Flexibility of withdrawals from a branch other than the issuing branch at the discretion of the bank.

Eligibility

- a. All Farmers – Individuals / Joint borrowers who are owner cultivators
- b. Tenant Farmers, Oral Lessees & Share Croppers
- c. SHGs or Joint Liability Groups of Farmers including tenant farmers, share croppers etc.

Personal Accident Insurance Scheme

KCC holders have been covered under Personal Accident Insurance Scheme against accidental death or permanent disability, up to a maximum amount of Rs. 50,000/- . The premium burden will be shared by the card issuing institutions and the borrower in the ratio of 2:1.

Scheme covers risk of KCC holders against death or permanent disability resulting from accidents

caused by external, violent and visible means, as under:

- Death due to accident (within 12 months of the accident) caused by outward, violent and visible means - Rs.50,000/-
- Permanent total disability - Rs.50,000/-
- Loss of two limbs or two eyes or one limb and one eye - Rs.50,000/-
- Loss of one limb or one eye - Rs.25,000/-
- Nominated office of insurance company to issue a Master Insurance Policy to each DCCB/ RRB covering all its KCC holders.
- Premium payable Rs.15/- for a one year policy and Rs.45/- for a 3-year policy.
- Designated insurance company will nominate one office at district level to function as nodal office for coordinating implementation of personal accident insurance scheme for KCC holders in the district.
- Insurance coverage available under Policy only from date of receipt of premium at insurance company.
- Banks to ensure to incorporate name of Nominee in Kisan Credit Card-cum-Pass Book.
- Simplified claim settlement procedure evolved under Scheme whereby an Enquiry-cum-Verification Committee comprising Branch Manager of

implementing bank, Lead Bank Officer and representative of insurance company to certify nature of accident causing disability/death and recommend settlement of insurance claims.

Progress in implementation of the KCC Scheme.

Since launching in August 1998, around 10.09 crore Kisan Credit Cards have been issued up to 31 March 2011 by Cooperative Banks, Regional Rural Banks and Commercial Banks put together. Scheme is implemented in all States and Union Territories (except Chandigarh, Daman & Diu and Dadra & Nagar Haveli) with all Cooperative Banks, RRBs and Commercial Banks. The Kisan Credit Card has emerged as an innovative credit delivery mechanism to meet the production credit requirements of the farmers in a timely and hassle-free manner. The scheme is under implementation

in the entire country by the vast institutional credit framework involving Commercial Banks, RRBs and Cooperatives and has received wide acceptability amongst bankers and farmers. The annual increase in coverage of KCC is hardly 10% in number, which needs to be improved to the level of 20%. In order to achieve better coverage of farmers under Kisan Credit Card Scheme, Department of Agriculture in collaboration with Revenue authorities and Service Area Banks concerned should organize special Kisan Credit Card Camps in village/ panchayath level. Arrangements should also be made to spot issuance of Kisan Credit Cards to the farmers in these Camps. Farmers collectives/ initiatives like Coconut Producers Societies (CPSs) and Federation of CPSs can also play a major role in enhancing the coverage of Kisan Credit Cards.

Export Opportunities for Coconut Products

COIR PITH / COCO FIBRE

Alwin Coir Products' one of the largest manufacturing and exporting companies in India and supplying premium quality Coir pith/ Coco fibre related products like 1) Coir pith 5 kg bales; 2) Coir pith 650 gm briquettes; 3) Coir pith grow bag (slab); 4)Coir Husk Chips; 5) Coir/Coco Disk and 6) Coir Fibre / Coco Fibre. Interested buyers please visit www.allwincoir.com or directly contact:

Mr. Alwin, Managing Partner, Alwin Coir Products, Tuticorin-628210, Tamil Nadu, India
Website: www.allwincoir.com
Email: info@allwincoir.com

Tel: 91-4639-227545, Mobile: 91-98417 27594

Fax: 91-4639-227690, Skype ID: allwin85

REFINED COCONUT OIL

An ice coating producer from Poland is looking for Refined Coconut Oil. They annually use approx. 1000 MT. Interested parties may directly contact: Mr. Dorota Hoffmann Import Department Terravita Sp. Z.o.o. ul. Szarych Szerega 48 60-462 Poznan, Poland
Tel: 48 61 66 88 315 Fax: 48 61 822 19 31 Mobile: 609 479 239 Email: import@terravita.com.pl, www.terravita.pl

Source: Cocommunity, January 2013

A kick start in implementing Innovative Marketing Strategy

Deepthi Nair. S.

Marketing Officer, CDB, Kochi

Board has initiated the implementation of the innovative marketing strategy for coconut products. As a prelude, Investor's Meets were planned in all major coconut growing states to promote coconut processing units. Investor's Meets were conducted in Kochi and Kozhikode where in active participation of entrepreneurs was the major highlight. 238 prospective entrepreneurs participated in the meet at Kochi and 210 at Kozhikode. The participants were introduced to the various value added products from coconut. Board also briefed on the innovative marketing strategy for coconut products. Investors meets are to be held in the forthcoming months in Tamilnadu, Karnataka, Andhra Pradesh and West Bengal.

The product basket identified by the Board includes packed tender coconut water, coconut chips, virgin coconut oil, coconut milk/milk powder/milk cream, ball copra, purified coconut oil for both edible and non-edible purpose, natural vinegar, coconut ice-cream etc. The next step is to estimate the demand for coconut products in the major towns/cities of India. CDB has initiated activities for the identification of management/marketing/training institutions for conduct of the market study. The market study will concentrate on the specialities and tastes of the people of the selected area, the existing market for coconut products, the coconut products marketed currently and their prices, the awareness among consumers regarding the coconut products included in the product basket, their consumer acceptance, price, quality, packing etc.

The cities targeted for introduction of coconut products during the current year are Mumbai, Delhi, Kolkotta, Chennai, Bangalore, Hyderabad, Ahmedabad, Pune and Surat. These are cities with population over 4 million. But the Board is targeting to reach all cities with population over one lakh during the 12th plan period. Hence market studies will cover all major cities and towns where the programme is to be implemented.

Along with the estimation of market demand, CDB is also planning to form a Consortium of processors for which preliminary activities have been initiated. Integration of processors producing various products will be done to form specific Consortiums. In the first phase, CDB is contacting those units who have availed assistance from CDB for the establishment of the unit under the scheme Technology Mission on Coconut. This will be followed by addressing other units manufacturing the products in the product basket. Further to this, the processors will be associated to form a consensus as to the establishment of Consortium. CDB will be the facilitating body for formation of the Consortium. There is already an Association of desiccated coconut manufacturers functioning in Karnataka. Hence in the first phase, the meeting of this Association will be convened to develop into a Consortium. The implementation of the innovative marketing strategy will concentrate on capacity building and expansion of the existing units and initiation of new units.

A desiccated coconut manufacturing unit, KMR Industries at Mayiladuthurai in Tamilnadu has already ventured into production of coconut chips. They have taken a trial run and designed the packaging of the product. They are in the process of conducting market study to assess consumer acceptance.

Apart from this, the Department of Agriculture in Tamilnadu has expressed interest to establish an exclusive wholesale market for



tender coconut in Tamilnadu similar to the tender coconut market in Maddur in Karnataka. The Government of Tamilnadu has also acknowledged tender coconut water as the drink of 2013.

The Government of Kerala had already declared tender coconut as the official drink of the state. They have agreed to extend a subsidy of additional 25% to processing units and has approved three Kera parks. CDB has also requested the State Governments in other major coconut producing states to provide assistance for coconut processing units. This will encourage investors to enter into coconut processing. CDB has also initiated a blog on innovative marketing strategies wherein opinions and comments on the topic is solicited from interested people. A media plan for generic promotion of coconut products is also being developed.

2nd Investors' meet in coconut sector



Shri. T.K. Jose IAS addressing the investors' meet. Seen are Shri. Sugata Ghose, Shri P.T. Thomas Kutty, Shri. Manayath Chandran, Shri. Alok Kumar Sabu, Shri. M. Sreeram, Shri. Abdul Rahiman and Shri. Narayan Das

2nd Investors' meet in coconut processing sector was held on 11th January 2013 at Kozhikode. The objective of the meeting was to support coconut based investors from Malabar region to establish coconut processing units in industrial park at Kuttiyadi being established by KSIDC. KSIDC has already taken possession of 135 acres of land at Kuttiyadi in Kozhikode for establishing 'Kera Park' and will allot land for potential entrepreneurs to start ventures in coconut sector. The first investors' meet was held at Kochi on 2nd November 2012.

Shri. T.K. Jose IAS, Chairman, Coconut Development Board in his address informed that land will be provided to interested entrepreneurs in the coconut bio park which is going to be the first of its kind in India. Board will extent processing technology along with 25% subsidy from the Technology

Mission on Coconut. He informed that the marketing team of the Board with its innovative marketing strategies will identify new markets for the value added coconut products produced in the coconut bio parks. Value added coconut products like packed coconut water, coconut ice cream and coconut chips have good demand both in the Indian and international market. Even though India holds the premier position in production and productivity, the country lag far behind in processing for value addition. A small country like Sri Lanka which is having a less production than that of Kerala state is exporting coconut products four times than that of India.

Since the last 10 years we could establish only 220 coconut processing units in India. During the 12th five year plan period, Board is targeting to identify 200 entrepreneurs each in every year.

He offered wholehearted support of the Board for the same. Board has already started the preliminary steps for identifying market for coconut products in 63 JnNURM cities in India. Even though export sector provides better income, Board is trying to explore the untapped domestic markets wherein product mix of value added products viz., packed tender coconut water, coconut chips, desiccated coconut, virgin coconut oil, ice cream, coconut milk cream, coconut milk powder, ball copra, packed coconut oil and coconut vinegar will be made available. He called upon the farmers and stakeholders to make use of this opportunity.

Shri. Manayath Chandran, Chairman, Kerafed in his address called upon the farmers and stakeholders to explore all the possibilities of Kalpavriksha for ensuring maximum income. He



Board's stall in Investors' Meet

hoped that this meet will make overall changes in the economy of coconut sector. Shri. Alok Kumar Sabu, representative, Malabar Chamber of Commerce, Shri M. Sreeram, former President, Calicut Chamber of Commerce, Shri. Abdul Rahiman, President, Kerala State Small Industries Association and Shri. Narayan Das, Vice President, Calicut Management

Association spoke during the occasion.

Shri. Sugata Ghose, Chief Coconut Development Officer, Coconut Development Board delivered the welcome address and Shri. Prasanth P.R, AGM, KSIDC proposed a vote of thanks. Shri. P.T. Thomas Kutty, Executive Director, KSIDC, Shri. Sreekumar Poduval, Processing Engineer, CDB, Smt.

Deepthi Nair, Marketing Officer, CDB, Shri. V K Raju, ADR, Farms, KAU, Dr. Suresh, KAU, Dr. K Madhavan, Principal Scientist, CPCRI, Kasargod, Shri. P K Gupta, CFTRI, Mysore and Dr. Sabapathy, DFRL, Mysore spoke on the occasion. Representatives of leading public sector banks took part in the meet and successful entrepreneurs shared their experience. M/s. Subicsha, Kozikode, manufacturers of Ila Coconut Soda, Kozhikode, Regional Research Station, Kerala Agriculture University had their sales cum display counters in the meet.

The investors' meet was organised by KSIDC in association with Coconut Development Board, Department of Agriculture, Government of Kerala and Kerala Agriculture University. Board is proposing to conduct investor's meet in all major coconut growing states.

Delegation from Myanmar visited Coconut Development Board

A three member delegation from Myanmar Investment and Industrial Development Committee visited Coconut Development Board on 10th January 2013 and held discussions with Shri. T K Jose IAS, Chairman and other senior officers of Coconut Development Board. The delegation consisted of Mr. Kyi Thar, Secretary Investment and Industrial Development Committee, Mr. Aye Mauk, Planning and Financial Development Committee and Mr. Than Myint, Member of Parliament. The team was attracted on the technology for producing activated carbon from coconut shell. Shri.T.K.



Myanmar delegates in discussion with Chairman, CDB

Jose IAS, Chairman, Coconut Development Board briefed on the activities and programmes of the

Board. The team visited M/s. Indo German Carbons, Kochi on 11th January 2013.

Global Konkan Mohostav



A view of the Board's stall

Coconut Development Board participated in Global Konkan Mohostav - 2013 from 4th -7th January 2013 at Nesko Complex,

Goregaon (East), Mumbai Maharashtra. Shri. Sharad Pawar, Union Agriculture Minister, Government of India inaugurated

the fair. Shri.Prithwiraj Chavan, Chief Minister, Government of Maharashtra, Shri. Narayan Rane, Minister for Industries, Government of Maharashtra, Shri. Chagan Bhujabal, Minister for Tourism, Government of Maharashtra and Shri. Sunil Tatkare, Minister for Water Resource, Government of Maharashtra were present during the occasion.

Global Konkan Mohostav - 2013 fair showcased the latest and best in tourism and agriculture. M/S Anu Coco-products, Andhra Pradesh and M/s. Adivasi Food Products Pvt. Ltd, Kudal Maharashtra had their sales cum display counter in the Board's stall.

Training programmes in coconut convenience foods

Technology Development Centre of Coconut Development Board is conducting four days entrepreneurship development programme, two days training cum process demonstration on coconut vinegar and one day training cum demonstration on coconut convenience foods and minimally processed tender coconut. During January 2013 74 persons were given training in 6 batches in coconut chips, coconut chocolate, coconut pickle and coconut lemonade and coconut vinegar. Separate sessions were conducted for the entrepreneurs on packaging, quality standards, food safety and market potential avenues for



A view of the training programme

coconut convenience foods and vinegar. Trainees were briefed on financial and technical support

offered by CDB and other State Government Institutions.

State level workshop on coconut

A state level workshop on coconut was held on 22nd December 2012 at Tiptur, Tumkur District Karnataka. Shri M.K. Shankaralingegowda, IAS, Principal Secretary (Horti), Government of Karnataka inaugurated the programme. Shri G.S. Basavaraju, Member of Parliament and Member, CDB presided over.

Shri K.V. Dundi, Joint Director of Horticulture PC and PP, Government of Karnataka, delivered the welcome address. Dr. K.G. Jagadish, IAS, Director of Horticulture, Government of Karnataka, Shri K. Govindaraju, KAS, CEO, ZP, Tumkur, Dr. S.V. Hittalmani, Additional Director of Horticulture, Government of Karnataka, Bangalore, Shri. Shrikant, Joint Director of Horticulture (Drip Irrigation), Government of Karnataka, Shri Nagaraj, Joint Director of Horticulture (Planning), Government of Karnataka took part in the programme. The programme

focusing on coconut pest and disease management, management of coconut under rain fed conditions and value addition and marketing of coconut was organized by the Department of Horticulture.

Dr. T.B. Basavaraju, Senior Scientist, HRS, Arasikere, Dr. A.N. Shailesh, Principal Scientist, NBAII, Bangalore, Dr. Devappa, Assistant Professor, AICRP Centre, HRS, Arasikere, Shri Vijayakumar Hallikeri, Deputy Director, CDB., RO., Bangalore, Shri Sreekumar Poduval, Processing Engineer, CDB., Kochi, Dr. Mamatha, ARS, Konehally and Shri Vijayakumar, Progressive Farmer, Tumkur District made presentations on various aspects during the technical session. A farmers interaction session was also held as part of the programme. Around 800 farmers and prospective entrepreneurs from various districts took part in the meeting.

Food & Hospitality World, Mumbai -2013

Coconut Development Board, participated in Food & Hospitality World, Mumbai -2013 from 10th -12th January at Mumbai Maharashtra. Shri. Suresh Hirayenna Shetty, Minister for Public Health and Family Welfare and Protocol, Government of Maharashtra inaugurated the exhibition. Over 175 exhibitors manufacturing machines, equipment, supplies and semi processed product in the hospitality

industry exhibited their products, food drink items, machines, equipment, etc.

Coconut Development Board arranged display cum sale of various value added coconut products, like packed tender coconut water, coconut oil, coconut milk powder, virgin coconut oil, handicrafts etc. Informative posters and publications of the Board were also displayed in CDB stall. More than one lakh people visited the fair.

Retired



Dr. V K Kanakalatha, Hindi Officer retired from the service of Coconut Development Board on 31st December 2012. She has rendered 26 years of service in the Board. During her tenure, a biannual publication in official language christened as 'Kera Bharathi' was started. Her contribution in Hindi implementation helped the Board to bag many national awards. She joined the Board in October 1986 as Hindi translator. Prior to this she was employed with Central Post and Telegraph department during 1975-80 and with Cochin University of Science and Technology during 1980-86.



Smt. PLalitha, Assistant retired from the service of Coconut Development Board on 31st December 2012. She has rendered 30 years of service in the Board. She joined the Board in 1982 as Hindi Typist.

Monthly operations in coconut gardens

February

Andaman & Nicobar Islands: Cut down the dead trees and remove the debris from the garden. Keep the garden clean by weeding. Irrigate the nursery. Continue irrigation of palms. Collect seednuts from the selected mother palms which are regular bearers and have an annual yield of not less than hundred nuts.

Andhra Pradesh: Irrigate the garden. If the attack of black headed caterpillar is noticed, cut the heavily infested outermost 2-3 leaves and burn. Spray the lower surface of remaining leaves fronds with quinalphos 0.05%. Follow up by liberating specific parasites on palms according to the stage of the pest. Release parasites only after three weeks of spraying chemicals. Release *Goniozus nephantidis* for 3rd instar larval stage, *Elasmus nephantidis* for prepupal stage and *Xanthopimpla punctata* (Ichneumonid) for pupal stage. Contact the nearest Parasite Breeding Laboratory for getting parasites.

Assam: Irrigate the garden. Continue collection of seednuts from the selected mother palms and store them by adopting suitable storage methods to prevent the drying up of nut water. Dig pits of 1m x 1m x 1m size at a spacing of 8m x 8m in square system to transplant seedlings. Fill the pits with a mixture of top soil, 500 g rock phosphate, 50 kg dry cowdung / compost manure upto a level of 60

cm height by keeping 40 cm pit empty. Apply 100 g 10 per cent chlorpyrifos to prevent the attack of termites. Search for diseases like bud rot, stem bleeding and pests like rhinoceros beetle and red palm weevil. Clean the crowns of the palms and spray 1 per cent bordeaux mixture as a preventive measure against diseases, if not done earlier. If stem bleeding is noticed remove the affected tissues of the stem and apply 5 percent calixin on the wound. When this is dry apply warm coaltar. Root feed the affected palm with 5 ml calixin in 100 ml water per palm at quarterly intervals. Apply 5 kg neem cake per palm per year along with the second dose of fertilizers. Provide proper drainage during rains and irrigate the palms during dry spells.

Bihar/Jharkhand: Continue irrigation. Spray blitox @ 5 g/litre of water or Dithane M 45 @ 2 g/litre of water on the crown and bunches to avoid secondary infections due to cold injury. In low lying areas apply 500 g urea, 1000 g single superphosphate and 1000 g muriate of potash per adult palm in the basins and mix with soil. Surface planting of seedlings can be done in areas where water table is high. To provide shade, plant banana saplings at a distance of 2 m away from the newly planted seedlings.

Chhattisgarh: Irrigate the garden. Apply the 3rd dose of fertilizers to coconut palms. Adopt plant

protection measures against pests and diseases. Mulch the basins and practice intercultural operations in the garden.

Karnataka: Irrigate the garden. Give 60-65 litres of water per palm per day under drip irrigation. Check the attack of rhinoceros beetle. Clean the crowns of the palms and fill the top 3 leaf axils of the palms with a mixture of sevidol 8G (25g) + fine sand (200 g) per palm or fill the leaf axils with 10.5 g naphthalene balls, 3-4 balls per crown covered with fine sand at 45 days interval. Treat manure pits and other possible breeding sites with 0.1 per cent carbaryl which is to be repeated in every three months. Spray 1 per cent bordeaux mixture against leaf spot disease. Adopt integrated control measures against the attack of leaf eating caterpillar. Release parasitoids immediately after noticing the infestation and subsequently three times at fortnightly intervals. In case of severe infestation, cut and burn the severely damaged lower leaves and spray the under surface of the remaining leaves with Dichlorvos 0.02 per cent or Malathion 0.05 per cent. Do not harvest coconuts immediately after spraying or root feeding with insecticides. A safe waiting period of 45 days is to be maintained for harvesting the nuts from the root feeded palms. If the attack of mite is noticed, spray neem oil formulation containing 0.1 per cent Azadirachtin / Neemazal @

4 ml/ litre of water. The spray droplets are to be directed towards the second to fifth mature bunches. To manage the infestation of red palm weevil, field sanitation is very important. Cut and burn the fully infested and dead trees. If infestation is noticed, inject 1 per cent solution of carbaryl (50%) @ 1 litre per palm. Inject the insecticide solution using a funnel. All the holes on the affected stem should be plugged after injecting the insecticide. Trapping of weevils using pheromone traps @1 trap/ha can also be undertaken.

Kerala / Lakshadweep: Continue irrigation. Adult palm should be irrigated with 200-250 litres of water once in four days in basin irrigation. Apply 60-65 litres of water in drip irrigation. If irrigation facility does not exist adopt moisture conservation measures like shading, mulching and pitcher irrigation to young seedlings. Clean the crowns of the palms by removing all the old spathes, stipules etc. that come off easily. Adopt integrated control measures if the attack of leaf eating caterpillar is severe. If the attack of mite is noticed, spray neem oil formulation containing 0.1 per cent Azadirachtin / Neemazal @ 4 ml/ litre of water. The spray droplets are to be directed towards the second to fifth mature bunches. Start collection of nuts for seed purpose. Apply one fourth of the recommended dose of fertilizers in the irrigated gardens.

Maharashtra/Goa/Gujarat: Cut down and destroy trees infected with anaberoga disease. Dig

isolation trenches around the affected palms. Apply 5 kg neem cake per palm. Drench the basins with 40 litres of 1 per cent Bordeaux mixture. Check for the incidence of stem bleeding in adult palms. Treat the affected palms. After removing the affected tissues on the stem, apply 5 per cent calixin on the wound. When this is dry apply warm coal tar. Apply 5kg neem cake per palm per year along with the second dose of fertilizers to the affected palms. Continue the irrigation of palms. Prepare pits at a spacing of 7.5 m for new planting of coconut. If the proposed land is sloppy, take contour bunds or terracing.

Odisha: Remove stray shrubs and grasses. Prepare the field and sow/ plant intercrops like tubers, ginger, turmeric etc. Apply the second dose of fertilizers to coconut. Irrigate the garden. Mulch coconut basins with coir pith/ husk etc. If the attack of mite is noticed, spray neem oil formulation containing 0.1 per cent Azadirachtin / Neemazal @ 4 ml/ litre of water. The spray droplets are to be directed towards the second to fifth mature bunches. Clean the crowns and continue other maintenance operations. If the attack of leaf eating caterpillar is observed, spray the under surface of the affected leaf fronds with quinalphos 0.05% . In places where winter is experienced severely, measures may be taken to control secondary infection of diseases such as bud rot. In such cases remove all affected tissues of the crown and apply Bordeaux

paste on cut end and provide a protective covering till normal shoot emerges.

Tamil Nadu/Puducherry:

Continue summer irrigation once in 4 to 7 days depending upon the soil type. Under irrigated condition apply one-fourth of the recommended dose of fertilizers i.e. 250 g urea, 500 g single superphosphate and 500 g muriate of potash. Search for rhinoceros beetle on the crowns of the palms with a beetle hook and kill the beetles. Fill the top four leaf axils of the palm with a mixture of Sevidol 8G (25 g) plus fine sand (200 g). Filling leaf axils with 12 g naphthalene balls (approximately 3 balls) covered with fine sand at 45 days interval is also effective. If the attack of mite is noticed, spray neem oil formulation containing 0.1 per cent Azadirachtin / Neemazal @ 4 ml/ litre of water. The spray droplets are to be directed towards the second to fifth mature bunches.

Tripura: Continue irrigation. Protect the palms especially the young palms from the attack of white ants. Drenching of nursery with 0.05 per cent chlorpyrifos twice at 20- 25 days interval is recommended. Mulching with old and dried leaves can be done during the month. Prophylactic measures may be taken up if not done in January for combating the diseases and pests.

West Bengal: Irrigate the garden and nursery. Provide shade to the newly planted young seedlings. Collect seednuts for sowing.

Market Review - December 2012

Deepthi Nair S.

Marketing Officer, CDB, Kochi

Highlights

- ◆ The price of milling copra and coconut oil expressed an upward trend at all the major markets during the month under report, while the prices of ball copra showed a mixed trend.
- ◆ The international price of coconut oil expressed a downward trend during the month under report.

The month of December witnessed a slight increase in the prices of coconut, copra and coconut oil which provided an interim relief and hope for the coconut farmers. Still the prices of copra did not rise above Minimum Support Price in major producing states and procurement activities initiated by the Government machinery under Price Support schemes were ongoing even at the fag end of season 2012.

COCONUT OIL

The price of coconut oil quoted at all the major marketing centres in the country expressed an upward trend during the month under review.

The monthly average price of coconut oil at Kochi was Rs.6433/- per quintal. The price of coconut oil at Alappuzha market also moved in

tune with the price behaviour at Kochi market. The monthly average price was Rs. 6362/- per quintal at Alappuzha market and Rs.6543/- at Kozhikode market. The prices at Kochi, Alappuzha and Kozhikode markets were 6-7% higher than the prices prevalent in November 2012.

MILLING COPRA

The monthly average prices of FAQ copra recorded at Kochi market was Rs.4458/- per quintal. The monthly average prices of Rasi copra at Alappuzha market was Rs.4338/- and at Kozhikode market was Rs.4391/- per quintal. The prices at Kochi, Alappuzha and Kozhikode were 7.5-8.5% higher than that of the previous month. The procurement operations under Price Support Scheme were ongoing even during the last month since prices were still below MSP.

The Minimum support price of milling copra has been fixed at Rs. 5100/- per quintal for 2012 season. A total quantity of 57,752 MT of copra was procured by NAFED during 2012 season. The quantity of copra procured through Tanfed in Tamilnadu is 29,772 MT while in Kerala, 17,952 MT was procured by Nafed through Kerafed and Marketfed. Around 6678 MT of copra was procured in Andhra Pradesh and 3,350 MT in Lakshadweep.

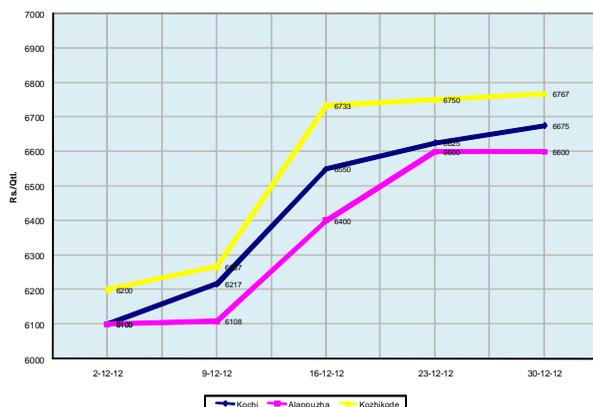
The monthly average prices of milling copra at Ambajipeta market in Andhra Pradesh was Rs.4040/- per quintal compared to Rs. 3860/- recorded during the previous month.

EDIBLE COPRA

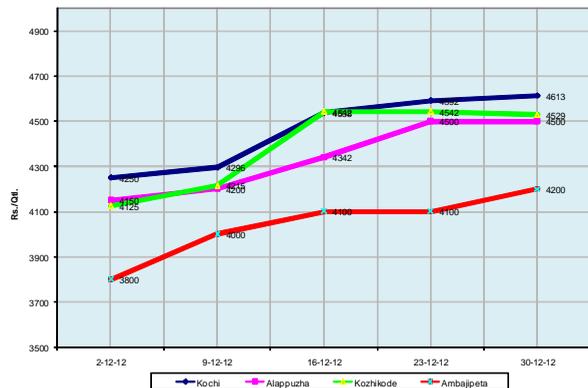
The monthly average prices of Rajapur copra at Kozhikode market was Rs.5288/- per quintal, which was about 4% lower compared to the price of the previous month.

The monthly average prices of ball copra at Kozhikode market averaged at Rs. 4711/- per quintal.

The monthly prices of ball copra



Price behaviour of coconut oil during December 2012



Price behaviour of milling copra during December 2012

at APMC market Tiptur, in Karnataka averaged at Rs. 4965/- per quintal in December 2012 while it was Rs 5800/- in Bangalore and Rs. 4942/- in Arsikere.

The Minimum support price of edible copra has been fixed at Rs. 5350/- per quintal for 2012 season. A total quantity of 8890 MT of ball copra was procured at MSP in Karnataka.

DRY COCONUT

The monthly average price of dry coconut was around Rs. 4163/- per thousand nuts at Kozhikode market which was about 2 percent lower than that of the previous month.

COCONUT

The monthly average price of Rs.7200/- per thousand nuts for dehusked coconut at Nedumangad market, remained the same as that of the previous month.

Arsikere APMC market recorded an average of Rs.5698/- for thousand partially dehusked nuts which was about 2 percent lower than that of previous month.

The monthly average prices of partially dehusked coconut at Bangalore APMC market was Rs.6680/- which was marginally lower than that of previous month.

The monthly average price of partially dehusked coconut Grade-1 quality at Mangalore APMC market improved to Rs.10047/- per thousand nuts which was about 5.5% higher than that of the previous month.

The monthly average price of coconut in Assam varied from Rs. 19/- in Sonitpur to Rs. 31/- in Guwahati while it was Rs.50/- at Aizawl in Mizoram, Rs. 29/- in Agartala in Tripura and Rs.24/- at Dimapur in Nagaland.

The Minimum Support price of dehusked mature coconut with water is Rs. 14/- per kg for procurement under PSS for conversion to copra.

TENDER COCONUT

The retail prices of tender coconut at Kochi market ranged from Rs.20/- to 25/- per nut. The monthly average price of tender

coconut in Assam was Rs.19/- per nut and Rs.20/- at Dimapur in Nagaland while it was Rs.40/- at Aizawl in Mizoram and Rs. 20/- in Agartala in Tripura.

INTERNATIONAL PRICE

The monthly average price of US \$890 per MT for coconut oil in Europe (C.I.F. Rotterdam) for the month of December 2012 was about 8.5 percent higher when compared with the price in previous month and lower by about 34 percent compared to that of the corresponding month last year. The monthly average price of US\$ 515 per MT for copra was about 13 percent lower than that of the previous month and about 62 percent lower than that of the corresponding month last year.

The domestic price of coconut oil during the month of December 2012, in Philippines was US\$886 per MT and in Indonesia; the price was US\$709 per MT. The international price of Palm oil, Palm kernel oil(RBD) and Soybean oil were US\$744, US\$748 and US\$1078 per MT respectively.

Market Price

Date	Coconut Oil			Milling Copra				Edible Copra	Ball Copra				Dry coconut	Coconut	Partially dehusked 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)			
2.-12.-12	6100	6100	6200	4250	4150	4125	3800	5200	4750	4900	5800	4850	4200	7200	5000	6800	9650			
9.-12.-12	6217	6108	6267	4296	4200	4215	4000	5296	4658	4956	5800	4909	4133	7200	5100	6800	9650			
16.-12.-12	6550	6400	6733	4538	4342	4542	4100	5442	4842	4992	5800	4986	4083	7200	5192	6750	9933			
23.-12.-12	6625	6600	6750	4592	4500	4542	4100	5300	4692	5010	5800	4990	4200	7200	5983	6550	10500			
30.-12.-12	6675	6600	6767	4613	4500	4529	4200	5200	4613	4969	5800	4977	4200	7200	7214	6500	10500			
Average	6433	6362	6543	4458	4338	4391	4040	5288	4711	4965	5800	4942	4163	7200	5698	6680	10047			

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