INSIDE

THEME

Skill development in coconut sector

Skill development opportunities - CPCs need to take a lead role

The theme of this issue of Indian Coconut Journal is 'skill development in coconut sector'. Agriculture sector has reached a stage where further advancement is possible through better aggregation of products, transportation and storage, primary processing, value addition and marketing. Great extent of knowledge and technologies has been developed in these areas. But when it comes to development of skill, in various areas of agriculture sector, it is felt that there exists a wide gap. We could notice development in any sector of the economy where appropriate knowledge, modern technology and a set of skillful employees work as a team. This is true in agriculture sector too. Further, development in agriculture sector can be accelerated when traditional farming methods are equipped with scientific knowledge, appropriate technologies and necessary skill put into practice. In the previous issues of Indian Coconut journal we were trying to create awareness about various aspects of value addition, processing, opportunities of convergence in agriculture sector with the Local Self Government Intuitions (LSGIs) and the role and relevance of youth in coconut sector. In this issue we are looking in to the efforts taken in coconut sector for improving the skills in coconut farming, elementary processing, marketing and value addition. Farmers and other stake holders in coconut sector are looking for skilled workers. In the major coconut growing states, a situation has arisen where the number of agriculture workers are slowly coming down due to better opportunities in education, technical education and employment avenues. The success of green revolution in agriculture sector and white revolution in dairy sector are two good examples to site. Time has come in coconut sector also where we have to look in a comprehensive manner on how to improve the skills and to bring in a team of skillful employees. To start with, skilled laborers is needed to increase the productivity of coconut starting right from selection of mother palms for seed nuts, selection of good quality seed nuts, maintaining nurseries for quality planting material, maintaining coconut palms by adopting scientific package of practices, integrated pest and disease management, plant protection measures etc. Earlier the inter generational transfer of knowledge and skills used to happen among the workers and farmers. But the new generation is not showing interest in coconut cultivation due to the fluctuating prices and the uncertainty in income or because of better green pastures. For increasing productivity, scientific management, proper genetic resources and appropriate skilled workers is necessary. The time gap between research and development in the lab to application in the field is quiet wide. In order to bridge this gap, there is a need for a proper conduit which can link the lab and the field.

Government of India is giving prime importance for skill development in its ambitious plan for making India a modern economy. On one side we have acute shortage of skilled workers and on the other side we have large scale unemployment and underemployment. To bridge this gap through various skill development programmes initiated by Government of India we have to create a win-win situation to resolve the problems in both the sectors. A small initiative by the first Coconut Producer Company (CPC) in India, the Thejaswini CPC in Kannur district, Kerala is worthwhile to mention. Thirty one small and marginal coconut farmers were trained to extract Neera from their coconut palms which is a job otherwise done by trained workers called Neera Technicians. Even though Neera production was legally permitted two years ago in Kerala, the production is stagnating due to the want of Neera Technicians. Locally gathering unemployed youth for Neera Technician training was not that successful. Hence some of the CPCs started looking towards north eastern states and states like Bihar, Jharkhand and Chhattisgarh to attract rural youth for Neera Technician's job. But in Thejaswini CPC some of the young farmers willingly came forward to take up this daring challenge. They have undergone a two months training programme intended for Neera Technicians. After successful completion, they started extracting neera from their own palms. These 31 farmers could earn a monthly income of Rs. 7,91,700 from 150 palms owned by them by extracting 3045 liters of neera per week. This was made possible through the Neera Technician training initiated by Coconut Development Board to train the unemployed and under employed rural youth. But when the small and marginal farmers found that there is shortage of unemployed youth who are willing to come for Neera Technicians job, they ventured into the training by themselves. I hope that the model initiated by these 31 farmers of Tejaswini is a live example for other CPCs. We are expecting permission from state governments to extract neera in Tamil Nadu, Karnataka and Andhra Pradesh shortly. It is necessary to have enough pre-planning to develop sufficient Neera Technicians with necessary skills set. It needs minimum eight weeks to train an inexperienced youth to become a successful Neera Technician. Coconut Development

Board had developed a training curriculum and put that into practice during the last three years. Chairman Thejaswini CPC is hoping to increase the number of farmers who are capable of doing neera extraction by themselves from 31 to 300 and to 500 in the near future. Let this be an inspiration for the other 55 CPCs spread across four major coconut producing states in the country.

Extracting Neera is not the only area where skill development programme is needed and Neera Technician is not the only technical job available in coconut sector. Technical expertise and training in coconut cultivation, plant protection activities, harvesting and nursery management including hybridization are the need of the hour. Skill development training for primary processing of coconut into value added products also need to be undertaken. The recent initiative of Government of Assam to establish a Coconut Technology Development Centre in Assam is a welcoming and positive move. State government along with Coconut Development Board and various state and centrally sponsored programmes, is trying to bring in a convergence of available resources and activities to boost the production, productivity and value addition in coconut sector in Assam. There is also a need to converge with the programmes of LSGIs in coconut producing states. In rural areas of the country, agriculture assumes primary importance in the responsibilities of LSGIs. How can we inform, inspire and motivate our LSGIs to take up appropriate projects for skill development in coconut cultivation? Some of the models and possibilities in this regard have been discussed in Indian Coconut Journal two months back. Similarly how can we attract the youth across the country to be part and parcel of the coconut sector by improving their knowledge and skills? There are many states in which specific programmes for the advancement of youth and women are undertaken through state budget. For example, in the state of Kerala in all the LSGIs there is a mandatory allocation of 10% of the resources for women's development.

Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) is a good model implemented by Government of India for skill development in rural sector. Skilling India has assumed great importance and put in a high priority. On one side we have unemployment and on the other side, there is unemployability. Various sectors of economy felt that unemployability rather than unemployment is the major issue and there is a need to bridge this gap between unemployment and unemployability. Skill development especially that in agriculture sector is one way to fill this gap. National Skill Development Corporation (NSDC) is mandated with skill development training programmes for various sectors of the economy. Realizing the importance of skill development in agriculture sector, the sector specific Agricultural Sector Skill Council of India (ASCI) is trying to focus on skill development in agriculture sector. Coconut Development Board from the very beginning itself proposed three skill development programmes to ASCI : Neera Technician training, training of Friends of Coconut Trees (FoCT) and training for coconut cultivation and nursery management. All of the above are approved and included in the list of trainings approved by the National Occupational Standards (NOS). These training programmes are now eligible to get financial assistance for implementation through appropriate agencies across the country. A humble beginning is initiated by one of the nodal agencies in Kerala for implementation of DDU-GKY. Rajagiri College of Social Sciences, Kochi along with Kudumbasree, the State Poverty Irradiation Mission and CDB has already started training under DDU-GKY for training 27 Neera Technicians. Other CPCs are eagerly awaiting for the outcome of this training programme. If it is found successful and worthy, it needs replication. Rajagiri College of Social Sciences have been requested to train at least 500 Neera Technicians under DDU-GKY. There are similar opportunities unfolding under NSDC and ASCI with funding support from Pradhan Mantri Kaushal Vikas Yojana (PMKVY) in our country.

We know that improved skills will ensure not only better income but also better social and economic status to the workers in agriculture sector. Enhancement in their social status is a motivating factor for rural youth to come towards agriculture. So let us think of using this opportunity to initiate appropriate attitudinal change in the rural areas especially among the rural youth by ensuring decent income and better social status to skilled workers.

Most often the small and marginal farmers also work in the field along with labourers. So we need not keep these farmers outside the purview of skill development. There is also need for networking with existing educational institutions in major coconut growing states who can take up various skill development training programmes in coconut sector. Creating employment opportunities in their own native place with appropriate skill development in agriculture sector can play a big role in arresting the rural urban migration, creating rural prosperity and well being. Let the CPCs take up this opportunity to contribute to the nation building. I wish them to create success through their knowledge, ability and skill development programmes in coconut sector.

TK Jose
Chairman

Skill Development in Coconut Sector

R. Jnanadevan, Dy. Director, *CDB, Kochi-11*

Lack of required skilled workers for specific job is one of the major problems faced by different sectors in our country. As per the Labour Bureau report - 2014, only 2 percent of the current size of India's work force is formally skilled workers whereas the same in Japan is 80% and South Korea is 92%. There is huge gap between the talents that coming out of colleges & universities and their suitability to terms of employment skill. There is an urgent need to impart appropriate & adequate skill development and training which can convert the largest young work force in our country to source of skilled man power. Government of India is giving more emphasis in this area and implementing various skill development programmes across the country. The "Skill India Mission" program launched by Government of India aim to provide solution to this problem through creating skilled work force by imparting skill oriented training in different fields where job opportunities exists in our country. The aim of the mission is to create 40 crore skilled work force by 2022, by implementing skill oriented training invarious states. Major steps taken by the Government of India in these directions are:

National Skill Development Corporation:

The National Skill Development Corporation India, (NSDC) is a one of its kind, Public Private Partnership to promote skill development in various sectors in India. It aims to promote skill development by providing funding to build scalable, for profit vocational training initiatives.Its mandate is to enable support systems such as quality assurance, information systems and train the trainer academies either directly or through partnerships. NSDC act as a catalyst in skill development by providing funding to enterprises, companies and organizations that provide skill development training.

Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship outcome – based skill training scheme of the Government of India implemented through the National Skill Development Corporation (NSDC) under the Ministry of Skill Development & Entrepreneurship. The objective of this scheme to encourage skill development for youth by providing monetary rewards for successful completion of approved training programmes.This scheme is implemented through public private and public public partnership. This is a skill certification and reward scheme to enable and mobilize a large number of Indian youth to take up outcome – based skill training and become employable and earn their livelihood. Under the scheme, monetary reward through direct bank transfer would be provided to trainees who are successfully trained, assessed and certified in skill courses run by affiliated training providers. The scheme will be implemented through the National Skill Development Corporation (NSDC). Agriculture Skill Council of India (ASCI)

Agriculture Skill Council of India was set up in January 2013 as a Section 25 company under Companies Act of Ministry of Company Affairs. The endeavor of ASCI is to work towards building capacity in the agriculture industry and bridge the gap between laborers and farms. ASCI envision touch/upgrade skills of cultivators, agricultural laborers direct and indirectly engaged in organized and unorganized agriculture and allied industry.

Agriculture Skill Council of India is involved in certification of approved Agri-Job Role courses. ASCI provide certificates to trainees after the completion of training, which is based on the NOS aligned curriculum.

The certificate provided by the ASCI is unique, secure and electronically verifiable. This certificate is recognized by industry, as the training is based on National Occupational Standards (NOS) developed by the ASCI with industrial support. NOS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding he/she needs to meet that standard consistently. Essentially NOS are benchmarks of good practice. The developing usage of NOS also reflects the current desire of industries to agree to national standards of competence, descriptions of skills, and a common 'vocabulary' among trainees, employers and training providers.

Skill Development and Capacity Building training programs in Coconut sector

Friends of Coconut Tree Training (FoCT)

Availability of traditional tree climbers for harvesting and to adopt timely plant protection measures was a hurdle faced by coconut cultivators in the major coconut growing states in India. With a serious view to tackle this problem, the Board initiated a massive skill development training program in 2012 to train unemployed youths, in developing special skills and confidence in coconut palm climbing and plant protection activities for the benefit of the coconut community as a whole. This is an innovative initiative of the Board, which elevated the status of Coconut Tree Climbing as an occupation among the youth. In the recent past there has been an array of coconut palm climbing devices developed by individuals, Research Institutions, Universities and NGOs, which are claimed to be safe and easy to operate. The training was focused not only to climbing palms

with the help of climbing device, but to improve their skill level in identifying diseases/pests with remedial measures, understand plant protection measures etc. After successful training these trainees are known as 'Friends of Coconut Tree' (FoCT)

The training covers technical sessions on the cultivation aspects of coconut starting from introduction of a coconut tree through varieties of coconut, cultural practices, and plant protection operations to harvesting procedures and post harvest operations in coconut. This is a 6 day residential programme. Four phases of FoCT Training has been completed, creating a specialized and niche community of plant protectors and harvesters. Board has trained around 50,000 FoCTs across India

Neera Technician Training

Extraction of neera requires a technically skilled person to perform the various activities such as climbing tree, beating the inflorescence with right force and frequency, cutting and application of disinfectant, wrapping the inflorescence etc. in a hygienic way. Maintenance of hygienic conditions and adhering to the sterile practices is very much essential from the stage of extracting Neera until it is packed. All these factors call upon the need for developing a task force of "Neera Technicians".

Neera production is now permitted in 440 Coconut Producer Federations (CPFs) registered under CDB in 14 districts in Kerala. The main problem now faced in neera extraction is shortage of trained neera technicians. There is immediate need for generating 2,20,000 trained and skilled Neera technicians as "Green collar jobs. Coconut Development Board has taken the initiative of developing a pool of skilled Neera technicians. This is achieved in two phases, the first phase concentrating on moulding traditional toddy tappers into Neera Master Technicians through a two weeks training conducted at the CDB Institute of Technology (CIT). These master technicians can facilitate trainings at their respective districts which can be under the supervision of Coconut Producer Federations (CPFs).

In addition to the routine practical training on Neera extraction, sessions on yoga, competitions, educational games etc. are also included, which will polish their mental and physical well being. The training provides an individual with real life skills that enables him to improve his/her standard of living. During the seventh and eighth week of training, every neera technician undergoes an on the Job (OJT) training, during which he/she gets paid according to the quality and quantity of neera tapped. This is an 'innovative green collar job' which can contribute to the agricultural GDP of India. Apart from this, it also provides a decent income to the rural unemployed youth. The total cost required for training one batch of Neera Technicians would come to the tune of Rs 2,06,600/-. With 8 weeks of training, it gives opportunity for decent earning from 9th week onwards. There is no such other opportunity for unemployed and less educated youth existing at present in Kerala. A neera technician could earn average monthly income of Rs.25,000 and above. Several neera technicians from Assam,Odisha and other north eastern states working now in Kerala in this field erarning more than Rs.50,000/- per month. A trained technician is expected to tap a maximum of 15 palms a day. Thus, this green collar activity alone has a potential to generate a huge employment opportunity in the state and has thrown a ray of hope for unemployed people especially the youth, in the rural areas.

Skill development programme in Hybridization techniques and coconut nursery management

Another area in coconut sector where non availability of trained man power experiencing is in the coconut seedling production & hybridizes techniques. Skilled man power is required for selection of mother palms, procurement of seedlings, raising coconut nursery, rearing polybag nursery, selection and certification of good seedling for nursery etc. For production of hybrid seedling which is having huge demand among farmers, trained skilled manpower is required. Special skill is required for selection of mother palms for pollination, collection of pollen processing, emasculation and application of pollen bagging etc. In view of the demand for skilled man power in the field, Coconut Development Board is conducting one month hybridization skill development training proramme at DSP farm Neriamangalam, Kerala, Mandya, Karnataka and Pittapally, Odisha. Those who are aged between 18 and 40 years having +2 qualification with Biology as main subject or VHSSC with either Biology or Agriculture as main subject can attend the programme.

Training programme for coconut cultivation

The job of a coconut farmer involves cultivation of coconut as per the package of practices recommended for a particular agronomic climate zone type of soil, rainfall pattern and climatic conditions to achieve the coconut yieldsm as per the genetic potential of a given variety and sell the produce as per the competitive market prices without distress sale.

The coconut farmer should work independently and must have the ability to make decisions pertaining to his/her area of work and requires clarity and skill for basic atithmatic principles. The individual should be result oriented and is responsible for his own working and learning. The individual should also be able to demonstrate skills to manage risks such as climatic threads, market crash and should be able to use various tools for decision making and instant problem solving.

A coconut farmer has to be well versed with various aspects of cultivation. The training curriculum prepared for coconut farmer and which is approved by ASCI includes the major aspects of coconut cultivation such as identification of appropriate planting material, procurement and treatment of planting material, land

preparation, procedures for application of fertilizers and micro nutrients, nursery management, weed management, technical knowledge on identification of pests and diseases and understanding the infestation symptoms, preventive and curative method, irrigation management, mixed/inter/multiple cropping and other farm operations, harvesting and storage of coconuts and post harvest management.

Skill development programme in the above areas in coconut sector is essential for successful coconut farming in future. Production and distribution of quality planting material to meet the demand of farmers especially hybrid seedlings in private sector require skilled man power. More ever, skilled neera technician and skilled climbers for harvesting and plan protection operations are essential for profitable coconut farming. Hence skill development programme in coconut sector is of utmost importance and more programmes need to be conducted by converging the benefits extended by CDB and other agencies under Pradhan Mantri Krishi Sinchai Yojana (PMKSY).

The quantification pack and National Occupational Standard of Skill development courses of CDB has been approved by the Agriculture Skill Council of India for enhancing the skilled work force in coconut sector. ■

Employment opportunities in Neera Technician sector with monthly income of around Rs.50,000

Neera and neera products, the long cherished product from coconut which is all set to make revolutionary changes in coconut sector has become a reality. As a healthy and nutritious drink, this product is having growing demand both in the domestic and international market. In Kerala 440 Coconut Producer Federations are having the license to extract neera from 5000 palms each i.e 22,00,000 palms can be utilized for neera extraction. On an average, a neera technician can undertake neera extraction from atleast 10 palms which provides employment opportunity to 2,20,000 technicians in Kerala alone.

The most important requirement in neera production is ensuring the availability of skilled neera technicians. A neera technician who can extract neera from atleast 10 palms per day can earn a monthly income of Rs.20,000 per month. There are neera technicians who utilize more palms for neera extraction and earn monthly income of even upto Rs.50,000 per month.

CDB Institute of Technology (CIT) of the Coconut Development Board conducts Neera master technician training programme for traditional toddy tappers in order to mould them into neera master technicians after two weeks intensive training. Those who wish to become neera technicians are provided six weeks training programme which is conducted through Coconut Producer Companies (CPCs) and Coconut Producer Federations (CPFs).

The training module consists of technical, managerial and practical sessions. Since this is a field oriented activity, practical sessions are given maximum thrust. During the sessions, the candidates are trained to master the art of neera extraction through various activities such as tree climbing, beating the inflorescence with the right force and frequency, cutting and application of disinfectant, wrapping the inflorescence, cleaning the collection cans with distilled water and other activities such as yoga, competitions, educational games etc which will hone their mental and physical well being. The training provides an individual with real life skills that enables him to improve his/her standard of living. During the seventh and eighth week of training, every neera technician undergoes an On the Job Training(OJT).

As of now, 469 master technicians and 2294 neera technicians are trained by CIT and CPCs/CPFs respectively. Due to the dearth of interested candidates, many of the Coconut Producer Companies are extending training to people from Assam, Bengal, Odisha, Chhattisgarh and Jharkhand.

Kudumbashree , a female-oriented, community-based, poverty reduction project of the Government of Kerala which aims at the empowerment of women, through forming self-help groups has formulated a project for giving neera technician training to 500 women through Rajagiri College of Social Sciences, Kochi. The first batch of 25 trainees have already successfully completed the training progarmme. This three month training programme is implemented as part of the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) of the Ministry of Rural Development, Government of India. The training is provided free of cost wherein the trainees are given free uniform, study material and are paid stipend. Those who successfully complete the training will be employed by the Coconut Producers Federations.

The new green collar jobs as neera technicians has thrown a ray of hope for unemployed people especially the youth, in the rural areas, to make significant improvements in their standard of life. ■

Skill Development programmes at DSP Farm, Neriamangalam

Jayasree A, Farm Manager, CDB DSP Farm, *Neriamangalam*

Apart from quality seedling production and farm management, Coconut Development Board's DSP Farms undertake various extension activities and farm training programmes. Thousands of farmers from Kerala and Tamilnadu visit the DSP farm, Neriamangalam to get acquainted with the package of practices adopted in coconut farms. Under extension programme various training programmes are conducted in CDB, DSP Farm,which includes 1-2 day trainings on coconut cultivation, crop management and nursery management, one month training in Hybridization and nursery management and also trainings in coconut convenience foods for coconut farmers, farmer collectives CPS/CPF, business management trainees and women trainees from CPF as well as from Kudumbasree units.

On the job trainings for the school children and vocational Higher Secondary School students is another novel programme undertaken by the farm with an intention to familiarize the young generation with different cultivation practices, farming and nursery techniques and allied activities in coconut with the intention to inculcate interest towards this major crop. Fifteen VHSE (Agri) schools from different districts participated in the OJT training during October and November 2016 at the Farm.

Training in hybridization and nursery management of one month duration is provided in farm to equip the farmers and farmer collectives to start their own nurseries with financial aid from the Board. During this year the Farm also started three month on hand training in nursery management for unskilled workers. VHSE (Agri) certificate holders are engaged for two year duration in the farm as Apprentice trainees by providing stipend.

Training programmes in hybridization and nursery management and awareness programmes on coconut cultivation and crop management are being conducted routinely in the farm. The Board is also planning to undertake short time certificate programmes and on hand skill trainings in various agricultural practices for the VHSE students and internship programmes for college students in the farm.

Training Programmes conducted at DSP farm

S No.	Name of the training	Duration
1	Training on Hybridisation and nursery management	1 month
2	coconut cultivation and nursery management	1-2 days
3	On the job trainings for VHSE (Agri) students	1-3 days
4	Training on coconut convenience foods	1-2 days
5	On hand training on nursery management for unskilled workers	3 months

**Interested candidates may contact : The Farm Manager, DSP Farm, Neriamangalm at 0485 2554240 and register their names for the trainings to be conducted during 2016-17.* ■

Role of Training in Skill Development

Jamuna John & Aneeta Joy, CIT Vazhakulam

A skill is the learned ability to carry out a task with pre-determined results often within a given amount of time, energy, or both. In other words, the abilities that one possesses. Skills can often be divided into domain-general and domain-specific skills. For example, in the domain of work, some general skills would include time management, teamwork and leadership, self-motivation and others, whereas domain-specific skills would be useful only for a certain job. Skill usually requires certain environmental stimuli and situations to assess the level of skill being shown and used.

Skill Development means developing yourself and your skill sets to add value for the organization and for your own career development. Fostering an attitude of appreciation for lifelong learning is the key to workplace success. Continuously learning and developing one's skills requires identifying the skills needed for mobility and then successfully seeking out trainings or on-the-job opportunities for developing those skills.

The future prosperity of countries depends ultimately on the number of persons in employment and how productive they are at work. Nevertheless the skill development need to be connected to broader growth, employment and development strategies. It requires that governments, working with the social partners build policy coherence in linking education and skill development to today's labour markets and to the technology, investment, trade, macroeconomic policies that generate future employment growth. Nevertheless, training and skills development can have multiple meanings as they include wide ranging elements.

CDB institute of technology is conducting different types of training programs and we included variety of classes, discussions and other activities to motivate the

persons. Now a day's people are anxious about their future, family, income and even their day to day life. So inspirational classes, yoga classes, counseling classes etc have become more effective for persons who come for attending the trainings here. Basic education ensures each individual the development of their potential, laying the foundation for employability. So education is one of the important factor behind the skill and skill development of a person. Initial training provides core work skills and the underpinning knowledge, industry-based and professional competencies that facilitate the transition into the world of work.

Training means teaching new skills. It is the acquisition of knowledge, skills and competencies as a result of teaching. Development means perfecting existing skills and teaches how to become more productive and effective at work and at the company. In other words, training provides the skill and development maximizes it. Lifelong learning ensures that individuals' skills and competencies are maintained and improved as work, technology, and skill requirements change.

Trainings enhances people's capacities and creativity, opportunities, and satisfaction at work. CIT aims to identify potential entrepreneurs and motivate them by providing suitable training to become independent and established entrepreneurs. Teaching of new skills make the people to develop their full capacities and seize employment and social opportunities.

The role of training in CIT is to raise the productivity of workers and enterprises by effective classes based on different subjects and it will contribute to boost their future innovation and development. We will give awareness about the labour market opportunities and their awareness reduce inequalities between different groups of people. ■

Trainings conducted at CIT						
Sl. No	**Name of the Training Programme**	**Duration**	**Fees**	**Topics/Products Covered**	**Targeted Participants**	**Facilities Offered**
1	Coconut Vinegar from coconut water by slow process/Nata de coco	1 Day	Rs.1500/-per 2 persons from a single firm	Coconut Vinegar	(Basic Science Knowledge) Kudumbasree Units,Individuals,other Groups,FPO's(CPS,CPF,CPC)	Tea and Lunch
2	Training Programme on Minimal Process of Tender Coconut	1 Day	Rs.250/- per person	Processed Tender Coconut	Kudumbasree Units,Individuals,other Groups,FPO's(CPS,CPF,CPC)	Tea and Lunch
3	Training Programme on Coconut Food Products	1 day	Rs.250/- per person	Coconut Chips, Chocolates, Cookies, Lemonade (Squash) – 5 Products, Theory sessions on Packaging & Hygiene	Kudumbasree Units,Individuals,other Groups,FPO's(CPS,CPF,CPC)	Tea and Lunch
4	Training Programme on Coconut Food Products	4 Days	Rs.1000/- per person	Coconut Chips, Chocolates, Cookies, Lemonade (Squash) ,Pickle, Chutney Powder, Burfi, Coconut Balls	Kudumbasree Units,Individuals,other Groups,FPO's(CPS,CPF,CPC)	Tea and Lunch
5	Training Programme on Neera Value Added Products	6 Days	Rs.5000/-per person with Accommodation Rs.2500/- per person without accommodation	Neera Drink, Jaggery, Honey,Spicy Theory sessions on Packaging & Hygiene. Jaggery,Sugar,Halwa, Cake,Chocolate,Cookies, Coconut Balls, Neera Peanut Balls,Spread,Lemon Squash Theory sessions on Packaging & Hygiene.	For Coconut Producer Federations (CPFs) having Neera License.	Tea, Lunch and Accommodation with Breakfast and Dinner (For Ladies Only)
6	Neera Master Technician Training Programme	14 Days	No Fees	Theory and Practical classes for Tapping Neera From Coconut Trees	Traditional Tappers having minimum 5 years of experience in Tapping.	Stipend, Accommodation and Food
7	Coconut Processing Certificate Course	1 Month	Rs.12000/- per person (without accommodation) D/c-20% (Rs.9600/- for persons recommended by FPOs)	Practical – CCF,Neera Value Added Products, Chemical & Microbiological analysis. Theory – Other Coconut Products (VCO,DC,Coconut Oil, Coconut Milk Powder etc),Food Safety and Hygiene. Industrial Visit	(Basic Science Knowledge) Preferably +2 science	Tea

Coconut farmers scaling greater heights with neera extraction

Shaju Appachan

31 Coconut farmers of Tejaswini Coconut Producer Company Ltd., Kannur, Kerala are earning record income through skill development programmes. The farmers themselves are extracting neera from their own palms and supplying to the company. These farmers together have reaped a record income of Rs. 7,91,700 per month.

Until recently, the people of Kerala were of the opinion that if you have half acre rubber plantation, you can live happily. But that saying has gone and with the introduction of neera, people are of the opinion that if you have 10 coconut palms, you can produce neera and live happily. Both in the case of rubber and coconut, farmers were availing the assistance of labourers in carrying out the plant protection operations, neera extraction, harvesting etc. But here comes a different story wherein the farmers themselves are undertaking these tasks and is earning record revenue.

Manoj

When the Coconut Producers Federations under Tejaswini CPC got license for neera production, member farmers of Tejaswini Company were doubtful whether they would get enough trained Neera Technicians for neera extraction. Hence as a precaution, many of the farmers themselves decided to attend the training which has become a blessing now.

Member farmers from Udayagiri, Cherupuzha and Aalakodu Coconut Producers Federation are extracting neera from their own palms. These young farmers below 41 years of age are extracting neera from 2 to 10 palms daily and earns a monthly income between Rs.8,320 to Rs.63,700.

Steni

Shaju Appachan, 41 a member farmer from Udayagiri Federation is earning the highest income among these farmers. He received Rs. 63,700 from Thejaswini CPC last month as the combined income of farmer and neera technician. He completed the Neera Technician training course last month and is extracting neera from 10 palms daily. Another farmer, Manoj Mekkalath is extracting neera from his 8 palms and has received Rs. 54,860 as monthly income. This farmer owns 150 palms in his three acre land. Steni Sebastian from Manakadu stands at the third position with a monthly income of Rs. 34,320. Steni is a member of Udayagiri Federation who owns around 160 palms in his five acre land. Siby, another farmer from this area who extracts neera from 6 palms has earned a monthly income of Rs.32,500. He owns only one acre land with 20 palms. Justin, another member of Udayagiri Federation owns one acre land and 60 coconut palms. He himself extracts neera from his 6 palms and has earned Rs. 30,940 during the last month. Robichan and Rajet are two brothers who themselves are doing neera extraction and has earned Rs. 30,680 and Rs.25,480 from their six palms

Sibi

List of Coconut Farmers extracting Neera					
Sl No	Name of the Coconut farmer	Name of the Federation	No of palms utilized for extracting Neera	Farmer's monthly income (in Rs)	Average monthly income earned by farmer per palm (in Rs)
1	Shaju	Udayagiri	10	63,700	6370
2	Manoj	Cherupuzha	8	54,860	6858
3	Shashidharan	Cherupuzha	6	48,360	8060
4	Siby	Cherupuzha	8	46,540	5818
5	Jose	Cherupuzha	6	35,880	5980
6	Steny	Udayagiri	6	34,320	5720
7	Siby P C	Udayagiri	6	32,500	5417
8	Samson	Cherupuzha	5	32,240	6448
9	Justin	Udayagiri	6	30,940	5157
10	Robichan	Udayagiri	6	30,680	5113
11	Biju Thayyil	Udayagiri	6	26,000	4333
12	Rajat	Udayagiri	5	25,480	5096
13	Sujith	Udayagiri	5	25,480	5096
14	Prince	Udayagiri	5	24,700	4940
15	Mohanan	Udayagiri	5	21,320	4264
16	Rajesh	Udayagiri	4	20,540	5135
17	Mathew	Udayagiri	5	20,280	4056
18	Justin	Udayagiri	4	19,240	4810
19	Jinu Joseph	Udayagiri	4	18,720	4680
20	Jobin	Alakode	4	18,200	4550
21	Siril C R	Udayagiri	4	18,200	4550
22	Thomas	Alakode	4	17,940	4485
23	Benny	Udayagiri	4	17,940	4485
24	Abhilash	Cherupuzha	3	17,940	5980
25	Poulose	Alakode	4	17,680	4420
26	Saji P V	Alakode	4	16,900	4225
27	Bineesh	Udayagiri	4	16,900	4225
28	Biju K A	Alakode	3	12,480	4160
29	Biju zacharias	Alakode	2	9,100	4550
30	Biju Joseph	Alakode	2	8,320	4160
31	Somy Chacko	Alakode	2	8,320	4160
		TOTAL	150	791700	


Justin


Robichan


Biju


Rajat


Sujith


Prince


Mohanan


Rajesh


Mathew


Jestin


Jinu


Jobin


Poulose


Biju Joseph


Somy

and five palms respectively. Robichan owns 70 yielding palms and Rajat is having 150 palms. Biju is another farmer member of Udayagiri Federation who is having 40 palms. He extracts neera from his six palms and has earned Rs. 26,000 during last month.

Sujit Philip, Prince and Mohan are other member farmers of Udayagiri Federation who have earned Rs. 25,480, Rs. 24,700 and RS. 21,320 respectively during the last month who were extracting neera from 5 palms each. Rajesh, Justin, Jinu, and Cyril were utilizing 4 palms each for neera extraction and has earned a monthly income of Rs.20,540, Rs.19,240, and Rs. 18,200 respectively while P T Mathew of this Federation has earned Rs.20,280 through neera produced from his five palms.

Member farmers of Aalakode Federation Shri. Jobin Kuruvilla and Kunnathu Thomas has earned Rs.18,200 and Rs.17,940 by tapping their four palms each. Paulose, Bineesh Kumar and Saji have earned Rs.17,680, Rs.16,900 and Rs.16,900 respectively by extracting neera from 4 palms each. Biju K A is another farmer who has earned Rs.12,480 by extracting neera from 3 palms and Biju Sakaria, Biju Joseph and Somi have earned Rs.12,480, Rs.8,320 and Rs.8320 from two palms each.,

Now the family members and neighbours of these young farmers wish to have more dwarf coconut palms that can be utilized for extracting neera from the ground itself. Such dwarf palms can start yielding neera from the fifth year onwards. Member farmers are approaching the CPCs and CPFs for getting such palms. They are even planning to replant half of their land with good dwarf coconut palms. ■


Siril


Thomas


Benny


Biju K.A


Saji


Bineesh

The Chairman of Tejaswini CPC Shri. Sunny George opines that the PH/ brix level of neera shows improvement since the farmers themselves have started neera tapping. Farmers are careful in maintaining better PH levels since it is beneficial for themselves. The CPC foresees all the member farmers themselves tapping neera. The company can supply labourers, but the farmers themselves need to manage that. It is for the first time in Kerala that a group of farmers themselves are tapping neera. Tejaswini is planning to increase the number of farmers who themselves tap neera to 1000.This is a best model which other FPOs in coconut sector can well follow.

Occupation : Coconut Farmer
Monthly income : Rs. 82,000

This is a success story of the neera revolution occurred in Kannur district in Kerala, the story of Shaju Appachan 41, who earned record income through neera production. Shaiju is a member of the Udayagiri Coconut Producers Federation under the Tejaswini Coconut Producers Company., Kannur. Shaju extracts neera from his 12 palms and earns around Rs.2500 per day. Minister for Rural Development, Government of Kerala, Shri. K C Joseph personally visited and honoured Shaiju on knowing about his achievement.

Shaju's family from Calicut has come down to Kannur and is settled here since 25 years. He is doing organic farming in his eight acre ancestoral property. Out of the 500 coconut palms, 400 are yielding palms. Cocoa, nutmeg, coffee, cardamom, banana and ginger are cultivated as intercrops. He is also having 600 rubber trees also which are tapped by himself. When he came to know about the neera technician training programme of Coconut Development Board he attended the first batch itself at Kannur. Before completing the 45 days programme, Shaju started tapping neera on experimental basis from his own palms. After completing the training, he started tapping neera in his own 12 palms. The neera yield was record with 36 liter per day. Thus he earned the combined monthly income of farmer and technician which reached around Rs.75,000. He started extracting neera from his own palms during August-September 2015 and is now producing 30-37 liter neera per day. The highest record was 42 liter neera thus enabling him to earn the highest monthly income of Rs. 82,000. Now Shaju is relieved as he could repay all his financial liabilities and is leading a happy life.

The Coconut Producers Federation pays the farmer Rs.65 for every litre of neera. Since the Federation has strictly instructed its member farmers themselves to extract neera, other 10 farmers of the Federation have also started extracting neera. Shaju stores the neera collected in the evening in a freezer and supplies it to the Federation along with the neera collected in the morning. Federation supplies ice box, plastic cover etc. to the farmer which is required for collection and storage of neera

Shaju is engaged in neera extraction from 6 to 10 in the morning and from 4 to 7.30 in the evening. Rest of the time he is taking care of the cows and goats and is cultivating vegetables.

Shaju's family is also assisting him in his day to day activities. Shaju is very much happy about the social recognition he gets in the society. His advice to his fellow farmers is that as neera extraction requires special skills, which can be acquired only through a good training programme. According to him, this is the best opportunity for the youngsters to have a decent living in one's own native itself instead of working hard in foreign countries. ■

Occupation : Neera technician
Per day income : Rs. 1,350

12 Coconut Producer Federations are functioning under Tirur Coconut Producer Company, Kerala. Even though three Federations got the license to produce neera, initially Purathoor Federation and later on South Vettom Federation have started neera production. Five traditional tappers have attended master technician training from CDB Institute of Technology and gave training to 20 neera technicians from the surrounding areas.

Krishnankutty is a neera technician who stands apart from the others. This uneducated man who was a daily labourer who is having three daughters was finding it very difficult to make the both ends meet. It was quite unexpectedly that Krishnankutty came to know about the neera technician training programme. He attended the training and it changed the life style of Krishnankutty drastically. He started extracting neera and produces around 30 litre neera daily. He is getting Rs. 45 per litre thus earning an average income of Rs.1,350. He is depositing Rs.6000 in the bank every month and purchased land for constructing a house. He is also in a position to take care of the needs of his daughters and is in a position to give them good education also.

Krishnankutty

Krishnankutty is well versed about the criteria in selecting the palms for neera extraction and the precautions to be taken while extracting neera. The palm should be very healthy with around 32 fronds. Neera extraction should be performed with utmost hygiene. Krishnankutty appreciates the concept of farmer collectives and is of the opinion that neera production is one of the best means for the betterment of the farming sector and the society. Krishnankutty is determined to be in the field for his future sustenance and he is a good model for others to emulate.

Record income through neera production- Anrol Abdul Razak

Anrol Abdul Razak

Anrol Abdul Razak from Assam, who is employed as neera technician by Kaipuzha Coconut Producer Company Kollam is earning record income through neera extraction. His all time record was Rs. 54,500 which he recieved from Kaipuzha CPC during November 2015. It was without any prior experience in coconut climbing or neera extraction that Anrol came down to Kerala to attend the neera technician training programme one and a half year before. It was through strict training and his keen observation that Anrol has earned the highest record of the neera technician. He had earlier earned Rs. 44,000 per month for a few months. The wages of the neera technician depends upon the quantity of neera tapped by a technician. Anrol extracts around 45 liters of neera daily for which he climbs only 10 palms.

CDB Lab gets NABL Accreditation

The CDB Lab

National Accreditation Board for Testing and Calibration Laboratories (NABL) has granted accreditation to Quality Testing Laboratory, Coconut Development Board, CDB Institute of Technology, Vazhakulam, Aluva, Kerala. Accreditation is granted in the disciplines of Chemical and Biological Testing with effect from 5th February 2016.

The Quality Testing Laboratory is equipped with advanced analytical instruments and testing facilities to carry out tests for Chemical and Microbiological parameters of coconut based products and other food products. Chemical testing facility includes quality testing and nutritional analysis of products like coconut oil/vegetable oil, desiccated coconut, copra, oil cake, vinegar, coconut based value added food products, Neera and neera based products, coconut milk & milk based products etc. as per BIS, AOAC, AOCS standards.

The CDB Lab

Microbiological testing facility includes quality testing of all Coconut based foods, desiccated coconut, coconut milk, coconut milk powder, jam, squash, softdrinks etc. and also other foods. Testing parameters includes Total Plate count(TPC), Yeast and Mold, Total coliforms, Escherichia coli, Salmonella, Staphylococcus Aureus as per USFDA BAM and BIS standards.

NABL accredit recognition of the technical competence of a testing for a specific task following ISO/IEC 17025:2005, Standards. It is associated with Asia Pacific Laboratory Accreditation Corporation (APLAC), Mutual Recognition Arrangement (MRA), International Laboratory Accreditation Cooperation (ILAC) These are especially valuable for International recognition and mutual acceptance of test results. Accreditation has worldwide acceptance and an NABL accredited laboratory in India follows the same guidelines as any other accredited laboratory in the world.

For further information, Contact : Quality testing Laboratory, Coconut Development Board, CDB Institute of Technology, Keenpuram, South Vazhakulam, Aluva, Ernakulam. Pin-683 105 Phone: 0484-2679680, Email: citaluva@gmail.com ■

Tamil Nadu leads in coconut productivity - CDB survey report

● **V.C. Vasanthakumar**, Statistical Officer, *CDB, Kochi -11*

Among the southern states of India, Tamil Nadu leads in coconut productivity with 11,537 nuts per ha. West Bengal leads among the other states with a productivity of 12,852 nuts per ha.

Coconut palm provides livelihood to large segment of population in the world particularly in Asia Pacific countries. Considering the versatile nature of the crop and the multifarious uses of its products, coconut palm is eulogized as Kalpavriksha. Coconut is also closely related with the socio economic life of a large number of small and marginal farmers in the peninsular India. It is estimated that about 12 million people in India are dependent on coconut and its allied activities. As per the latest statistics, India ranks first in production and productivity of coconut among the coconut growing countries in the world. Coconut is grown in about 12.5 million hectares of land in the world. India contributes about 17.12% in area and 31.46% in terms of production of coconut in the world (Table 1).

Area, Production and Productivity in Major Coconut Growing Countries (2013)

Sl. No.	Country	Area ('000 ha)	% Share	Production (Million Nuts)	% Share	Productivity (Nuts/ha)
1	Indonesia	3787.00	30.35	16463.00	22.84	4347
2	Philippines	3550.00	28.45	15353.00	21.30	4325
3	India (r)	2136.67	17.12	22680.03	31.46	10615
4	Sri Lanka	395.00	3.17	2513.32	3.49	6363
5	Tanzania	310.00	2.48	427.51	0.59	1379
6	Brazil	279.00	2.24	3326.57	4.61	11923
7	Papua New Guinea	221.00	1.77	1482.59	2.06	6709
8	Thailand	209.00	1.67	838.00	1.16	4010
9	Mexico	176.00	1.41	1463.74	2.03	8317
10	Vietnam	158.00	1.27	1235.45	1.71	7819
11	Samoa	99.00	0.79	267.00	0.37	2697
12	Malaysia	98.50	0.79	647.00	0.90	6569
13	Vanuatu	92.00	0.74	493.98	0.69	5369
14	Mozambique	70.00	0.56	302.11	0.42	4316
15	Fiji	60.00	0.48	148.00	0.21	2467
16	Ghana	55.00	0.44	362.50	0.50	6591
17	Jamaica	49.00	0.39	296.67	0.41	6055
18	Myanmar	42.00	0.34	425.01	0.59	10119
19	Solomon Islands	38.00	0.30	100.00	0.14	2632
20	Others	653.80	5.24	3269.11	4.53	5000
	Total	**12478.97**	**100**	**72094.58**	**100**	**5777**

Source: APCC Statistic al Year Book 2013
r - Revised

Table 1

Area and Production of Coconut in India 2014-15						
Sl No:	State	Area ("000" ha)	Share in Area	Production (Million nuts)	Share in Production	Yield (Nuts /Ha)
1	Kerala	649.85	32.89%	4896.61	23.96%	7535
2	Karnataka	515.03	26.07%	5141.15	25.15%	9982
3	Tamil Nadu	465.11	23.54%	6917.46	33.84%	14873
4	Andhra Pradesh	105.99	5.36%	1463.56	7.16%	13808
5	Odisha	50.68	2.57%	324.89	1.59%	6411
6	Gujarat	31.63	1.60%	295.03	1.44%	9328
7	West Bengal	29.41	1.49%	372.23	1.82%	12657
8	Maharashtra	28.10	1.42%	187.44	0.92%	6670
9	Goa	25.79	1.31%	127.72	0.62%	4952
10	Andaman	21.91	1.11%	129.77	0.63%	5923
11	Assam	21.14	1.07%	237.49	1.16%	11234
12	Bihar	14.90	0.75%	141.38	0.69%	9489
13	Tripura	6.93	0.35%	28.41	0.14%	4100
14	Lakshadweep	2.57	0.13%	70.91	0.35%	27591
15	Puducherry	1.88	0.10%	21.90	0.11%	11649
16	Chhattisgarh	1.71	0.09%	27.85	0.14%	16287
17	Telengana	1.69	0.09%	25.34	0.12%	14994
18	Nagaland	1.45	0.07%	16.32	0.08%	11255
19	Mizoram	0.04	0.00%	0.16	0.00%	4000
20	Daman & Diu	Neg		13.99	0.07%	
	All India	**1975.81**	**100.00%**	**20439.60**	**100.00%**	**10345**

Table 2 Source : Horticulture Division , Government of India

Coconut cultivation is concentrated in the states of Kerala, Karnataka, Tamil Nadu and Andhra Pradesh, which contributes about 88 per cent in area and 90 per cent in production of coconut in India. (Table 2)

The official statistics on area and production of coconut is released by the Directorate of Economics and Statistics (DES) in Kerala, Tamil Nadu, Karnataka and Andhra Pradesh. In other states viz. Maharashtra, Gujarat, Odisha, West Bengal and Goa, coconut production is estimated by Agriculture or Horticulture Department of State Governments. The All India final estimate of area and production of coconut is officially released by the Horticulture Division under the Ministry of Agriculture and Farmer's Welfare, Government of India

It is observed that the release of official data by the State DES/Agriculture/Horticulture Departments usually lags at least by a year. Availability of concurrent data on coconut production is critical for timely decision making on many policy issues related to the crop and its development programmes including recommendation to Government of India for Minimum Support Price fixing from year to year. Moreover the information on concurrent production of coconut is very much useful when disseminated to farmer collectives so as to plan their processing and marketing activities, in order to ensure fair, steady and reasonable price for their produce. Hence it was felt appropriate to have a concurrent estimation of coconut production and productivity of coconut in the major coconut growing states of India by Coconut Development Board itself. Further, collection of statistics on coconut falls within the functions of Coconut Development Board. Accordingly Coconut Development Board took a decision in its 111th Board meeting held in 2012 for undertaking concurrent estimation of production and productivity of coconut by conducting a statistical survey in 31 major coconut

growing districts of Kerala, Karnataka, Tamil Nadu and Andhra Pradesh for the agriculture year 2012-13. In the next year, the study was extended to the states of Odisha, West Bengal and Maharashtra. During 2014-15, Gujarat was the new state covered under the survey. This is the fourth year that Coconut Development Board is conducting a field survey for the concurrent estimation of coconut production in the major coconut growing states in India. This year (2015-16), the coverage of the survey was further extended to one more state, Goa. Now, nine major coconut growing states in India are covered under the study. These nine states together contribute about 97% of area under coconut and production in India. The study was carried out by Coconut Development Board in collaboration with Educational Institutions, having Statistics/Economics Department and Research Organisations.

States Covered under the survey for concurrent estimation of coconut production and productivity for the year 2015-16

Objectives of the survey

To estimate the concurrent production and productivity of coconut in the major coconut growing states in India viz. Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Odisha, West Bengal, Maharashtra, Gujarat and Goa for the agriculture year 2015-16 by undertaking field survey and collecting palm wise yield data based on established phenotypic characters of the buttons/nuts and thereby to estimate the coconut production in India.

Methodology and Sample Design

For the estimation of production of coconut in the country, nine major coconut producing states of Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, Odisha, West Bengal, Maharashtra, Gujarat and Goa were selected as these states account for almost 97 per cent of area under coconut in the country. Multistage Random Sampling Method was used for the selection of the gardens (samples), for collecting primary data as detailed below.

• The districts from each state for conducting the survey were selected based on the extent of area. Accordingly minimum area considered for selecting a district in the state of Kerala and Karnataka was 16,000 ha, 15,000 ha for Tamil Nadu, 11,000 ha in Goa, 6,000 ha in Andhra Pradesh, 4,000 ha in Odisha, 3500 ha in Gujarat, 3,000 Ha in West Bengal and 1,500 Ha in Maharashtra.

• From each identified districts, selection of Blocks were made on the basis of the extent of area in a Block/ Taluk.

• From selected Blocks, Grama Panchayats were selected on the basis of simple random sampling.

• From each selected Grama Panchayat, sample plots were selected at random based on the criteria of having minimum 20 bearing palms in case of Kerala and 40 bearing palms in case of remaining states.

• From each sample plots, 10 bearing palms were randomly selected to collect the data.

• From the selected palms, number of nuts in bunches of three months old and above were recorded in a chronological order in data collection sheets.

Yield of coconut palm in a particular year is the sum of total harvest undertaken during that period. In most of the Southern states, coconut is being harvested at an interval of 45-60 days (during summer months the interval from one harvest to other harvest is 45 days and during rainy seasons / winter seasons the same is 60 days). So, in a complete year, 6-8 harvests takes place. It is assumed that button setting is completed in 3 month old bunches and will be ready for harvest in eight to nine months from the date of the survey. Hence the nuts of three months and above needs to be recorded from 10 palms from the sample holdings, which was done by the Field Investigators with the help of skilled Coconut Tree Climbers (FoCT), for estimaing yield.

Sample size

The study was conducted in 12 districts in Kerala, 9 districts in Tamil Nadu, 8 districts in Karnataka, four districts each in the states of Andhra Pradesh, Odisha, West Bengal, Maharashtra and 2 districts each in Gujarat and Goa. Details of samples selected under each state are given in Table 3.

The overall supervision of the survey as far as technical guidance, day to day monitoring and administrative

Sample Details					
States	No. of Districts	No. of Blocks	No. of Panchayaths	No. of Holdings	No. of Palms
Kerala	12	104	108	1200	12000
Karnataka	8	27	87	1000	10000
Tamil Nadu	9	22	108	1000	10000
Andhra	4	25	125	600	6000
Odisha	4	9	15	250	2500
West Bengal	4	15	16	150	1500
Maharashtra	4	8	22	100	1000
Gujarat	2	3	9	100	1000
Goa	2	11	100	100	1000
Total	**49**	**224**	**590**	**4500**	**45000**

Table 3

control are concerned was under the direct control of Coconut Development Board, Head Quarters, Cochin. All the preliminary works related with the study viz. planning the survey, selection of States/districts/blocks, technical instructions, orientation to Educational Institutions/Research Organisations and training of the field investigators, were done under the supervision of Statistics section of Coconut Development Board with coordination from Regional Office/State Centre in respective states.

For the successful conduct of the study at field level, Board collaborated with Educational Institutions/Research Organisations in each district selected under the survey. Coordinators/Principal Investigators from these institutions were in complete charge of enumeration, field supervision, online data entry and preliminary analysis of data. For collection of data on yield (counting of nuts in bunches), services of skilled coconut climbers (Friends of Coconut Tree) was utilized.

Analysis of data and preparation of final report of the survey was done by CDB, HQ

Survey in West Bengal was done by State Centre, Coconut Development Board, Kolkata under the supervision of Deputy Director.

	Institutions/Universities associated with the survey	Principal Investigator
Kerala		
1.	Government College,Kasaragod	Dr. K Hari Kurup
2.	Farook College, Farook ,Kozhikode	Dr. P. Anilkumar
3.	Sree Keralavarma College,Thrissur	Shri. Vishwas V Nath
4.	St. Albert's College, Ernakulam	Shri. Francis M C
5.	Nirmala College, Muvattupuzha	Dr. Johny Scaria
6.	St. Michael's College, Cherthala, Alappuzha	Smt. Minnu Mathew
7.	St. Thomas College, Palai, Kottayam	Dr. K.M. Kurian
8.	Government College, Attingal, Thiruvanthapuram	Shri. Shibu A.S
Tamil Nadu		
1.	PSG College of Arts and Science, Coimbatore	Dr.V. Mohana Sundaram
2.	Gobi Arts and Science College, Erode	Dr. M Raju
3.	Srimad Andavan College, Thanjavur	Dr.R Thankaprasad
4.	Scott Christian College, Kanyakumari	Dr. J. Cyril Kanmony
5.	Periyar University, Salem	Dr. D.Janagam
6.	St. Xavier's College, Tirunelveli	Dr. Michael
7.	Gandhigram Rural Institute, Dindigul	Dr. S. Ramasamy
Karnataka		
1.	University of Horticultural Sciences, Bagalkot	Shri. Shripad Vishweshwar Dr. Basavraj G Dr. Ashok N Dr. Arunkumar Dr. Sachin Nandimath Dr. Tanveer Ahamad Dr. C G Yadav Dr. M. G. Kerutagi
Andhra Pradesh		
1.	Dr.Y.S.R. Horticultural University, Andhra Pradesh	Dr. G. Ramanandam
Odisha		
1.	Orissa University of Agriculture and Technology, Bhubaneshwar	Dr. S. K Tripathy
Gujarat		
1.	Junagadh Agricultural University, Junagdh, Gujarat	Dr. S.B. Vekariya
Maharashtra		
1.	R.P Gogate Arts & Science College, Ratnagiri	Shri. Surendra Thakurdesai
Goa		
1.	ICAR, Goa	Dr Arunachalam

Proforma

For collecting field level information from selected holdings a simple proforma was designed, which is divided into four parts. First part relates with general

information of the selected holding and second part with personal details of the coconut farmer. Third part is designed for recording information on coconut holdings viz. number of bearing and non bearing palms, Management Practices, Cropping Pattern etc. and the last part for collecting tree wise /bunch wise yield data pertaining to the 10 palms selected.

Training to FoCT and field investigators

Before initiating of the survey, one day field training was imparted to Field Investigators and FoCTs (Friends of Coconut Tree) on how to select the sample gardens and palms at random, and how to identify the bunches and count nuts on a chronological order from 3 month old bunches to more than 11 months old bunches. This was required only for institutions associating with the survey for the first time.

Supervison

In order to improve the quality of field work, the enumeration was supervised on a regular basis from the Institution side by Investigator/Associate and random check done from Head Office/Regional Offices/State Centres.

Duration of survey

The enumeration works in all the nine states were carried out during the period from November 2015 to January 2016, actual collection of data varying from district to district and state to state.

Estimation

The main objective of the survey was to arrive at a good estimate of yield per palm and per hectare, thereby for estimating production with a reasonable degree of accuracy. From the observations recorded, the number of nuts ready to be harvested upto June, 2016 (in the Agri. Year 2015-16), only were considered for the estimation of yield. These observations from all the selected palms were considered to obtain average yield, which was extrapolated to annual yield depending on the month in which the data was recorded. The annual yield divided by number of bearing palms in the sample gives the yield per palm. Further, yield per Ha. is arrived at by multiplying average yield per palm with bearing palm density in each district. Production for 2015-16 was estimated on the basis of area under coconut and yield per Ha for each district. State level and All India production was estimated based on district level yield.

Findings

Average holding size varied from State to State. While the smallest size of 0.22 Ha is in West Bengal, Larger size of 2.36 Ha is reported from Tamil Nadu. Lowest Palm density of 113 palms /Ha is reported from Karnataka while the highest of 201 palms/ha from Gujarat.

Yield per palm and Yield per hectare (productivity) also varied from State to State. Highest Yield per Palm of 119 nuts is recorded in West Bengal and lowest of 51 nuts in Goa. In the remaining states it varied from 61 nuts to 83 nuts. West Bengal is showing the highest productivity of 12,852 Nuts/Ha, whereas the lowest productivity of 5,504 Nuts/Ha was estimated in the state of Odisha. In other states, it varied between 6,968 Nuts/Ha and 11,537 Nuts/Ha.

As per final results of the survey, coconut production in India for the Agriculture year 2015-16, is estimated to be 4.92 percent less than that of previous year. In all the four major coconut growing states of Kerala, Tamil Nadu, Karnataka and Andhra Pradesh, which contributes about 90 percent of the country's production, only Kerala shows an increase of 8.37 percent in production compared to the previous year. In the states of Karnataka and Andhra Pradesh, production recorded a significant decrease, while in Tamil Nadu production is showing a nominal decerase of 1.06% compared to last year. Production is decreased in Karnataka and Andhra Pradesh by 21.90 percent and 31.15 percent respectively. Highest decrease in production is being observed in Andhra Pradesh. General reasons attributed for the decline in production as reported from field are insufficient rains and pest/disease attack. The decrease in Andhra Pradesh is the after effect of two cyclonic storms that lashed the state in successive years, viz. Phailin in October, 2013 and Hud-Hud in October, 2014. But, the production in the State is coming back to normal as the percentage decrease over the years in production in Andhra Pradesh is comparatively less during 2015-16. Remaining five states covered under the survey showed an increase in production except in Odisha. While production estimation for the states of Odisha, showed a decrease of 14.15 percent, production in Goa and Gujarat, increased by 28.25 and 4.87 percent respectively, whereas the production showed a slight increase in West Bengal and Maharashtra

In Kerala, production showed an increase in eight districts, major increase being in Palakkad, Kannur, Kozhikode and Ernakulam while the districts of Idukki, Kottayam, Kasaragod and Malappuam showed a decrease in production. Compared to previous year. Kerala shows an increase of 8.37 percent in production. Largest coconut producing district in the state is Kozhikode with a production of 1,098 Million Nuts, followed by Malappuram with 890 Million Nuts. Productivity in the state is 8,118 Nuts/Ha.

As far as Tamil Nadu is concerned, significant decrease in production is noticed in Kanyakumari, Dindigul and Tirupur, while the decrease is nominal in Vellore and Krishnagiri districts. Production increased in Coimbatore and Theni by more than 50 per cent. As per the results of the survey, the coconut production in the state is showing a decrease of 1.06%. Coimbatore is the largest coconut producing district in the state with a production

of 1,386 Million Nuts and Tirunelveli the lowest , with a production of 165 Million Nuts. Productivity in Tamil Nadu is estimated at 11,537 Nuts/Ha.

In Karnataka, major coconut growing district of Tumkur, Mandya and the coastal districts of Uduppi and Dakshina Kannada showed a decrease in production. The only district showing a significant increase in production is Chitradurga. A decrease of 21.92% in production is estimated in Karnataka for 2015-16. Tumkur is the district with highest coconut production in Karnataka with 945 Million Nuts. Productivity of coconut in the state is 6,968 Nuts/Ha

As far as Andhra Pradesh is concerned, production decrease is significant in all the four districts covered under the survey, viz. East and West Godavari, Srikakulam and Visakhapatnam. A decrease in production of 31.12% is estimated at state level. East Godawari is having highest coconut production with 572 Million Nuts. Productivity in the state is 9,514 Nuts/Ha.

In Odisha, except Nayagarh, all other districts covered under the study viz. Ganjam, Cuttack and Puri recorded a decrease in production. The decrease in production estimated in Odisha is 14.15%. Puri is the largest coconut growing district with a production of 64 Million Nuts, and the productivity in the state is 5,504 Nuts/Ha.

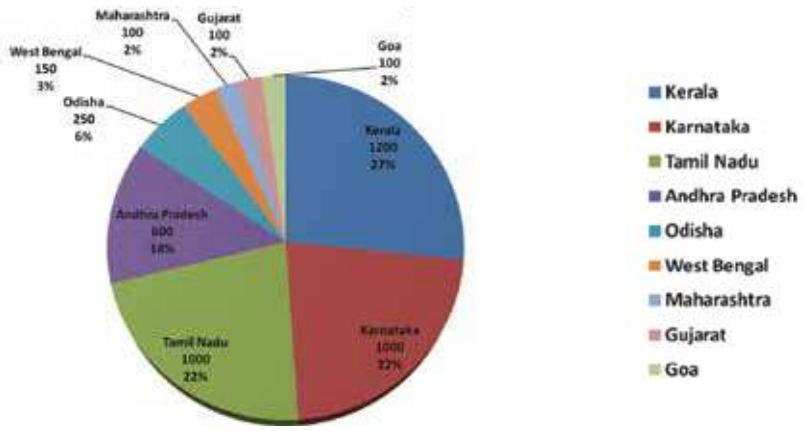
In West Bengal, Murshidabad district is showing a decrease of 15.63 percent in production over the previous year, whereas an increase in production is recorded in the districts of 24 Parganas North & South and Midnapore. At state level, the production is showing an increase of 1.50% over the previous year. 24 Parganas South is the largest coconut producing district with a production of 60 Million Nuts. Productivity in the state is 12,852 Nuts/Ha.

Table 4

Holding size/Yield per palm and palm density in the states covered

Sl No	State	No: of Holdings	Avg Holding Size (Ha.)	Yield / Palm	Yield/Ha	Palm Density	Bearing Palm Density
1	Kerala	1200	0.40	66	8118	144	123
2	Tamil Nadu	1000	2.36	83	11537	147	139
3	Karnataka	1000	1.39	67	6968	113	104
4	Andhra Pradesh	600	1.75	67	9514	146	142
5	Odisha	250	0.51	64	5504	117	86
6	West Bengal	150	0.22	119	12852	122	108
7	Maharashtra	100	0.54	61	8845	174	145
8	Gujarat	100	0.73	63	11025	201	175
9	Goa	100	0.75	51	6375	133	125

Distribution of sample



As far as Maharashtra is concerned, decrease in production of 7.32 percent over last year is observed in Ratnagiri district, whereas the production recorded an increase in the other districts of Raigad, Sindhudurg and Thane. In Maharashtra, the production is showing an increase of 1.09%. Sindhudurg is the largest coconut growing district in the state with a production of 101 Million Nuts. Productivity of 8,845 Nuts/Ha is estimated in Maharashtra.

In Gujarat, production increased in Bhavnagar district, while it shows a decrease in Junagadh. State level production is showing an increase of 4.87% over the last year. Junagadh is having the largest production with 129 Million nuts. In Goa, both North and South Goa is showing a significant increase in production compared to last year. The production estimate for the state is showing a significant increase of 28.25% over the previous year. South Goa with a production of 97 Million Nuts is the largest coconut producing district. Productivity of 11,025 Nuts/Ha and 6,375 Nuts/Ha is estimated in the states of Gujarat and Goa respectively. (Details given in Table 4, 5 and 6)

Conclusion

Production of coconut in India in the agriculture year 2015-16 is estimated at 19434 Million Nuts, 4.92% less than that of 2014-15. Deficiency in monsoon coupled

Table 5

State wise Estimated coconut production for the year 2015-16

Sl.No	State	Production Estimate (MIllion Nuts) (2015-16): Survey Result	Production Estimate (MIllion Nuts)(2014-15): Survey Result	DES / DoA/ DoH : (Production in Million Nuts)	Increase/ Decrease (w.r.t 2014-15 survey result)	Increase/ Decrease (w.r.t DES data)
1	Kerala	6445	4886	5947	31.90	8.37
2	Karnataka	3070	4126	3931	-25.61	-21.92
3	Tamil Nadu	4936	4850	4989	1.77	-1.06
4	Andhra Pradesh	1008	781	1464	29.11	-31.12
5	Odisha	279	491	325	-43.08	-14.15
6	West Bengal	377	442	371	-14.80	1.50
7	Maharashtra	169	187	167	-9.62	1.09
8	Gujarat	233	256	222	-9.06	4.87
9	Goa	164	NA	128	NA	28.25
All India						-4.92

97% of area under coconut and production in India is from the nine states covered

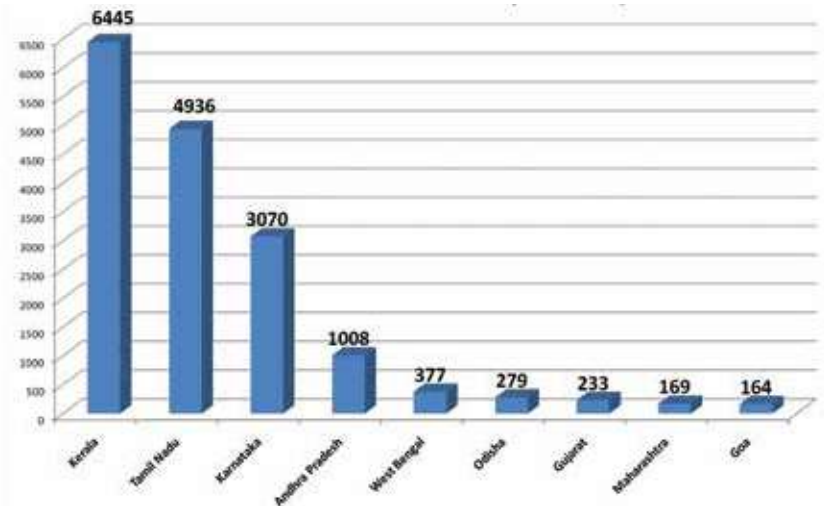
Table 6

Comparison of estimated production and production reported by Dept. of Agri. And Cooperation in India for last four years

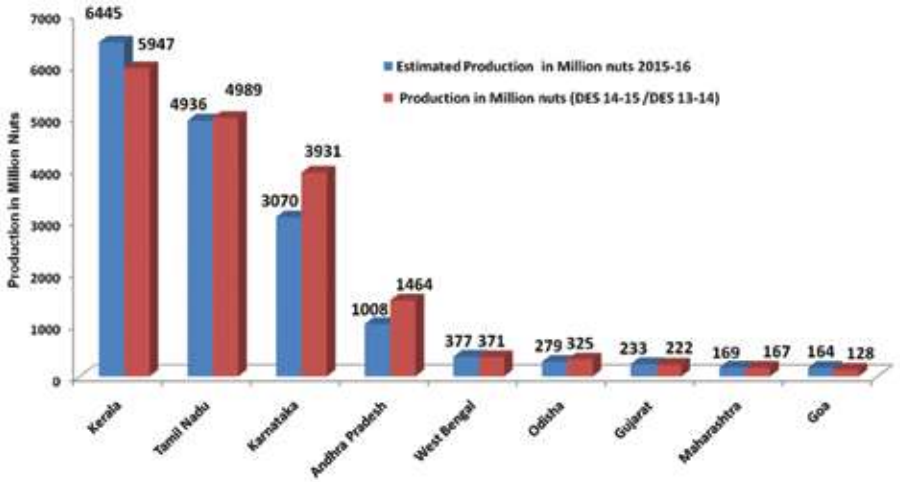
Sl no	Year of Survey	All India Production –Million Nuts (Survey Estimation)	All India Production – Million Nuts (Department of Agriculture And Cooperation)
1	2012-13	13757.65	22680.03
2	2013-14	20156.77	21665.00
3	2014-15	19503.12	20439.60
4	2015-16	19433.97*	NA

**A decrease of 4.92% over 2014-15 is estimated in 2015-16*
NA – Not Available

Estimated production for 2015-16 (Million nuts)



Statewise comparison od estimated production of coconut (2015-16) with production data from DES (2014-15)



with pest/disease is reported as the major reason for the decrease in production.. Production is almost steady or even showing increase in gardens with irrigation facility and following good management practices. Production in Andhra Pradesh which was hit by two successive cyclonic storms in the years 2013 and 2014 is showing improvement, as the percentage of decrease over the years is comparatively less during 2015-16.

Farmers Producer Organisations (FPO) needs to be aware of the fact that coconut production in the country will come down compared with previous year. Already, more coconuts are being diverted for value addition. Further, export of coconut and coconut products is recording a steady increase and there is potential demand for tender nuts in domestic/ international market. FPOs need to tap full benefits from this opportunity and plan their harvesting/ processing/marketing activities efficiently and execute them accordingly to ensure fair, steady and reasonable price for their produce.

Farmers need to focus on the activities to improve productivity at a high level; by following scientific management of gardens. Productivity in Tamil Nadu is almost double than that of Kerala. As land cost is high, productivity improvement and intercropping are the ways to increase income from unit area. The propaganda that excess arrivals of the produce in the market are the only reason for price fall is absolutely baseless. ■

Export of Indian Coconut products increased by 8.7 percent

K.S. Sebastian, Assistant Director, Export Promotion, *CDB, Kochi-11*

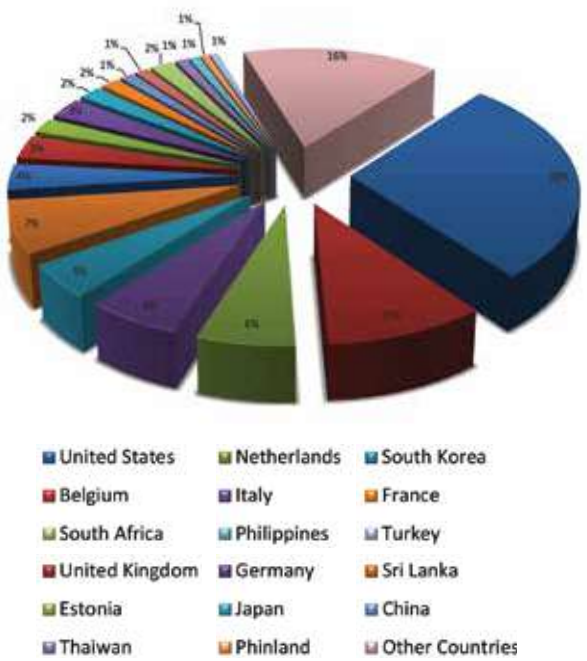
Export of coconut products during the first ten months of the financial year 2015-16 touched Rs. 1188 crores. Compared to the export during the corresponding period of 2014-15, an increase of 8.7% was recorded in coconut product exports. Significant increase was recorded in the export of virgin coconut oil, activated carbon, dry coconut and coconut oil. Export of coconut products from India during April 2015 to January 2016 is given in table 1.

Table1

Export of coconut products from April 2015 to January 2016				
Items	January 2016		April 2015 to January 2016	
	Cum. Qty (in MT)	Cum. Value (Rs. In lakhs)	Cum. Qty (in MT)	Cum. Value (Rs. In lakhs)
Activated Carbon	4507.81	4630.23	51644.61	53177.67
Coconut Fatty Soap		216.26		2513.27
Hair Cream		109.91		886.54
Coconut Oil	731.62	1297.04	6575.98	14138.61
Coconut Water		70.22		600.14
Copra	654.36	460.62	3581.58	3043.67
Desiccated Coconut	319.05	386.66	2175.96	3072.15
Dry coconut	1563.66	1198.31	15499.14	15566.91
Fresh coconut	4005.54	1592.57	31191.73	12180.90
Grated/sliced coconut	199.71	309.89	1779.11	3207.24
Oval coconut shell	112.31	72.98	1346.84	723.24
Shell charcoal	101.95	31.27	7383.51	2441.93
VCO	49.48	165.95	767.94	2465.90
Misc coconut products		479.21		4808.98
Total		**11021.12**		**118827.17**

Activated Carbon

The export of activated carbon from India during the period April 2015 to January 2016 was 51,645 metric tonnes. United States was the major importer of Indian activated carbon, followed by United Kingdom. Details of export of Activated Carbon from India is given in table 2



Country wise export of Activated Carbon during April 2015 to January 2016

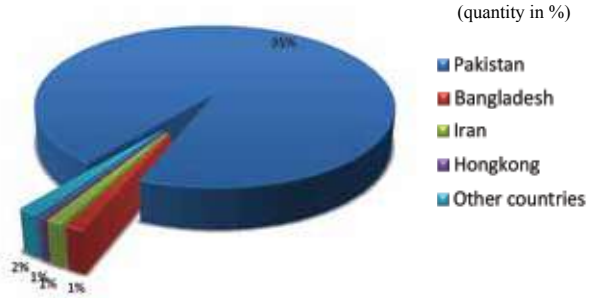
Country	Qty(in MT)	Value(Rs in lakhs)
United States	14567.03	15093.55
United Kingdom	5164.42	5558.94
Netherlands	3134.00	3210.17
Germany	3038.70	3326.81
South Korea	2398.15	2832.32
Sri Lanka	3704.62	2737.65
Russia	1824.80	1952.21
Belgium	1662.99	1659.98
Estonia	1078.00	1108.42
Italy	1440.60	1245.30
Japan	956.10	942.98
France	782.40	1062.53
China	579.14	749.07
Canada	559.05	591.68
South Africa	951.20	1023.41
Thaiwan	469.68	546.65
Philippines	429.69	512.98
Phinland	310.35	321.68
Turkey	344.30	317.58
Other Countries	8249.40	8383.77
Total	51644.61	53177.67

Dry Coconut

During the first ten months of the finanical year 2015-16, 15,499 metric tonnes of dry coconuts were exported from India. Out of this 14,737 MT was to Pakistan. Country wise export of dry coconut from India is given in table 3.

Export of dry coconut during April 2015 to January 2016		
Country	Qty (in MT)	Value (Rs in lakhs)
Pakistan	14736.90	14611.35
Bangladesh	225.00	188.98
Iran	200.00	218.69
Hongkong	72.96	153.00
Other countries	264.28	394.89
Total	15499.14	15566.91

Table 3

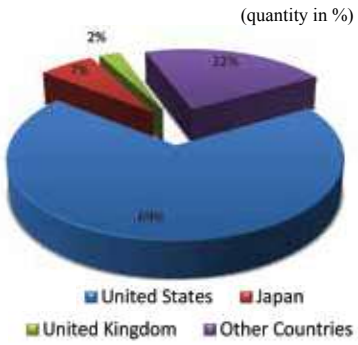


Virgin Coconut Oil

Export of virgin coconut oil from India during the first ten months of the financial year 2015-16 was to the tune of 768 metric tonnes. United States alone imported 530 metric tonnes of VCO from India. During the corresponding period last year, the export was only 505 metric tonnes. Country wise details of export of virgin coconut oil from India is given in table 4.

Export of VCO from India during April 2015 to January 2016		
Country	Qty (in MT)	Value (Rs. In lakhs)
United States	529.87	1605.38
Japan	49.87	117.73
United Kingdom	19.11	59.32
Other Countries	169.09	683.47
Total	767.94	2465.90

Table 4

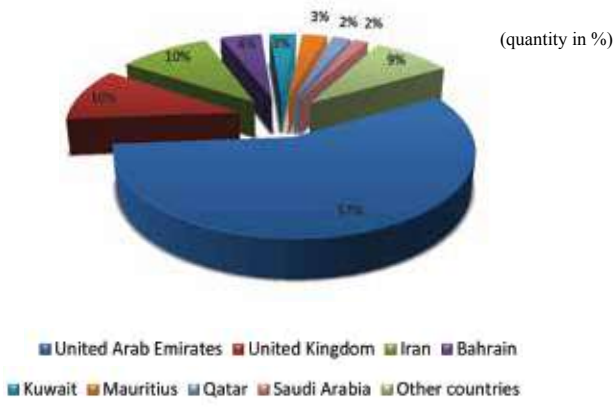


Fresh Coconut

Export of husked coconut from India during the first ten months of 2015-16 was 31,192 metric tonnes. Major portion of export was to UAE. Export of fresh coconut from India is given in table 5.

Table 5

Export of fresh coconut during April 2015 to January 2016		
Country	Qty(in MT)	Value (Rs in lakhs)
United Arab Emirates	17796.15	7367.62
United Kingdom	3279.66	1432.07
Iran	3121.97	1111.29
Bahrain	1401.39	458.67
Kuwait	896.48	421.98
Mauritius	861.39	298.42
Qatar	632.57	312.21
Saudi Arabia	483.73	178.05
Other countries	2718.39	600.59
Total	31191.73	12180.90



Coconut Oil

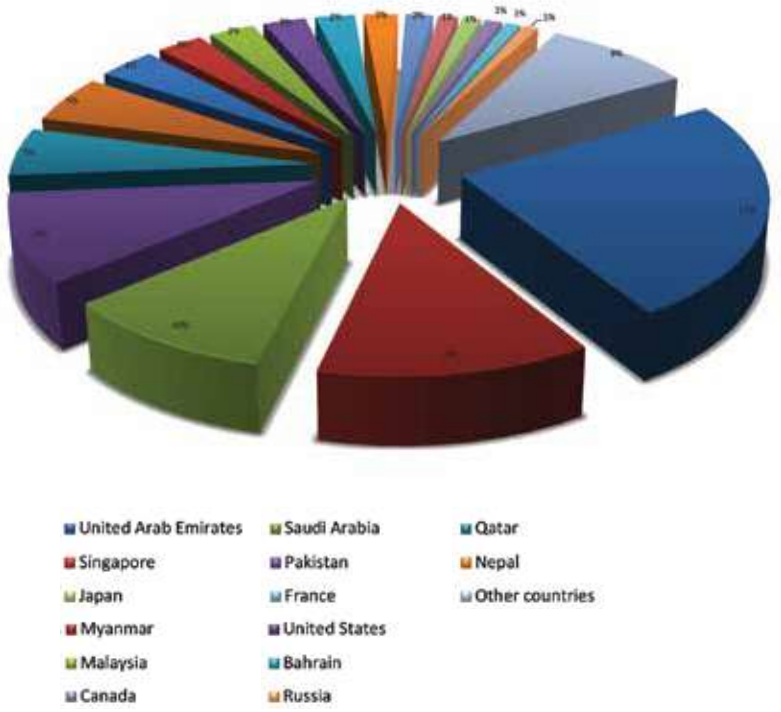
Export of coconut oil from India during the first ten months of the financial year 2015-16 was 6576 metric tonnes, which is 22% higher compared to 5405 metric tonnes recorded during the corresponding period of 2014-15. UAE alone imported 1613 metric tonnes of coconut oil.

Coconut oil is also exported for edible purpose to United Arab Emirates, Myanmar, Saudi Arabia, United States, Qatar, Oman, Kuwait, Singapore, Malasia, Pakistan, Bahrain, Nepal etc. Export of coconut oil from India is given in table 6.

Export of coconut oil during April 2015 to January 2016		
Country	Qty (in MT)	Value (Rs in lakhs)
United Arab Emirates	1612.53	3197.33
Myanmar	831.31	1866.05
Saudi Arabia	655.75	1365.63
United States	653.45	1568.04
Qatar	353.26	734.76
Oman	347.91	710.69
Kuwait	234.05	490.43
Singapore	187.27	466.62
Malaysia	183.69	436.58
Pakistan	171.01	303.18
Bahrain	159.79	323.76
Nepal	135.68	237.07
Australia	109.89	273.39
United Kingdom	77.46	187.08
Japan	76.38	167.64
Canada	68.15	120.82
France	61.07	127.98
Russia	58.69	104.05
Other countries	598.64	1457.51
Total	6575.98	14138.61

Table 6

(quantity in %)



Import

During the first ten months of the financial year 2015-16 , India imported Rs 300 crores worth coconut products. Copra expeller cake, coconut fatty acid, coconut oil and coconut shell charcoal are the major items of import. Details of import of coconut products into India during the first nine months of 2015-16 is given in table 7.

Table 7

Monthly import of coconut products in to India during April 2015 to January 2016				
Item	January 2016		April 2015 to January 2016	
	Qty (in MT)	Value (Rs. in lakh)	Cumulative Qty (in MT)	Cumulative Value (Rs. In lakhs))
Coconut fatty acid	644.66	463.88	6821.93	5264.51
coconut oil	0.00	0.00	4689.12	3840.16
Copra oil cake	6475.32	970.47	94135.99	14568.96
Coconut shell charcoal	0.00	0.00	11605.59	3679.51
Cream-milk-powder		219.09		1382.47
Copra	0.00	0.00	291.25	208.45
Misc coconut products		86.87		1058.49
Total		1740.31		30002.56

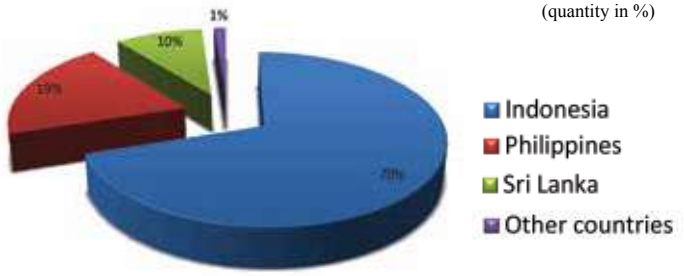
Copra expeller cake

One major item of import among coconut products is copra expeller cake. During the period from April 2015 to January 2016, the quantity of import of this product was 94,136 metric tonnes. Details of import of this product is given in table 8.

Import of coconutoil cake to india during April 2015 to January 2016		
Country	Qty (in MT)	Value (Rs. In lakhs)
Indonesia	65865.89	10262.84
Philippines	18226.81	2739.52
Sri Lanka	8878.66	1402.18
Other countries	1164.64	164.43
Total	94135.99	14568.96

Table 8

(quantity in %)



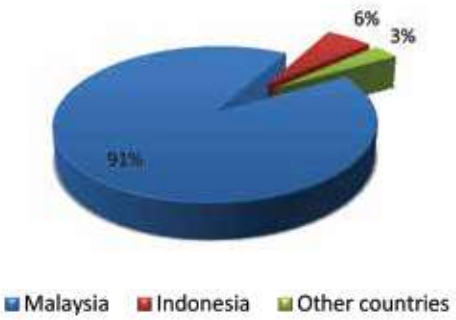
Coconut Fatty Acid

Import of coconut fatty acid into India during the first ten months of the financial year 2015-16 was 6822 metric tonnes, out of which 6224 metric tonnes was from Malaysia. Details of import of coconut fatty acid to india is given in table 9.

Import of coconut fatty acid to India during April 2015 to January 2016		
Country	Qty (in MT)	Value (Rs.in lakhs)
Malaysia	6223.84	4775.47
Indonesia	382.81	326.42
Other countries	215.28	162.62
Total	6821.93	5264.51

Table 9

(quantity in %)



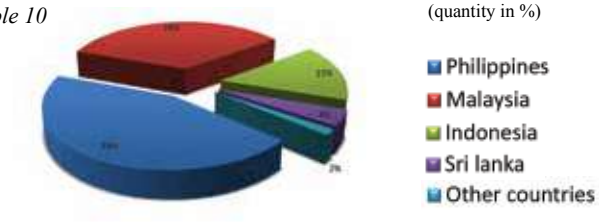
Coconut Shell Charcoal

Import of coconut shell charcoal into India during the first ten months of the financial year 2015-16 stood at 11,606 metric tonnes. The highest import was recorded from Malaysia. Details of import of coconut shell charcoal to India is given in Table 10.

Import of coconut shell charcoal to india during April 2015 to January 2016		
Country	Qty (in MT)	Value (Rs. In lakhs)
Philippines	5152.53	1606.82
Malaysia	3978.79	1250.70
Indonesia	1785.21	612.95
Sri lanka	503.36	157.27
Other countries	185.70	51.76
Total	11605.59	3679.51

Table 10

(quantity in %)



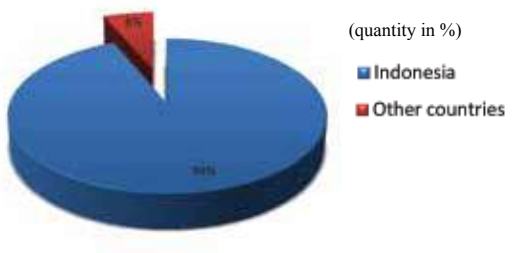
Coconut Oil

Import of coconut oil into India during the first ten months of the financial year was 4689 metric tonnes. Highest import recorded was from Indonesia, which was 4396 metric tonnes. Import of coconut oil to India is given in Table 11.

Import of coconut oil to india during April 2015 to January 2016		
Country	Qty (in MT)	Value (Rs. In lakhs)
Indonesia	4395.85	3560.15
Other countries	293.27	280.02
Total	4689.12	3840.16

Table 11

(quantity in %)



Meeting of coconut farmers and stake holders held

A view of the meeting of coconut farmers and stake holders

A meeting of coconut farmers and stake holders were held on 8th February 2016 in the Conference Hall of Directorate of Technical Education, Govt. of Tamil Nadu, Chennai. Shri. C. Mahendran, Hon'ble Member of Parliament, Pollachi, Shri. STK. Jakkaiyan, Special representative of Government of Tamil Nadu in Delhi, Shri. Shakil Ahammed IAS, Joint Secretary, Smt. Anuradha Vemuri, Additional Commissioner (MIDH), Government of India, Shri. T.K. Jose IAS, Chairman, Coconut Development Board, Dr.S. Vijayakumar IAS, Agricultural Production Commissioner cum Secretary to Government of Tamil Nadu, Dr.M. Rajendran IAS, Commissioner of Agriculture, Tamil Nadu, Chairmen and Board of Directors of Farmer Producer Organizations (FPOs) and many progressive farmers from the state took part in the meet.

In his introductory remarks, Shri. Shakil Ahammed IAS, Joint Secretary spoke on the need for producing quality coconut seedlings to meet the increasing demand of quality planting material. He said that CDB can also take up nursery accreditation also like NHB. Rapid multiplication of seedlings is the need of the hour and hence tissue culture in coconut is a necessity. He informed that if reputed SAUs like TNAU can take up such R&D works, it could be funded by the Ministry of Agriculture and Farmers Welfare. Both the Board and the Ministry can work jointly on this.

Shri. C. Mahendran, Hon'ble Member of Parliament, Pollachi and Shri. STK. Jakkaiyan, special representative of Government of Tamil Nadu in Delhi in their address stressed on the need for implementing the replanting and rejuvenation programme in Tamilnadu, allocating more fund for the state under laying out of demonstration plot programme, to increase the Minimum support Price for copra, to release the coconut journal in Tamil every month and to shift the Regional Office of the Board to Coimbatore.

Shri. T K jose IAS,Chairman, CDB further presented the major problems faced by the coconut sector in Tamil Nadu like wild fluctuation in coconut price and insufficient processing for value addition, insufficient production of quality coconut seedlings, frequent drought in some areas,incidence of Thanjavur (wilt) in certain pockets, prevalence of old and senile palms in traditional districts, lack of skilled labour for harvesting, plant protection, crown cleaning, the unorganized nature of coconut growers which gives chance for the intermediaries to enter the sector etc.

An exhibition was organized as part of the programme wherein the Pollachi CPC, Udumalpet CPC, Madathukkulam CPC, Dindugal CPC, East coast CPC,Theni CPC from Tamil Nadu; Tirukochi CPC from Kerala. Coconut Board entrepreneurs participated. Wide product range of pure coconut oil, VCO, packaged tender coconut water, fruit blended tender coconut water, flavored coconut milk, Neera & neera based products, coconut chips, chunks, cookies , coconut jaggery, spices jaggery, bath soap from coconut oil etc were exhibited .

SVUM 2016

Coconut Development Development Board participated in the SVUM 2016 an International Trade Show organised by the Sourashtra Vepar Udhyog Mandal from 11th to 15th February 2016 at Ashtha Chowkadi, Rajkot, Gujarat. Shri.Vijayabhai Rupini, Hon'ble Minister of Trannsport, Water supply, Labour and Employment Govt. of Gujarat inaugurated the fair. Mr. Elsadig Mohamed Ali Hasb Elarsuool, State Minister, Ministry of Trade, Sudan, HE Dr. Hassan Ambssador of Sudan, Shri. Jayaminbhai Upadhyay, Major Rajkot, Ambassador from Gambia, Mr. Morocco, Togo, Shri. Manishben Chandra, District Collector Rajkot and many other Central and State officials and foreign delegates were present during the occasion.

Internationl B2B was also conducted as part of the programme wherein officials of the Board held discussions with delegates from Ethiopia, Togo, Srilanka, Morocco, Gambia etc. Interested groups were provided contact details of coconut produçt manufactures.

Board displayed various coconut value added products such as packed tender coconut water, coconut milk powder and coconut milk, coconut chips, desiccated coconut, virgin coconut oil etc. Apart from CDB, Coir Board, MSME, major departments of Government of Gujarat like Tourism Agro Industries Corporation, Power and Renewable Energy participated in the show. M/s Kumar Enterprises from and M/s Somnath& Jalaram Enterprises from Rajkot displayed their products in Board's stall.

Mohanbhai Kalyanjibhai Kundariyaji, Minister of State for Agriculture tasting Neera in CDB stall

National Seminar on Horticultural Diversity for Prosperity

Orissa Horticulture Society of Orissa Agriculture University and Technology (OUAT) organised a National Seminar on Horticultural Diversity for prosperity at M.S. Swaminathan Hall, OUAT from 10th to 12th February 2016. CDB, State centre, Odisha participated in the National Seminar and in the exhibition conducted as part of the progarmme. Dr. S.Ayyappan, Secretary (DARE) &DG (ICAR) inaugurated the programme. Prof. M. Kar, V.C(OUAT), Dr. N.K. Krishnakumar, DDG(Hort) ICAR, Dr. A.K.Singh, MD, NHB, New Delhi and Mr. S .K .Kale, CGM,NABARD, Bhubaneswar were present during the occasion. The exhibition displayed activities of different institutions, products and produce of different agencies, live specimens, different varieties of agricultural and horticultural crops, bio fertilizers, bio inoculants, organic farming and other relevant practices.

The Board displayed coconut palm climbing machine, nuts of different coconut varieties, various value added products like virgin coconut oil, VCO capsule, desiccated coconut, coconut milk, coconut jam, squash, coconut oil, coconut milk powder, handicrafts items etc.

A view of CDB stall

Informative posters on various aspects of coconut, its products, Board's schemes, activities and publications of the Board were displayed during the occasion.

Shri. E. Aravazhi, Deputy Director, CDB cleared the doubts raised by the farmers on schemes of CDB, coconut cultivation, Farmer Producer Organisations in coconut sector, training programmes, value addition in coconut etc. More than 1000 farmers participated in the programme.

47th PAC of TMoC clears projects worth Rs. 91.65 Crores

PAC in progress

The 47th meeting of the Project Approval Committee (PAC) on Technology Mission on Coconut (TMOC) held at Kochi on 4th February 2016 under the Chairmanship of Shri T.K. Jose IAS, Chairman, Coconut Development Board cleared 58 projects with an outlay of Rs. 91.65 Crores and subsidy of Rs.13.09 Crores.

Under the sub component 'Processing and Product Diversification', three projects for Neera processing with installed capacity of 23,000 litres per day, one project for Flavoured Coconut Juice for processing 5,000 coconuts per day, 13 projects for Desiccated Coconut Powder for processing 3,80,000 nuts per day, six Virgin Coconut Oil units for processing 1,24,000 nuts per day, one Coconut Water Preservation and Packaging unit with a capacity to process 5,000 litres per day, 5 Coconut Oil manufacturing units to process 3,08,000 nuts per day, 3 Activated Carbon units with a capacity for produce 17 MT Activated Carbon per day, 23 Copra Dryer units with processing capacity of 2,24,000 coconuts per day and two Ball copra making units with processing capacity of 14 lakh coconuts per year were sanctioned.

In Kerala, 3 Neera processing units with a total capacity of 23,000 liters of neera per day, 2 Virgin Coconut Oil processing unit with a capacity to process 40,000 nuts per day, one Flavoured Coconut Juice unit for processing 5,000 coconut per day, one unit for Coconut Water processing and packaging with a capacity of 5000 liters per day, one Desiccated Coconut Powder making unit with a capacity to process 10,000 nuts per day 5 Coconut Oil manufacturing unit for processing 3,08,000 coconut per day and 23 copra dryer units with a capacity to process 2,24,000 coconuts per day were sanctioned.

In Karnataka, 10 Desiccated Coconut Powder processing unit with a capacity to process 2,50,00 nuts per day, one Virgin Coconut Oil processing unit with a capacity to process 9,000 nuts per day were sanctioned. In Tamil Nadu, 2 Desiccated Coconut Powder processing unit with a capacity to process 1,20,000 nuts per day 2 Virgin Coconut Oil unit for processing 49,000 coconut per day and 3 Activated Carbon manufacturing units to produce 17 MT Activated Carbon per day were sanctioned. In Andhra Pradesh, one Virgin Coconut Oil unit with a capacity to process 26,000 coconut per day 2 Ball Copra making units with a capacity to process 14 lakh coconuts per year were sanctioned.

Dr. V. Krishna Kumar, Head, Regional Station, CPCRI, Kayamkulam, Dr.P. Vijayaraj, Scientist, CFTRI, Mysore, Ms.Usha K, DGM, NABARD, Regional Office, Thriuvananthapuram, Dr. Bheemaraya, Marketing Officer, DMI, Kochi, Shri. Vasanthakumar P, AGM, Indian Overseas Bank, Regional Office, Kochi, Shri.Rajeev P. George, Chief Coconut Development Officer, CDB, Kochi, Shri. Jnanadevan, Deputy Director, CDB Kochi attended the meeting. Dr.M. Aravindakshan, Ex- Chairman, CDB attended the meeting as expert member.

Dr. Shakhil Ahmed IAS and Shri. T. K. Jose IAS met Dr. M.S. Swaminathan

Dr. Shakhil Ahmed IAS, Joint Secretary (MIDH), Ministry of Agriculture, Govt of India and Shri. T. K. Jose IAS, Chairman, CDB met Dr.M.S.Swaminathan on 9th February 2016 at his office in Chennai and briefed on the activities of the Board. Dr. Swaminathan spoke on the prospects of neera and the neccesity for introducing extraction of neera in Tamil Nadu with modern technologies and also on neera processing. He appreciated the activities of the Board with special reference to FoCT and Neera Technician training programme. Smt.T. Bala Sudhahari, Dy. Director CDB also accompanied the team.

Agri Business Show

A view of the CDB stall

Coconut Development Board participated in the 6th Agri Business show held at CIAL Exhibition Centre, Kochi from 26th to 28th February 2016. The event was inaugurated on 26th February by Shri. T. K. Jose, IAS, Chairman, Coconut Development Board, in the presence of Shri. Michael Chiromany Vertha, IAS, Managing Director, Marketfed, Government of Kerala and other stake holders of the Industry from public and private sector.

The theme of this year's event was from the "Farm to kitchen" denoting the entire process of the food industry. It showcased all levels within the industry- starting from the farm where the basic produce is made to the, mid level processes in which the products are gathered and differentiated to suit each different product, and then the last layer in the process which include packaging and delivery to the consumer who would finally consume the product. The event featured the most innovative and modern technological systems in the beverage, food and packaging industries under one single roof.

Sales cum display of various value added products was arranged in the both stall. Thirukochi Coconut Producer Company displayed neera and neera based products in the Board's stall.

Entrepreneurs Meet on Coconut held in Tamil Nadu

Coconut Development Board, Regional Office, Chennai organized an entrepreneur meet on coconut on 3rd February 2016 at RVS Padmavathy College of Horticulture, Sempatty, Dindigul. Around 300 potential entrepreneurs from Dindigul, Madurai, Theni and Tiruppur participated in the meet. Four businessmen cum buyers from Malaysia, Mr.Dato Nadzir, Mr.Elilarasan and Mr.Machendran and from Indonesia Mr.Mohammed Tauffick also participated in the meet.

Shri Lungher Obed,Director CDB welcomed the dignitaries. Dr.M.Rajendran, I.A.S, Director of Agriculture,Government of Tamil Nadu in his introductory remarks informed the gathering that Tamilnadu is the leading state in coconut production and productivity and occupies the third position in area under cultivation. The need to cultivate coconut through organic farming was stressed by him .He informed that increasing productivity without increasing area is the best approach for the farming community. He also spoke about the DSP farm of Coconut Development Board that is being established by CDB with the support of Govt of Tamil Nadu in Dhali , in Tiruppur district.

Dr.K.Ramaswamy, Vice Chancellor, TNAU, Coimbatore in his inaugural address stressed the need for two research stations for coconut in Tamilnadu which has to be established at the earliest. He further called upon the need for adequate care to be given and on research guidance from the University to the farmers

and stressed the need for farmers to take up scientific coconut cultivation .

Shri T.K. Jose I.A.S, Chairman, CDB, Kochi in his presidential address said that India is the largest producer of coconut apart from Indonesia, Philippines and Sri Lanka. Modern science has proved that coconut oil is suitable for consumption and is good for health, when compared to other vegetable oils. It reduces cholesterol and is one of the main ingredients in baby food in USA. He further informed that Americans who had a wrong notion on coconut earlier have now understood

its beneficial aspects and has started importing more coconut products. He invited the entrepreneurs to this sector using the best technology for coconut production and processing. According to him Tamilnadu is blessed with advanced Agricultural colleges and technologies but only eight districts have coconut processing units. More coconut processing companies have ample avenues in the state. He invited all farmers to come to coconut processing sector and emphasized the need to improve the productivity of the crop.

In the technical session which followed, Ms.Jagadish Priya, CDB Institute of Technology, Vazhakulam spoke on various technologies for value addition. She presented the recent technologies available with CDB and shared her views on coconut products like coconut juice with different flavor, coconut chunks, coconut cookies, coconut chips, virgin coconut oil etc. She briefed different techniques developed by CDB with different Institutes like CFTRI, DFRL, CIT, CPC . Dr.Radhai Sri, Associate Professor, PSG College of Arts and Science, Coimbatore briefed on preparation of coconut water, coconut flakes, coconut sugar, coconut aminos, coconut milk, coconut yoghurt, coconut water vinegar and coconut jam. Dr.R.Murugesan, Director, DABD, TNAU presented a list of value added products from coconut with its value in both Indian and International markets. Mrs.T.Bala Sudhahari, Deputy Director, Coconut Development Board, Chennai spoke on the Technology Mission on Coconut and opportunities for value addition and Processing in Coconut. Shri..K.S.Sebastian, Assistant Director (Marketing), Coconut Development Board, Kochi shared his views on Market potential of value added coconut products and the scope of coconut for entrepreneurship using a variety of coconut products was also discussed. Representatives of financial institutions spoke on various financial assistance schemes available. An interactive session was also followed wherein the foreign delegates interacted with the entrepreneurs.

An exhibition was held as part of the programme wherein Pollachi CPC, Udumalpet CPC, Madathukkulam CPC and Vinayaga CPC from Tamil Nadu, Palakkad CPC from Kerala, prospective entrepreneurs, CRS, TNAU, Aliyar, machinery Suppliers and CIT,CDB participated displayed their products and services in the programme. Wide product range of pure coconut oil, VCO, Packaged tender coconut water, Fruit Blended tender coconut water, flavored coconut milk, Neera & neera based products, coconut chips, chunks, cookies, coconut jaggery, spices jaggery, coconut oil based bath soap were exhibited along with the machineries displayed in the event.

Coconut point to sell neera-based products

Coconut growers from Udumalpet, Gudimangalam, and Madathukulam, who have recently formed a farmers collective, are all set to open a 'coconut point' very shortly in the district to market a wide range of value-added products under a common brand.

"We have identified the place for the 'coconut point' at Udumalpet. Half of the initial expenditure to set up the facility is met from the corpus created by the farmers' consortium. The remaining amount is given as financial assistance from Coconut Development Board," said S. Selvaraj, president of the farmers collective, Udumalpet Coconut Farmers' Producer Company.

The 'coconut point' will sell neera sugar, honey, biscuits, jaggery, all made from coconut neera, soap and oil under the common brand of 'Snehalaya.' "Our aim is to penetrate local markets for the products through this sales point," said Mr. Selvaraj. The company is already catering to orders for raw coconuts from Middle East nations. So far, the company has exported 56 tonnes of raw coconuts and is expecting to get more orders.

Monthly operations in coconut gardens - March

Andaman & Nicobar Islands: Continue watering the nursery. Start collection of seednuts from mother palms. Store them for about one month before sowing. Prepare land for new plantation by removing weeds and cutting down unwanted plants.

Andhra Pradesh: Search for rhinoceros beetles on the crowns of the palms with beetle hook and kill the beetles. Fill the top three leaf axils of the palm with a mixture of 25g sevidol 8G with 250g fine sand. Spray the manure pits with 0.01 per cent carbaryl. Continue irrigation. Collect seednuts from selected mother palms. Release parasitoids if the attack of black headed cater pillar is noticed, particularly in coastal belt. If the palms are infected by scale insects, spray the palms with 0.01 per cent malathion or fenthion.

Assam: Dig isolation trenches of one metre depth and 30 cm width two metres away from the base of the Ganoderma affected palms. Cut down and destroy the affected trunk of dead palms in the garden. If planting pits have not been dug in January or February dig them during this month and fill up with top soil+sand+cow dung manure mixture up to 60 cm for transplanting. After one or two showers, bring the soil to a fine tilth around the palms. Start preparing the nursery beds for sowing of seednuts.

Bihar/Jharkhand: Irrigate the palms. Apply plant protection chemicals to avoid attack of pests and diseases. Repair the irrigation channels. Prepare the land and dig pits of 1m x 1m x 1m size at a spacing of 8m x 8m. Replant/transplant the seedlings in low-lying areas where flood water is a problem. Adopt surface planting if water table is high. Check for the incidence of termite attack, especially in young palms. For the management of termite, adequate soil moisture is a prerequisite. Drench the nursery with 0.05 per cent chlorpyriphos twice at 20-25 days interval. Fill the top three leaf axils of the palms with 25g Sevidol 8G mixed with 250g fine sand to prevent rhinoceros beetle/red palm weevil attack.

Chhattisgarh: Irrigate the palms, nursery and inter crops in the garden. Remove weeds from the garden. Plough the land and mulch the basins. Plant summer vegetables and other intercrops. Apply vermi compost to coconut palms.

Karnataka: Irrigate the garden. Give 70-80 litres of water per palm per day under drip irrigation. Plant suitable intercrops under irrigated conditions. Check the attack of rhinoceros beetle. Clean the crowns of the palm and fill top 3 leaf axils of the palms with a mixture of 25g sevidol with 200 gm fine sand. Fill the leaf axils with two naphthalene balls covered with fine sand at 45 days interval. Treat manure pits and other possible breeding sites of rhinoceros beetle with carbaryl (0.1 per cent) which is to be repeated in every three months. Spray 1 per cent bordeaux mixture against leaf spot. Adopt integrated control measures against the attack of leaf eating caterpillar. Release parasitoids of suitable stage immediately after noticing the infestation and subsequently three times at fortnightly intervals. For tall plants and large orchards a combination of biological and chemical methods are suggested. 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 immature bunches. In order to improve

the nutrient status of the soil grow green manure crops like daincha in the basins of the palms and incorporate into the soil within 45 days. Apply organic manure @ 25 kg/ tree/year. Provide neem cake @5 kg / tree/year.

Kerala/Lakshadweep : Continue irrigation. Continue collection of seednuts from selected mother palms and store them in a cool dry place. Apply one fourth of the fertilizers in irrigated gardens. 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 immature bunches.

Maharashtra/Goa/Gujarat: Undertake hoeing in the garden. Remove the grasses and shrubs and burn them. Check for attack of pests/diseases and take appropriate steps to control them. Ensure irrigation. Start collection of seednuts for raising seedlings.

Odisha: Irrigate the palms. Remove weeds from the garden. Mulch with dry coconut leaves and coirpith for moisture conservation. Collect seednuts from selected mother palms and store them in cool and dry place. Spray the palms affected by leaf eating black-headed caterpillar with 0.02% dichlorvos or malathion 0.05 per cent. Repeat the spraying after an interval of 15 days if the attack is severe. Before spraying, cut down the affected leaves and burn them to prevent further infestation. Alternatively liberate parasites of black-headed caterpillar on the affected palms after 15 days of spraying. Palms on which the parasites have been released should not be sprayed with insecticides as it will kill the parasites also. 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 immature bunches.

Tamil Nadu/Puducherry: 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 immature bunches. Spraying has to be done especially on the perianth region of buttons and affected nuts. Wherever spraying is difficult root feeding may be done with Azadiractin 50% formulation 7.5 ml in 7.5 ml water. Continue irrigation. Treat manure pits and other possible breeding sites of Rhinoceros beetle with 0.01 per cent carbaryl to control grubs. Continue collection of seednuts from selected mother palms and store them in a cool dry place.

Tripura: Irrigation should be continued and the frequency of irrigation should be based on the quantum of rainfall received. Regular irrigation will improve the production of bearing plants.

West Bengal: Continue irrigation. Apply 200 litres of water in basin twice a week depending upon moisture retention capacity of the soil. If drip irrigation is adopted give 70 to 80 litres of water per palm per day. Provide proper shade to newly young seedlings. Mulch the basins with coconut husk, green leaves, dried coconut leaves in 3 to 4 layers or spread coir pith in six-inch layer for moisture conservation. Harvest mature nuts. Collect the seednuts from the selected mother palms, which are regular bearers and have an annual yield of hundred nuts and above. Store the collected seednuts in shade. Check for the attack of rhinoceros beetle (triangular cuttings in new spindle leaves). Hook out the beetles from affected palms. Clean the crowns of the palms and fill the top most axils of the palms with 25g sevidol 8G with 250g fine sand at 45 days interval. Treat manure pits once every three months with carbaryl (0.1 %). If bud rot is noticed remove all the affected portions. Treat the wound with Bordeaux paste or paste of Blitox. Spray the crown with Blitox @ 5g per litre of water or Dithane M 45 @ 2 g per litre of water. To manage eriophyid mite infestation, spray the crowns with 0.1 per cent Azadiractin (Neemazal) @ 4.0 ml per litre of water. The spray droplets are to be directed towards the second to fifth immature bunches. Alternately, root feeding with 7.5 ml of Neemazal (5%) dissolved in 7.5 ml of water can also be done. Plough the interspaces and destroy weeds. Grow summer vegetables and flowers like marigold as intercrop.

Market Review – January 2016

Highlights

- The prices of milling copra and coconut oil expressed a downward trend in major markets in the country during January, 2016.
- The international price of coconut oil and copra expressed an upward trend during January 2016 compared to the previous month.

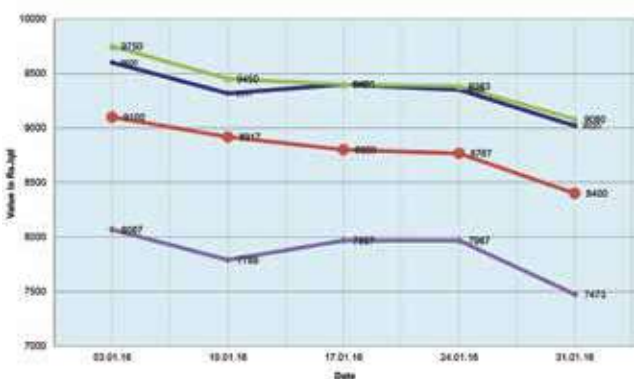
The month of January 2016 witnessed a slight declining trend in the prices of coconut, copra and coconut oil at all important markets in the country.

Coconut Oil

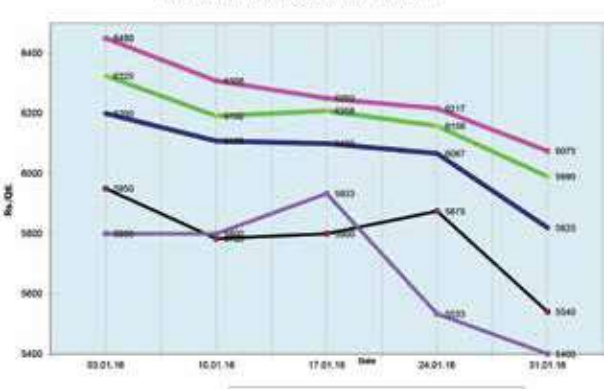
The price of coconut oil which opened at Rs.9,600/- per quintal at Kochi market, declined to Rs. 9,500- on 4th and to Rs.8,800 on 6th. The price which improved to Rs.9,400/- on 7th , ruled steady at the same price till 21st and thereafter expressed a downward trend and closed at Rs.9,000/- per quintal with a net loss of Rs.600 per quintal. The price of coconut oil at Alappuzha market which opened at Rs.9,100 per quintal declined to Rs.9,000/- on 4th and thereafter expressed a downward trend and closed at Rs.8,400/- per quintal with a net loss of Rs.700/- per quintal. The price of coconut oil at Kozhikode market which opened at Rs.9,800/- per quintal, declined to Rs. 9,700/- on 4th, thereafter expressed a downward trend and closed at Rs.9,000/-with a net loss of Rs.800/- per quintal. The monthly average price of Rs.9,296/-per quintal at Kochi market, Rs.8,779/-per quintal at Alappuzha market and Rs.9,372/- per quintal at Kozhikode market were about 8 to 11 percent lower than that of the previous month and about 34 to 37 percent less than that of corresponding month last year. The monthly average price of Rs.7,833/- per quintal at Kangayam market in Tamil Nadu was eight percent lower than that of the previous month and about 41 percent lower than that of the corresponding month last year.

Milling Copra

The price of FAQ copra which opened at Rs.6,200/- per quintal at Kochi Market, declined to Rs.6150/- on 4th January and further to Rs.6,100/- on 5th and thereafter ruled steady at the same price till 21st. The price which declined to Rs,6,000/- on 22nd , expressed a downward trend and closed at Rs.5,800/- per quintal with a net loss of Rs.400/- per quintal. The price of Rasi copra at Alappuzha market which opened at Rs.6,450/-per quintal declined to Rs.6350/- on 4th and thereafter expressed a downward trend and closed at Rs.6,050/- with a net loss of Rs. 400 per quintal. The price of milling copra at Kozhikode market opened at Rs.6350/- per quintal declined to Rs.6,300/-on 2nd, thereafter expressed a downward trend and closed at Rs.5,950/- with a net loss of Rs.400/- per quintal. The monthly average price of Rs.6,040/- per quintal at Kochi market, Rs.6,244/- per quintal at Alappuzha market and Rs.6,158/- per quintal at Kozhikode market were 8 to 10 percent lower than that of the previous month and about 34 and 38 percent lower than that of the corresponding month last year. The monthly average price of milling copra at Kangayam market in Tamil Nadu was Rs.5,774/- per quintal, which was 10 percent lower than that of the previous month and about 39 percent lower than that of the corresponding month last year. The monthly average price of milling copra at Ambajipeta market in Andhra Pradesh was Rs.5,688/- per quintal and the price was six percent lower than that of the previous month and about 37 percent lower than that of the corresponding month last year.



Price behaviour of coconut oil during January 2016



Price behaviour of copra during January 2016

Edible Copra

The monthly average price of Rajapur copra at Kozhikode market was Rs.10,832/- per quintal, which was 21 percent lower than that of the previous month and about 37 percent lower than that of corresponding month last year.

Ball Copra

The monthly average price of ball copra at Kozhikode market was Rs.9,630/- per quintal, which was 20 percent lower than that of the previous month and about 39 percent lower than that of corresponding month last year.

The monthly average price of ball copra at Tiptur APMC market in Karnataka was Rs.10,015/- per quintal. This was about 15 percent lower than that of the previous month and about 31 percent lower than that of the corresponding month last year. The monthly average price of ball copra at Arsikere APMC market in Karnataka was Rs.10,024/- per quintal, which was about seven percent lower than that of the previous month and about 21percent lower than that of corresponding month last year.

Dry Coconut

The monthly average price of Rs.8,602/- per thousand nuts of dry coconut at Kozhikode market was 7percent lower than that of the previous month and about 25 percent lower than that of corresponding month last year.

Coconut

The monthly average price of partially dehusked coconut at Nedumangad market was Rs.10,688/-per thousand nuts. This was marginally lower than that of the previous month and about 31 percent lower than that of the corresponding month last year.

The monthly average price of partially dehusked coconut at Arisekere APMC market in Karnataka was Rs.9,770/- per thousand nuts, which was marginally lower than that of the previous month and also than that of the corresponding month last year.

The monthly average price of partially dehusked coconut at Bangalore APMC market in Karnataka was Rs.13,420/- per thousand nuts. This was 11percent lower than that of the previous month and about 16 percent lower than that of the corresponding month last year. The monthly average price of Grade-1 quality partially dehusked coconut at Mangalore APMC market was Rs.17,480/- per thousand nuts, which was marginally lower than that of the previous month and about 6 percent lower than that of the corresponding month last year.

Tender coconut

The monthly average price of Tender coconut at Maddur APMC market in Karnataka was Rs.10,240/- per thousand nuts, which was marginally higher than that of the previous month and also than that of the corresponding month last year.

International

The International monthly average price of coconut oil at Philippines (C.I.F. Rotterdam) market was US$ 1155 per MT. This was marginally higher than that of previous month and about five percent lower than that of the corresponding month last year. The monthly average price of US$ 763 per MT of copra was marginally higher than that of the previous month and marginally lower than that of the corresponding month last year.

The domestic price of coconut oil during the month of January 2016 in Philippines was US$ 1108 per MT and in Indonesia the price was US$ 1106 per MT. The international price of Palm oil was US$ 539 per MT, Palm kernel oil (RBD) US$ 910 MT and Soybean oil US$ 733 per MT during the month of January 2016.

Prices of coconut oil , copra and coconut at various marketing centres during January 2016

Date	Coconut Oil (₹/Qtl)				Milling Copra (₹/Qtl)					Edible Copra (₹/Qtl)	Ball Copra (₹/Qtl)				Dry Coconut	Coco-nut	Partially dehusked Coconut (₹/1000 nuts)		
	Kochi	Alappu-zha	Kozhi-kode	Kan-gayam	"Kochi (FAQ)"	Alappu-zha (Rasi Copra)	Kozhi-kode	Kan-gayam	Ambaji-peta	Kozhi-kode	Kozhi-kode	Tiptur	Ban-glore	Ar-sikere	Kozhi-kode	Nedu-man-gad	Ar-sikere	Banglore	Mangalore (Grade-1)
03.01.16	9600	9100	9750	8067	6200	6450	6325	5950	5800	13050	11500	11100	14000	11300	9000	11000	13000	13500	18000
10.01.16	9317	8917	9450	7789	6108	6308	6192	5783	5800	11750	10450	10233	14000	10400	8950	10917	8667	13500	18000
17.01.16	9400	8800	9400	7967	6100	6250	6208	5800	5933	11067	9850	10433	14000	10267	8733	11000	9900	13500	18000
24.01.16	9350	8767	9383	7967	6067	6217	6158	5875	5533	9983	8908	9600	14000	9750	8333	10500	10200	13500	17000
31.01.16	9020	8400	9080	7473	5820	6075	5990	5540	5400	9580	8500	9313	14000	9100	8190	10000	9130	13100	16600
Average	9296	8779	9372	7833	6040	6244	6158	5774	5688	10832	9630	10015	14000	10024	8602	10688	9770	13420	17480

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.