Chapter 2

REVIEW OF LITERATURE
Marketing of agricultural produce is the most important aspect of study as it is produced seasonally at one place and marketed at distant places throughout the year. Hence, it involves a long chain of intermediaries which turgors the marketing cost and margins, and reduces the producers’ share in consumers’ rupee and consumers’ surplus. Marketing of coconuts differs from that of fresh fruits due to the durability of coconut and it can be sold as tender nut as well as mature nut. In this chapter an attempt has been made to study the marketing system in terms of marketing practices such as harvesting, grading, packaging, marketing channels and so forth. Further, an attempt has been made to study the marketing costs, margins, price spread effects of variation in the consumers’ price on the shares of the producer, seller and the retailer and the efficiency of marketing.

Coconut, being one of the important horticultural crop and produced in India as well as the state of Karnataka, has also drawn the attention of the agricultural economists to studying with a view to its production and marketing aspects. A few of these research works were published in the form of reports and articles in various national and international journals of repute. But, available literature indicates that much work has not been done on marketing of cost and margins, influence of price on production and arrivals, impact of institutional agencies on production and marketing of coconut in the country as well as in state.

Acharya, S.S. and N.L. Agarwal (1991) observed that agricultural marketing plays an important role not only in stimulating production and consumption, but also in accelerating the pace of economic development. Its dynamic functions are of primary importance in promoting economic development. For this reason, it has been described as the most important multiplier of agricultural development. India’s age-old farming practices have
taken a turn in recent years. There has been a technological breakthrough, namely the evaluation of high yielding variety seeds, increasing use of fertilizer, insecticides, pesticides, the installation of pumpsets and tractorization. The technological breakthrough has led to a substantial increase in production by the farmers and to the larger marketable and marketed surplus. To maintain this tempo and pace of increased production through technological development an assurance of remunerative prices to the farmers is a prerequisite and this assurance can be given to the farmer by developing an efficient marketing system.

Arida V.P. (1993), in his study pertaining to the Philippines has opined that the Philippines supplied about 80 percent of the world's coconut demand. The coconut industry had traditionally been a major export crop of the country. In fact, of late it was their number one dollar earner. Coconut could, in fact, in the not so distant future be the Philippines counterpart to the world-wide sought after Arab oil and this is not surprising because they have the resources available.

Ashwatha Reddy, K.P. (1992) has identified the major constraints limiting coconut production in Trivandrum district as: a) Absence of remunerative price for the product, b) Frequent occurrence of drought and lack of irrigation, c) High cost and non-availability of labour in time, d) Recurrence of pest like rhinoceros beetle and bet root disease.

Arumaghan et al. (1986) has reported that about 57 percent of the coconut production was used for culinary and religious purposes, 8 percent for edible purposes as dry kernels and 3.5 percent as tender coconut. They found that coconut industry was facing the major problem of violent fluctuation of price. Internal price was significantly higher than international price. They concluded that because of this, use of coconut for certain types of products and for export would not be attractive.
Bavappa K.V.A. *et al.* (1986) have reported that about 70 percent of the crop is in Asia and the South Asian countries. But the production and productivity of coconut in these countries had not shown an increasing trend during last one decade. In India, productivity was also low in most of the states. Thus, considerable scope exists for coconut production in these states through better management of coconut gardens. However, the research on various aspects of coconut improvement, nutrition, management and production constraints was in progress at the CPCRI, KAU and AICRP on palms.

Basavaraj Kulkarni and L.B. Kunnal (2001) have studied marketing of soybean in Karnataka. Soybean purchasing by the Karnataka cooperative growers federation has solved the problems of marketing of soybean to a great extent. This fact should be made known to the farmers inorder to encourage area expansion in soybean.

Notification of the commodity in regulated markets will further help solve the marketing problems of soybean producers. Attempts can be made to minimize the price fluctuations for the commodity in the market by creating storage and marketing credit facilities to the soybean producers.

Bhatia, G.R. (1989) speaks of Agricultural Marketing Research Surveys and Planning in India. Agriculture products form an important source of wealth in India where bulk of the population depends economically on a broad spectrum of agricultural activities. Over years, the country has witnessed a historic change over from a subsistence production to market oriented surplus. As India launched a programme of planned development in different sectors of economy through the mechanism of formulation and implementation of five year plans, the economy has begun to respond in attaining and even exceeding the targets. The Directorate of Marketing and Inspection has been in existence for fifty years now. Over these years, it has established its roots in the field of agricultural
marketing research and built up a sound structure of data base and research and survey reports. It has a division of competent and experienced officers in the research wing. More than 150 marketing reports produced out of systematic and in depth studies are to the credit of Directorate of Marketing and Inspection apart from a host of other small publications.

The facilities in the country today for carrying out agricultural marketing research are undoubtedly much better than a decade back. The position today has shown remarkable improvements both in terms of expertise and institutional arrangements. The nature of the developmental programmes bring about new situations. The problems of deficient agriculture are different from those of surplus agriculture. The dynamics of growth in agricultural sector are to reflect in marketing arrangements in agricultural marketing sector.

Balachandran Nair and P.N. Joseph (1987) conducted a study on the processing and marketing of Ball Copra in Andhra Pradesh and Karnataka. The survey was organized by the marketing and statistics sections of the Coconut Development Board and the data was collected by the Board. The States of Andhra Pradesh and Karnataka play a vital role in the production and marketing of edible ball copra in India. Among the coconut growing States in the country Andhra Pradesh ranks fourth in area and production, while Karnataka ranks second in area and third in production. In Andhra Pradesh it is estimated that about 60 million nuts are being converted in to ball copra to produce around 450 tonnes per annum. The estimated production in ball copra processing is concentrated in the Konaseema Region, Ambage Petta, in Amalapuram division is the only market for both types of copra while Palakole in West Godavari districts is the main market for water nuts.

In Karnataka, Tumkur and Hassan are the two major coconut growing areas. These two of districts of contribute about 44% of area and production.
Even though the ball copra is produced in Arsikere, Channarayapattana in Hassan district and Gubbì, Turuvekere, Chikkanaikanahally, Huliyar in Tumkur district, the main marketing centres for coconut is Arsikere and ball copra is Tiptur.

Castro et al. (1991) have studied the economics of coconut plantation established from nursery and field planting up to bearing under four cultural management practices, such as manual cover crop establishment, manual clear culture establishment and mechanization. Manual clear culture establishment and cost of cultivation was divided into materials (56.5%), labour (38.0%) and other expenses (5.5%) which amounted to Rs. 15,082.5 and the net return was 45,888.5 based on the cost and returns analysis. Return to capital is expected between 6 and 7 years from field planting.

Chakraverthy et al. (1992) in the study regarding the impact of price variability and price spread in the arrival of coconuts at RMC Sakhigopal found that marketing cost incurred in various agencies was 26.90 percent in Channel-III, whereas it was 16.16 percent in Channel-II, passing through regulated market in terms of consumer’s rupee. Similarly, the marketing margins enjoyed by the market functionaries were 35.51 percent in Channel-II as against 56.11 percent in Channel-II. Three marketing channels were covered in this study. These were i) producer-trader-consumer, ii) producer-village trader-wholesaler-trader consumer. Out of these three Channels, the Channel-II passes through regulated market, Sakhigopal. Their study concluded that competitive prices as the amenities of regulated market encouraged larger arrivals of coconut in the market.

Chakravarthy et al. (1988) in this study on Coconut Marketing Sakhigopal Regulated Market compared it with other markets in Puri district of Orissa. The study indicated that nearly 77.43 percent of the capital invested constituted the
infrastructure facilities created in the market. They reported an increase in arrivals and number of traders in the regulated market. The net price received by the farmers was higher in regulated market compared to the markets which are well developed in terms of physical facilities in the yard. Regulated markets attracted more arrivals and better prices for the producer which reflected the healthy environment and competition in the market.

Dhibakar Naik (1988) made an exhaustive study of the growth in area, production and productivity of coconut from 1970-71 to 1984-85 in Kerala, Orissa among India as a whole. The study revealed negative growth in area, production and productivity in Kerala and negative trend in productivity in Andhra Pradesh. In case of Orissa, he found a positive trend in area, production and productivity of coconut over the years. He opined that coconut production in India, remained rarely stagnant during 1970-71 and 1984-85.

Debdutt Behura and Sugatatghose (1998) made a study on price spread and market channels of coconut trading in Orissa. Eleven market channels were in two groups a) Marketing through Sakhigopal, regulated market during six channels and b) Marketing through unregulated market having five channels. This study indicates that mean marketing cost and consumers price was almost the same in both the regulated and unregulated market. The regulated market was not directly used by the farmers. Out of the eleven market channels identified six operated through regulated market at second or third stage and five through market. Longer market channels and wider price spread restricted the farmers from getting better price on the one hand and on the other hand made the coconuts dearer to the consumers. Insufficient returns did not effectively motivate the coconut growers due to low productivity and small lots for sale farmers preferred door step disposal leading to larger market channels.
Das, P.K. (1987) in the report presented at the national seminar on coconut marketing and processing, held at Bangalore, organized by Coconut Development Board, Cochin estimated that about 81% of marketed surplus of nuts was sold to middlemen by the producers at their farm gates in Kerala. Pre-harvested contracts and inaccessibility to market give rooms for sales at gardens under tree situations. The middlemen abuse their positions by resorting to various types of practices. Further, this paper attempted to identify the specific problems in coconut marketing and processing sector and also to suggest appropriate measures for solving these problems. One of the important suggestions was to promote group auction based on spatial and functional considerations.

Dhankar, G.H. (2003) has studied the Development of Interest Based Agricultural Marketing System in India. Today virtually very business, educational institutions, government agency, advertising agency, publisher and newspapers: any organization or individuals whose very existence depends on fast and accurate information draws upon the vast store house of knowledge contained in the world’s online database. Online information retrieval becomes possible through computer network. Computer networks and software technology are developed to electronically store, search and distribute millions of pages of information empowerment to number of persons. Simultaneously, introduction of economic reforms, unhearing in liberalization policies in the country have brought new challenges in the marketing system as regarding information requirements. There are several areas of agricultural marketing which farmers need to be fully familiarized with inorder to improve price realization. Important areas amongst them are standardization and grading, packaging and labeling, direct markets, and marketing regulations. Forward and future markets and export markets awareness on the part of farmers in each one of these areas will enable to plan their production and sale in a manner
economically most advantageous to them. Advancement in communication and information technology has made the world a smaller place and a larger market at one go to fully utilize the new emerging trade opportunities.

Das, P.K. (1986) in a study conducted by him, revealed highly erratic nature of movement of wholesale prices of coconut, copra and coconut oil in Kerala, for the period starting from 1960 to 1986. The violent fluctuations in the prices were found to be caused by more than one reason. The major factor behind this was the uncertainty of weather which led to violation in the supply-demand gap in the edible oil sector in general and coconut oil sector in particular.

Dhilon (1986) has pointed out that Kerala contributes 57.8 percent in area and 49.3 percent in production of coconut. Poor productivity was one of the serious constraints in coconut production. He further remarked that during 1985-86 when coconut price fell down to economic levels, market intervention, cooperation for copra was introduced in the Kerala State. Copra was produced through 63 purchase centers under the State Co-operative Marketing Federation. A total quantity of 21533 M.T. of copra was purchased under the scheme. He concluded that the copra, had one much above as a result of this intervention.

Devadattann, D.S.K. (1997) has studied the Potential of Agricultural Process in Karnataka. Karnataka State is endowed with such diversity of soils and climatic conditions that a wide variety of crops are grown in the state. Among these, coconut, cashew nut, arecanut, chilies, rice and their products have great potential for export. In this paper, an attempt is made to summarize the potential of agricultural processing in Karnataka with special reference to the above crops with a view to promoting their export possibilities.

Dilip Kumar Mund's (1985) study was conducted on agricultural marketing problems and prospects. He concludes that a marketing system which
protects the interest of both producer and consumers, is the backbone of agricultural development. It must have true support price for various agricultural commodities adjusted from time to time in the light to the farmers; Secondly, adequate arrangements for processment of agricultural produce in support prices if the prices fall below that level and finally, a well-spread out and regulated infrastructure of marketing which will ensure, fair price to the producer in open market conditions and help eliminate non-functional markets margins of intermediaries.

Edirisingbe, J. (1989) has pointed out that selling Sri Lanka coconut products is easiest in the domestic market where the copra auctions started in the year 1934. It helped to establish a fair price for the producer. On the international market, Sri Lanka is the fourth biggest producer behind Indonesia, the Philippines and India. But unlike other countries, Sri Lanka exports wide variety of coconut products from fresh nuts.

George et al. (1991) reported that India produces about 9283 million coconuts annually and ranks third in the world sector. His article outlined the trends in area production and productivity of coconut sector, particularly in Kerala and other Southern states. He had used the data of Coconut Development Board for the study pertaining to the years 1950-51 to 1989-90.

George, C.K. (1993) in a study regarding coconut production in Tanzania reported that coconut was in cultivation in the coastal belts of Tanzania for several thousand years. It was spreading to hinter lands at a growth rate of 6 percent per annum. The planting material was traditional varieties like East African Tall and Pemba Draft Hybrids. Coconut oil was an important commercial products of Tanzania. It was used for cooking as well as for the preparation of toilet soaps. Drinking tender coconut water was very common both in urban and rural areas. The cost of tender nut was as low as 0.50 per cent.
Ghose (1991) pointed out that Assam has an ideal climate for coconut production. In view of this, the Coconut Development of Board of India set up a State level institution to encourage the product in Assam. In this article he critically analyzed the policies of the state centre in terms of their impact on average output, extension, marketing and prices. This report covered the statistics of state for the year 1986-88 and covered a total of 10 districts within Assam.

Gadhavi et al. (2001) reported about the coconut price behaviour, seasonal variation compound growth rate etc. They also spoke about the irregular fluctuation in arrivals and prices caused by various factors like war drought etc. In case of prices, low price was observed in high production period and vice versa. Thus, seasonability in production indices the seasonal phenomenon in price. The linear and positive trend was observed over time in arrivals and prices of coconuts. Moreover a cycle of 1 to 3 years was observed in behaviour of both arrivals and prices. The option left with the farmers to curb the seasonality in the prices and arrivals was to adopt appropriate post harvest technology procession small scale for making value added products.

Hipparazi Kulapathi et al. (1997) a study on adoption patterns and production constraints in coconut cultivation in STZ-7 Karnataka. Coconut is the major plantation crop of Southern Transitional Zone-7 Karnataka. It occupies an area of 15896 hectares with a productivity of 15000 nuts per hectare. Suitability of soil climate and availability of plenty of irrigation water encourage the farmers to establish coconut gardens. The climate of the zone is basically tropical. As in the rest of the state, this zone has the benefit of two monsoon and hence, can be called the land of two seasons. Coconut fetches high price in the market. Hence, an attempt was made to study the adoption patterns, production constraints and extension or research gaps in the zone-7.
Haridoss and Chandran (1997) while studying the price behaviour of coconut and coconut oil in Tamil Nadu, inferred that the percentage increase in the price of coconut oil was found to be higher than that of coconut. Thus, from the above analysis it may be concluded that the difference between the prices of coconut and coconut oil is only marginal. The rate of increase in the prices of coconut is almost very close to the price of coconut oil. Regarding the fluctuations in prices of coconut and coconut oil it is due to irregular fluctuations. In that case also, the difference in coconut price is higher as compared to coconut oil price. Hence, it could be inferred that there is a parity between changes in behaviour of prices of coconut and coconut oil.

Haridoss P.C. Chandran (1996) whose study was on the marketing system costs, margins price spread and marketing problems of coconut – A Case Study of Coconut Growers and Traders in Tamil Nadu. Agricultural marketing plays a crucial role in agricultural development which is a pre-requisite for development in other sectors, and for the overall development of the economy. In a changing economic situation, the marketing system comprises several agencies and institutions, each playing an important role in the system. The producers share was inversely related to consumers price while the retailer share was positively related as shown by the results of regression analysis. Most of the variation in the share of producer as well as retailer is indicated by changes in consumers price.

Jagadish Prasad (1994) reported about Agricultural Marketing and Market Development Retrospect and Prospect that although the country has the pride of achieving self-sufficiency in food grains, agricultural growth has not yet attained the levels anticipated by the governments. It is now widely recognized that adequate facilities and services must be available to farmers, if the agriculture is to develop. Marketing is one of the important service which has been overlooked.
for quite a long period. It was adopted during sixties that new market
development strategy was adopted in many states of the country inorder to
streamline the functioning of agricultural markets. This was also aimed to make
the indirect government intervention in agricultural marketing more effective. It
is now needful to assess the role of market development strategy and its impact
on agricultural marketing efficiency.

Joseph et al. (1986) identified the following marketing channels in Kerala.
Those were i) Grower-village merchant - wholesaler merchant - trader - retailer
- consumer, ii) Growers - wholesaler - trader - retailer - consumer, iii) Grower
- wholesaler - retailer - consumer and iv) Grower - retailer - consumer.

Joseph et al. (1986) pointed out that marketing of coconut in India was
seen in three different forms, viz., mature nut, copra and tender nut. In Kerala
major portion of marketed surplus was sold in village itself which accounted for
one percent of the total disposal. The direct sales by grower to co-operatives was
1.5 percent and rest 17.5 percent was sold in assembling markets. In South
Kerala coconut growers sell their produce to village merchants or copra makers
basing on copra price prevailing at Alleppy market. In Nedumangad taluk of
Trivendrum district and Adoor taluk of Quilon district, the growers carry their
nuts in husked form and sell to the merchants. In Trichur district, the growers
carry their nut in opened form into two halves to the nearest trader who offer one
third of the prevailing copra price in Trichur market. In Nadayaramba area of
Trichur district growers sell their coconut unhusked to traders on the basis of
10 per cent of price of one tone coconut oil at Cochin market per 1000 nuts.

Khunt et al. (2003) in their study analyse the economics of coconut
production and marketing in Sourashtra of Gujarat State. The study has
confirmed the economic soundness of investment on mature nut orchards is
normal as well as in varying situations of cost and returns. Both types of orchards
were at price as far as profitability is concerned. The marketing efficiency was lower in mature nut marketing. To improve the marketing efficiency, some regulatory measures should be taken to abolish Kadada system and reduce the commission charges. There is no organized marketing system for tender nut marketing in Junagadh district. The establishment of well organized coconut marketing cooperatives at wholesale as well as retailing stages may help to safeguard the interest of coconut growers.

Khan, H.S. (1972) studied the production and marketing of coconut in Tiptur taluk of Tumkur district. The study revealed that the average cost of establishing an area of coconut upto bearing stage was as high as Rs. 1,533.43 in small farmers and 1,491.54 in large farmers. The total district costs which included working expenses and in small large gardens respectively indirect costs including interest on working expense, total depreciation charges amount to Rs. 315.95 and 369.20 for small and large farmers. The total cost of cultivation of coconut per acre during the bearing stage was Rs. 623.62 in the small farmers and Rs. 656.05 in the case of large farmers. The cost of green leaves had the highest share (35%) in the total cost. The per acre, net income worked out to be Rs. 541.26 and Rs. 891.10 in the small and large farmers respectively.

Kaul, G.L. (1994) highlighted that an outlay of Rs. 792.90 million was earmarked by Government of India giving emphasis to production and distribution of planting materials during the Eighth plan. It was planned to establish four new farms in Karnataka, Andhra Pradesh, Orissa and Kerala. It was targeted to produce three lakh seedlings annually, the further pointed out that it was planned to supply five lakh seed nuts to non-traditional areas. An enhanced subsidy amounting to Rs. 6000/- per hectare was also allocated under Area Expansion Scheme to cover 25000 hectares in the Eighth plan period.
Kumar, H.S.V. (1991) has illustrated the role of different marketing agencies in the marketing of coconut in Kerala. He also analyzed the structure of rural coconut market and price spread in different marketing channels. He opined that even though co-operatives were functioning in many parts of the state, they had not made any significant impact on coconut marketing. The rural traders dominated the market and exploited the small or marginal farmers.

Kalathiya and N.L. Sen (1995), studied the correlation among floral and yield characteristics in nut variety, Dwarf green since the scope of this paper correlation coefficients were worked out between floral and yield traits in coconut variety Dwarf green. It is therefore suggested that number of Spadics and duration of female phase should be considered as selection criteria for nut yield improvement in coconut variety Dwarf green.

Kapadiya et al. (1996), studied that effect of arrivals of coconut on price of mature coconut. In Gujarat state only Mahava (Bhavanagar district) has mature coconut market, where throughout the year mature coconut is being sold through the Agricultural Produce Market Committee by open auction process. The data of survey work have clearly indicated about the arrivals in the market. The maximum price (Rs. 270.84 / 100 nuts) was obtained during September month whereas maximum arrivals of mature coconut (3.9 million nuts) was during April month.

Kumaswara Rao, studies coconut marketing in Andhra Pradesh, its problems and prospects. Andhra Pradesh ranks fourth in area under 79,400 hectares and production of 1663. million nuts coconut in the country. The average yield is 74 nuts per palm per year, the highest in the country. The coconut area and production is mostly concentrated in the central delta of river Godavari popularly known as Konaseema of East Godavari district. The farmers follow the traditional practices in coconut cultivation. Most of the farmers know
the traditional method of copra making. However, the coconut is marketed in	hree major forms viz., dry coconuts, copra and coconut oil in this area. The only
market for these items in Andhra Pradesh is Ambajigeta. Palakol in West
Godavari is the centre for water coconut marketing. Approximately 40 percent
of coconut produced is marketed as water coconut and 30 percent oil as both
based marketed demanded.

Latha Bastine et al. (2004) conducted a study with a view to computing
the cost of production taking into consideration the annualized establishment cost
and annual maintenance costs. The establishment cost of a coconut garden (upto
seven years) was worked out to Rs. 1,22,129.89, the annual maintenance cost as
Rs. 24,690,66. The establishment cost was amortized and added upto the
maintenance cost. The cost of production was estimated to be Rs. 4.13 per cent.
The capital productivity analysis showed favourable figures for net present value
(Rs. 5286.31) and benefit cost ratio (1.02). The internal rate of return was
worked out to be 7.26 as against an opportunity cost of seven per cent.

Though the project worth measures showed positive indicators, the values
are marginal. It is clear that even a small fall in price can effect the project
worth. The situation after the reference period of study has shown drastic
reduction in price. Hence, the farmers should take up inter cropping and other
alternative enterprises to avoid or combat risk involved in pure crop cultivation
due to drastic fluctuations in prices. Adjustments in cultivation in the short-run is
difficult, because of its perennial nature. But in the long run further increase in
area will be affected if advance price situations prevail. In the short run the
management may be affected which will result in a decline in production.
Hence, it is the duty of the governments to intervene in highly fluctuating price
situations and provide supports to these farmers by implementing schemes like
minimum support price (M.S.P.) market reforms, better infrastructural facilities and promotion of value addition programmes under co-operative sector.

Maharana, D. (1990) in his study on production and marketing of coconut in Puri district of Orissa, found that the producer received 64.84 per cent, 52.56 per cent and 51.72 per cent of the consumer’s rupee in the marketing channel-I, II and III respectively. The marketing costs incurred by various marketing function arises were estimated at 17.63 percent in channel I, 17.33 per cent in channel II and 15.92 percent in channel III. Further, the marketing channels covered under his study were i) producer – trader – consumer, ii) producer – trader – wholesaler – retailer – consumer and iii) producer – village beggary – wholesaler – trader – consumers.

Mandel, R.C. (1995) made a detailed study on coconut production and protection technology and found that coconut yield had significant response to irrigation and regular manuring. Coconut cultivation was a profitable proposition if recommended packaging practices and proper management would be followed. Positive growth rates were observed in Tamil Nadu, Andhra Pradesh and Karnataka so far as area, production and productivity were concerned. Whole negative growth rates were observed in Kerala. He further reported that in spite of 14 percent expansion in coconut area, the production of nuts in India remained almost static during the period between 1970-71 to 1982-83. On the other hand 11 percent decline was observed in productivity during the same period.

Mishra, J. (1987) suggested that grading of commodities are helpful to both buyers and sellers in determining the quality and prices. So grading technique suitable for the area would be of immense help for both growers and traders of coconut. He suggested that more sub-yards opened in the hinter land where it is growing abundantly, which would help to avoid congestion in main market. He concluded with remark that the system of election to elect the
members of management to a market committee may be modified so that due representation would be made in a democratic way.

Mohd Iqbal Ali C. Renuka (1987) studied marketing of agricultural products in command area. From a micro study it can be summarized that impact of irrigation will vary between upper reach areas and tail-end areas. Secondly even in a homogeneous area, the impact will be different on categories of the fields and marketing facilities were more in upper reach areas and less in tail end areas. Another interesting finding was that MFs and SEs of HRA and MRA had some improvement in this yields and markets compared to that of BF and TEA. Thus, in this process farmers of TEA in general and MFs and SFs in particular had not gained much. Therefore, Command Area Development Act (CADA) should give special attention towards tail trend area with regard to the distribution of canal water and development of regulated markets.

Maheshwari, P.C. et al. (2003) made a study on marketing strategies for coconut. This study was to analyze the coconut marketing practices, marketing channels, marketing problems and suggested market promotional activities. In spite of the fact that coconut production in India forms 25.57 per cent of the world production the present system of marketing of coconut and its products is by and large unscientific and unorganized and is almost totally lacking in vertical integration. Although coconut is made a notified commodity, the marketing lacks, systematic organizational set up. In the absence of this middlemen are exploiting the market. In almost all primary markets, the middlemen normally indicate the prices. In addition to this various kinds of malpractices are also prevalent in almost all primary markets.

Mathew, T.A. (1991) in his report on tender nuts pointed out that Tamil Nadu ranks second in coconut production in India. About 5 percent of the total production was utilized as tender nuts. His study opined that the consumption of
tender nuts was increasing at an increasing rate in the state. He found that the average consumption of tender nuts in the state, 122 million per annum. The demand for tender nuts was high in summer and the average price was Rs. 2000 per thousand nuts. He suggested that bottled coconut water could be introduced as a soft drink in the important cities in the state.

Mallick, S.C. (1987) examined the structure of market charges in market channels pertaining to pre-regulation and post regulation period. His study identified the marketing costs and marketing margins in these market channels. He concluded that the marketing price in Orissa was an unorganized sector. The cost of marketing was less in regulated markets in comparison to unregulated markets. Further, the marketing charges were reduced in post-regulation period as compared to pre-regulation period. The regulated markets provided the farmers a better price than form harvest prices.

Markose (1992) has pointed out that in Karnataka the entire transaction of ball copra is routed through the regulated markets. The farmers themselves bring their produce to the regulated markets. The copra is sold by auction. The auctioned copra is graded into three according to size and quality. The popular grades are 'summa', 'gola' and 'dubha'. In other state, including Orissa, the wholesaler in the production centre buys all copra from farmers either directly or through regulated market. These are graded and packed properly and dispatched to distant markets. The price of edible ball copra is usually 25-30 percent more than of the milling copra. However, the edible copra gets only 10-15 percent higher price than milling copra. Farmers having large stock bring the copra to assembling markets or purchase depots of government agencies. At the copra making centers trade allowance at the rate of 5 nuts per 100 is permitted to the purchaser depending on the size of the nuts and location of transaction. In Karnataka mature nuts are fully husked and brought to the regulated markets for
sale. Price fixations of coconut is usually based on the daily price of coconut oil in most of the states. In conclusion he noted that the present marketing channel has to be streamlined minimizing intermediaries and active effort and participation on the part of authorities concerned to stabilize the price.

Nagaraj, R. (1987) outlined the economic consideration in selecting coconut enterprise. The indicator of N.P.V. (Rs. 77.167 hectares), pay back period (10 years), IRR (21.40) and B.C. Ratio (1.69) revealed the economic viability of the plantation and provided ample security for the funds invested. He concluded that landing for the establishment of coconut orchard could not be considered as a risky proportion.

Narasimhappa, C. (1987) studied the processing and marketing of coconut and its products. Although coconut is one of the most priced and essential commodities in India, its marketing is jeopardized by many artificial reasons and faulty governmental policies which can very well be corrected inorder to brighten the prospects of coconut and its production in Indian markets. Efforts are also needed to revamp the present unscientific marketing system in favour of a grower – consumer linked system in which the growers and consumers are the participants and exploitation will no longer be a part of the marketing system. By involving grower in processing – marketing activities the much desired vertical integration could be achieved.

Narasimhan, N.V. and T. Subbi Reddy (1980) studied the commercialization of agriculture. Efficient marketing is as necessary as scientific agricultural operation and so side by side with the progress in cultivation, methods of suitable machinery for the efficient sale of the farm produce also be evolved.
Namasivayam, N. and V. Richard Paul (2004), in his research finding pointed that the trend analysis for coconut production in India shows that India has made a significant contribution to coconut production. The Indian position in the international scenario of coconut production has gone to third place, even though coconut production has not significantly decreased. This is due to the marginal increase in the production in Indonesia and Philippines. Increased production can be achieved under the scientific management of coconut garden, through better cultivation practices, increased application of plant nutrients irrigation and pest control management.

Prafulla K. Das’s (1985) study was conducted in the interest of palm based farming systems as stemmed from both technical and economic grounds. Feasibility studies under rainfed situation involving different species and varieties of cereals, pulses, oil seeds, tuber and rhizomes revealed that under Kerala conditions the tubers and rhizomes are relatively more compatible and remunerative inter crops than that of other groups in coconut gardens of Kerala. The economic potential it in terms of net profit in the case of coconut and elephant foot-yam system was estimated at Rs. 18550 hectares per year; while it was Rs. 14350 in the case of coconut and ginger system and Rs. 5150 in coconut sole crop system.

Among several feasible combinations under irrigation, one of the most promising systems in the integration of coconut black pepper + cocoa + pineapple in an adult garden of above 20 years. The economic analysis suggests that this combination could generate a net return of Rs. 33550 per year, while the net return realization from an irrigated middle-aged coconut monocrop is estimated at Rs. 230000 hectares per year. The BCR in this system comes to 1.76, the IRR is higher than 20% and the annual NPW is Rs. 32700.
In the case of coconut-based irrigated mixed farming system involving the production of fodder grass in the interspaces of palms training pepper on coconut, maintaining cross-bred cows and rabbits and raising of subsidiary crops. It was observed that the net return from one hectare coconut black of 60-70 years age group could be as high as Rs. 29500 per annum.

While the annual employment generations in one hectare rainfed coconut monocrop and irrigated coconut monocrop are assessed at 120 and 144 mandays, the same was estimated at 620 mandays in the case of rainfed coconut + ginger system, 335 mandays on coconut pepper + coconut + pineapple mixed cropping system and 850 mandays in coconut based mixed farming system.

In the traditional homestead farming in Kerala the technical feasibility of coconut based farming system is grossly misused. Thus, the opportunities to maximize the economic gains per unit area, input and time are lost.

Pushpa M. Savadatti (2001) made her study on “Economic analysis of the Indian pulse market”. The market clearance analysis is sensitive to the changes in the logged prices. The price variation analysis revealed that for a given one percent increase in the wholesale price of the grain, was found to be smaller than the percentage increase in the wholesale price and retail price of pulse dal. This phenomenon clearly suggests that the consumers and farmers were found to be at a advantageous position in the process of pricing mechanism.

The results warranted that measures should be taken to improve the performance of marketing of pulses inorder to help the farmer to derive their due share in the consumers rupee without affecting prices at the consumers level. In the process of dissemination of knowledge, the behaviour of agricultural prices should be made an essential component of the agricultural extension programme. Farmers should be encouraged to participate in processing, distribution and
marketing aspects of pulses on cooperative lines to reduce the marketing concentration. Thus, there is a need for vertical integration of production, processing, marketing and summer price and to reduce the consumers burden as well.

Prasanna, K.P.R. (1989) conducted study on coconut culture in Karnataka State. Karnataka is the second largest coconut growing state in India next to Kerala with an area of 9732 hectares as in 1987 and a production of 1099 lakh nuts. There are two major and three medium seed farms one regional coconut research station in the state. More than 120 government coconut nurseries located in the state produce annually about eighteen to twenty million quality coconut seedlings.

Paramesha, J.H. (1996) identified constrains in the production of coconut as the low level of input use, lack of irrigation facilities, wide spread prevalence of root wilt disease and slow rate of replacement of the diseased and unproductive palms.

Puttanaik (1974), studied only one marketing channel comprising three middlemen, producer-trader-wholesaler-retailer-consumer. The study revealed that the marketing cost incurred by various intermediaries was 25.82 percent and marketing margin was 17.06 percent. The producers' share was estimated to be 67.46 percent in the channel passing through the regulated market.

Patil et al. (1989) in their study on economics of coconut production in Maharashtra, categorized the total cost into amortization cost and annual maintenance cost. The study revealed that total cost of cultivation was Rs. 11,157, Rs. 10,554 and 10,290 for small, medium and large gardens respectively. The net returns per hectare were the highest (Rs. 23,060) for medium followed by small (Rs. 20,332) and large (Rs. 16,742) gardens.
Ramachandra Bhatta (1987) has recommended that the process of commercialization of agriculture requires the development of agricultural markets. With more and more commercialization, the marketed surplus is likely to increase, and the traditional market system may fail to handle the increased supply of goods. The improvement of agricultural markets, on the one hand, results in lowering of per cost of marketing service, and on the other hand, would lead to i) a fall in retail prices, ii) an increase in farm level prices and iii) an increase in the quantity of food demand.

Reddy, C.R. and D.N. Suresh Kumar (1992) studied cooperative marketing in agricultural development. Agriculture is the backbone of Indian economy. Its prosperity hinges on the prosperity of millions of autonomous peasant from units. The well-being of the farmers depends on the market price they get on this produce. But most of them are deprived of their due share of price paid by the consumers because of the prevalence of the chain of intermediaries who earn at the expense of producer as well as consumers. An efficient strategy of marketing service is the need of hour. The cooperative marketing needs high priority because, it is an essential prerequisite for the large expansion of cooperative credit and in turn for the better recovery of credit lent. Keeping this in view, the government of India came to a conclusion for the formulating of an integrated programme for marketing in rural areas. As an outcome, the cooperative marketing was brought about in the country.

It has shouldered the responsibility of meeting the demand of ensuring best price to producers and qualitative goods to consumers by means of its efficient marketing mechanism. It aims at improving the socio-economic states of agricultural commodity by rendering farm service like the supply of seeds, fertilizers, farm implements, pesticides etc. to boost up production. It also helps the farm services like transportation, storage, processing and grading facilities.
The whole structure of the farmer oriented system, thus stands on marketing. In the present paper an attempt has been made to examine the role of cooperative marketing in agricultural development. Cooperative marketing, thus, has been creating farm services and producing the necessary agricultural inputs with a view to fillip to the agricultural production. It enables more income savings and as a result more investment on agriculture and other operations and adoption of advanced farm technology which leads to higher productivity.

Raveendran, P. (1989) made his study on the marketing of coconut and its products in Andaman and Nicobar islands. There is scope for the improvement of production from existing gardens. Concentrated efforts need to be taken to educate the farmers for adopting modern agricultural practices. There is good local demand for coconut and coconut oil in the islands. As the copra produced in the islands are very inferior in quality, the quality of coconut oil extracted also is found to be inferior. Improvement in the method of processing for making better quality copra is an urgent need.

Port Blair is fast developing into a good market for tender coconuts. There is no demand for edible cup copra, ball copra, desiccated coconut etc., in the islands. In the absence of a well organized private or public marketing network in the islands the cooperative marketing societies at all levels need to be further strengthened. The state and central government may extend all financial and other helps such as provision for soft loan to apex societies for right purchase of agricultural commodities, provision for providing transport facilities at concessional rates to primary and central societies.

Rajagopal, V. et al. (2004) spoke about effective monitoring of international trade scenario of coconut and its products and also discouraging through rational measures as help to the coconut farmers in India from price risk in domestic marketing.
Rethinam (2003), says that increasing the productivity, reducing the cost of production, integrated farming, farm level processing, proper value addition product diversification and by-products utilization coupled with effective marketing strategies and market promotional activities can definitely make the coconut industry more competitive and sustainable and boldly face trade liberalization and succeed in globalization.

Ragupathy (1989) studied the economics of coconut production in CPCRI Kerala. The total cultivation charges amounted to Rs. 934.56 per area, out of which manures and fertilizer amounted for Rs. 251.29 (26.89%). The other items of cost were ploughing or tillage (22.15%), adding clay soil (21.4%), renovation of fence (4.88%) etc. The net income received was Rs. 1,806.17 per acre.

Rath Krishnan (1989), in his study concerning price spread in coconut marketing among the existing marketing channels in M. Vidipathy, Anna district of Tamil Nadu pointed out that the cross price spread of coconut as percentage of retail price in channel-II was 26.27 percent, in channel-III, 15.92 percent and in channel-IV it was 17.24 percent. The net price spread on marketing margin as percentage of retail price was 11.33 percent, 21.25 percent and 12.41 percent in channel-II, III and IV respectively. Four market channels covered in this study were grower final consumers (II) grower – middlemen – wholesaler – retailer – consumer (III), grower – wholesaler – retailer – consumer and (V) coconut grower – retailer – final consumers.

Srinivasan (1967) the study was made on regulated markets. Some problems of regulated markets differ in their scope, jurisdiction and power from on state to another. Even with a state like Mysore (Karnataka) there are four separate market acts governing the regulated markets.
Sivaram Prasad (1980) discussed the role of the regulated markets in the development of orderly marketing. The regulated markets are administered by a market committee comprising of the representatives of growers, traders, local authorities, cooperative societies and government under many of the state acts producers constitute more than 50 percent in the total membership and have thus dominant role in the management of the markets.

Sugatha Ghose and P. Raveendran (1993) observed the coconut oil marketing of Guwahathi in Assam. The coconut oil market of Guwahathi was found to be small good, smooth and a balanced market with growing demand. The demand for 15 kg tins were found to be increasing but registered a slow and declining trend. The trend can take an upward turn only if the demand expands from toilet uses to some industrial uses also with setting up to points, cosmetics and large scale biscuit units in Assam. The growth of demand for the small container is very much encouraging and found to be increasing at an average rate of 10.33% per year. Including all types of taxes a total of 16.35% tax on oil millers seems to be a higher side. Authorities could think of some tax relief if the millers or other coconut based industries use coconuts or copra produced in Assam in their units instead of transporting from more oil mills but also units processing coconut based products and by-products, which could generate employment potential. Smuggling of coconut oil into north-east region need to be checked at this rudimentary stage itself. With the proposed expansion of transportation network in the Seventh Five Year Plan in the North east region, the demand for coconut oil is expected to grow in a much more rapid pace in future. Although the volume of translation to other coconut oil markets in the country since it meets the demand of whole of north east region, Guwahathi was found to be an important market with excellent growth potentiality.
Satyapriya (1984) studied the institution factor and marketing behaviour in three major arecanut markets in Karnataka. He opined that the location of regulated markets in relation to the supply area, is as important as the establishment of the market itself as with an increase in the distance from the market centre it was relatively bigger producer who could take the advantages of regulated markets.

Seema M. Manoharan’s (2001) study was conducted in view of suggestions for selecting leader farmers to promote coconut marketing. The study concludes that there existed positive significant relationship between marketing behaviour of coconut farmers and their mass media exposure; information selecting behaviour and risk orientation behaviour. The present study advises the development functionaries of coconut crop to given weightage to mass media exposure, information seeking behaviour and risk orientation behaviour of coconut farmers while selecting the leader farmers for implementing the coconut promotion programmes.

Subbraj, B. and B.K. Singh (2003) who examined marketing mix for coconut products consumers perception although has been made on a particular segment of consumers dwelling in urban area, found that there are evidences, that the income level and timing standard consumers exert influence on the purchase behaviour towards coconut product. Moreover the perception the marketing mix for coconut products various among consumers in general and different income categories in particular. Yet majority of consumers do not have high perception on coconut products. High income category finds problems with price mix. Therefore, it is to be designed and executed in such a way that it could address the expectations and wants of largest consumers in particular. Since knowledge on coconut products contributes for high perception need to communicate the advantages and relative merits of coconut products is emphasized. As such
coconut products have high market potential. But exploiting the market potential for coconut products requires effective marketing strategies meant for both creating and fulfilling the demand.

Singh, H.P. (2003) augmentation of coconut marketing delivered by the coconut industry is growing in terms of production. However, its share in oil and fats trade has consistently declined in the past four decades. Vast growth opportunities remain for the coconut industry, but the marketing strategy needs a reorientation to suit to emerging trend. Awareness and alertness on diversification of coconut with a motive to recap the market have to be priority. The best option with lasts with growth opportunities for production diversification and value addition. Despite this vast potential, the industry can flourish only through strategic initiatives and synergy among the organized and unorganized market outlets functions.

Takur and Shandil (1993) in their paper “Steps to increase market arrivals and efficiency of regulated markets in Himachal Pradesh” advocated the following strategies to promote the market arrivals in the state, i) sufficient investment for modernization of all necessary infrastructure, ii) development of new markets at appropriate sites, iii) encouragement of co-existence of private trader, co-operatives and government agencies, iv) proper implementation of fact and rules, v) training of farmers on all aspects of regulated market etc. They concluded that the involvement of government agencies and co-operative and the regulated market will eliminate the malpractice of private traders and middlemen and help to attract increased volume of market arrivals.

Thampan, P.K. (1986) in a paper presented at the seminar on problems of coconut production and productivity held in Trivendrum pointed out that the prices of coconut and coconut products were normally related to the prices of coconut oil in the terminal market, which in turn were subjected to the influence
of the overall availability of fats and oils. Hence, it is necessary to introduce available price stabilization schemes. The basic objectives of the scheme are minimization of price fluctuation and maintenance of a price range for coconut oil. Under this scheme the supplies of coconut oil in the markets are regulated in such a way as to prevent both over supply and under supply inorder to continue the prices within predetermined range. At the same farm level only through desired practical are integration. There should be adequate institutional support to these organization both for creation of base infrastructure facilities and for marketing at remunerative support price.

Viswanath, N.S. (1985) conducted a study on the agricultural marketing system in Karnataka. One of the *Mercurial* reforms suggested to improve the economic conditions of the producer seller is the establishment of regulated markets at appropriate places democratically managed by a committee consisting of all the market participants – producers, traders, commission agents warehousing and so on under a well defined act coupled with indigenous buy laws to suit the local conditions so that the producers have a say in the process of the disposal of their produce under fair conditions. State agricultural sector renewed for its instability in production with all conceived marketing practices. The Karnataka episode in the temporal changes in organization structure and head i) organization, ii) market regulation, iii) market development and iv) the future. Karnataka is happy because it had successfully completed the job of markets development more than what is expected on the side while it is not so on the count their reduced the rate of economic benefits to over 50 percent than had been expected. It is now on the average of taking corrective measures to make realize the economic as well as social benefits.

Vigneshwara, V. (1998) suggests that since banana is an important constituent of human diet it has got wider prospects in agricultural production
activities. The excess demand and greater export potential of this product will have more and more chances in the future markets. Proper and timely solution for the problems of producers can promote the production activities and thereby it will increase the earnings of the growers.

Vigneshwara (1988) the study was conducted on the marketing of arecanut, problems prospects. In India arecanut is consumed as a masticatory and outside India it has almost no demand. However, the future of arecanut does not appear be alarming as the industry is able to create market for the value added products such as scented suparis. Efforts are being made to find out the alternative uses for arecnaut and its by products, but results are not encouraging. The production of arecanut in India by 2000 A.D. has been projected to 3,50,000 tonnes based on the assumption that the compound growth rate of production for 70° C would continue. In other words, one can anticipate a rise in production by 54% from the present level of 1,90,000 tonnes. Hence, adequate planning R and D as well as strategy are needed to create new demands for the products, and also ensure that the supply does not dampen the arecanut market. There is still hope for a better demand in the internal market since the present estimated per capita consumption of betel nut in India.

By opening up pan beeda shops in each and every city in all the states which will create more demand for arecanut. For example, if we open one lakh pan beeda shops all over the country at least one lakh kilograms of arecanuts will be consumed daily and it will also lead to employment opportunities for the youth in our country and hence the per capita consumption will also increased.
References


