CHAPTER 1

INTRODUCTION
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In a complex economic environment no function can be performed independently. A large number of activities have to be coordinated at different stages from the point of origination to the point of destination for economic gains. The problems of complexities begin somewhere and end in resultant distortions.

It may be noted that such distortions lead us elsewhere or to an area (or to a space) from which there might be no point of return. It could also be that it may lead us to an area where point of inflexion exists. In this case, it is clear that ascendency is at its maximum and the phase of recession has begun which is likely to be followed by an upward phase.

Given an environment and a system, some of the questions that would be asked are: (1) How is the system working?, (11) Where would it lead us to? and (111) How would it be?.

The above paragraphs might appear complex or as simple as any other naive questions which are normally thought of. If the same questions are asked in a commodity environment it would perhaps explode our intellect to further devastating sphere of complex relationships and interrelationships making naivety much more not naive and puzzling. The reasons attributable for the end result are numerous and endless. Some may attribute it to the nature of the commodity itself, while others to the type and pattern
of economic functions performed. When the causes for the end result are studied in isolation it is apparent that only a narrow or a segment gets the click and others are neglected or ignored or kept at caeteris paribus. It is here that one fails to diagnose the problem in its total perspective i.e., its dimensions, magnitude, directions and intensities. As such, diagnostics are most likely to be incorrect than at fault. Hence a total outlook over space is preferred to a narrow, micro watertight analysis.

The present study addresses to analyse, in all modesty and humility, the problems of the marketing system of a commodity having conventional, commercial and economic importance in the Indian context. While making such an attempt the study would search for relationships that might exist between the production, consumption and marketing systems. After all, there can be no growth in production without a market or with a market there may be abundance or shortfall in production.

1.02 THE COMMODITY

In the cultural environment of the Asian Continent two commodities of importance, characterised above, can be identified. They are (1) Coconut and (11) Arecanut (or Betelnut). From the point of view of people engaged in production and marketing processes a comprehensive system analysis of the second commodity i.e., Arecanut (or Betelnut) is attempted for the following reasons: (1) the
existence of harmoniously positive relationship between production and marketing systems, (i) the coexistence of institutions at the producers' and at market level; (ii) the subtlety in the organisation and working of the marketing system with a cooperative base within the domain and (iv) the involvement of producers in evolving a marketing system as well.

1.03 REVIEW OF STUDIES

This is a general survey of the studies conducted earlier covering several aspects with a view to understanding the functioning of the economics of production, consumption and marketing of various agricultural commodities. The studies on all major agricultural commodities in India have been covered chronologically categorywise. The time horizon is from 1965 to 1990.

CEREALS

Cummings (Jr.) has evaluated the pricing efficiency of the Indian wheat marketing system. During the study period 1956-57 to 1963-64, it has been found that prices reflected supply and demand conditions and seasonal prices did not consistently exceed storage costs, and on an average, price differences between markets did not exceed transportation costs. An analysis of the wholesale costs and returns showed no excess returns for the functions performed and the producers' share in consumers' rupee ranged from 68 percent to
94 percent, the differences of which included marketing costs, taxes and levies, freight charges and cost of bag. Further, the author finds that pricing efficiency decreased during zonal restriction period, while the markets were unified during nonzonal period (as indicated by order of correlation coefficients).

2 Uma Lele's work elucidates at length the performance of the traditional food grain marketing system covering major cereals: rice, wheat and jowar. The author has covered important rice markets in West Bengal and Tamil Nadu, wheat markets in Punjab and Jowar Markets in Maharashtra. The study relates to the time period 1955-56 to 1964-65. The author has substantiated that Indian Grain Markets are highly competitive. Also, the existing markets can handle productions more efficiently when bottlenecks in transportation and processing are attended to and appropriate changes in market intelligence data are brought about. Facilitative changes in market regulation would further increase marketing efficiency.

3 Moore, Johl and Khusro have analysed the physical and economic aspects of India's Food Grain Marketing System of post independent India from 1950 to 1970. An examination of the physical efficiency of the system in terms of the functional performance of transactions, storage, transport and processing suggests that they are being performed at low cost. The authors attribute low cost to low wages, low incomes, as also to the general competitive nature of
the marketing system. Indian food grain marketing system is generally competitive in accordance with market structure standards—ease of entry of new buyers, existence of non-profit organisations such as cooperatives, the behaviour of traders and competition amongst traders. The general performance of the marketing system in terms of (i) relatively small margins by traders, (ii) a relatively large share of the consumers’ rupee by the farmers, (iii) price differentials amongst markets by only transportation costs and (iv) presence of cooperatives, although not dominant enough, indicates and justifies that Indian food grain marketing system is generally competitive.

Subba Rao has assessed the economic efficiency of the paddy/rice marketing system and evaluated the impact of public intervention on the marketing system with special reference to the West Godavari District of Andhra Pradesh during 1968-72. The author has followed twin approaches/methodologies i.e., concurrent marketing margin and structure—conduct—performance (SCP) for the assessment of economic efficiency in the marketing of paddy/rice at the village and institutional levels.

The cross section analysis has revealed that large farmers realised higher prices than small farmers although considerable variation existed between prices received by the sample farmers. Further, the losses suffered by the small farmers due to various imperfections in the
marketing system do not appear to be as large as is generally believed.

PULSES

Acharya's study on pulses focuses attention on the question as to why the production fell below the estimated demand whereas it was not so in the case of cereals. The author views the problem of low production as not just shift away from the area but of lag in the technological, pricing and marketing environments. The study covered the State of Rajasthan and Gujarat and the six pulse crops: (a) Gram, (b) Moth, (c) Mung, (d) Urad, (e) Cowpea and (f) Arhar. The approach to the problem has been both micro and macro, covering various cross sections in order to identify factors for constrained behaviour of producers, processors, traders and the like.

The author has analysed various facets of the problem such as dynamics of pulse production, technological organisational characteristics of pulse farming, factors affecting the area under pulse crops, the role of prices, the economics of pulse cultivation and so on. The study, in sum, suggests that mere technological development would not solve the problem of slow growth of pulses but it is essentially needed to apply new technology which simultaneously should be backed up by institutional infrastructure of marketing and the environment that would result in better price discovery.
OIL SEEDS

Uma Kapila’s study examines the causes of stagnation and instability of the groundnut economy of India. The study covers 80 percent of the total production contributed by five States Gujarat, Andhra Pradesh, Tamil Nadu, Karnataka and Maharashtra. The period of coverage is from 1951-52 to 1975-76.

It has been established that the growth rate of production at 4.83 percent was mainly due to shifts in area (i.e. 79%) and yield (21%). The author notes, further, that yield rate was marginal (at 1.03 percent) as the groundnut economy was bereft of the benefits of high yielding varieties and irrigation.

In southern States, irrigation was the principal component for reduction in fluctuations in output than in Western States where irrigation is low and rainfall is highly erratic. Acreage response analysis has revealed the relative profitability of groundnut vis-a-vis other competing crops. Districtwise analysis in case of twenty groundnut producing Districts has elucidated that price factor is favourable yet failed to induce uniformly area under it. Significant changes in crop prospects of groundnut is due to diverse technological factors such as irrigation levels, high yielding varieties evolved for competing crops and inconsistent rainfall.
Narappanavar has made a comprehensive macro analysis of the six major oilseeds grown in India viz., groundnut, rape/mustard, sesamum, linseed, castor seed and cotton seed covering production and marketing aspects. In brief, the study has juxtaposed the production responses with that of marketing behaviour of the elements in the whole gamut of the oilseeds sector. The macro econometric analysis relates to the period 1952-53 to 1978-79.

The short run acreage elasticities with respect to price and yield for all the oilseeds are inelastic. The author attributes institutional and technological rigidities that influence acreage allocation while production response is influenced by non-acreage factors such as irrigation and fertilizer consumption. Oil seeds production, according to the author, is yet to establish a convincing break through.

Apart from the inelastic nature of acreage allocation with respect to price, the edible oil prices are inelastic and highly income elastic. This is due to marketing behaviour of the elements at various levels. The price structure analysis which has established meaningful significant relationships at the farm, wholesale and retail levels enlighten us that Farm Harvest Price (FHP) elasticities had reduced period II as compared to period I for all the oil seeds under the study. This is further evidenced by a consistent decline in farmers' share from 61 percent in 1963-64 to 52 percent in 1978-79 in the
consumers' rupee. On the contrary, the wholesalers' share has consistently increased over years.

Viswanath has analysed the performance of the production and marketing of cotton in Karnataka. Raichur market was selected for the study. The analysis pertained to the Varalaxmi variety. With structural changes infused on the production front, the form of marketing and its structure had to match it up. The case study of Raichur market has revealed that while the prices of ginned cotton of Varalaxmi variety increased at 5.83 percent, it was just 5.81 percent for unginned cotton during the peak month. The form utility (from unginned to ginned cotton) benefits are gained by traders and commission agents. There existed favourable parity for ginned cotton. Also, market arrivals were evenly spread out for ginned cotton. Moreover, the prices of ginned and unginned cotton were highly elastic to market arrivals; the unginned cotton prices exhibited lower magnitude.

PLANTATION CROPS

Prakash had conducted a study pertaining to the coffee industry covering production and performance aspects at two tiers: (a) regional level covering predominant coffee growing areas and (b) aggregate level for the States of Karnataka, Tamil Nadu, Kerala and the country as a whole. The study period relates to 1960-61 to 1979-80.
The author finds that coffee planters' response to price in terms of area were nonsignificant in all the cases which could be due to space and outlay constraints. Non significance of price risk and non bearing area factors lead to the conclusion that producers are not affected.

Achoth Lalith has made a comprehensive analysis of the problems of the Indian Tea industry. The supply of Tea is price inelastic. An increase in price is followed by extension of tea gardens, while price decrease is followed by lack of rejuvenation of the existing gardens. The farmers respond negatively to falling prices in respect of yield by reducing inputs. The Random Walk Theory is substantiated in all the centres except Calcutta wherein a ten week cycle has been observed. The price and production series confirmed to Auto Regressive Integrated Moving Average (ARIMA) models by good expost and exante forecasts as judged by tests of efficiency.

Ravi's work analyses marketing problems of coconut and copra in Tiptur and Arsikere markets of Karnataka. The study found that the farmers, in general, retain 9 percent for consumption, 42 percent for preparation of copra, 48 percent for sale as nuts, and hardly 1 percent for sale of tendernuts out of their total production. The marketing pattern of coconut and copra were characteristically different. Coconut marketing is dominated by village sales (about two-third of the producers sold it), followed by sale through commission agents (about 16%), and wholesalers received (11%) and the rest directly from farmers (about 7%).
There are several studies, covering one aspect or the other, on problems of marketing of arecanut conducted by many authors. A review has been done here.

Lakshmanachar and Ravindran have conducted a study which analyses the fluctuations in wholesale prices of arecanut in Karnataka (erstwhile Mysore) State for period 1950 to 1964 for two types - unboiled and boiled. The markets selected for the study were Bangalore, Shimoga, Sirsi and Mangalore. The first two markets are known for boiled split types, while Sirsi for unboiled whole and boiled as well. In the case of Mangalore, the unboiled whole was the most dominant. The authors have used monthly data on average wholesale prices of different types/varieties for analysis.

It has been observed that there was steep increase in annual average prices of arecanut from 1954 onwards. The Bangalore market had registered the highest price for boiled split type, while it was not so at either Shimoga or at Sirsi. In respect of seasonal variations it is found that average monthly wholesale prices are found to be maximum during the July-September quarter in all the markets. The average wholesale prices were maximum in July, August and September in Mangalore and Sirsi, Shimoga and Bangalore respectively.
Shenoy and Ravindran have made an analysis of fluctuations in the wholesale prices of superior unboiled and boiled types for important markets in India from 1950 to 1969. For unboiled whole, cuts and pieces, and split types Mangalore, Trichur and Madurai markets have been selected; while for boiled coloured whole, cuts and pieces, and split types Sirsi, Trichur and Shimoga markets have been selected. The authors have noted that, apart from consistent increase in prices over years with the exception of a sudden fall in the early 1950's (i.e., in 1953), the quantum of increase was about 150 percent in Mangalore, about 105 percent in Trichur and about 250 percent in Madurai for unboiled varieties. In the case of boiled type it was about 160 percent in Sirsi, about 130 percent in Trichur and about 185 percent in Shimoga respectively.

Sikka and Ravindran have conducted a study on arecanut prices covering eight markets in five stages. Two terminal markets assembling boiled and unboiled types such as wholes, cuts and pieces and splits have been considered. The period of study is from 1962-63 to 1972-73. The study has revealed that the annual wholesale prices of almost all the varieties have shown wide fluctuations. A comparison of price and production data showed that while production has maintained a steady increase over years, the prices have registered fluctuations for all types across all the markets. The stoppage of import during 1969-70 resulted in a spurt in prices in 1970-71, whereas
authors could not explain the sudden fall in 1971-72. The paper after a look at seasonality in prices ends with suggestions for creation of storage facilities, liberalisation of loans, establishment of a central society for taking up marketing functions and to conduct research on alternate uses of arecanut.

15 Lakshmanchar has made an analysis of the working of the grading function in arecanut markets in the country. The author has identified that while no grading was in practice in the other parts of country, Karnataka took the pride of introduction of grading system by farmers at their level, although roughly, during 1973. There are over 160 commercial grades of arecanut despite the fact that standard grades for arecanut were prescribed as early as in 1952 by the Directorate of Marketing and Inspection. The Government of India has attempted by establishing four experimental grading units— one in Tamil Nadu (Mettupalyam) and three in Karnataka (Mangalore, Sirsi and Shimoga). The main problems identified were non-acceptance and non-application of grade standards and specifications by traders/buyers and lack of initiative on the part of producers/sellers. The author has noted that Karnataka is found to be an exception.

16 Lakshmanchar has evaluated performance of arecanut cooperatives in Karnataka (erstwhile Mysore ) State. The author has noted that about 10 percent of the marketable surplus is brought to market by growers themselves and
that one out of every five quintals is handled by eleven cooperatives. The author has concentrated on three major producer cooperatives at Sirsi, Shimoga and Mangalore which have handled over 90 percent of the total quantity of arecanut marketed. The author identifies that there are problems in linking credit with marketing such as non coordination among Primary Agricultural Credit Societies (PACS) and Arecanut Cooperative Marketing Societies (ACMS), ineffective linkage of credit and marketing and so on.

17 Lakshmanachar has conducted another study on cooperative marketing in Kerala State. For the decade 1960-70, it is observed that much progress has been achieved in respect of number of cooperative societies, membership, quantity handled, credit and financial position. Although the quantity of arecanut handled by these societies had doubled during the decade, their share in overall production was only 2 percent, which indicates that much remains to be done.

18 Purandara Rao has analysed marketing problems of arecanut farmers in three major arecanut markets-Mangalore, Shimoga and Sirsi-during price depression in 1973. The author has found that about 55 percent of the producers interviewed sold through one channel, while about 35 percent through cooperatives and the remaining through multiple channels.

19 Mruthunjaya has analysed income, savings and investment patterns of arecanut producers pertaining to Malnad region of
Karnataka (erstwhile Mysore) State. It is found that nearly 80 percent of the producers' income is from paddy and arecanut. Also about two-thirds of the large and medium and three-quarters of the small farms have derived their income from the sale of arecanut alone.

Satyapriya's study has dealt with the problems in marketing of arecanut covering Mangalore, Shimoga and Sirsi markets in Karnataka (erstwhile Mysore) State. The central fulcrum of the thesis is that the three regulated markets were working under different legislations and hence had impact on the marketing practices. There was high degree of concentration in arecanut trade. Despite high concentration, the producers were getting favourable price for their produce.

Krishnaraja's study was on evaluation of perfo-irrigation system in arecanut gardens. It was found that perfo-irrigation system is superior to conventional surface irrigation system due to savings in labour, cost and employment, thus enhancing the income levels of arecanut producers.

Bhide et al., have studied structural changes in arecanut marketing at Mangalore market for the period 1965-66 to 1972-73. The results indicated increasing degree of competitiveness in the market structure. The firms are characterised by more equal distribution of share of market transactions as revealed by projections of Markov Chain analysis. The regression model results suggest that
changes in buyer and seller concentrations have opposite effects on the price of arecanuts. The authors have floated two hypotheses (1) "As increasingly only few buyers control large proportions of market transactions the price competition among buyers will result in higher prices in the market for arecanut". (2) "As increasingly few sellers control large proportions of market transactions the sellers (or the commission agents whose income is a percentage of the price) attempt to sell a large amount of the commodity by selling at a relatively lower price".

In another paper, Satyapriya has derived that fluctuations in arrivals and sales in the three major arecanut markets could be attributed to factors such as timing of harvests, weather, availability of transport, credit and waiting capacity of sellers and price judgment. The author has attributed that differences in the activities of the societies has had its impact on the cause of seasonal fluctuations particularly on sales. It has been concluded that (1) location of a regulated market in relation to supply area is as important as the establishment of the market itself; (2) The regulated market had salutary effect on the functioning of private trade; (3) There was prevalence of competition in the arecanut trade.

Naik Gopal and Arora have found that the producers' share at Sirsi considering retail prices at Nagpur and Kanpur were 68.75 percent and 57.69 percent respectively, the
difference of which has been attributed to transportation cost. The private traders have retained higher margin than the cooperative institutions. The retailers' gross margin was more than the cost incurred by them. The market integration was found to be of high degree amongst primary wholesale and retail markets at Nagpur whereas it was not so at Kanpur.

Subba Rao has evaluated the business performance of the Central Arecanut Cocoa Marketing and Processing Cooperative Limited (CAMPCO Ltd). The author terms the performance of CAMPCO as outstanding as the institution has realised high profitability, is diversification oriented and has stabilised arecanut prices in the regulated markets.

Gajanana's study analyses the supply response of arecanut in Karnataka. The author has selected three Districts — Dakshina Kannada, Shimoga and Uttara Kannada which contribute 62 percent of the area and about 70 percent of the production of arecanut in the State.

The analysis has revealed that, (a) significant positive growth was observed in the area in all the Districts and the State, (b) in respect of yield, there was reduction in negative growth during post CAMPCO period which is true for the aggregate period except for Dakshina Kannada District, (c) there was area led output growth during the CAMPCO period. A stagnancy in growth has been observed of late except in Dakshina Kannada District; (d)
the growth rate in prices during CAMPCO period was appreciably high in all the districts and the State; (e) the presence of CAMPCO has arrested the declining tendency; (f) the expected price, and lagged area are the principal factors in determining area allocation in all the districts while risk factors are weighed by farmers of Dakshina Kannada and Shimoga districts; (g) longer periods from 11 to 20 years are required for area adjustment; (h) rainfall and lagged yield influence productivity; (i) rainfall, lagged output and risk factors influence production and (j) the farmers, in general, have responded to prices by adjusting area than yield.

In another paper Gopal Naik and Arora have discussed the marketing pattern and pricing efficiency in arecanut marketing. The authors touch upon the role of market functionaries including cooperatives, CAMPCO in particular. Sirsi, Nagpur and Kanpur markets were chosen for the study. Price spread analysis supplemented by correlation analysis have been used to determine the level of pricing efficiency. The authors have conducted studies for only certain important varieties of both unboiled and boiled types. Functionally, there are several functionaries performing one of the physical, exchange or facilitative functions thereby making the marketing system more complex. From producer to the retailer/pan shop owner functions will add to costs. The analysis of price spread has shown that producers get 68.75 percent and 57.89 percent of the
consumers' rupee from Nagpur and Kanpur channels respectively. Cost analysis indicated that CAMPCO incurs higher cost than secondary wholesalers in both Nagpur and Kanpur channels.

Hegde has found that the price behaviour of arecanut has created favourable impact on arecanut plantations and their growth in the North Canara District of Karnataka. The higher incomes realised were used for improvisation of standard of living by small and marginal farmers, while large farmers had invested in productive assets.

Bhatta and Bhatt have analysed impact of supply on prices of arecanut for white variety (chaali) in respect of Mangalore and Sirsi markets. The period of study is from 1971-72 to 1983-84. The findings of the study have shown that "Mangalore market is more efficient than Sirsi in terms of price, seasonality, stability of prices and also in terms of spatial integration". The authors have concluded that Mangalore market acts as price leader to Sirsi market without precisely providing justification for attributing leadership.

The short and long run price and arrival movements of arecanuts have been studied by Ashok Kumar for Mangalore, Shimoga and Sirsi markets in Karnataka. The degree of market integration has also been assessed. The author has selected Chaali variety for Mangalore, Saraku for Shimoga and Rasi and Tatti Bette varieties for Sirsi
markets for the analysis. The study covered the periods 1967-1987 for Mangalore, 1961-1987 for Shimoga and 1975-1987 for Sirsi markets respectively. The data were collected for the calendar year. The temporal analysis performed has suggested no cyclical pattern in arrivals in all the three markets, while long term trend in arrivals was more or less the same in Shimoga and Sirsi, it had an upward movement in Mangalore. Seasonality in arrivals was significant in all the three markets. Non-significant negative arrival-price relationships were observed for Mangalore and Sirsi markets while it was positive and significant for Shimoga. The author concludes that Mangalore and Sirsi Markets are found to be positively significantly integrated whereas Mangalore-Shimoga and Shimoga-Sirsi are negatively non-significantly integrated. The author concludes that arecanut markets, in sum, are poorly integrated.

Lakshmanachar and Shamanna have analysed fluctuations in the prices of arecanut in important markets of Kerala and Mysore (the then) States The period of study was from 1950-51 to 1962-63. The analysis covers important trade types such as Chaali, Saraku, Bette, Iylan, Erassal etc. The study has noted an increasing trend in arecanut prices in all the markets since 1954. Moreover, minimum and maximum prices differed significantly in different markets. The study records that the price of Chaali at Mangalore was much less than prices
of boiled coloured splits at Shimoga and Bangalore markets. The prices of boiled coloured whole nuts at Sirsi were more or less constant during the study period.

Prakash et al., have estimated processing and marketing costs of two types of arecanut - Chaali (unboiled type) and Saraku [Boiled Coloured Split (BCS)] for the agricultural year 1986-87 in Shimoga District. The paper has several interesting revelations.

1. The total cost of processing and marketing of Chaali type was lower (Rs. 358.66 per quintal) than that of Saraku type (Rs. 545.10 per quintal) over all types of farms.

2. It is interesting to note that small farmers producing Saraku type incurred higher costs than their counterpart producing same type (Rs. 616.63 per quintal as against Rs. 501.96), while they incurred lower cost in the case of Chaali type (Rs. 280.55 per quintal as against Rs. 377.60).

3. The above phenomenon is attributed to higher labour cost which accounted for 74.13 percent [on all farms] for Chaali type while it is 42.49 percent of the total for Saraku type.

4. While Saraku type fetched higher price than that of Chaali, it was compensated by only marginal additional revenue due to the fact that Saraku type yielded 48.5 percent less than that of Chaali.
The authors have not explicitly mentioned the cost of marketing and processing and hence it would be difficult to distinguish as to whether the cost of marketing refers to the farm level or at the wholesale level.

1.04 THE COOPERATIVES

A unique feature of the Areca nut Marketing System (AMS) in Karnataka is the organisation of vertically coordinated cooperatives - the Primary Agricultural Credit Societies (PACS) [PACS are called Cooperative Agriculture Banks in the Dakshina Kannada District], the Selling Cooperatives (SCs), and the Buying Cooperative (BC) at the micro level, at the middle level and at the apex level respectively, with appropriate forward and backward linkages in their functions. These cooperatives at various tiers emerged out of preindependent as well as post independent socio-political and economic perestroika and glasnost reforms brought about by the arecanut producers who identified themselves with their respective leaders in each subsystem - Mangalore, Shimoga and Sirsi. The history of such reforms is over six decades. The marketing behaviour of the producers have had been gradually moulded over years (a separate chapter has been devoted for the analysis).

The objective of this section is to present a functional analysis of each of the institutions proceeded by a general perspective.
1.05 THE OVERALL PERSPECTIVE

The PACS, the SCs, and the BC perform functions as envisaged in their byelaws, framed and duly approved by their members. These institutions by structure and spirit are cooperatives. In the Indian context, wherein cooperatives have the imperialist legacy compounded by democratic values, the political philosophies conflict to bring about disastrous results. Such experiences are so glaring that one had to exclaim that "cooperatives are a failure in India; but they must succeed". There are seminal evidences of success of milk cooperatives in Gujarat, Sugar cooperatives in UP, Maharashtra and Karnataka and arecanut cooperatives in Karnataka. The non-replicable feature of the arecanut cooperatives is that of a well knit vertically coordinated structure wherein perestroika and glasnost rule the PACS, the SCs and the BC without affecting their functioning as well as autonomy. Their functioning must be seen and observed to be believed. An analysis of the phenomena of cooperative peristokika and glasnost is presented in the proceeding sections.

1.06 THE PACS [FCs]

PACS are Facilitating Cooperatives (FCs). They are micro level operating credit societies which perform facilitating functions in the marketing of agricultural produce. Apart from providing credit to its members - mostly short term production credit and distribution of
inputs and consumer items - they do facilitative functions in marketing such as (a) collection, (b) storage, (c) transportation, (d) pledge loan, (e) arrangement for disposal through higher level societies, (f) banking and (g) extension services. A PACS has a well defined area of operation. It covers normally six to thirty villages. The households in their area form their target to perform their activity. Given the adult population as their ultimate target to achieve their enrolment, their participation is voluntarily ensured by the cooperative law. A PACS works on the principles of cooperation as enshrined in their byelaws.

It is noted that all the PACS - working in the arecanut hinterland in Karnataka - perform interalia, the above mentioned marketing functions. There is, however, an exception. There are only two PACS in the Shimoga subsystem which are agents of their higher level cooperative - the Selling Cooperative (SC). The producers of Shimoga, acquainted with sales acumen, are also agents of SC viz., Malnad Arecanut Marketing Cooperative Society (MAMCOS) - who dominate in number and also in business transaction.

The PACS in the Mangalore and Sirsi subsystems are more in number and are widely spread out in the entire area. It is observed that they perform all the functions enlisted above to their member-producers and have established forward and backward linkages with their
respective SCs. It is noted that in Mangalore, producers channelise their produce through the South Kanara Areca nut Cooperative Marketing Society (SKACMS) and sell directly to the BC i.e., to the CAMPCO and to the buyers at Mangalore market, while in Sirsi the producers sell through their PACS directly to either of the two SCs viz., Totagars’ Sale Society (TSS) or The Taluka Agricultural Produce Cooperative Marketing Society (TAPCMS). The producers in these subsystems exhaust all the channels to realise economic as well as social benefits. The proportion of arecanut passing through these channels in each subsystem is given in Diagrams presented in the Chapter V.

1.07 THE SELLING COOPERATIVES (SCs)

The SCs are the middle tier cooperative marketing institutions which operate normally at the block level. These Arecanut Cooperative Marketing Societies (ACMS) existed in Karnataka, Kerala and Maharasthra States in India numbering twenty one in 1962-63. The functions of the ACMS are : (i) collection of arecanut directly or through PACS, (ii) credit to the producers directly or through PACS, (iii) storage, (iv) arrangement for sale, (v) provision of market information, (vi) backward linkage with the PACS, (vii) forward linkage as the agents of the BC or with the buyers, (viii) provision of loan facility to the BC and buyers, (ix) commission agency business, (x) provision of inputs to the members/member-PACS and (xi) any other work of general welfare to its members.
ACMS or the SCs were seven in Karnataka in 1962-63, and increased to eight in 1987-88. Their value of turnover of arecanut increased from Rs.26.73 million in 1962-63 to Rs.231.59 million in 1987-88. It may be noted that the ACMS in Karnataka are the success stories worth commendation and emulation elsewhere, while in Kerala and Maharashtra they are not so.

The SCs in each of the subsystems - Mangalore, Shimoga and Sirsi are known as the South Kanara Arecanut Producers' Cooperative Marketing Society Ltd [SKACMS,(1919)], The Malnad Arecanut Cooperative Marketing Society Ltd. [MAMCOS, (1939)] and the Totagars' Sale Society Ltd. [TSS,(1923)] respectively. These SCs have a long, well cherished yet struggling histories. The arecanut producers who were exploited have evolved these organisations. The SKACMS, the MAMCOS and the TSS handled about 38.9 percent, 10.2 percent and 35.3 percent of the total arecanut produced in Dakshina Kannada, Shimoga and Uttara Kannada Districts in 1960, respectively. In 1989 these SCs handled 13.5 percent, 26.9 percent and 86.6 percent respectively in that order, thereby suggesting their relative performance.

The TSS was engaged in Market Intervention Operations (MIO) before 1966 and thereafter, it is working as the a Commission Agent (CA) for the CAMPCO. The other two SCs - SKACMS and the MAMCOS are also CAs for the CAMPCO. i.e., these three SCs' are facilitating the BC in their MIO and have a forward credit link with them to carry on their
business with ease. All the SCs have established backward linkage with their member/PACS. The SCs are the centrifugal leverages for the PACS and the BC and hence the entire AMS. At Sirsi, the TSS has an additional SC—the Sirsi Taluk Agricultural Produce Cooperative Marketing Society Ltd. [STAPCMS, (1984)] to strengthen the intermediary leverage.

1.08 THE BUYING COOPERATIVE (BC)

The Central Arecanut, Cocoa Marketing and Processing Cooperative Ltd [CAMPCO, (1973)] which is established under the Multi-State Cooperative Act is the only Buying Cooperative (BC) engaged in the MTO and the distribution of arecanut. The functions of the CAMPCO in a nutshell are, (1) purchase of arecanut directly from the producers, (11) Market intervention operations (MIO), (111) production of inputs, (iv) distribution inputs through PACS, (v) backward linkage with the SC's and (vi) retailing of arecanut through its branches.

The CAMPCO had 3,576 members and five procurement centres in 1973-74 which increased to 40,791 and the procurement centres to 38 in 1989-90, i.e., the average number of

*Purchasing of Cocoa and processing into chocolates are being done by the CAMPCO in addition to the arecanut business. A massive investment of Rs.143.14 million has been made in Chocolate business until 1989.
members per procurement centre has increased from 715 in 1973-74 to 1,073 in 1989-90. Also, the number of selling representatives have increased from three in 1973-74 to thirty one in 1989-90. The CAMPCO has opened two sales depots in 1974-75 and seventeen branches in 1989-90.

The BC purchased 5,048 MTs of arecanut valued at Rs. 35.85 million in 1973-74 which has increased to 22,092 MTs valued at Rs. 551.51 million in 1989-90. In sum, the BC which started the MIO in a small way handling about 8.38 percent of the total production in 1973-74 has carved out a niche by its MIO by handling as much as 24.62 percent of the total production in 1989-90 in the State. At the all India level, the CAMPCO has opened the procurement centres in the major production/assembling/ marketing centres and distribution centres at the wholesale cum retail levels for facilitating effective distribution. The CAMPCO’s performance at the all India level has steadily improvised from an infinitesimal handling of arecanut of 3.29 percent in 1973-74 to 8.87 percent of the total production in the country in 1989-90.

An exemplary feature of the functioning of the CAMPCO in its MIO is that of evolving business strategies by countervailing against depressing market forces. The BC has been able to master MIO by accepting the same grade standards evolved by the traders and producers. The business strategies of the BC are such as to declare its purchase price, collection of any quantity from producers
(500 grams or less would also be purchased) and regular participation in the daily tenders. The BC normally accelerates its buying in the peak season which is demonstrated by the fact that it has purchased 67.5 percent of its total purchases during the peak arrival month in 1989 (January to June). The SCs support its MIO activity by credit, grading, and packing functions. Also, the CAMPCO has well trained personnel in carrying business.

The BC has taken up production and distribution of Chemical Fertiliser viz., Copper Sulphate in 1986 to ensure timely input for the producers to sustain production and to ensure regular supply of arecanut. The BC has produced 2,314 MTs of copper sulphate valued at Rs.24.48 million in 1989. The production is followed by distribution of inputs through PACS.

It is found that the three SCs effectively coordinate, as already mentioned, in MIO activity by deploying their funds apart from performing the duties of a Commission Agent. The BC, thus, has backward linkage in translating their strategies into action.

*Mr. V. Subraya Bhat thanks Mr. B.R. Kamath as the key person to train the employees "in the art of grading and marketing arecanut". CAMPCO- Annual Report 1989-90; President's Address, pl.
The CAMPCO has taken up distribution function at seventeen urban centres, mostly in Northern India to assimilate the tricks of arecanut trade in those centres. Before embarking upon this activity, the arecanut purchased is sorted and garbled out into various varieties at the purchase centres, neatly packed into bags of 65 kgs. and despatched to their retail centres on consignment basis. The BC had sold 1533 MTs valued at Rs.10.14 million in 1973-74 which has increased (15.6 times) to 23,919 MTs valued at Rs. 671.02 million in 1989-90. The activities are being accelerated and diversified (by the establishment of the chocolate plant) over years pointing towards changes in the market structure and conduct and consequently bringing about changes in the performance of the entire AMS. A comprehensive analysis of the role of the cooperatives - the FCs, the SCs and of the BC - is done in the relevant chapters.

1.09 NEED FOR THE STUDY

There are cases of different commodity marketing systems wherein the intervention of the government has taken place in different forms. In the case of paddy and wheat the government intervention has been in the collection, piling up of stocks, arrangements for public distribution, and realisation of minimum support prices for farmers so as to meet the twin objectives of assuring remunerative prices to the producers and to meet the demand of consumers- in particular weaker sections. The
government has intervened in various forms in respect of cotton - monopoly procurement, declaration of prices, intervention in the exchange process, processing and meeting the demands of the customers. The apple marketing has institutional intervention for vertical integration of functions and organisations over space for sustenance of demand for the byproducts. The milk marketing system has an excellent vertically cooperative integrated structure which is being replicated for bringing about a change in the rural scene. These interventions have had their impact on the structure and performance of the respective systems in varying degrees.

There are two commodity systems, Tobacco and Jute wherein governmental efforts have not had made any impact. Also there are empirical evidences - given the environment - on the results as to what an institution can do, what interventions could result in and where laissez faire would lead us to. One would desire a marketing system which is technically and economically efficient, highly progressive, quickly adaptive and perfectly linked so that overall growth with equity and economic development with social justice could be achieved.

In the background of varied experiences of different commodity marketing systems and in ever changing social dimensions and political equations, it was thought necessary that an evaluation of Arecanut Marketing System
(AMS) would facilitate to evolve appropriate measures for achieving the laudable objective of an egalitarian society. Hence the present study.

1.10 THE PROBLEM

The present study seeks to answer the following questions concerning the arecanut marketing system:

(1) Whether there is structural change?
(2) Has this lead to a change in conduct? and
(3) What is the impact of changes in market structure and conduct on performance of the system?

1.11 OBJECTIVES

The study as outlined in the earlier paragraphs, has the following objectives:

(i) to study the pace and pattern of supply of and demand for arecanut;
(ii) to analyse the marketing behaviour of producers;
(iii) to assess the structural change in marketing;
(iv) to elucidate the market conduct of functionaries and
(v) to evaluate the performance of the Arecanut Marketing System (AMS).

1.12 THE HYPOTHESES

The hypotheses to be tested with regards to the AMS are stated below.
I. Structural changes have taken place in the AMS.

The above hypothesis would be tested by splitting it into three sub-hypotheses subsystemwise.

(a) structural changes have taken place in the Mangalore subsystem;
(b) structural changes have taken place in the Shimoga subsystem and
(c) structural changes have taken place in the Sirsi subsystem.

II. Market conduct has changed in the AMS:

(a) market conduct has changed in the Mangalore subsystem;
(b) market conduct has changed in the Shimoga subsystem and
(c) market conduct has changed in the Sirsi subsystem.

III. Consequent to changes in the market structure and conduct, performance of the AMS has changed in favour of producers:

(a) structure-conduct reverse causality has changed performance of the Mangalore subsystem in the favour of producers,

(b) structure-conduct reverse causality has changed performance of the Shimoga subsystem in the favour of producers and
(c) structure - conduct reverse causality has changed performance of the Sirsi subsystem in the favour of producers.

1.13 SCHEMATIC OVERVIEW

The Chapter I introduced the theme of the study with choice of the commodity having conventional, commercial and economic importance in the Indian context - the Arecanut (or Betelnut). After review of studies, discussion ensued on the working of cooperatives at three tiers - the FCs, the SCs and BC in the AMS. The need for the study is narrated followed by the identification of the problem. The objectives of the study have been set forth and hypotheses are formulated.

The Chapter II discusses the methodology adopted for the study. The universe of the study, the selection of markets - primary and terminal, the selection of cooperatives - the FCs, SCs and the BC, of varieties of arecanut and of producers are discussed. Then a comprehensive discussion on analytical methods is followed by a narration on the data base for the study.

It is in Chapter III, the commodity characteristics are explained. This is followed by production characteristics and trends in production/supply of Arecanut. The patterns of supply responses are explained in detail. The demand analysis is followed by a case study of Pan Business and Panwala Industry.
The marketing behaviour of producers is attempted in Chapter IV. After a profile of the producers, a discussion on preparation of arecanut for the market and their consumption requirement are followed by an analysis of selling behaviour and pattern of marketed supply in the study area. Inferences drawn are presented at the end.

The Chapter V presents the analysis of market structure for the AMS. After enumeration of basic conditions of supply and demand, business attitudes of the elements—sellers and buyers, the role of institutions and market channels are explained. The concentration analysis is followed by product differentiation and vertical integration in arecanut marketing. An examination of the structural changes in the AMS is presented at the end.

Market conduct analysis is elucidated in Chapter VI. The roles of the BC, SC and private traders and the price discovery process have been elucidated. The environmental role of the APMCs and marketing practices are also described. The Chapter VII deals with the causal influence of market structure and market conduct on the performance of AMS. The temporal analyses of price spreads, marketing margins and price structure have been done. This is followed by market integration analysis between primary and terminal markets wherein the method of deautocorrelated (refined) residuals of prices is used. The Chapter VIII presents the summary of the findings and conclusions.
1.14 REFERENCES


06. Uma Kapila: Oil Seeds Economy of India—A case study of Groundnut; Agricole Publishing Academy, New Delhi, 1982, pp 1 to 266+xviii.


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