

PRICE BEHAVIOUR OF ARECANUT IN KARNATAKA

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ABSTRACT

Despite the higher growth in arecanut production, the growth in the prices of the processed nuts is found to be positive and significant. The compound growth rate for the prices of matured, dried arecanuts (*chall*) in Mangalore market was 2.96 per cent per annum during the decennial ending 1988-89, while it was as high as 10.75 per cent for the processed tender nuts (*Saraku*) in Shimoga market. This trend suggests that the scented hotel nut (*Pan Masala*) manufacturing industry has created a sizeable demand for the processed tender nuts.

Contrary to the general price behaviour of agricultural commodities, one will be curious to notice that the farmgate prices of dried arecanut (*chall*) rise high in peak arrival months (March to May) in Southern Karnataka. This could be attributed to the positive role of the CAMPCO, an Apex Arecanut Co-operative Marketing Organization working in the area. The seasonal indices in respect of processed tendernuts (*red supari*) in Shimoga market however, could reveal that the prices were more or less stabilized year round and this could be attributed to the supply-demand balancing role played by the Malnad Areca Marketing Co-operative Society (MAMCO) whose major objective is to ensure a stable-cum-remunerative price to the arecanut growers of the region.

INTRODUCTION

There are many crops that are important to the Indian economy; but arecanut is one that enjoys unique distinction over many others. With a production of some 246,100 tonnes of dehusked and dry nuts from an estimated area of 204,300 ha in the year 1988-89, India continues to maintain its position as the largest producer of this crop in the world accounting for nearly 92 per cent of the world production. Similarly, this country is the largest consumer of this masticatory nut accounting for about 89 per cent of its world utilization. Even though as a crop it occupies only 0.14 per cent of the net area sown in India, arecanut sector provides gainful employment to some five million working force in one form or the other. As many as 60 million people all over India are connected with it for their chewing habit. Besides, it occupies a special position in the social and cultural life of the vast section of the Indian people. Like coconut, all parts of arecanut palm are useful to mankind. At the 1989-90 market rate the total value of this crop could be of the order of Rs.4123 million.

Again, arecanut is one among the few crops, that has made a significant achievement in its production front largely through the R & D efforts. The production has gone up by more than three folds from 73,000 tonnes in the year 1950-51 to 246,100 tonnes in 1988-89. Considering the production and price aspects of this commodity, the Government has been advocating a policy of restricting the area under arecanut since 1970s so that supply does not exceed its demand in view of limited export potential and thereby not creating a situation for the crash in prices of this small-holder commercial crop. In spite of the respective policy of the Government, the trends in area and production of this crop are moving upward and the agencies associated with the development of arecanut often feel that the crop has reached the stage of over production. A study on the price behaviour of arecanut in the major producing State of Karnataka however does not subscribe to the concern of excess supply over its demand at this present juncture.

MATERIALS AND METHODS

For this study the estimated figures on area,

production and yield for arecanut over different years were obtained from the Directorate of Economics and Statistics, Ministry of Agriculture, Government of India. The data on month-wise market arrivals and average prices for processed mature nuts (*white Supari* or *Chali*) were received from the Secretary, Agricultural Produce Market Committee (APMC), Mangalore, located in Dakshina Kannada. Similar data in respect of different grades of processed tender nuts (*Saraku*, *Bette* and *Gorabalu*) were collected from the Secretary, APMC, Shimoga, located in the Malnadu area in Karnataka. Mangalore APMC is considered to be the biggest regulated market for processed mature nuts, while Shimoga APMC is supposed to be one of the biggest regulated markets for processed tender nuts in the country.

The analyses of data done for the period 1979-80 to 1988-89, include the estimation of compound growth rates (CGR) for area, production, market arrivals and prices; assessment of seasonal indices for market arrivals and prices; correlation and regression analyses; and coefficient of variation (CV).

RESULTS AND DISCUSSION

Supply aspects :

Karnataka is figured out as the number one State in the matter of area, production and productivity of arecanut. The production as well as supply of

arecanut from this state has gone up from 54,500 tonnes in 1968-69 to 76,200 tonnes in 1978-79 and to 88,700 tonnes in 1988-89. For India as a whole the respective production figures are 1,39,700, 1,81,900 and 2,46,100 tonnes. Thus, it is quite evident that a sizeable growth in India's arecanut production sector came from Karnataka State alone. Karnataka accounted for some 36 per cent of India's production of arecanut during 1988-89 while Assam and Kerala constituted 31.7 per cent and 22.5 percent, respectively (Table -1). However, Karnataka share in the supply of processed nuts to the upcountry markets in the North, West and East India constituted as large as 75 per cent of the total utilization of this commodity in those regions. It is because of the fact that in Karnataka about 95 per cent of the harvested crop is converted into different grades of processed arecanut that are in demand in the main upcountry markets, while in all other producing states very little proportion of the harvested crop is made into those commercial grades. In Assam, for instance about 90 per cent of the harvested crop is consumed locally in the form of semi-ripe, fully-ripe or fermented arecanut. In Kerala about 30 per cent of the produce is marketed for local consumption. A small portion of the harvested crop is also stored in the form of fermented nut (*Neetadakka*) for sale in the off-season. A sizeable portion of tender nuts is also processed in Kerala into commercial grades such as *Nayampak* and *Naluvettu* which are traded in Southern districts of Tamil Nadu and those grades are not in demand elsewhere (Lakshmanachar

Table I. Area and production of arecanut in major producing States of India during 1979-80 to 1988-89

Year	Area ('000 ha)				Production ('000 Tonnes)			
	Karnataka	Kerala	Assam	India	Karnataka	Kerala	Assam	India
1979-80	52.9	60.8	46.4	183.3	76.9	50.5	44.5	189.5
1980-81	54.3	60.9	50.8	185.2	79.2	53.2	49.8	195.9
1981-82	55.2	61.2	47.2	182.6	80.2	53.0	48.1	193.8
1982-83	56.0	58.1	47.2	180.2	81.5	40.7	48.1	184.5
1983-84	56.5	59.6	50.2	186.5	82.6	41.5	47.9	189.5
1984-85	57.9	59.1	50.2	187.0	84.6	42.3	47.9	192.3
1985-86	58.6	56.8	50.7	185.6	84.1	50.3	60.1	216.2
1986-87	60.6	45.9	50.7	176.3	89.0	40.9	60.1	209.4
1987-88	60.7	60.0	58.7	200.0	88.7	55.4	61.4	228.6
1988-89	60.8	62.9	59.8	204.3	88.7	55.6	78.2	246.1

and George, 1982). Hence a greater part of the demand for this commodity which comes from up-country markets in the forms of white *supari* (*chai*) and red *supari* (*Saraku/Bette*) are supplied from Karnataka.

Moreover, marketing of processed nuts is better organized in Karnataka than other producing states in India. Here a large part of trading is carried out through well established regulated markets known as the Agricultural Produce Market Committees (APMCs). Besides, a number of arecanut growers marketing cooperative societies are working very efficiently in this state in order to provide stable and remunerative prices to the producers by correcting marketing disabilities. The most important cooperatives are : The Central Arecanut Marketing and Processing Cooperative (CAMPCO), South Kanara Agricultural Cooperative Marketing Society in Mangalore, Tolgar's Cooperative Society) in Shimoga and Tumkur District Areca marketing Cooperative Society in Tumkur (Das, 1982a).

Despite the government's concern about the overproduction of arecanut in India, it was observed that both the area and production of this crop were on the increase. Barring Kerala, in all other producing States the CGR was found to be positive. The CGR's for arecanut areas and production in Karnataka during the decennial ending 1988-89 were of the order of 1.68 per cent and 1.80 per cent per annum respectively as against 0.47 per cent and 2.17 per cent for the whole country (Table II). It suggests that the farmers are still very much hopeful about the future of arecanut. The negative growth rates in arecanut area and production in Kerala could mainly be attributed to the severity of yellow leaf disease in this state and certainly not due to the price factor.

Since Mangalore is considered as the major wholesale market for arecanut in Karnataka, the correlation coefficient between the production of arecanut in that State and the annual average wholesale prices of this commodity in Mangalore market was worked out for the period 1979-80 to 1988-89 and the 'r' value was (+) 0.725 which was significant at 5 per cent level. This indicated that the demand for arecanut was still higher than its supply.

Market arrivals and prices

In a cash crop like arecanut, the market arrivals give a much clearer position about the supply of that commodity compared to the production estimates. Keeping this point in view, the trends in market arrivals of white *supari* in Mangalore, APMC yard and red *supari* in Shimoga APMC yard during the period 1979-80 to 1988-89 were studied. The CGR of market arrivals in Mangalore market was 5.56 per cent per annum whereas it was only 0.61 per cent in the case of Shimoga market. The C.V. were estimated at 23.45 per cent and 9.40 per cent for the market arrivals in Mangalore and Shimoga APMCs, respectively. The trends in market arrivals revealed that the supply was certainly in increasing order though the supply of white *supari* was relatively unstable as compared to red *supari* (Table - III)

There was a feeling among the traditional red *supari* processors in Sirsi and Shimoga that the demand for those processed tender nut grades in upcountry markets had substantially declined. This apprehension was not without reasons. The producers - cum - processors of red *supari* were not getting the adequate price premium over white *supari* to compensate for the high processing cost and recovery loss associated with the tender nut processing. The tender nuts had very limited demand in very limited upcountry markets unlike white *supari* which had a wider market in India. During the early 1970s the supply of red *supari* exceeded its demand and thus the prices became unfavourable to those grades. On this account, the traditional red *supari* market of Sirsi had moved towards white *supari* marketing in a big way. The relatively lower growth

Table II. Compound growth rates of area and production of arecanut during 1979-80 to 1988-89

State	Area	Production
Kerala	(-) 1.77	(-) 1.23
Karnataka	1.68	1.80
Assam	1.43	3.61
Other States	1.15	1.16
All India	0.47	2.17

Table III. Market arrivals and value of Chali and red Supari transacted at Mangalore APMC Yard and Shimoga APMC respectively during 1979-80 to 1988-89

Year	Chali at Mangalore		Red Supari at Shimoga	
	Arrivals (Thousand tonnes)	Value (million rupees)	Arrivals	Value (million rupees)
1979-80	33.5	387.8	10.47	167.93
1980-81	32.7	465.3	10.97	216.43
1981-82	29.8	422.7	10.44	230.51
1982-83	36.3	466.2	12.61	255.60
1983-84	24.3	495.3	8.73	216.94
1984-85	32.9	685.3	11.83	358.92
1985-86	33.7	843.0	11.52	335.34
1986-87	42.2	777.5	11.07	367.65
1987-88	47.0	606.0	11.25	486.67
1988-89	55.6	804.8	11.67	433.42
Mean	36.80	595.31	10.96	306.94
S.D.	8.63	162.30	1.03	99.79
C.V. (%)	23.45	27.26	9.40	32.51
CGR (%) per annum	5.56		0.61	

rate of red *supari* in Shimoga is therefore, understandable.

But when the growth rates of wholesale prices for white *supari* and red *supari* were examined, the CGR was found to be 2.96 per cent and 10.75 per cent, respectively. Moreover, during the recent years of 1986-87 to 1988-89 the price premium for red *supari* over white *supari* was between Rs. 1807 and Rs. 2995 per 100 kg (Table IV). This trend revealed that the scented betelnut (*Pan masala*) manufacturing industry has now created a sizeable demand for the processed tender nuts as it suits well to their needs. In that context, processing of red *supari* could be viewed as Value Added Product (VAP) rather than a traditional processing system which meant for a limited market.

Price Instability

Eventhough arecanut was found to be a remunerative enterprise, like any other agricultural commodities it suffered from the price instability over

Table IV. Wholesale prices of arecanut in Mangalore and Shimoga markets in Karnataka State (Rs./100 kg.)

Year	Mangalore (Supari)	Shimoga (Red Supari)	Variations
1	2	3	4 (3-2)
1979-80	1156	1604	+ 448
1980-81	1422	1973	+ 551
1981-82	1488	2208	+ 720
1982-83	1418	2027	+ 609
1983-84	1285	2485	+ 1200
1984-85	2083	3034	+ 951
1985-86	2499	2911	+ 412
1986-87	1844	3651	+ 1807
1987-88	1331	4326	+ 2995
1988-89	1447	3714	+ 2267
Mean	1597	2793	
S.D.	396.29	843.59	
C.V. (%)	24.81	30.20	
CGR (%/annum)	2.96	10.75	

the years. The c.v. for annual average wholesale prices of white *supari* in Mangalore APMC for the period 1979-80 to 1988-89 was 24.81 per cent as against 30.20 per cent for red *supari* in Shimoga APMC (Table IV). However, compared to many other agricultural commodities, the prices of arecanut in Karnataka were less unstable and this was by and large on account of production uncertainty rather than market manipulations in the producing area of Karnataka. This point could be well understood when we examine the seasonal indices for prices in relation to market arrivals. Since the price elasticity of demand as well as the income elasticity of demand are very small in this commodity, the demand for arecanut in the consuming markets was not affected by the fluctuations in prices (Lakshmanachar and Shenoy, 1964).

Seasonal indices

Seasonal indices of the market arrivals showed that the peak period of marketing in Mangalore APMC for white *supari* was March to May, while the lean period spread over August to December. However, contrary to the general price behaviour in agricultural commodities where prices rule low in the peak marketing season and rise in the lean season, in this situation prices ruled high in peak months of market arrivals and little lower in lean months (Table V). This was

a most welcome situation as far as the arecanut growers' interest was concerned.

In Shimoga APMC the seasonal indices of market arrivals of red *supari* was quite different from that of white *supari* arrivals in Mangalore APMC. The peak season for red *supari* in Shimoga was November to March, while May to September was lean season. This difference in marketing season for white *supari* and red *supari* could be attributed to the difference in the harvest time for mature and tender nuts as well as the time taken for processing and drying the nuts. The seasonal indices in prices of red *supari* showed that the prices were more or less uniform over the months irrespective of the seasons, which was quite unexpected form an agricultural commodity (Table V).

When we look at the past history of arecanut prices in India in general and Karnataka in particular, the present state of the art could be most encouraging. It was seen that there was an unprecedented fall in arecanut prices in Karnataka during the early 1970s mainly because of trade manipulations. The government of Karnataka constituted a committee in September 1972 under the Chairmanship of Shri T.T. Paulose to get away from the problem. This gave birth to the Central Arecanut marketing and Processing

Table V. Seasonal Index of Market Arrivals and Prices of Arecanut (chali) in Mangalore APMC yard and of Red Supari in Shimoga APMC yard during 1979-80 to 1988-89

Month	Chali at Mangalore		Red supari at Shimoga	
	Arrivals	Prices	Arrivals	Prices
January	96.46	92.51	223.13	99.97
February	104.90	109.50	219.63	96.57
March	135.27	142.09	162.12	99.16
April	127.61	120.85	69.94	101.43
May	129.84	134.45	29.33	104.51
June	109.11	108.65	18.35	105.66
July	94.53	81.27	9.50	99.61
August	76.37	72.98	9.26	101.08
September	88.07	84.85	38.50	100.68
October	85.83	90.78	89.83	97.67
November	77.44	81.81	139.64	96.56
December	74.57	80.26	190.78	97.11

Cooperative Society in 1973 (Das, 1982 b). The positive role of the CAMPCO, MAMCO and other cooperative organizations and the APMCs have contributed to the stability as well as growth in the arecanut sector of Karnataka.

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