



Price Behaviour of Silk Cocoons In Karnataka

KEYWORDS

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ABSTRACT Karnataka is the silk bowl of the country. Cocoon production activity is undertaken throughout the year in all the districts of the state. Government of Karnataka established 56 cocoon markets by passing a special Act. There are three important cocoon markets viz. Ramanagar, Shidlaghata and Vijayapur which account for 75% of the total cocoons transactions. Hence the price of cocoons in Karnataka is determined on these markets.

Silk cocoons cannot be stored for more than a week, so Traders take advantage, at the reelers' auction and fix a low price. The produce is marketed only in the regulated markets so the traders can easily control the fixing of the price. Hence, there is no linkage between demand and supply, between price of cocoons and silk. However, during the five years period, (2008-2014) it was found that the cocoons fetched higher price in January month and the lowest price in July every year. It is evident that there is a need for a certifying agency to determine the quality of cocoons and fix price for online sales.

If the farmers cannot get fair prices, there is a possibility of them shifting to a different occupation.

Introduction:

Karnataka is the silk bowl of the country. Cocoon production activity is undertaken throughout the year in all the districts of the state. The sericulture area has been divided into, Traditional and Non-traditional. The highest production of silk cocoons has taken place in traditional areas. Now there are 56 cocoon markets established over different parts of the state. Among them Three (3) are Big Markets at Ramanagar, Shidlaghata and Vijayapur, altogether these 3 markets account for 75% of the total cocoons transactions in the state. Hence, the market price of cocoons in Karnataka is determined on the basis of these 3 markets.

Silk Cocoons being a perishable commodity, they should be sold soon after harvesting. To help and protect the cocoon producing farmers from the exploitation of middlemen and private market operators, the Government of Karnataka has enacted a law.

Generally the price of products is determined on the basis of demand and supply. But in case of cocoon price, the additional factors like import policy and the reelers' bidding capacity will be determined. Because, the cocoons have to be reeled within 10 days of harvesting, they cannot be stored for longer period. Further, as per the regulation, cocoons are to be sold only on regulated markets and there is no other way. Lack of knowledge & shortage of storing capacity of the farmers, forces them to sell the products immediately whatever the price they fetch. Due to collaboration of reelers in the cocoon market, the price of the cocoons is very low. Hence, the sericulture farmers are not getting the right price for their products.

This study is undertaken to know the present cocoon price determining factors and suggest measures to be taken to help the poor cocoon producing farmers in getting appropriate prices for their products. Though the price of silk products are increasing the price of cocoons are reduced. There must be a balance of price between cocoons and silk.

Review of literature:

R.Bharathi, June (2009)¹ made a study with the title "Price Behaviour of Mulberry Silk Cocoon in Ramnagar and Siddlaghatta Market – A Statistical Analysis". He had undertaken a case study of two important cocoon markets of Karnataka viz. Ramanagar and Shidlaghatta during the year 2009. His data reveals that there is Correlation between arrivals and prices of cocoon in Ramnagar and Siddlaghatta market (120 months period).

Ramesh K B(2011)² undertaken a research study with an objective to analyse the impact of arrivals on prices in different races of silk cocoons in Karnataka in three important cocoon markets. The data was collected from April 1998 to September 2010. He found that the highest arrivals were noticed in the month of June and October and lowest in July and September months. His observation found that the highest prices were fetched in the month of September and May and lowest in the month of January and February of every year.

Prabhakar Y S (1988)³ made a comparative study on economic analysis of reeling cocoon trade in two selected markets of Karnataka viz, Ramanagar and Vijayapura. His study found that the arrivals and prices of cocoons were moving on an increasing order during their period of study i.e., 1974-1985. His observation reveals that, one percent change in the unit price of silk cocoons, the quantity of arrivals changed to an extent of about three percent in the same direction. The Ramanagar market attracts the largest quantities in comparison with all the 44 markets of the state and the magnitude of fluctuations is minimal. Further his study found that the cocoon producers' prices have remained stable despite the destabilising effects on silk yarn prices. The coefficient of variation was found to be around 17 percent in both the markets. He inferred that, a one rupee increase in silk prices brings about a matching increase in the price of cocoons. Thus, he suggested, the reelers' fix the price for cocoons keeping in mind the prevailing price of silk yarn in the market.

R. BARATHI, et al (2011) ⁴made study in University of Agricultural Sciences, Dharwar with the title "A study on market integration of Ramanagaram and Siddlaghatta markets and forecasting of their prices and arrivals". The study was based on secondary data collected for a period of ten years from 1998-99 to 2007-08. His study found that, there is positive relationship between arrivals and prices both in Ramanagaram and Siddlaghatta market. Based on the study, the author forecasted the arrivals and prices of cocoons for coming 3 years.

Objectives: Following are the objectives of the study:

1. To study the Cocoon Price trend in Karnataka
2. To study the cocoon price behavior in Karnataka.
3. To establish the relationship of Cocoon Prices with silk prices
4. To establish a link between production and price of cocoons.
5. To find out any alternative means of fixation of cocoon prices.

Functioning of Cocoon Markets:

To avoid exploitation of middlemen and private market operators in cocoon market, the government of Karnataka passed an Act named as "The Karnataka Silkworm seed, cocoon and silk yarn (Regulation of production, supply, distribution and Sale) Act 1959. Accordingly all activities of silk & cocoon are done under the shadow of this Act. The salient features of the Act is as under:

1. No person shall or agree to sell, purchase or agree to purchase at any other place except in the notified cocoons markets.
2. Both the rearers and reelers should possess license issued by the state department for selling and buying cocoons from notified cocoon market
3. The farmer is free to sell in any cocoon markets in the state wherever he likes.
4. The lot of cocoons brought by the rearer is issued with a bidding slip on which rate, weight, total amount and market fee payable are entered in the transaction proceeds.
5. The bidding will start from this floor price in front of the market inspector and the highest bidder get the Cocoon. The trading is done only when both the parties' viz. vendor and buyer agree.
6. The sale of cocoons is by open auctions and the lot is deemed to be sold to highest bidder, provided the rearer agree to the price. If the rearer does not agree to the price another auction is conducted or he is permitted to transact the cocoons in any other market or in the same market in the following day.
7. The cocoons are weighed in the presence of buyer and seller in the uniform container under the supervision of market official.
8. Payments: The sold lots are weighed and a bill is prepared in triplicate. The buyer has to pay by cash and collect the cocoon from the market. After all the buyer pays their bidding amount and the market officer will disburse the cash to farmers for the sales they have done on that day. The payment is made in the form of cash in the same day itself. A market fee of one percent of the total value of cocoons transacted is collected from the reelers as well as from rearers.

Methodology:

For the purpose of study, the secondary data of produc-

tion and price of cocoons was collected from the Annual Reports of the Department of Sericulture, Government of Karnataka. The data was tabulated and analyzed with the help of statistical tools like mean, Standard Deviation, Co-efficient of Variation for this study.

Cocoon Production:

Quality Silk Cocoon production require quality of mulberry i.e. sole food plant for silkworms. If the mulberry leaves sufficiently available then the Cocoon production will also increase so, during the period between June and January Cocoon production increases. Hence the Price also increases due to quality production of Cocoons.

There are two types of silk cocoons. Viz. Cross Breed (CB) and Bivoltine (BV). The silk reeled from bivoltine cocoon is long and of high quality. Therefore, rearers prefer bivoltine cocoons. Following table shows the silk cocoon production.

Table- 1
Year- wise Cocoon Production in Karnataka during last five years (2008-09 to 2013-14) (M.Tonnes)

Types of Cocoons	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
CB	50967.679	52155.888	50780.031	53707.754	45892.378	56412.968
BV	2409.187	2126.197	1928.544	2249.405	3548.625	5006.502
TOTAL	53376.866	54282.00	52708.575	55957.159	49441.003	61419.470

Source: Compiled data from the Dept. of Sericulture, GOK.

Table-1 shows that, there is no much change in production of cocoons during the last 5 years period in Karnataka. The highest cocoon production was found in 2013-14 (61419.470 metric tons) and lowest during 2012-13 (49,441 M.Tonnes) due to drought situation in Karnataka.

Pricing:

Generally there is an inverse relation of production and price in the market. Following table-2 shows the silk cocoon production and prices prevailing in the cocoon market.

Table -2
Silk Cocoons Production and Average Price in Karnataka

Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Production (Million-Tonnes)	533.7686	542.8200	527.0857	559.5716	494.4100	614.1947
Average Price (Rs.)	141.73	172.29	237.68	189.08	259.86	NA

Source: Data compiled from the Annual Reports of the Dept. of Sericulture, GOK.

Table -2 and Chart -1 shows that there is no relation between cocoon production and average prices of cocoons in Karnataka during the period of 2008-09 to 2013-14.

Price variance:

The price of cocoons are not fixed in the market. It depends upon the demand and supply in the cocoon market. Following table-3 shows the price of cocoons in different months of for the last 5 years.

Table-3
Average Month- wise Price of Cocoons in Karnataka for the Five Years (2008-09 to 2012-13) (Rs.)

Sl. No	Months/ Year	Price of Cocoons Per Kg.					
		2008-09	2009-10	2010-11	2011-12	2012-13	Average of 5 years
1	April	109.42	164.37	206.51	230.23	218.55	185.82
2	May	112.87	163.54	206.57	196.37	229.13	181.70
3	June	123.70	164.26	212.77	168.63	244.79	182.83
4	July	115.18	143.40	216.62	174.95	249.71	179.97
5	August	130.93	164.14	209.8	184.53	275.77	193.03
6	September	139.84	162.78	234.8	188.25	258.63	196.86
7	October	137.76	165.47	244.67	177.67	248.77	194.87
8	November	154.65	169.66	211.89	168.30	248.10	190.52
9	December	161.27	195.47	239.13	179.57	276.76	210.44
10	January	180.47	187.3	314.33	194.48	288.98	233.11
11	February	166.33	192.21	312.53	199.65	289.11	231.97
12	March	168.31	194.9	242.52	206.27	289.97	220.39
	Mean	141.73	172.29	237.68	189.08	259.86	200.13
	% in-crease/ decrease	100	121	167	134	183	
	SD	38.0766	16.291	38.146	17.773	24.107	
	CV	0.28544	0.0946	0.1605	0.094	0.0928	

Source: Data Compiled from Annual Reports of the Dept. of Sericulture, GOK.

Table-3 shows that, the average price of cocoons for the last five years came to be Rs. 200/Kg. The highest average price of Rs. 233.11/kg was found during the months of January every year and lowest of 179.97 was found in the months of July during the last 5 years. The mean value of cocoons was found to be Rs.141.73/kg. during 2008-09, increased to Rs. 237.68/kg in the year 2010-11. Later it was decreased to 189.08 (134%) and then it was increased to 259.86 (167%) during 2012-13. It means, the price of cocoons was nearly doubled (183%) during the five years period compared with that of year 2008-09. The standard deviation was found to be 38.07 during 2008-09 and it was reduced to 17.773 at 2011-12 but there is much improvement was found in the year 2012-13 and further raised to 24.107.

Generally First and Second Quarter of each year the prices are low because of hot climatic condition and then some

improvement over the second quarter. However, the last quarter the prices are increased because of high demand & ideal climatic condition both for rearing and reeling activities of silk cocoons.

Cocoon & Silk Yarn Prices:

There are two types of cocoons generally harvested in Karnataka viz. Bivoltine and Multivoltine. Bivoltine Cocoons are high quality and generally they fetch high prices. Most of the cocoon production, nearly 80% is of multivoltine. With regard to silk, there are three varieties viz. Filature, Charaka & Dupion. Filature constitutes 80-90%. Therefore a survey of the price of silk in this study is Filature silk. Following table -5 shows the cocoon & silk prices.

Table-4
Month-wise Cocoon and Silk Yarn Prices for 3 years (2010-11 to 2012-13) (Price per Kg.)

Sl. No	Month/ Year	2010-11		2011-12		2012-13	
		Cocoon	F.Silk	Cocoon	F.Silk	Cocoon	F.Silk
1	April	206.51	1755	230.23	2150	218.55	1935
2	May	206.57	1802	196.37	1952	229.13	2048
3	June	212.77	1834	168.63	1874	244.79	2030
4	July	216.62	1976	174.95	1891	249.71	2126
5	August	209.80	1944	184.53	1954	275.77	2205
6	September	234.80	2265	188.25	1967	258.63	2365
7	October	244.67	2319	177.67	1892	248.77	2305
8	November	211.89	2278	168.3	1851	248.10	2366
9	December	239.13	2597	179.57	1855	276.76	2280
10	January	314.33	2777	194.48	1859	288.98	2415
11	February	312.53	2707	199.65	1900	289.11	2249
12	March	242.52	2709	206.27	1915	289.97	2457
	Yearly Avg.	236.49	2199	188.04	1913	260.90	2236
	SD	38.1459	382.672	17.7726	82.0912	24.1070	165.8351
	CV	0.161	0.17402	0.09451	0.04291	0.09239	0.074165

Source: Annual Reports of Department of Sericulture, GOK.

Note: Prices of cocoons are Multivoltine & silk is of filature is taken for the purpose of study.

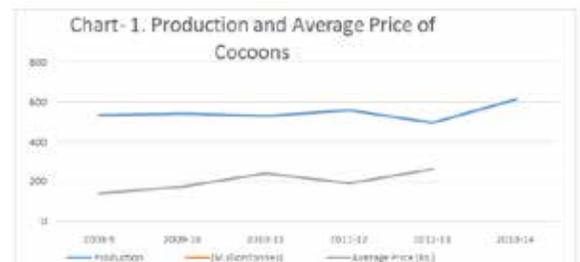


Chart- 2. Cocoon and Filature Silk Prices for 3 years.

Table-4 and Chart-2 indicates that the average price of the cocoons was lower during 2011-12 compared with that of other two years i.e., 2010-11 & 2012-13 and it was stable during 2010-11. The Cocoon Prices are comparatively stable than Filature Silk. However during 2011-12 the variation was less and during 2012-13 Price Variation of both items was less.

Suggestion:

There are many reasons for decrease in production of cocoons and the prices. the following suggestions may be recommended:

1. There should be silk testing agency, which will certify the quality of silk in the lot.
2. It will give freedom to the cocoon producers to sell the product online without coming to the cocoon market; the sericulture farmers will get the right price.
3. In addition the government has to compensate the difference in cost price and the market prevailing price to the sericulture farmers.

Conclusion:

The above study proves that there is a nexus of traders and regulated markets which ruthlessly exploits the sericulture farmers by putting a squeeze on the price of the cocoons the only way this can be rectified is by Proper knowledge of marketing techniques for the farmers. Price determinants with regard the demand and supply of silk cocoons by the Government or a regulating agency will definitely improve the farmer's economic level.

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