ADDRESSING PRODUCTION AND MARKETING CONSTRAINTS OF ARECANUT GROWERS: INSIGHTS FROM TUMCOS IN DAVANAGERE, KARNATAKA, India

ABSTRACT

This study was conducted in the Davanagere district of Karnataka to analyze the constraints faced by TUMCOS member and non-member arecanut growers and to propose solutions for overcoming these challenges. A total of 120 areca producers (60 members and 60 non-members) were randomly selected from five TUMCOS branch regions. Data were collected through personal interviews and analysed using frequency, per cent and rank order method. The majority of farmers (90.83%) identified labor shortages as a primary production constraint. Financial challenges included inadequate subsidies (58.33%), while marketing challenges were high transportation costs (69.17%) and remote market locations (66.67%). A significant portion of farmers (65%) suggested improving market infrastructure, including transportation, storage, and weighing facilities, to address these issues.

Keywords: arecanut production, marketing challenges, labor availability, financial constraints, TUMCOS)

1. INTRODUCTION

Areca (Areca catechu L.) is mainly consumed for mastication purpose in India by all people without consideration of castes, classes, regions, religions, ages, and genders. Arecanut usage dates back to Vedic period and religious and social rites are incomplete without the presence of arecanut. India is the world's largest producer of arecanut. Area under arecanut has been increased to 5.18 lakh hectares in 2018-19 which is almost 2.35 times the area prevailing in 1991-1992 (2.2 lakh hectares)(fifth report of special, scheme on cost of cultivation on arecanut in Karnataka).

Karnataka Scenario:

Among the states of India, Karnataka stands first in arecanut production. Karnataka, Kerala and Assam, all three states together accounts for 88.59 per cent of the total arecanut production in the country. In Karnataka around 2.79 lakh hectares was under arecanut cultivation, which accounts for 57.85 per cent of total arecanut areas in India. Its contribution to total production is around 6 lakh tonnes which accounts 65.93 per cent of all India production in 2018-2019.

As a high-value commercial crop, it makes substantial contribution to the national economy in terms of livelihood, employment, and income. As arecanut is major source of livelihood for small and medium farmers in India, arecanut grower face several challenges. When it comes to production issues high cost of inputs, long gestation period from investment to harvest of final produce, water scarcity during summer and paucity of water at critical stages like flowering and nut filling stage in non-traditional arecanut growing areas, climate change consequence like unpredictable rains during flowering and nut filling stages leads to flowers drop and intern final yield of the produce. Labour availability is a key limitation in the arecanut growing belt non- availability of

labour during peak harvesting and processing season affect the quality and then yield of produce, causing farmers to get low prices for the is produce. Aside from that, in high rainfall area, arecanut crop suffer a lot because of pest and disease incidence like Koleroga, hidimundige roga, leafsport, nut eating caterpillar and so on and management become difficult due to height of tree. When it comes to constraints related to marketing of produce, there will be large price fluctuation in different arecanut markets. Apart from that, processing in arecanut decides the quality and finally the price. Typically, majority of farmers go for pre contact with middlemen, which may be due to urgent need of money or because small holdings force them to do so. In this type of selling farmers get suboptimal prices than the market prices. Another essential aspect in arecanut marketing is grading of produce, often farmers gross root level neither have the knowledge on different classes/grades of arecanut nor the facilities to grade the produce resulting in low price realization by the farmers. In case of financial constraint, establishing arecanut gardens entails, land levelling, digging of pits, seedling cost, bore wells, drip systems etc., with revenue generating begins after 2- 3 years of plating, which will be a hardship for resource poor farmers. With this brief background current study make a attempt to identify crucial constraints faced by the farmers and suggestions to overcome those problems.

Objective of the study

1. To elicit the constraints faced by member and non-member arecanut growers of TUMCOS and to seek suggestions to overcome those constraints in production and marketing of arecanut

2. MATERIALS AND METHODS

The research was carried out in the Davanagere district of Karnataka's Southern Transitional Zone (Zone-7) in 2021. The research region was chosen on purpose because of the high production and productivity of the Areca nut crop, as well as the location of TUMCOS's headquarters. Ex-post facto research design was used. This design was considered appropriate, since it is a systematic empirical enquiry for measuring the phenomenon, which has already occurred and is continuing. TUMCOS has eight branches spread over four districts in Karnataka, with five of them, including the headquarters in Davanagere, being chosen for the research. From each branch 12 TUMCOS farmers and 12 non-TUMCOS farmers were randomly selected, for a study Thus, constituting total sample size of 24 farmers from each branch. An equal number of respondents (60 members and 60 non-members) were chosen for the study in order to ensure equality when comparing members and non-members. As a result, the overall sample size from the five branches constitutes 120 farmers. Descriptive statistics like frequency, percentage and rank order tools were applied to summarize the key constraints and suggestions to overcome those constraints.

3. RESULTS AND DISCUSSION

3.1 Constraints as perceived by member arecanut growers of TUMCOS

A close looks at Table 1 reveals that the majority of farmers (93.33%) cited a lack of labour as a major production constraint faced by TUMCOS member arecanut growers. This was followed by 88.33 %, 53.34 %, 45.00 %, and 40.00 percent of farmers who cited a lack of water supply, expensive inputs, non-availability of inputs, and a lack of technical advice. Research findings are in line with Deepika (2015)

The financial difficulties that TUMCOS member arecanut growers face are also shown in Table 1, with nearly half (46.66%) identifying insufficient subsidies as a key problem. Subsequently, 88.33 %, 53.34 %, 45.00 %and 16.68 per cent reported financial constraints related to inadequate credit, extended repayment periods, credit availability in terms of amount and timing, and elevated loan interest rates.

Table 1: Constraints as perceived by member arecanut growers of TUMCOS

(n=60)

Sl. No.	Problems	F	%	Rank
A.	**Production**			
1.	Non- availability of inputs	27	45.00	IV
2.	High cost of inputs	32	53.34	III
3.	Lack of technical guidance	24	40.00	V
4.	Lack of water supply	53	88.33	II
5.	Lack of labour availability	56	93.33	I
B.	**Financial**			
1.	Inadequate credit	18	30.00	II
2.	Inadequate subsidy	28	46.66	I
3.	High interest on loan	10	16.68	V
4.	Insufficient repayment time	13	21.66	III
5.	Quantum and timely availability of credit	12	20.00	IV
C.	**Marketing**			
1.	Lack of Marketing information	15	25.00	IV
2.	Lack of storage facilities	00	00.00	IX
3.	Distant location of market	25	41.66	II
4.	Delayed cash payment	08	13.33	VI
5.	Complexity of payment	17	28.34	III
6.	Improper weighment	06	10.00	VIII

7.	Exploitation by middlemen	07	11.67	VII
8.	High commission rate	03	5.00	IX
9.	High transport charges	30	50.00	I
10.	Non- availability of regulated market	10	16.68	V

F- Frequency, %- Per cent

Additionally, Table 1 showed that the primary marketing obstacles that member TUMCOS arecanut growers had to deal with were high transportation costs (50.00%), a remote market location (41.66%), complicated payments (28.34%), inadequate market information (25.00%), the absence of a regulated market (16.68%), high commission rates (13.33%), inadequate storage facilities (11.67%), late cash payments (13.33%), and inaccurate scientific weighing (05.00%).

3.2 Constraints as perceived by non-member arecanut growers

Table 2: Constraints as perceived by non-member arecanut growers

(n=60)

Sl. No.	**Problems**	**F**	**%**	**Rank**
A.	**Production**			
1.	Non- availability of inputs	35	58.32	IV
2.	High cost of inputs	43	71.66	III
3.	Lack of technical guidance	23	38.32	V
4.	Lack of water supply	55	91.66	I
5.	Lack of labour availability	53	88.33	II
B.	**Financial**			
1.	Inadequate credit	42	70.00	III
2.	Inadequate subsidy	37	61.68	IV
3.	High interest on loan	51	85.00	I
4.	Insufficient repayment time	36	60.00	V
5.	Quantum and timely availability of credit	47	78.34	II
C.	**Marketing**			
1.	Lack of Marketing information	48	80.00	IV
2.	Lack of storage facilities	50	83.33	III
3.	Distant location of market	55	91.67	I
4.	Delayed cash payment	44	73.33	VI
5.	Complexity of payment	28	46.66	IX
6.	Improper weighment	45	75.00	V
7.	Exploitation by middlemen	40	66.67	VII

8.	High commission rate	35	58.33	VIII
9.	High transport charges	53	88.32	II
10.	Non- availability of regulated market	20	33.32	X

F- Frequency, %- Per cent

Table 2 shows that the majority of farmers (91.66 %) identified a lack of water as a major challenge. This was followed by 88.33 %, 53.34 %, 45.00 %and 38.32 per cent of farmers who stated that labor was scarce, input prices were high, inputs were unavailable, and they lacked technical support.

Financial constraints were also highlighted in Table 2, where 85.00% of farmers identified high loan rates as a major problem, followed by short repayment terms (78.34%). Inadequate credit (70.00%), insufficient subsidy (61.68%), and insufficient credit quantity and timely availability (60.00%).

Additionally, Table 2 listed the following marketing barriers that non-member arecanut growers had to overcome: the market's remote location (91.67%), expensive transportation costs (88.32%), a lack of storage facilities (83.33%), and a lack of marketing information (80.00%). Inaccurate measurement (75.00%), postponed cash payment (73.33%), intermediary exploitation (66.67%), excessive commission rate (58.33%), intricacy of payment (46.66%), and absence of a regulated market (33.32%). Research outcomes are in consist with results of vedamurthy (2002).

After examining the limitations faced by members and non-member arecanut growers, it was found that while both groups of farmers were experiencing the same production issues, there was a slight difference in the financial and marketing limitations that members faced. This difference was primarily due to the fact that members of TUMCOS are eligible for low-interest loans on their produce, free storage facilities for five months, which prevents distress sales, scientific weightment facilities, and regular updates on arecanut prices through short message services and other benefits.

3.3 Constraints as perceived by overall arecanut growers

Table 3: Overall constraints as perceived by members and non-member Arecanut growers of TUMCOS

(n=120)

Sl. No.	Problems	F	%	Rank
A.	**Production**			
1.	Non- availability of inputs	62	51.67	IV
2.	High cost of inputs	75	62.50	III
3.	Lack of technical guidance	47	39.17	V
4.	Lack of water supply	108	90.00	II
5.	Lack of labour availability	109	90.83	I

B.	**Financial**			
1.	Inadequate credit	55	45.83	IV
2.	Inadequate subsidy	70	58.33	I
3.	High interest on loan	61	50.83	II
4.	Insufficient repayment time	60	50.00	III
5.	Quantum and timely availability of credit	46	38.33	V
C.	**Marketing**			
1.	Lack of Marketing information	63	52.50	III
2.	Lack of storage facilities	50	41.66	VI
3.	Distant location of market	80	66.67	II
4.	Delayed cash payment	52	43.33	IV
5.	Complexity of payment	45	37.50	VIII
6.	Improper weighment	51	42.50	V
7.	Exploitation by middlemen	47	39.17	VII
8.	High commission rate	38	31.67	IX
9.	High transport charges	83	69.17	I
10.	Non- availability of regulated market	30	25.00	X

F- Frequency, %- Per cent

Based on a detailed analysis of Table 3, the majority of farmers (90.83%) cited a shortage of labour as a primary hindrance to production. This was followed by 88.33 %, 53.34 %, 45.00 %and 39.17 per cent of farmers who cited inadequate water supply, excessive input costs, unavailability of inputs, and a dearth of technical assistance.

Financial constraints were also highlighted in Table 3, where 58.33% of farmers identified inadequate subsidies as a major problem. This was followed by high loan rates (50.83%), short loan repayment terms (50.00%), insufficient credit (45.83%), and the quantity and timely availability of credit (38.33%).

Table 3 also revealed the following as significant market limitations: high transportation costs (69.17%), the market's remote location (66.67%), a lack of marketing information (52.50%), delayed cash payment (43.33%), improper weighment (42.50%), a lack of storage facilities (41.66%), middlemen exploitation (39.17%), payment complexity (37.50), high commission rate (31.67%), and the absence of a regulated market (25.00%). Results are in line with Vinyaka Narayan Nayak (2014).

After looking at the difficulties faced by arecanut growers (Tables 1, 2, and 3), the main obstacle to production was a shortage of labor because arecanuts only yield a good price when they are processed, which requires more labor from the time the nuts are harvested from the tree to the time they are dehusked, boiled, and sun dried. Because the surrounding areca growing area's harvesting season begins at the same time, there may be a severe labor shortage during peak season.

The lack of sufficient subsidies was identified as the growers' main financial constraint. As a result, the growers requested additional subsides for the areca planting as well as for the purchase of areca de-husking machines, spraying equipment, and drip systems.

The primary marketing challenges faced by areca growers included high transportation costs due to markets' remote locations and a dearth of information about market arrivals, prices on a daily basis, and price forecasts. As a result, farmers were unable to make the right decisions and ultimately suffered losses.

3.4 Suggestions expressed by member arecanut growers of TUMCOS

Recommendations from member arecanut farmers are listed in Table 4. More than half of arecanut growers recommended providing a timely and sufficient supply of inputs (58.33%), longer loan repayment terms (55.00%), and adequate market infrastructure, such as transportation options, ample space for storage, and facilities for scientific weighing (48.34%). Nonetheless, slightly more than half of the respondents indicated that they were protected from market intermediary exploitation (33.32%), were given loans at a lower interest rate (16.68%), and were provided with timely and appropriate information regarding the availability of inputs, prices, arrivals, and grading qualities, among other things (41.66%). Study results are in consistant with the findings of Abhilash (2017)

Table 4: Suggestions expressed by member arecanut growers of TUMCOS

(n=60)

Sl. No.	Suggestions	F	%	Rank
1.	Need for improved variety	08	13.33	VIII
2.	Timely and adequate information reg. availability of inputs, prices, arrivals etc.	25	41.66	IV
3.	Timely and adequate supply of inputs	35	58.33	I
4.	Longer repayment period for credit	33	55.00	II
5.	Providing loan at lower interest rate	10	16.68	VI
6.	Provision for suitable market infrastructure viz. transportation, storage, weighment facilities	29	48.34	III
7.	Protection from exploitation by middlemen	20	33.32	V
8.	Provision for timely and adequate payment of produce	09	15.00	VII

F- Frequency, %- Per cent

3.5 Suggestions expressed by non-member arecanut growers of TUMCOS

The recommendations from non-member arecanut farmers are listed in Table 5. Most arecanut growers (88.32%) proposed lower interest rates for loans; these were followed by the provision of appropriate market infrastructure, such as weighment, storage, and transportation facilities (81.66%); timely and adequate information about input availability, prices, arrivals, and grading qualities (75.00%); timely and adequate payment for produce (65.00%); longer terms for credit repayment (58.33%); timely and adequate supply of inputs (60.00%); protection against intermediary exploitation (50.00%); and the need for improved and high yielding variety (16.68%). Research results are consist with the findings of Chengappa (2017)

Table 5: Suggestions expressed by non-member arecanut growers of TUMCOS

(n=60)

Sl. No.	Suggestions	F	%	Rank
1.	Need for improved variety	10	16.68	VIII
2.	Timely and adequate information reg. availability of inputs, prices, arrivals etc.	45	75.00	III
3.	Timely and adequate supply of inputs	36	60.00	V
4.	Longer repayment period for credit	35	58.33	VI
5.	Providing loan at lower interest rate	53	88.32	I
6.	Provision for suitable market infrastructure viz. transportation, storage, weighment facilities	49	81.66	II
7.	Protection from exploitation by middlemen	30	50.00	VII
8.	Provision for timely and adequate payment of produce	39	65.00	IV

F- Frequency, %- Per cent

3.6 Suggestions as expressed by overall arecanut growers.

Table 6 lists recommendations as submitted by all arecanut growers. The majority of growers of arecanut stated that there should be adequate market infrastructure, such as transportation, storage, and facilities for scientific weighment (65.00%), timely and appropriate input supply (59.17%), timely and adequate information regarding the availability of inputs, prices, arrivals, etc. (58.33%), a sufficient period of time for credit repayment (56.67%), the ability to offer loans at a reduced interest rate (52.50%), protection against the exploitation of middlemen (41.66%), and the requirement for improved and high yielding variety (15.00%).

Despite Davanagere being a major arecanut growing region, the growers highlighted the need for adequate market infrastructure, pointing out those proper weighing facilities and warehouses for storing arecanut were lacking in this area. Subsequent to the market intelligence data, sufficient and prompt loan availability.

Table 6: Suggestions expressed by overall arecanut growers of TUMCOS

(n=120)

Sl. No.	Suggestions	F	%	Rank
1.	Need for improved variety	18	15.00	VIII
2.	Timely and adequate information reg. availability of inputs, prices, arrivals etc.	70	58.33	III
3.	Timely and adequate supply of inputs	71	59.17	II
4.	Longer repayment period for credit	68	56.67	IV
5.	Providing loan at lower interest rate	63	52.50	V
6.	Provision for suitable market infrastructure viz. transportation, storage, weighment facilities	78	65.00	I
7.	Protection from exploitation by middlemen	50	41.66	VI
8.	Provision for timely and adequate payment of produce	48	40.00	VII

F- Frequency, %- Per cent

4. CONCLUSION

A lack of sufficient water during the summer months severely affects the arecanut crop because of bore well failures. For crucial irrigation during the summer, the government must develop programs on water-saving technologies such as farm ponds, groundwater recharging methods, micro-irrigation, and hygroscopic irrigation methods among farmers.

In the cultivation of arecanut, farmers encounter a labor shortage during the harvesting and post-harvest procedures. Under the skill India program in the areca belt, the government must promote mechanization for areca harvesting and de-husking as well as the development of skilled labor for areca processing.

When marketing through middlemen, arecanut growers encounter a variety of financial and marketing challenges, such as differences in weight, delayed payment, transaction without a bill, absence of quality-specific pricing, etc. Therefore, the government plans to create e-marketing facilities for coconut marketing and offer interest-free loans through all lending institutions. In addition, farmers may be able to avoid issues related to crop production and marketing, as well as receive a competitive price and higher income, if they sell their produce through cooperatives or FPOs. According to this theory, the government should prioritize developing new arecanut marketing cooperatives in this region as well as bolstering those that already exist.

FUTURE LINE OF WORK

1. This experiment carried out only in Davanagere district of Karnataka, it can be continued to other three districts where other branches of TUMCOS are also performing same function.

2. Other research studies can be conducted in line with the present study regarding impact of other marketing cooperatives operating in different regions of the country.

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