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THE ECONOMIC EVALUATION OF KARNATAKA'S ARECANUT PRODUCTION AND MARKETING

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Abstract

This research aims to examine the economic analysis of arecanut production and sale in the Karnataka state. One of India's major commercial plantation crops is arecanut (Areca catechu). For many agricultural families, the industry is their main source of income. In terms of arecanut cultivation, India leads the globe in both area (49%) and production (50%). The north-eastern and south-western regions are the centers of commercial production. Although the main producers are the states of Karnataka, Kerala, Assam, West Bengal, and Meghalaya, arecanut products are generally accessible throughout the nation. Vietnam, Indonesia, Malaysia, the United Arab Emirates, the Maldives, the United Kingdom, and Singapore are the main export markets for arecanut value-added products, such as pan masala and scented supari. A significant number of arecanut cultivars and hybrids, a protocol for mass multiplication using tissue culture techniques, and standardized production technology for various arecanut growing states have been developed over the years by the Central Plantation Crops Research Institute (CPCRI) and State Agriculture/Horticulture Universities. Additionally, there are technologies for integrated plant health management, precision farming, arecanut-based multiple cropping systems, and the development of other value-added products. Keywords: production, marketing, and arecanut.

Introduction

The state with the greatest potential for areca nut production in the nation is Karnataka. According to 2018–19 data, Karnataka has an area of 464582 hectares and produces 620348 MT annually. Numerous market intermediaries were discovered to be involved in the produce marketing process across all three channels. The survey also found that because there were many middlemen involved, the price spread in channel 3 was higher (Rs. 48468.76). The market efficiency (2.06) and the producers' share of the consumer rupee (50.26%) were both higher in channel 2. It was discovered that processors engage in secondary processing across all three marketing channels.

India does not grow areca nuts as a natural crop. It is commonly thought to be indigenous to the Philippines or Malaysia, where it is cultivated in a wide variety. It is a tropical crop that grows in Bangladesh, China, Sri Lanka, Malaya, and the West Indies as well as along Africa's east coast.Chewing areca nuts is a custom that originated in Malaysia and Vietnam. The crop originated in Southeast Asia and made its way to Asia and India, where it is now grown as a cash crop. It is believed that information on betel nuts and how to chew them can be found in ancient Indian literature. The areca nuts are also mentioned as a traditional remedy in Indian Ayurvedic writings.

There are two types of areca nut, known as supari in Hindi, in India. There are two types: the red variant and the white kind. After the completely mature nuts are harvested, they are sun-dried for around two months to produce the white areca nut. The green areca nut is picked, boiled, and then its outer husk is removed for the red variant. Arecanuts, also known as "Mojha Tamul" in Assam, are occasionally even ground in the soil for fermenting purposes in order to improve the flavor.

With an annual production of 14 lakh tonnes and a yield level of 1.8 tonnes/ha (2021–2022), arecanuts are grown on around 7.7 lakh hectares of land in India. According to 2015–06, the yearly value of arecanut production is approximately Rs. 16,392 crores. In India, arecanut yield, output, and area all showed rising tendencies.

Karnataka State's Areca Nut

In Karnataka, the districts of Daxhinakannada, Shimoga, Uttarkannada, and Chikmagalur—all of which receive a good deal of rainfall—are the main locations for areca nut agriculture. More than 79 percent of the state's entire area, or 83 percent of its overall production, is made up of these districts. Additionally, it is grown in sections of the districts of Mandya, Mysore, Kodagu, Dharwad, Bellary, and Kolar, as well as in the plains of Tumkur, Chitradurga, and Hassan. With roots throughout fifteen districts, areca is Karnataka's main commercial crop. The majority of areca producers in the state rely largely on the arecanut's revenue to support themselves.

Karnataka labels arecanut as boiled and dried whole nuts, boiled and split nuts, dehusked and dried nut, and unhusked entire fruit. Mangalore is known for its sun-dried entire supari (Chali), Sirsi market is known for its boiled whole nuts, and Shimoga is a well-known market center for boiling splits (Chooru). The terminal markets for areca distribution to the state's final customers are Hubli, Davangere, Bangalore, Bijapur, and Gulbarga. In the primary market, the cooperative organizations handle 30% of the marketable surplus. Karnataka arecanut growers.

With a 79% share of Indian production, Karnataka was the largest producer, followed by Kerala (7%) and Assam (4%), according to the average production during the previous three years. Karnataka's top producers are coastal regions like Dakshina Kannada, Uttara Kannada, and Udupi. Arecanut is also grown in the North Eastern states, West Bengal, Tamil Nadu, Andhra Pradesh, Maharashtra, and Goa, in addition to these major producing states. Table 1 lists the specifics of arecanut production in India by state.

Table 1: Arecanut output by state in India (average from 2019–20 to 2021–22)

Sl. No	State	Production ('000 tonnes)	Share (%)
1	Karnataka	1,139.95	78.84
2	Kerala	100.05	6.92
3	Assam	61.18	4.23
4	Meghalaya	24.35	1.68
5	West Bengal	23.60	1.63
6	Others	96.72	6.69
	Total	1,445.86	100.00

National Horticulture Board (NHB) is the source.

The proportion of small farmers (1-2 ha) was 10.4%, while the proportion of marginal farmers (less than one ha of landholding) was 81.9%. In India, 92.3% of all operational holdings under arecanut are owned by small and marginal farmers together.

According to the GOI's Ministry of Agriculture, India produced over 4.78 lakh metric tons of arecanut in 2009–10, covering an area of about 4 lakh hectares. Karnataka and Kerala are the two main arecanut-growing states in the nation, collectively making up 70% of the total acreage and production. Other smaller Indian states that produce arecanuts are Assam, West Bengal, and Meghalaya. Information is provided in Table 2.

Table 2: Area and Production of Arecanuts by State in India

Sl.No.	State	Area (hectare)	Percentage	Production (metric tons)	Percentage
1	Karnataka	1,84,520	46.12	2,24,000	46.86
2	Kerala	97,170	24.29	112,140	23.46
3	Assam	69,970	17.49	62,700	13.12
4	West Bengal	11,390	2.85	21,160	4.43
5	Meghalaya	12,360	3.09	17,100	3.58
6	Tamil Nadu	5,030	1.26	10,390	2.17
7	Tripura	4,430	1.11	8,360	1.75
8	Mizoram	6,580	1.64	8,210	1.72
9	Andaman & Nicobar	4,100	1.02	6,000	1.26
10	Maharashtra	2,200	0.55	3,600	0.75
11	Goa	1,850	0.46	2,780	0.58
12	Nagaland	200	0.05	1,300	0.27
13	Andhra Pradesh	250	0.06	190	0.04
14	Pondicherry	60	0.01	80	0.02
	India	4,00,110	100	4,78,010	100

Source: National Horticulture Board , GOI.

Main types

Farmers typically grow a number of native arecanut types, including Thirthahalli native, South Canara Local (Karnataka), Kahikuchi, Nalbari (Assam), Shreewardhan, Maduramangala (Maharashtra), and Goa Local (Goa). The first enhanced type brought from China and embraced by many farmers is Mangala (VTL-3). Numerous enhanced arecanut varieties have been developed by the ICAR-Central Plantation Crops Research Institute (ICAR-CPCRI) Regional Station Vittal as a result of hybridizations of the VTL series. To preserve purity, secondary selection and interse/sibmating are used to enhance the Mangala variety. Another high-yielding variety is Mohitnagar, which comes from the ICAR-CPCRI's Mohitnagar Center in West Bengal. Other improved arecanut cultivars include Sumangala (VTL11), Swarnamangala (VTL-12), Sreemangala (VTL-17), and Shata Mangala (VTL-146). The dwarf arecanut mutant known as Hirehalli Dwarf is small in size and Improved tall cultivars were used as the male parents and Hirehalli dwarfs as the female parent to create the hybrids VTL AH1 and VTL AH2.

According to data from the State Horticulture Department, arecanut farming occupies over 4.55 lakh acres (1.84 lakh hectares) in Karnataka, accounting for approximately 46% of all of India. In 2009–10, it accounted for 47 percent of India’s entire production, or about 2.24 lakh tons per ton. It is significant to remember that nearly 28 of Karnataka's 30 districts cultivate arecanuts to varied degrees. Of these, Shimoga district comes in second, followed by Davanagere district, while Chikmagalur district leads in both area (20%) and output (17%). The top seven districts—Chimagalur, Shimoga, Davangere, Dakshina Kannada, Tumkur, Chitradurga, and Uttar Kannada—account for around 91% of the state's areca production and 89% of the land planted to arecanuts. About 11% of the total area is made up of the remaining 21 districts, which collectively account for 9% of the output. Table 3 provides information on the area, yield, and production of arecanut in several Karnataka districts in 2022–2023.

Table 3: Arecanut Production and Yield by Area in Various Karnataka Districts in 2022–2023

Sl. No.	District	Area (acres)	Percentage	Production (Ton)	Percentage	Yield (Kg./acre)
1	Chikmagalur	1,07,110	19.91	56,572	17.38	528
2	Shimoga	94077	17.49	52781	16.21	560
3	Davanagere	73480	13.66	40159	12.33	548
4	Dakshina Kannada	68938	12.81	49323	15.15	716
5	Tumkur	55145	10.25	37220	11.43	676
6	Chitradurga	42320	7.86	21523	6.61	508
7	Uttar Kannada	39503	7.34	37933	11.65	960
8	Other Districts	57282	10.59	30080	9.16	488
	Karnataka	5,37,855	100	3,25,591	100	612

Source: Department of Horticulture, Government of Karnataka.

Grades for Marketing Majors

At the producer level, there are two main grades: red type (cooked unripe nuts) and white type (chali or sun-dried ripe nuts). The red kind is primarily produced in the Malnad/hilly region, while the white type is more prevalent in the coastal region. Under these two general grades, there are a number of sub-grades with regional names. Wholesalers grade the product according to the current commercial grades after farmers sell their produce.

Channels of Marketing According to estimates from the Directorate of Arecanut & Spices Development, Calicut, cooperatives like CAMPCO Ltd. in Mangalore, Totgar's Cooperative Sales Society, Sirsi, TUMCOS, Channagiri, Goa Bagayatdar, and others trade about 15% of arecanut. The remainder of the transaction is conducted by private traders. Through APMCs, a significant amount of arecanut is traded. India consumes arecanuts all over the country, despite the fact that production is concentrated in a small number of states. Mangalore, Sirsi, Kumta, Cochin, Kasargod, Ponda, Bicholim, and so on are significant assembling marketplaces in the coastal area. The states that consume the most are Madhya Pradesh, Uttar Pradesh, and Gujarat. Mumbai, Ahmedabad, Rajkot, Kanpur, Indore, Jaipur, Delhi, Nagpur, Patna, Kolkata, Cuttack, Bengaluru, and Chennai are the main markets for consumption.

Imports and Exports of Arecanuts The majority of India's arecanut production is used domestically. India imported 25,979 tons in 2021–2022, totaling Rs. 674.08 crores. Nonetheless, imports have been rising over time, with a notable spike in 2022–2023 (April–October). India imports arecanuts primarily from Indonesia, Sri Lanka, and Myanmar. Other arecanuts (HSN Code 8028090) made up 73% of India's total arecanut import value in 2021–2022, with the whole (15%) and split (12%) coming in second and third, respectively.

In the global market, India's proportion of arecanut imports is approximately 22%, while its share of exports is less than 5% (2020). India exported 6,663 tonnes of arecanuts valued at Rs. 158.26 crores in 2021–2022. Bangladesh accounted for 34% of India's total arecanut export value during the most recent period, followed by the United Arab Emirates (19%) and Vietnam (15%). About 39% of the value of arecanuts exported from India in 2021–2022 were split arecanuts, whilst 33% were whole arecanuts.

Arecanuts cost between Rs. 5000 and Rs. 7,000 per quintal till 2011. Prices were about Rs. 14,000 per quintal between 2011 and 2014, and between 2015 and 2019, they rose to Rs. 20,000 to Rs. 25,000 per quintal. Prices showed a rising tendency between 2018 and 2021.

With a seasonal index of 108%, September had the highest prices, meaning that prices were on average 8% more than usual. While the month of December recorded the lowest seasonal index of 90%, meaning that prices were on average 10% cheaper than the yearly average price, the months of July through October also displayed greater seasonal indices.

Table 4: Changes to India's Minimum Import Price (MIP) for Arecanut

Date	Interventions
14-08-2012	MIP was introduced and fixed at Rs. 75/kg
13-05-2013	MIP was raised to Rs. 110/kg
03-06-2015	MIP was raised to Rs. 162/kg
17-01-2017	MIP was raised to Rs. 251/kg
25-07-2018	Policy was amended to prohibit imports below Rs.251/kg
14-02-2023	MIP was raised to Rs. 351/kg

Source: Reports of Department of Horticulture, GOI.

Concerns about policy In India, arecanut is subject to a 100% import tariff. However, the least developed SAARC nations—Bangladesh, Bhutan, Nepal, Maldives, and Afghanistan—are not required to pay this tax. The Indian government implemented the Minimum Import Price (MIP), which forbids the import of arecanuts below, in order to protect farmers. Imposing the MIP limits unrestricted imports, keeps lower-quality produce from entering the market, and aids in maintaining price stability at home. Table 4 displays the changes in MIP throughout time. The MIP as of February 14, 2023, was Rs. 351/kg. India permitted the yearly import of 17,000 tonnes of fresh (green) arecanuts from Bhutan in September 2022, with no MIP requirements.

Table – 5 Indian Production of ARECANUT

Sr No.	**State**	**Production**	**Share(%)**
1	Karnataka	1,100.00	78.98
2	Kerala	104.24	7.48
3	Assam	50.67	3.64
4	Meghalaya	24.09	1.73
5	West Bengal	23.28	1.67
6	Tripura	20.51	1.47
7	Mizoram	14.10	1.01
8	Tamil Nadu	13.49	0.97
9	Arunachal Pradesh	11.56	0.83
10	Andhra Pradesh	10.00	0.72
	Total	**1,371.94**	

Source: Reports of Department of Horticulture, GOI.

In our nation, arecanut is a significant cash crop. With a sample size of 120, the study used proportionate random sampling to determine the challenges faced by arecanut producers in Tamil Nadu's Salem area. The majority of respondents cited the absence of a defined nut grade system in marketing as a limitation. Over three-fourths of the respondents recommended that a system be put in place to control the importation of nuts from other nations and to develop the local nut market.

Conclusion

Karnataka is the leading state in terms of the area under cultivation and production, according to the study and discussion above.Areca nut production was once limited to the districts of Dakshina Kannada, Uttara Kannada, Shimoga, Chikmagalore, and Kodagu.Traditional areca nut growers occupy the majority of the land in these districts.An abrupt increase in areca nut prices over the past ten years

has drawn farmers cultivating food crops in other state areas to this commercial crop.Currently, 20 areas in the state produce areca nuts. The areca nut garden is located in the valley in the typical arecanut farming region. For these farmers, cultivating areca nuts using traditional methods is a way of life.These regions frequently get heavy rainfall. As a result, the annual production loss brought on by koleroga is a frequent occurrence, which leaves areca nut growers with little money. The cost of manufacturing keeps going up.Marginal holders make up about 80% of the growers.

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