

---

## AWARENESS AND PROMOTION SCHEMES OF PREDICTING THE INDIA'S COCONUT CULTIVATION: A SURVEY

**Dr. M.Ramana Raju**

Associate Professor, Dept. of English, Vel Tech Multi Tech Dr.Rangarajan Dr.Sakunthala  
Engineering College, Avadi, Chennai

**Dr.D.Venkatesh**

Assistant Professor of Commerce, Dept. of B S & H, Sree Vidyaniketan Engineering College,  
Tirupati

**Dr.J.Krithika,**

Senior Assistant Professor, Xavier Institute of Management& Entrepreneurship, Chennai

**Dr. P.K.Anjani,**

Associate Professor, Department of Management Studies, Sona College of Technology,  
Salem, TamilNadu, India

**Dr.Jitendra Gowrabhathini,**

Associate Professor, Koneru Lakshmaiah Education Foundation, Vijayawada, Andhra  
Pradesh, India.

**Dr.S.Arumugam,**

Associate Professor, PG. Dept of Commerce, Sindhi College of Arts and Science, Chennai

### **Abstract:**

One of India's top agricultural export commodities is coconut and related goods. When it comes to coconut production, India leads the world. India is the third-largest producer of coconuts in the world as of the years 2020–2023, producing 16.9 billion nuts from a plantation that covers over 1.89 million hectares. Even though India is one of the world's top producers of coconuts, with productivity of 7779 nuts per hectare compared to 3630 nuts per hectare in Indonesia and 3859 nuts per hectare in the Philippines, the estimated annual availability of coconuts per person is only 10 nuts, which is quite low when compared to 222 of the other top producers.

**Key words:** Awareness, Promotion Schemes, India, Coconut Cultivation, Survey Method.

### **Introduction**

Particularly following the establishment of the Coconut Development Board by the GOI under the export promotion council in 2009, India's coconut export industry developed an international focus. The demand for coconut-based value-added products has increased in the recent years due to the phenomenal growth rate witnessed in this sector. One of India's top

agricultural export commodities is coconut and related goods. When it comes to coconut production, India leads the world. India is the third-largest producer of coconuts in the world as of the years 2020–2023, producing 16.9 billion nuts from a plantation that covers over 1.89 million hectares.

Despite being one of the top producers of coconuts, with a productivity of 7779 nuts per hectare compared to 3630 nuts per hectare in Indonesia and 3859 nuts per hectare in the Philippines, India's per-capita availability of coconuts is only estimated to have been 10 nuts per year, which is quite low when compared to 222 nuts in the Philippines, 145 nuts in Sri Lanka, and 55 nuts in Indonesia. The profitability of the coconut crop would depend on the cost of production and net return per unit. Lack of knowledge of contemporary developments relating to crop improvement, a lack of high-quality planting supplies available to farmers, improper management techniques, and pest issues are the main obstacles to increasing output among coconut producers are to be actively addressed in order to make coconut cultivation appealing.

#### **Current Scenario of Coconut Industry in India**

Production in the coconut-based business is rising. However, during the past 40 years, its market share in the trade of oils and fats has steadily decreased. The coconut business still has a lot of room to grow, but its marketing approach needs to be adjusted to reflect current trends. Priority must be given to awakening and awareness about coconut diversification with a goal of recapturing the market. There is a top choice with lots of room for expansion in terms of product variety and value addition. Despite this enormous potential, the sector can only prosper through strategic efforts and a coordinated effort between the functions of organised and unstructured market outlets.

To expand the market base in various coconut-growing regions, strategic marketing must incorporate product diversification and marketing intelligence supported by market research. To solve the problems with entering the existing markets, partnership mode requires cooperation from the organisations and an upfront approach.

**Table-1. Problem Faced by Coconut Farmers**

<b>FACTORS OF PROBLEM</b>
Seedling problems
Weather problem
Water problem
Disease problem
Post-Harvest Management (PHM)
Marketing problem
Infrastructure problem
Particulars of production
Extension services and Export related problems etc.

Source: (ADRTC)-2019.

### Background of the Study

The cost of production and net return obtained per unit, would determine the profitability of the crop. The profitability of an enterprise depends upon the efficient use of the resources in production. Though production is the initiation of the development process, it could bring less gain to the producers unless there are exists an efficient marketing system. Meanwhile, during pandemic period 2019-2020 India's export volume of Coconut and its allied Products was decreased significantly due to the poor demand as well as hurdles of shipping industry. It shows the bright future to the Indian coconut and its allied exporter in near future. Therefore, there is a necessary to study about the trend projection of India's coconut production volume as well as coconut exporter's awareness towards various Government export promotion schemes to the coconut exporter in the study area.

**Table-2. Percentage Share of World Exports of Coconut Products**

1. Coconut oil	Philippines (42)	Indonesia (35)	Malaysia (9)	India (0.30)
2. Copra meal	Philippines (64)	Indonesia (34)	Others (1.9)	India (0.004)
3. Desiccated coconut	Philippines (25)	Indonesia (20)	Sri Lanka (12)	India (1)
4. Coconut milk/cream	Indonesia (51)	Sri Lanka (44)	Philippines (4)	India (0.30)
5. Coconut shell charcoal	Indonesia (70)	Sri Lanka (20)	Philippines (7)	India (0.30)
6. Coir and coir products	Sri Lanka (42)	Thailand (12)	Indonesia (10)	India (25)

Source: APCC (2018)

### Statement of the Problem

India's coconut and its allied product export contribution to the world market 34% of the world's total production during 2020-21. The crop contributes around Rs. 307,498 million (US\$ 3.88 billion) to the country's gross domestic product (GDP). The coconut palm and other related products provide food security and employment opportunities to more than 12 million people in India. There are more than 15000 coir-based industries are offering employment opportunity to Indian uneducated, semi-skilled and educated people. Coconut is exported to over 140 countries by the Indian exporters. During the year 2020-2021 (Apr-Nov), India has exported Coconut volume of 118.28 USD million. During the calendar year 2021-22, the Government of India has given the financial support and financial assistance to the tune of Rs. 801 million (US\$ 10 million) for covering a fresh area of 4,078 hectare for expansion of area for cultivating coconut tree for improve productivity of coconut product volume. Even though India is a leading coconut producing country contributing to 31.46 per cent of world production, its contribution to world export hardly reached about 10 per cent in coconut trade.

## Objectives

1. To assess the coconut exporter awareness on various Government schemes and services offered for coconut product
2. To analyse the India's trend projection of Coconut production

## Methodology of the Study

The study was constructed based on a descriptive and analytical-research approach to study the above objectives in-depth with regard to the specific target respondents. The study was conducted on a basis of the sample of 133 respondents those who are involved in the field of coconut cultivation as well as coconut export including the exporters of the coir products and other coconut allied products producers and cultivators in the study area.

Table-3. Distribution of Respondents

Sl. No	Category of Exporter	Total
1	Small Scale	44
2	Medium Scale	44
3	Large Scale	45
4	Over all	133

Source: Computed on Coconut CRI

## Strength of Indian Coconut Export Sector

One of the leading producers of coconut in the world producing 13 billion nuts per annum. Coconut area distributed in 18 states and three union territories under different agro-climatic conditions. From the past 3000 years tradition in the field of coconut cultivation. One of the premier coir producing country in the world. Producer of best grade milling copra in the world yielding high grade coconut oil known for its aroma and flavor. A large number of farmers'

Cooperative societies in primary processing and marketing. Government agencies such as Kerala fed, State Trading Corporation, Kerala State Marketing Federation and Karnataka state Marketing Federation in manufacturing and marketing of branded coconut oil in small packs. Hundreds of reputed and established private firms in manufacturing and marketing of various coconut products including branded coconut oil in small packs. Wide range of coconut products, both edible and non-edible, available for export. Technical know-how and trained manpower for the manufacture of various coconut-based products.

The coconut economy of India is in a comfortable position. India accounts about 22.34 per cent of the world's coconut production and is one of the major players in the world's coconut trade. Currently, the crop is grown in 1.91 million hectares with an annual production of nearly 13,000 million nuts. Copra processing, coconut oil extraction and coir manufacturing are the traditional coconut-based industries in the country.

## Results and Discussions

The researcher has done a desk research based on the published data for meet out the objective of the study and primary data for the purpose of observing the Coconut Exporter's awareness towards various Government schemes offered for coconut export promotion of coconut and its allied product in the study area.

**Table-4. ROI of Coconut Cultivation/Acre**

S.No	Particulars	Small Farmers	Medium Farmers	Large Farmers	Over all
1	Ploughing Cost	1352.42 (3.35)	1469.40 (4.11)	1109.20 (3.31)	1310.34 (3.58)
2	Harrowing Cost	664.87 (1.65)	693.82 (1.94)	657.43 (1.96)	672.04 (1.84)
3	Farm-Yard Manure Cost	4020.33 (9.96)	3767.37 (10.53)	4013.93 (11.97)	3933.88 (10.76)
5	Neem Cake Cost	383.25 (0.95)	282.84 (0.79)	336.68 (1.00)	334.26 (0.91)
6	Manual Weeding Cost	1039.52 (2.57)	1094.19 (3.06)	960.80 (2.87)	1031.50 (2.82)
7	Weedicides & Pesticides Cost	299.89 (0.74)	240.02 (0.67)	170.39 (0.51)	236.77 (0.65)
8	Irrigation Cost	8726.81 (21.62)	5090.33 (14.23)	4432.22 (13.22)	6083.12 (16.64)
9	Gap Filling Cost	159 (0.39)	62.41 (0.17)	130.00 (0.39)	117.13 (0.32)
10	Repair & Maintenance of Implements Cost	1188.36 (2.94)	1147.91 (3.21)	755.71 (2.25)	1030.66 (2.82)
11	Tax Charges	5 (0.01)	5 (0.01)	5 (0.01)	5 (0.01)
12	Harvesting Cost	7539.30 (18.68)	7362 (20.58)	6534.40 (19.49)	7145.23 (19.55)
13	Interest on Working Capital	3365.32 (8.34)	2869.20 (8.02)	2674.40 (7.98)	2964.64 (8.11)
5	Neem Cake Cost	383.25 (0.95)	282.84 (0.79)	336.68 (1.00)	334.26 (0.91)
6	Manual Weeding Cost	1039.52 (2.57)	1094.19 (3.06)	960.80 (2.87)	1031.50 (2.82)
7	Weedicides & Pesticides Cost	299.89 (0.74)	240.02 (0.67)	170.39 (0.51)	236.77 (0.65)
8	Irrigation Cost	8726.81 (21.62)	5090.33 (14.23)	4432.22 (13.22)	6083.12 (16.64)
9	Gap Filling Cost	159 (0.39)	62.41 (0.17)	130.00 (0.39)	117.13 (0.32)
10	Repair & Maintenance of Implements Cost	1188.36 (2.94)	1147.91 (3.21)	755.71 (2.25)	1030.66 (2.82)
	Variable Cost	31410.59	26810.04	24570.04	27591.89

1	Rental Value on Land	8000 (19.82)	8000 (22.37)	8000 (23.86)	8000 (21.89)
2	Interest on Fixed Investment	960 (2.38)	960 (2.68)	960 (2.86)	960 (2.63)
	Total Fixed Cost	8960	8960	8960	8960
	Total Operating Cost	40370.59 (100.00)	35770.04 (100.00)	33530.04 (100.00)	36551.89 (100.00)
1	Yield (nuts/per acre)	8377	8180	7256	7938
2	Price of Per Nut	9.12	8.97	8.89	9.00
3	Income of Coconuts	76398.24	73374.6	64505.84	71426.22
4	By Products of Coconut	5509.70	3419.80	2889.88	3939.80
5	Gross Income	81907.94	76794.40	67395.72	75366.02
	Net Income	41537.35	41024.36	38865.68	38809.13
	Input/Output Ratio	2.03	2.15	2.01	2.06

Source: Secondary Data

**Table-5. India's Coconut Production Area wise Production**

Year	Area ('000 ha)	Production Million nuts	Productivity (Nuts per ha)
1950-51	626.5	3281.7	5238
1951-52	630.2	3306.4	5247
1952-53	627.2	4177.1	6660
1953-54	638.7	3910.5	6123
1954-55	640.0	4264.6	6663
1955-56	647.6	4224.4	6523
1956-57	657.0	4458.0	6785
1957-58	664.1	4501.0	6778
1958-59	691.3	4651.7	6729
1959-60	707.2	4765.4	6738
1960-61	717.4	4639.1	6466
1961-62	723.0	4478.3	6194
1962-63	791.0	4962.6	6274
1963-64	799.0	4736.2	5928
1964-65	847.6	5042.8	5950
1965-66	883.7	5035.4	5698
1966-67	893.0	5191.8	5814
1967-68	923.9	5321.3	5760
1968-69	988.1	5546.2	5613
1969-70	1033.3	5858.7	5670
1970-71	1045.5	6075.0	5811

1971-72	1088.4	6123.7	5626
1972-73	1099.2	5997.2	5456
1973-74	1102.0	5850.6	5309
1974-75	1116.3	6029.6	5401
1975-76	1069.9	5829.4	5449
1976-77	1074.5	5765.3	5366
1977-78	1056.5	5412.6	5123
1978-79	1055.0	5729.7	5431
1979-80	1075.8	5662.0	5263
1980-81	1083.3	5942.0	5485
1981-82	1090.8	5939.9	5445
1982-83	1149.2	6356.1	5531
1983-84	1165.6	5807.9	4983
1984-85	1183.3	6912.8	5842
1985-86	1225.6	6770.3	5524
1986-87	1231.2	6376.8	5179
1987-88	1346.0	7269.9	5401
1988-89	1425.5	8541.4	5992
1989-90	1472.2	9358.8	6357
1990-91	1513.9	9700.2	6407
1991-92	1528.9	10079.6	6593
1992-93	1537.7	11240.9	7310
1993-94	1635.1	11974.7	7324
1994-95	1713.8	13299.6	7760
1995-96	1830.9	12952.3	7074
1996-97	1890.8	13061.0	6908
1997-98	1861.0	12717.3	6834
1998-99	1754.5	12535.9	7145
1999-2000	1768.1	12129.0	6860
2000-2001	1823.91	12678.4	6951
2001-2002	1932.3	12962.9	6709
2002-2003	1921.8	12535.0	6523
2003-2004	1933.7	12178.2	6298
2004-2005	1935.0	12832.9	6632
2005-2006	1946.8	14811.1	7608
2006-2007	1936.8	15840.4	8179
2007-2008	1903.19	14743.56	7747
2008-2009	1894.57	15729.75	8303
2009-2010	1895.20	16918.40	8927
2010-2011	1895.90	16942.92	8937

2011-2012	2070.70	23351.22	11277
2012-2013	2136.67	22680.03	10615
2013-2014	2140.50	21665.19	10122
2014-2015	1975.81	20439.60	10345
2015-2016	2,088.47	22,167.45	10,614
2016-2017	2,082.11	23,904.10	11,481
2017-2018	2,096.72	23,798.23	11,350
2018-2019	2,150.89	21,288.24	9,897
2019-2020	2,173.28	20,308.70	9,345

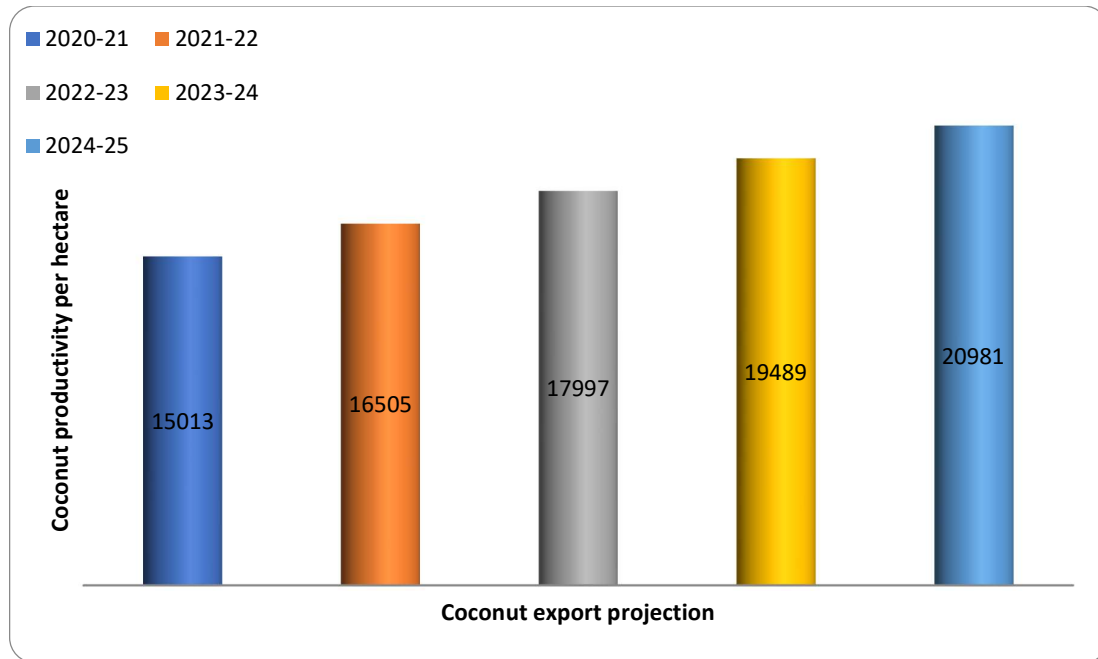
Source: GOI

**Tabele-6. Trend Projection of India's Coconut Production Per Hectare**

YEAR	Productivity per hectare (Y)	X	X.Y	X <sub>2</sub>	bX
2015-16	10614	-2	- 21228	-4	- 2984
2016-17	11481	-1	- 11481	-1	- 11481
2017-18	11350	0	0	0	0
2018-19	9897	1	9897	1	9897
2019-20	9345	2	7890	4	15780
PROJECTION	a=summation of Y/N	b=summation of xy/summation of x <sub>2</sub>	COCONUT PRODUCTION PER HECTARE		
2020-21	10537	1492x3	15013		
2021-22	10537	1492x4	16505		
2022-23	10537	1492x5	17997		
2023-24	10537	1492x6	19489		
2024-25	10537	1492x7	20981		

Source: computed





The above table trend projection shows that, there is significant progressive growth of coconut productivity per hectare during the period from 2023 to 2025. It has concluded that, there is a positive trend related to coconut export and its allied products in near future.

**Table-7. Coconut Exporter's Awareness towards Various Factors Allied Process.**

S. No	Statements	VH 4	H	L	Total	Mean	Rank
01.	Production and Distribution of Planning Materials.	68 (272)	51 (153)	14 (28)	453	3.40	1
02.	Consulting Services on Production, Processing and Marketing.	10 (40)	90 (180)	33 (66)	286	2.15	10
03.	Training Programme.	34 (136)	32 (96)	52 (104)	351	2.61	5
04.	Financial Assistance for Establishment of Procurement Centre.	29 (116)	34 (102)	26 (52)	314	2.36	8
05.	Trade Events.	21 (84)	29 (87)	45 (90)	299	2.24	9
06.	Techno Economic Studies on Product Diversification and Allied Products.	31 (124)	31 (93)	44 (88)	332	2.49	6
07.	Adopting Measures to Get Incentive Price for Coconut and Its Allied Products.	31 (124)	51 (153)	31 (62)	359	2.69	3

08.	Integrated Management of Major Pests and Diseases.	20 (80)	46 (138)	34 (68)	319	2.39	7
09.	Creating Future Production Potential by Bringing More Areas Under Control.	34 (136)	51 (153)	27 (54)	364	2.73	2
10.	Current Government Services of Coconut Exports.	43 (172)	29 (87)	31 (62)	351	2.63	4

Source: computed

The above table reveals that 3.40 mean score is secured first rank related to coconut exporter's awareness towards Production and distribution of planning materials and least mean score 2.15 is secured 10<sup>th</sup> rank coconut exporter's awareness towards consulting services o production, processing and marketing. It has concluded that, coconut exporter's awareness towards production and distribution of planning materials is secured first rank with mean score of 3.40.

### Conclusion

Coconut is scattered all around the world in more than 90 countries. Since, it is noteworthy that major share of the total 12.2 million hectare of coconut in the world is contributed by India, Indonesia, Philippines and Sri Lanka. Coconut sector in India supports the livelihoods of twelve million people. There are umpteen reasons for the right kind of preparedness in the international spectrum of coconut and its value-added products of coconut. The trend projection of coconut production per hectare shows that, there is significant progressive growth of coconut productivity per hectare during the period from 2023 to 2025. It has concluded that, there is a positive trend related to coconut export and its allied products in near future. Coconut exporters have awareness towards production and distribution of planning materials of coconut and its allied product is secured first rank with mean score of 3.40. The coconut exporters have high awareness towards various GOI coconut export promotion schemes. It will facilitate to improve the India's coconut export and its allied products in near future. If India's coconut and its allied product export volume is increase obviously India's balance of payments will increase towards surplus position in the forthcoming years. It will boost up the Indian economy as well as India's foreign exchange reserve position in soon.

### References:

- Berenson M.L. and Levine D.M. (1996) Basic Business Statistics, Prentice-Hall, Englewood Cliffs, New Jersey.
- Bhattacharyya, G. K., and R. A. Johnson, (1997). Statistical Concepts and Methods, John Wiley and Sons, New York.
- Dr. Ranjit Kumar, Research Methodology (2019): A Step-by-Step Guide for Beginners, Sage publication.

- C.R.Kothari, Research Methodology (2004): Methods and Techniques, *New Age International*.
- NIIR Board of Consultants & Engineers (2006), The complete book on coconut & coconut products (Cultivation and Processing), *Asia Pacific Business Press Inc*.
- S.P.Gupta (2011) Statistical methods, Sultan Chand & Sons.
- C.R.Kothari (2004), Research Methodology: Methods and Techniques, *New age international*
- Kalathiya, KV, Dave, SK & Mehta, DR, “Cost and return in different sizes of coconut holding in Valsad district (South Gujarat)”, *Indian Journal of Agricultural Research*, vol. 41, no. 3, 2007, pp. 13-18
- Govt. of India: Report on the survey conducted for concurrent estimation of coconut production in the state of Karnataka for 2012-13. Coconut Development Board, Ministry of Agriculture, Govt. of India.
- Borkar, Prema (2015). Study on Modeling and Forecasting of Coconut Production in India, *International Journal of Tropical Agriculture*, 33 (2), 1765-1769.
- Karunakaran, N. (2017). Coconut cultivation: A Dynamic Analysis. *Agricultural Situation in India*, LXXVI (9), 11-15.
- Salum, Uron. (2016), the future of coconut research. *Indian Coconut Journal*, June, 5-7.
- Singh, H.P. (1998). Coconut Industry in India: Challenges and Opportunities. *Indian Coconut Journal*, 29(4), 4-12.