

# Cultivation and Marketing Challenges Faced by Vegetable Growers: A Study with Special Reference to Nilgiri's District.

Dr. M. Prakash<sup>1</sup>, Mr. Dhanush.S<sup>2</sup>, Ms. Sandhya.S<sup>3</sup>

<sup>1</sup>Professor, Department of Commerce with Computer Applications, Dr. N.G.P Arts and Science College Coimbatore-48

<sup>2,3</sup>B.Com. CA Dr. N.G.P Arts and Science College Coimbatore-48

## ABSTRACT:

The aim of the study is to know the challenges faced by vegetable growers on cultivation and marketing. This study focus on Nilgiris district. The Nilgiris district, renowned for its diverse agro-climatic conditions and rich agricultural heritage, stands as a significant hub for vegetable cultivation in India. This abstract presents findings from a comprehensive study conducted to identify and analyze the cultivation and marketing challenges confronting vegetable growers in the Nilgiris district.

**Keyword:** Challenges, Faced, Vegetable, Growers, Cultivation, Marketing, Nilgiri's, Rich Agriculture, Hub of Vegetables, From, Analyze, Cultivation, Marketing, Vegetable Growers.

## INTRODUCTION:

Agriculture is the back bone of our country though the world is advanced by the introduction of new technologies in various fields it is by the agricultural fields that most of the human beings are with clothing and house. The Nilgiris district is basically a horticulture district. Its economy is based on commodity crops of tea, coffee, and spices, followed in importance by potato, cabbage, carrot, and fruit. The main cultivation is plantation crops such as tea and coffee, but the temperate crops such as tea, potato, cabbage, carrot, beans, plum, peach, pear etc., are grown in the higher elevation, Mandarin orange, Coffee are grown in mid-elevation.

Farmers confront a host of challenges in cultivation and marketing, grappling with factors that range from environmental uncertainties and resource constraints to market volatility and shifting consumer demands. Cultivation challenges include unpredictable weather conditions, pest outbreaks, and the need for sustainable practices. On the marketing front, farmers navigate complexities such as market access, pricing fluctuations, and the demand for traceability. This discussion will delve into these multifaceted challenges, shedding light on the intricate balance farmers must strike between cultivating quality produce and effectively navigating the ever-changing landscape of agricultural markets.

## OBJECTIVES OF STUDY:

- 1 To identify the socio-economic characteristics of the vegetable growers.
- 2 To study an overview of farmers' s cultivation and marketing of vegetable in Nilgiri district.

- 3 To identify the factors influencing the choice of cultivation and marketing channel of a vegetable growers in Nilgiri district.
- 4 To find out the various challenges faced by farmers in cultivation and marketing of vegetable in Nilgiris district.
- 5 To identify the satisfaction level of farmers on cultivation and marketing of vegetable in Nilgiri district.

### SCOPE OF STUDY:

The scope of study is to understand the cultivation and marketing challenges faced by the vegetable growers. Vegetable farming in Nilgiris's has significant potential due to the Nilgiris diverse climate and soil condition the key scope of the vegetable cultivation and marketing is to overcome the challenges faced by farmers and to cultivate and market rising demand for fresh and nutritious produce of vegetable.

### RESEARCH METHODOLOGY:

Research methodology is a method to solve the research problem systematically. It deals with the cognitive process imposed on research by the problems arising from the nature of its subject matter. It involves gathering data use of statistical tools, interpretation and draw conclusion about the research data. Research methodology is the description, explanation and justification of various methods of conducting research.

### TYPE OF DATA COLLECTION:

1. Primary data

**PRIMARY DATA-** Primary data means original data that has been collected specially for the purpose in mind. It means someone collected the data from the original source first hand. Data collected this way is called primary data.

**SAMPLE TECHNIQUE:** For the purpose of analysis, the data has been collected from 153 vegetable growers from sample respondents in Nilgiri's district.

**SAMPLE SIZE:** The sample size of 153 respondents is chosen for the study.

**AREA OF THE STUDY:** The area covered under this research is Nilgiri's district.

### TOOLS FOR ANALYSIS:

1. SIMPLE PERCENTAGE ANALYSIS.
2. WEIGHTED AVERAGE METHOD.
3. RANKING ANALYSIS.

### LIMITATION OF THE STUDY:

1. The research is based on Questionnaires collect on the respondent
2. This Study is focused with special reference to vegetable growers of nilgiri district.
3. The study period for research is December (2023) to March (2024).
4. The study area is limited to Nilgiri's district only.

### ANALYSIS AND INTERPRETATION OF THE STUDY SIMPLE PERCENTAGE ANALYSIS:

The Percentage Analysis is used, mainly to find the distribution of each category as the value are expressed in percentage, it facilitates comparison. It is the method to represent raw stream of Data as a percentage for better understanding of collected data

### FORMULA:

Percentage= number of respondents / total number of respondents \* 100

S.NO	VARIABLES	CATEGORIES	NO.OF RESPONDENTS	PERCENTAGE
01.	Gender	Male	88	57.5%
		Female	65	42.5%
02.	Education	School Level	72	47.1%
		Illiterate	23	15.0%
		Others	11	7.2%
		College Level	47	30.7%
03.	Marital Status	Married	90	58.8%
		Unmarried	63	41.2%
04.	Knowledge In Cultivation And Marketing Of Vegetables	3to 5 Years	43	28.1%
		5to 10 Years	32	20.9%
		6to 10 Years	1	.7%
		Above 10 Years	39	25.5%
		Below 3 Years	38	24.8%
05.	The Pests And Diseases Affecting The Crops	Bacteria	51	33.3%
		Insects	26	17.0%
		Fungi	64	41.8%
		Other	12	7.8%
06.	Annual Income	1,00,000rs– 2,00,000 Rs	62	40.5%
		50,000rs- 1,00,000rs	43	28.1%
		Above 2,00,000rs	42	27.5%
		More Than	6	3.9%
07.	No. Of Family Members	More Than Four	40	26.1%
		One – Two	16	10.5%
		Three – Four	46	30.1%
		Two - Three	51	33.3%
08.	No. Of Family Members Involved In Cultivation Process	More Than Four	11	7.2%
		One – Two	74	48.4%
		Three – Four	21	13.7%
		Two - Three	47	30.7%
09.	Source Of Purchase Of Seeds	Agriculture Department	33	21.6%
		Growers/Farmers	29	19.0%
		Local Traders	77	50.3%
		Regulated	14	9.2%
		Market		

10.	Source Of Terms Of Purchase	Both	58	37.9%
		Cash	82	53.6%
		Credit	7	4.6%
		Other	6	3.9%
11.	Source Of Land Ownership	Both Own And Lease Land	47	30.7%
		Lease Land	21	13.7%
		No Land	3	2.0%
		Ownership Own Land	82	53.6%
12.	Acers Of Land	1 – 10 Acers	89	58.2%
		10 – 15 Acers	14	9.2%
		Above 15	6	3.9%
		Below 1	44	28.8%
13.	Source Of Water For Farming	Dependence On External Water Source	39	25.5%
		Irrigation System	75	49.0%
		Limited Water Availability	14	9.2%
		Rainwater	25	16.3%
14.	Source Of Irrigation	Drip Irrigation	43	28.1%
		Manual Irrigation	48	31.4%
		Sprinkler	28	18.3%
		Well Irrigation	34	22.2%
15.	Steps Taken For Crop Protection	Crop Rotation	52	34%
		Herbicides	17	11.1%
		Organic Fertilizer	41	26.8%
		Seed Treatment	43	28.1%
16.	Primary Method For Managing Pests In Vegetable Cultivation	Chemical Pesticides	29	19%
		I Don't Actively Manage Pests	7	4.6%
		Integrated Pest Management (Ipm) Practices	38	24.8%
		Organic Pest Control Methods	79	51.6%
17.	Source Of Crop Rotation Plan	Climate And Weather Pattern	51	33.3%
			29	19.0%

		Crop Residue Management	48	31.4%
		Market Demand	25	16.3%
		Soil Health Assessment		
18.	Cultivation Practices To Crop With Seasonal Variations And Changes In Temperature	Adaptive Planting Dates	33	21.6%
		Irrigation Management	56	36.6%
		Seasonal Cover Crops	48	31.4%
		Varietal Selection	16	10.5%
19.	Primary Marketing Strategy	Co-Operative Marketing	41	26.8%
		Farm To Restaurant Partnerships	13	8.5%
		Local Farmers Markets	77	50.3%
		Wholesaler To Retailers	22	14.4%
20.	Challenges Faced In Marketing Of Vegetables	Access To Markets	40	26.1%
		Competition	9	5.9%
		Price Fluctuations	68	44.4%
		Regulatory Compliance	36	23.5%
21.	How Farmers Market Their Vegetables	Any Other	10	6.5%
		Directly To The Consumer	31	20.3%
		Through Commission Agents	38	24.8%
		Through Village Traders	74	48.4%

(SOURCE: PRIMARY SOURCE)

**INTERPRETATION:**

The above table shows that Majority 57.5% of the respondents are male. Most 47.1% of respondents are school level. Majority 58.8% of the respondents are married. Most 28.1% of the respondents are around 3 to 5 years. Most 41.8% of the respondents crops are affected by fungi. Most 40.5 % of the respondent’s annual income is 1,00,000 Rs – 2,00,000 Rs. Most 33.3% of the respondents family members are two – three. Most 48.4 % of the respondents family members involved in cultivation process are one – two. Majority 50.3 % of the respondents source of purchase of seeds from local traders. Majority 53.6 % of the respondents source of terms of purchase are cash purchase. Majority 53.6 % of the respondents owns their own land. Majority 58.2 % of the respondents owns 1 – 10 acres of land. Majority 49.0 % of the respondents water for farming is irrigation water. Most 31.4 % of the respondents source of irrigation is manual irrigation. Most 34.0 % of the respondents steps taken for crop protection is crop rotation. Majority 51.6 % of the respondents primary method for managing pests in vegetable cultivation is organic pest control methods. Most 33.3 % of the respondents crop rotation plan is because of climate and weather pattern. Most 36.6 % of the respondents cultivation practices to crop with seasonal variations and changes in temperature with irrigation management. Majority 50.3% of the respondents primary marketing strategy is local farmers markets. Most 44.4 % of the respondents challenge faced in marketing of vegetable is price fluctuations. Most 49.4 % of the respondents they market their vegetables through village traders.

**WEIGHTED AVERAGE METHOD:**

The term weight stands for relative importance of different items. Weights have been assigned to various ranks. The weighted score is calculating by multiplying the number of respondents in a cell with their relative weights and the whole and the whole number is summed up to give the weighted score for the factors. It is computed by using the formula:

Where,

$$\sum xw = \frac{\sum wx}{\sum w}$$

Where,

$\sum xw$  = weighted arithmetic mean

$\sum wx$  = value of items

$\sum w$  = weight of items

**RANKING:**

A ranked variable is one that has an ordinal value (i.e. 1st, 2nd, 3rd, etc.). While the exact value of the variable may not be known, its place relative to the other variables is. Ranked data is data that has been compared to the other pieces of data and given a "place" relative to these other pieces of data.

**THE CHALLENGES FACED BY FARMERS IN CULTIVATION OF VEGETABLES.**

S.NO	CHALLENGES	TOTAL	WEIGHT	RANK
1.	Pests And Diseases	480	320	III
2.	Soil Quality And Fertility	464	309	VII

3.	Water Management	470	313	<b>VI</b>
4.	Climate And Weather Impact	508	338	<b>I</b>
5.	Decreasing Soil Quality	432	288	<b>X</b>
6.	High Cost Of Input	439	292	<b>IX</b>
7.	Natural Disaster	460	306	<b>VIII</b>
8.	Labour Shortage	479	319	<b>IV</b>
9.	Lack Of Finance	482	321	<b>II</b>
10.	Damage Of Rodent And Birds	477	318	<b>V</b>

**(SOURCE: PRIMARY SOURCE)**

**INTERPRETATION:**

The above table shows the weight average and ranking shows the challenges faced by farmers in cultivation of vegetables, Climate And Weather Impact ranks I, Lack Of Finance ranks II, Pests And Diseases ranks III, Labour Shortage IV, Damage Of Rodent And Birds V, Water Management VI, Soil Quality And Fertility VII, Natural Disaster VIII, High Cost Of Input IX, Decreasing Soil Quality X.

**THE CHALLENGES FACED BY THE FARMERS IN MARKETING OF VEGETABLES.**

<b>S.NO</b>	<b>CHALLENGES</b>	<b>TOTAL</b>	<b>WEIGHT</b>	<b>RANK</b>
1.	Market Access	487	324	<b>II</b>
2.	Price Fluctuations	440	293	<b>IX</b>
3.	Consumer Preference	431	287	<b>X</b>
4.	Marketing Strategies	460	306	<b>VII</b>
5.	Inadequate Transport	489	326	<b>I</b>
6.	No Permanent Place	477	318	<b>III</b>
7.	Lack Of Storage Facilities	468	312	<b>VI</b>

8.	Poor Export Facilities	447	298	<b>VIII</b>
9.	Seasonal Variations	474	316	<b>IV</b>
10.	Weather Impact	473	315	<b>V</b>

**(SOURCE: PRIMARY SOURCE)**

**INTERPRETATION:**

The above table shows the weighted average and ranking of challenges faced by the farmers in marketing of vegetables, Inadequate Transport ranks I, Market Access ranks II, No Permanent Place III, Seasonal Variations IV, Weather Impact V, Lack Of Storage Facilities VI, Marketing Strategies ranks VII, Poor Export Facilities VIII, Price Fluctuations IX, Consumer Preference X.

**THE SATISFACTION LEVEL ABOUT CULTIVATION AND MARKETING CHALLENGES FACED BY VEGETABLE GROWERS.**

Sources	5 Highly Satisfied	4 Satisfied	3 Neutral	2 dissatisfied	1 highly dissatisfied	Total	Weighted	Rank
Less Risk	195	168	150	30	4	547/150	3.64	<b>I</b>
	39	42	50	15	4			
Less Marketing Cost	80	112	231	20	19	462/150	3.08	<b>VI</b>
	16	28	77	10	19			
No Need For Formal Education	130	92	159	42	27	450/150	3.0	<b>VIII</b>
	26	23	53	21	27			
Availability Of Finance	55	156	195	38	16	460/150	3.06	<b>VII</b>
	11	39	65	19	16			
No Need Of Huge Investment	95	100	141	80	19	435/150	2.09	<b>X</b>
	19	25	47	40	19			
Less Chance Of Wastage	70	216	129	54	12	481/150	3.20	<b>IV</b>
	14	54	43	27	12			
Creates More Social Contact	95	220	93	92	22	522/150	3.48	<b>II</b>
	19	55	31	23	22			



Non-Availability Of Labours	60	116	213	42	17	448/150	2.98	<b>IX</b>
	12	29	71	21	17			
Availability Of Marketing Facilities	80	10	240	38	10	468/150	3.12	<b>V</b>
	16	25	80	19	10			
Weather Variability	100	280	60	50	15	505/150	3.36	<b>III</b>
	20	70	20	25	15			

**(SOURCE: PRIMARY SOURCE)**

**INTERPRETATION:**

The above table shows the weighted and ranking of satisfaction level about cultivation and marketing challenges faced by vegetable growers, less risk ranks I, Creates More Social Contact ranks II, Weather Variability III, Less Chance Of Wastage IV, Availability Of Marketing Facilities V, Less Marketing Cost VI, Availability Of Finance VII, No Need For Formal Education VIII, Non-Availability Of Labours IX, No Need Of Huge Investment X.

**FINDINGS:**

- It is concluded that Majority 57.5% of the respondents are male.
- It is concluded that Most 47.1% of respondents are school level.
- It is concluded that Majority 58.8% of the respondents are married.
- It is concluded that Most 28.1% of the respondents are around 3 to 5 years.
- It is concluded that Most 41.8% of the respondents crops are affected by fungi.
- It is concluded that Most 40.5 % of the respondents annual income is 1,00,000 Rs – 2,00,000 Rs
- It is concluded that Most 33.3% of the respondents family members are two – three.
- It is concluded that Most 48.4 % of the respondents family members involved in cultivation process are one – two
- It is concluded that Majority 50.3 % of the respondents source of purchase of seeds from local traders.
- It is concluded that Majority 53.6 % of the respondents source of terms of purchase are cash purchase.
- It is concluded that Majority 53.6 % of the respondents owns their own land.
- It is concluded that Majority 58.2 % of the respondents owns 1 – 10 acres of land.
- It is concluded that Majority 49.0 % of the respondents water for farming is irrigation water.
- It is concluded that Most 31.4 % of the respondents source of irrigation is manual irrigation.
- It is concluded that Most 34.0 % of the respondents steps taken for crop protection is crop rotation.
- It is concluded that Majority 51.6 % of the respondents primary method for managing pests in vegetable cultivation is organic pest control methods.
- It is concluded that Most 33.3 % of the respondents crop rotation plan is because of climate and weather pattern.

- It is concluded that Most 36.6 % of the respondents cultivation practices to crop with seasonal variations and changes in temperature with irrigation management.
- It is concluded that Majority 50.3% of the respondents primary marketing strategy is local farmers markets.
- It is concluded that Most 44.4 % of the respondents challenge faced in marketing of vegetable is price fluctuations.
- It is concluded that Most 49.4 % of the respondents they market their vegetables through village traders.
- It is concluded that Majority of the respondents ranks I for Climate and Weather Impact (3.38).
- It is concluded that Majority of the respondents ranks I for Inadequate Transport (3.26).
- It is concluded that Majority of the respondents ranks I for less risk (3.64).

### SUGGESTION:

- It is advised to the farmers that they should carry clean and size-based vegetable to the market in order to increase the selling price.
- It is suggested to the farmers that they should be aware of the recent marketing trends.
- It is suggested that training should be imparted to vegetable growers regarding scientific methods of vegetable production technique.
- It is suggested that ensuring supply of sufficient quantity and good quality of seeds by government agencies.
- It is suggested to reduce the cost of quality seed and fertilizers and pesticides should be made available at reasonable rate.
- It is suggested to improve the quality and availability of fertilizer and pesticides on appropriate time.
- It is suggested that they should be aware about the modern irrigation methods provided.

### CONCLUSION:

It may be concluded that most serious challenges were non-availability of quality seeds, fertilizers and Pesticides and their unavailability at proper time and their high cost, price fluctuation in the market and lack of sufficient cold storage. Most of the vegetable growers suggested that information should be provided to vegetable growers about recent market trends, production input should be provided timely, proper marketing facilities should be made available to them at reasonable rate and cold storage facilities should be provided. So that it will help farmers to increase their vegetable production without increasing production cost and ultimately their income will increase.

It may be concluded that major marketing constraints reported by vegetable growers were: long chain of intermediaries, inadequate transportation facilities, high transportation charges, inadequate storage facilities, low price / lack of remunerative price and non-availability of market information.

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