Available in online @ www.iaraindia.com
RESEARCH EXPLORER-International Journal on Economics and Business Management
ISSN: 2250-1940 (P) 2349-1647 (O)
Impact Factor: 8.276 (12OR), 3.676 (COSMOS)
Volume XV, Issue 51
April - June 2026
Formally UGC Approved Journal (63185), © Author

SUSTAINABLE BANANA FARMING PRACTICES AND MARKET DYNAMICS IN ERODE DISTRICT, TAMIL NADU

C. KESAVAN
Research Scholar in Commerce (Part-Time)
K.S.Rangasamy College of Arts and Science, (Autonomous)
Affiliated to Periyar University, Salem
Tiruchengode – 637 215

Dr. M. DEVI SRI
Research Supervisor
K.S.Rangasamy College of Arts and Science, (Autonomous)
Affiliated to Periyar University, Salem
Tiruchengode – 637 215

ABSTRACT

Agriculture continues to play a dominant role in the economic and social structure of Erode District, where a large proportion of the population depends directly or indirectly on farming activities for their livelihood. The district is widely recognized as one of the most agriculturally advanced regions in Tamil Nadu due to its favourable agro-climatic conditions, well-developed irrigation infrastructure, and diversified cropping pattern. The objectives of the study are (i) to examine the current banana farming practices in Erode district, (ii) to analyze sustainable farming techniques adopted by banana farmers, (iii) to study the market dynamics influencing banana cultivation and (iv) to suggest measures for improving sustainability and market efficiency. The present study conducted in Erode district, adopted convenient sampling method for data collection. Total number of respondents taken for this study are 237 out of them 144 are small farmers and remaining 93 are large farmers. Percentage analysis used to present the socio economic factors and current banana farming practices and farming techniques. The Likert five point scale used to the variables for banana market dynamics of small farmers and large farmers. The study concluded that sustainable banana farming in Erode district is essential for ensuring long-term agricultural productivity and environmental conservation. While the region has strong potential due to favorable conditions and high productivity, challenges related to market fluctuations, post-harvest losses, and climate change hinder its growth. By integrating sustainable farming practices with efficient market systems, farmers can achieve improved income stability and contribute to overall rural development.

Key Words: sustainable banana farming, agro climate conditions, banana cultivation production practices and marketing dynamics.

INTRODUCTION

Agriculture continues to play a dominant role in the economic and social structure of Erode District, where a large proportion of the population depends directly or indirectly on farming activities for their livelihood. The district is widely recognized as one of the most

agriculturally advanced regions in Tamil Nadu due to its favourable agro-climatic conditions, well-developed irrigation infrastructure, and diversified cropping pattern. Major crops cultivated in the region include paddy, sugarcane, turmeric, cotton, and horticultural crops such as banana, which holds a significant position in both production and trade. Among horticultural crops, banana cultivation has emerged as a vital component of the district's agricultural economy. Erode is one of the leading banana-producing regions in the state, with approximately 12,000 hectares of land under banana cultivation. The crop is highly valued due to its year-round availability, high yield potential, and strong market demand at both domestic and international levels. Banana farming provides substantial income opportunities for farmers, supports employment generation, and contributes to the development of allied sectors such as transportation, storage, and processing industries.

In recent years, however, the agricultural sector, including banana cultivation, has been facing increasing challenges due to environmental degradation, climate variability, rising input costs, and market uncertainties. Issues such as soil fertility decline, excessive use of chemical fertilizers and pesticides, water scarcity, and unpredictable weather events have raised concerns about the long-term sustainability of conventional farming practices. For instance, extreme climatic events like hailstorms and irregular rainfall have caused severe damage to banana plantations in parts of western Tamil Nadu, highlighting the vulnerability of the sector.

Against this backdrop, sustainable banana farming practices have gained considerable importance. Sustainable agriculture focuses on maintaining ecological balance, conserving natural resources, and ensuring economic viability for farmers. In the context of banana cultivation, sustainable practices include the adoption of organic farming methods, efficient water management techniques such as drip irrigation, integrated nutrient management, use of bio-fertilizers, crop diversification and environmentally friendly pest control measures. Government initiatives and agricultural extension programs in Erode district have also been promoting organic inputs, vermi composting, and integrated farming systems to enhance productivity while preserving environmental health.

Parallel to production practices, market dynamics play a crucial role in determining the profitability and sustainability of banana farming. The banana market in Tamil Nadu is characterized by fluctuations in price, demand-supply imbalances, and inefficiencies in the supply chain. Despite India being one of the largest producers of bananas globally, farmers often face challenges such as post-harvest losses, inadequate storage facilities, lack of direct market access, and dependence on intermediaries. These factors contribute to a significant gap between farm-gate prices and retail prices, affecting farmers' income and market stability.

In regions like Erode, banana marketing is influenced by local mandis, regional traders, and inter-state demand, particularly from neighbouring states and export markets. However, price volatility remains a major concern. Instances of overproduction have led to sharp declines in wholesale prices, creating financial distress for farmers. At the same time, the perishable nature of bananas limits farmers' ability to store produce and wait for favourable market conditions, thereby increasing their dependency on immediate sales.

The evolving consumer preferences toward organic and sustainably produced food have opened new opportunities for banana farmers. There is a growing demand for chemical-free, high-quality produce in both domestic and international markets. This shift has encouraged farmers in Erode district to adopt sustainable farming practices not only for environmental benefits but also to achieve better price realization and market competitiveness.

The study of "Sustainable Banana Farming Practices and Market Dynamics in Erode District, Tamil Nadu" becomes highly relevant in the current agricultural scenario. It aims to examine the integration of eco-friendly farming techniques with market-oriented strategies to

enhance productivity, profitability, and sustainability. Understanding the relationship between sustainable practices and market behavior can help policymakers, researchers, and farmers develop effective strategies to overcome challenges and promote inclusive agricultural growth.

OBJECTIVES OF THE STUDY

1. To examine the current banana farming practices in Erode district.
2. To analyze sustainable farming techniques adopted by banana farmers.
3. To study the market dynamics influencing banana cultivation.
4. To suggest measures for improving sustainability and market efficiency.

SAMPLING DESIGN

The present study conducted in Erode district, adopted convenient sampling method for data collection. Total number of respondents taken for this study is 237 out of them 144 are small farmers and remaining 93 are large farmers. The data were analysed separately and presented in the following tables. Percentage analysis used to present the socio economic factors and current banana farming practices and farming techniques. The likert five point scale used to the **variables for banana market dynamics of** small farmers and large farmers.

ANALYSIS AND INTERPRETATION

NATURE OF THE FAMILY

The kind of family a person is raised in greatly influences the values, beliefs, and patterns of behavior that will likely influence how they approach a given issue. As a result, the type of family has an impact on someone's reaction. As shown below, the family types of the sample respondent homes have been divided into two categories: nuclear and joint.

Table 1

Nature of the family

Nature of the family	Category of the Farmer		Total
	Small Farmers	Large Farmers	
Nuclear Family	33	21	54
Joint family	111	72	183
Total	**144**	**93**	**237**

Source: Primary Data

The above table indicates the nature of the family. Out of 237 sample respondents, 54 belong to nuclear family and the remaining 183 respondents belong to joint family. Out of 54 nuclear family respondents, 33 respondents belong to small farmers and 21 respondents belong to large farmers. Out of 183joint family respondents, 111 respondents belong to small farmers and 72 respondents belong to large farmers.

Majority (144) of the small farmers belong to joint family and (33) small farmers are living in nuclear family.

Number of Members and Size of Family

Children are viewed as assets in rural households because they assist their parents with daily tasks. The respondents were divided into three groups based on the size of their families: small families (those with fewer than 3 members) medium families (those with 3 - 6 members) and large families (those with more than 6 members), as shown below.

Table 2

Number of members and size of family

Family Size	Category of the Farmer		Total
	Small Farmers	Large Farmers	
Small	31	17	48
Medium	85	29	114

Large	28	47	75
Total	**144**	**93**	**237**

Source: Primary Data

The above table shows the number of members and size of the family. Out of total 237 sample respondents, 48 respondents belong to small family, 114 respondents belong to medium family and 75 respondents belong to large family. Out of 48 small sized family respondents, 31 respondents are small farmers and 17 respondents are large farmers. Out of 114 medium sized family member categories, 85 respondents are small farmers and remaining 29 respondents are large farmers. Out of 75 large sized family categories, 28 respondents belong to small farmers and 47 respondents are large farmers.

Majority of the small farmers,85 respondents belong to medium sized family of 3-6 family members and majority of the large farmers 47 respondents belong to large sized family with family members of three.

Age–wise Classification

One of the most crucial factors in determining the respondents' opinions regarding the specific issues is their age. Age is a measure of a person's maturity, therefore it becomes more significant, and the response may vary based on the age. As shown below, the respondents were divided into three groups: low (under 40 years old), middle (40–60 years old), and high (above 60 years old).

Table 3
Age–wise classification

Age group	Category of the Farmer		Total
	Small Farmers	Large Farmers	
Low	39	22	61
Middle	46	29	75
High	59	42	101
Total	**144**	**93**	**237**

Source: Primary Data

The above table shows the age wise classification of small and large farmers. Out of the total 61 respondents, 39 respondents belong to low age group of below 40 years in small farmers and the remaining 22 are large farmers. The farmers who belong to the middle age between 40 & 60 years falls under the categories of 46 are small farmers and the remaining 29 belong to large farmers. The age category of above 60 years comprises of 59 in small farmers and 42 in large farmers. Majority of the low, middle and high age group people are small farmers.

Educational Level

One of the most significant factors that may influence a person's attitudes, perspective, and comprehension of farming practices, marketing strategies, and other related topics is their level of education. As a result, it becomes crucial to understand the respondents' educational backgrounds. Thus, the researcher examined the variable "literacy level," and the respondents were divided into four groups, as indicated below: illiterate, primary level, high school level, and degree level.

Table 4
Educational level

Educational Qualification	Category of the Farmer		Total
	Small Farmers	Large Farmers	

Primary	28	16	44
Elementary	31	23	54
High School Level	64	33	97
Degree Level	21	21	42
Total	**144**	**93**	**237**

Source: Primary Data

The above table shows the educational level of the sample respondent farmers. Out of 237 farmers, 44 farmers have primary level of education, 545 farmers have elementary education, 97 farmers have completed High School level and 42 with degree level of education. Out of 44 Small farmers, 28 farmers have primary level of education, 31 farmers have elementary education, 64 farmers have completed High School level and remaining 21 with degree level of education. Out of 93 large farmers, 16 farmers have primary level of education, 23 farmers have elementary education, 33 farmers have completed high school level and remaining 21 with degree level of education. Majority 64 small farmers have high school level education and 33 large farmers are also have high school level education.

Annual Family Income

The respondents' family income has a significant role in enabling farmers to conduct their agricultural operations smoothly. Based on their yearly family income, the sample respondents were divided into three groups: low (up to Rs 2,50,000), medium (between Rs 2,50,001 and 5,00,000), and high (beyond Rs 5,00,000). Below are the specifics of the respondents' household incomes broken down by group and farm size.

Table 5
Annual Family Income

Annual Family Income (inRs.)	**Category of the Farmer**		**Total**
	Small Farmers	**Large Farmers**	
Low (up to Rs. 2,50,000)	63	39	102
Middle (Rs. 2,50,001 to Rs. 5,00,000)	66	22	88
High (Above Rs. 5,00,000)	15	32	47
Total	**144**	**93**	**237**

Source: Primary Data

The above table represents the annual family income of the farmers. Out of 237 sample farmers, 102 farmers belong to low annual family income up to Rs. 2,50,000, 88 farmers have middle annual family income between Rs. 2,50,001 and Rs. 5,00,000 and remaining 47 farmers have a high annual family income of above Rs. 5,00,000. Out of 144 sample respondents of small farmers, 63 are having low annual family income up to Rs. 2,50,000, 66 farmers have middle annual family income between Rs. 2,50,001 and Rs. 5,00,000 and remaining 15 farmers have a high annual family income of above Rs. 5,00,000.

Out of 93 large Farmers sample respondents,39 are having low annual family income up to Rs. 2,50,000, 22 farmers have middle annual family income between Rs. 2,50,001 and Rs. 5,00,000 and remaining 32 farmers have a high annual family income beyond Rs. 5,00,000.Majority 66 small farmers are having middle annual family income of Rs. 2,50,001 to Rs. 5,00,000 and, 39 large farmers have middle annual family income of below Rs. 2,50,000.

Number of Family Members Involved in Agriculture

The number of family members that work in agriculture influences how much attention is paid to the crops that are grown, and they also offer the farmer moral support when they are out in the field. The following lists the number of family members working in agriculture by farm size and group.

Table 6
Family members involved in Agriculture

Members involved	Category of the Farmer		Total
	Small Farmers	Large Farmers	
One	42	22	64
Two	66	41	107
Above Two	26	30	66
Total	**144**	**93**	**237**

Source: Primary Data

The above table shows the number of family members involved in agriculture. Out of 237 sample respondent's farmers, in 64 families, the number of members involved in agriculture is only one. 107 families, the number of members involved in agriculture is two and remaining 66 families, the number of members involved in agriculture is above two. Out of 144 small famers, 42 small famer's family member involved in agriculture is 1, 66 small farmer's family members involved in agriculture is two and remaining 26 small farmer's family members involved in agriculture is above two.

Out of 93 small farmers, 22 large farmer's family members involved in agriculture is 1, 41 large farmer's family members involved in agriculture is two and remaining 30 large farmer's family members involved in agriculture is above two. Majority (66) of the small farmer's families involved in agriculture is two and majority (41) of the larger farmer's families involved in agriculture is two.

BANANA CULTIVATION PRACTICES

This section attempts to examine banana farming practices in terms of total land area, irrigation sources, farm experience, banana varieties, sources of knowledge about banana cultivation, sources of the most up-to-date information on banana cultivation, sources of funding for the production of bananas, intercropping, fertilizer use, preferred fertilizer kinds, Agriculture Department support, and crop insurance in the research region.

Sources of Irrigation

Watering the soil to provide the moisture needed for plant growth is known as irrigation, and it plays a significant role in determining how productive banana growers are. Below are the sources of the sample farmers' irrigation patterns.

Table 7
Source of Irrigation

Source	Category of the Farmer		Total
	Small Farmers	Large Farmers	
Open well	19	9	28
Bore well	31	22	53
River	11	7	18

Cannel	30	15	45
Dripping	53	40	93
Total	**144**	**93**	**237**

Source: Primary Data

Out of 237 farmers, 28 farmers are using open well water as a main source of irrigation, out of them 19 are small farmers and 9 are large farmers. 53 farmers are using bore well as the main source of irrigation, out of them 31 are small farmers and 22 are large farmers. 18 farmers depend on river water, out of them 11 are small farmers and 7 are large farmers. 45 depend on the cannel, out of them 30 are small farmers and 15 are large farmers. 93 farmers on the dripping sources of irrigation, out of them 53 are small farmers and 40 are large farmers. Majority (53) of the small farmers are using dripping and majority (40) of the large famers are also using dripping.

Farm Experience

Because banana farming calls for the highest level of care, respondents' experiences are crucial in evaluating the crop's performance. The output increases with farm length. A significant portion of farmers today adopt modern farming practices. Below is a presentation of the sample farmer households' farm experiences.

Table 8
Farm Experience

Farm Experience (in Years)	Category of the Farmer		Total
	Small Farmers	Large Farmers	
Up to 5 Years	48	16	64
5–10 years	51	23	74
10–15 years	32	27	59
More than15 years	13	27	40
Total	**144**	**93**	**237**

Source: Primary Data

From the above table showing the farm experience of the farmers in years, it is seen that out of 237 farmers, 64 farmers have an experience up to 5 years, out of them 48 are small farmers and 16 are large farmers. 74 farmers have an experience of 5-10 years, out of them 51 are small farmers and 23 are large farmers. 59 farmers have 10-15 years of experience, out of them 32 are small farmers and 27 are large farmers remaining 40 farmers have more than 15 years of experience in farming, out of them 13 are small farmers and 27 are large farmers.

Majority (51)of the small farmers have an experience 5 to 10 years and 27 farmers are 10 to 15 years and move than 15 years of experience in agriculture.

Season for Banana Cultivation

Different seasons are preferred by banana growers for banana cultivation. The choice of season is determined by factors like as water availability, marketing convenience, sucker availability, labor availability, and so forth. The success of banana farming is also influenced by the choice of season. Therefore, the season that farmers prefer for growing bananas is shown below.

Table 9
Season for Banana Cultivation

son for banana cultivation	Category of the Farmer		Total
	Small Farmers	Large Farmers	
Jan–Feb	21	15	36
June–July	19	9	28
July–August	14	17	31
Sep–Oct	37	39	76
Oct–Nov	53	13	66
Total	**144**	**93**	**237**

Source: Primary Data

The above table shows the season for banana cultivation. Out of 237 farmer respondents, 36 farmers say that the month Jan-Feb is considered to be the best season for banana cultivation, out of them 21 are small farmers and remaining 15 are large farmers. 28 says June-July, out of them 19 are small farmers and remaining 9 are large farmers. 31 farmers say July-August, out of them 14 are small farmers and remaining 17 are large farmers. 76 farmers say Sep-Oct, out of them 37 are small farmers and remaining 39 are large farmers and the remaining 66 farmers say Oct-Nov, out of them 53 are small farmers and 13 are large farmers is the season for banana cultivation. Majority (53) of the small farmers says Oct-Nov is the season for banana cultivation and (39) large farmers say Sep-Oct is the season for banana cultivation.

Varieties of Banana

The district grows seven different types of bananas. Revenue from one variety vary from that from another because of variations in yield. The following lists the types of bananas that the respondents grew.

Table 10
Varieties of banana

Varieties	Category of the Farmer		Total
	Small Farmers	Large Farmers	
Kadalai	38	27	65
Monthan	26	20	46
Nendran	18	12	30
Pachanadan	10	4	14
Poovan	19	9	28
Rasthali	16	7	23
Red Banana	17	14	31
Total	**144**	**93**	**237**

Source: Primary Data

The above table shows the varieties of banana cultivated by the farmers. Out of 237 farmers cultivating bananas, 65 farmers cultivate Kadalai, out of them 38 are small farmers and remaining 27 are large farmers. 46 farmers cultivate Monthan, out of them 26 are small farmers and 20 are large farmers. 30farmers cultivate Nendran, out of them 18 are small farmers and 12 are large farmers. 14farmers cultivate Pachanadan, out of them 10 are small farmers and 12 are large farmers. 28farmers cultivate Poovan, out of them 19 are small farmers and 9 are

large farmers. 23farmers cultivate Rasthali, out of them 16 are small farmers and remaining 7 are large farmers, remaining 31 farmers cultivate Red Banana, out of them 17 are small farmers and remaining 14 are large farmers. Majority small farmers (26) are cultivating Monthan and majority (27) large farmers are cultivating Kadalai.

VARIABLES FOR BANANA MARKET DYNAMICS IN ERODE DISTRICT : **SMALL FARMERS**

SD – Strongly Disagree ; D – Disagree ; N – Neutral ; A – Agree and SA – Strongly Agree

Table 11

Variables for Banana Market Dynamics in Erode District: Small Farmers

Sl. No.	Variables	SD	D	N	A	SA	Total
1	Banana prices in the market fluctuate frequently	12 (8.3%)	25 (17.4%)	58 (40.3%)	31 (21.5%)	18 (12.5%)	144
2	Demand for bananas varies based on seasonal factors	10 (6.9%)	15 (10.4%)	27 (18.8%)	51 (35.4%)	41 (28.5%)	144
3	Supply of bananas is affected by weather conditions	7 (4.9%)	11 (7.6%)	21 (14.6%)	47 (32.6%)	58 (40.3%)	144
4	Middlemen significantly influence banana pricing	14 (9.7%)	19 (13.2%)	25 (17.4%)	34 (23.6%)	52 (36.1%)	144
5	Transportation costs impact the final market price of bananas	13 (9.0%)	24 (16.7%)	64 (44.4%)	28 (19.4%)	15 (10.5%)	144
6	Farmers receive fair prices for their banana produce	48 (33.3%)	35 (24.3%)	29 (20.1%)	18 (12.5%)	14 (9.7%)	144
7	Market information (price trends, demand) is easily accessible to farmers	74 (51.4%)	28 (19.4%)	24 (16.7%)	10 (6.9%)	8 (5.6%)	144
8	Export opportunities affect local banana prices	62 (43.1%)	21 (14.6%)	34 (23.6%)	16 (11.1%)	11 (7.6%)	144
9	Government policies influence banana market stability	25 (17.4%)	37 (25.7%)	54 (37.5%)	12 (8.3%)	16 (11.1%)	144
10	Competition among sellers affects banana pricing strategies	18 (12.4%)	27 (18.8%)	63 (43.8%)	23 (16.0%)	13 (9.0%)	144

Source: Computed data

Banana prices in the market fluctuate frequently

Out of 144 respondents, twelve (8.3%) respondents are strongly disagree the statement that Banana prices in the market fluctuate frequently. Twenty five (17.4%) respondents are disagree, fifty eight (40.3%) respondents are neutral, thirty one (21.5%) respondents are agreed and remaining eighteen (12.5%) respondents are strongly agreed the statement. Majority (40.3%) of the respondents are neutral the statement.

Demand for bananas varies based on seasonal factors

Out of 144 respondents, twelve (8.3%) respondents are strongly disagree the statement that Demand for bananas varies based on seasonal factors. Ten (6.9%) respondents are disagree, fifteen (10.4%) respondents are neutral, fifty one (35.4%) respondents are agreed and remaining forty one (28.5%) respondents are strongly agreed the statement. Majority (35.4%) of the respondents are agreed the statement.

Supply of bananas is affected by weather conditions

Out of 144 respondents, seven (4.9%) respondents are strongly disagree the statement that Supply of bananas is affected by weather conditions. Fifteen (10.4%) respondents are disagree, twenty seven (18.8%) respondents are neutral, forty seven (32.6%) respondents are agreed and remaining fifty eight (40.3%) respondents are strongly agreed the statement. Majority (40.3%) of the respondents are strongly agreed the statement.

Middlemen significantly influence banana pricing

Out of 144 respondents, fourteen (9.7%) respondents are strongly disagree the statement that Middlemen significantly influence banana pricing. Nineteen (13.2%) respondents are disagree, twenty five (17.4%) respondents are neutral, thirty four (23.6%) respondents are agreed and remaining fifty two (36.1%) respondents are strongly agreed the statement. Majority (36.1%) of the respondents are strongly agreed the statement.

Transportation costs impact the final market price of bananas

Out of 144 respondents, thirteen (9.0%) respondents are strongly disagree the statement that Transportation costs impact the final market price of bananas. Twenty four (16.7%) respondents are disagree, sixty four (44.4%) respondents are neutral, twenty eight (19.4%) respondents are agreed and remaining fifteen (10.5%) respondents are strongly agreed the statement. Majority (44.4%) of the respondents are neutral the statement.

Farmers receive fair prices for their banana produce

Out of 144 respondents, forty eight (33.3%) respondents are strongly disagree the statement that Farmers receive fair prices for their banana produce. Thirty five (24.3%) respondents are disagree, twenty nine (20.1%) respondents are neutral, eighteen (12.5%) respondents are agreed and remaining fourteen (9.7%) respondents are strongly agreed the statement. Majority (33.3%) of the respondents are strongly disagree the statement.

Market information (price trends, demand) is easily accessible to farmers

Out of 144 respondents, seventy four (51.4%) respondents are strongly disagree the statement that Market information (price trends, demand) is easily accessible to farmers. Thirty eight (19.4%) respondents are disagree, twenty four (16.7%) respondents are neutral, ten (6.9%) respondents are agreed and remaining eight (5.6%) respondents are strongly agreed the statement. Majority (51.4%) of the respondents are strongly disagree the statement.

Export opportunities affect local banana prices

Out of 144 respondents, sixty two (43.1%) respondents are strongly disagree the statement that Export opportunities affect local banana prices. Twenty one (14.6%) respondents are disagree, thirty four (23.6%) respondents are neutral, sixteen (11.1%) respondents are agreed and remaining eleven (7.6%) respondents are strongly agreed the statement. Majority (43.1%) of the respondents are strongly disagree the statement.

Government policies influence banana market stability

Out of 144 respondents, twenty five (17.4%) respondents are strongly disagree the statement that Government policies influence banana market stability. Thirty seven (25.7%) respondents are disagree, fifty four (37.5%) respondents are neutral, twelve (8.3%) respondents are agreed and remaining sixteen (11.1%) respondents are strongly agreed the statement. Majority (37.5%) of the respondents are neutral the statement.

Competition among sellers affects banana pricing strategies

Out of 144 respondents, eighteen (12.4%) respondents are strongly disagree the statement that Competition among sellers affects banana pricing strategies. Twenty seven

(18.8%) respondents are disagree, sixty three (43.8%) respondents are neutral, twenty three (16.0%) respondents are agreed and remaining thirteen (9.0%) respondents are strongly agreed the statement. Majority (43.8%) of the respondents are neutral the statement.

VARIABLES FOR BANANA MARKET DYNAMICS IN ERODE DISTRICT : **LARGE FARMERS**

SD – Strongly Disagree ; D – Disagree ; N – Neutral ; A – Agree and SA – Strongly Agree

Table 12

Variables For Banana Market Dynamics In Erode District: Large Farmers

Sl. No.	Variables	SD	D	N	A	SA	Total
1	Banana prices in the market fluctuate frequently	11 (11.8%)	18 (19.4%)	32 (34.4%)	18 (19.4%)	14 (15.1%)	93
2	Demand for bananas varies based on seasonal factors	8 (8.6%)	13 (14.0%)	33 (35.5%)	22 (23.7%)	17 (18.2%)	93
3	Supply of bananas is affected by weather conditions	9 (9.7%)	15 (16.1%)	19 (20.4%)	23 (24.8%)	27 (29.0%)	93
4	Middlemen significantly influence banana pricing	7 (7.5%)	11 (11.8%)	18 (19.4%)	24 (25.8%)	33 (35.5%)	93
5	Transportation costs impact the final market price of bananas	11 (11.8%)	19 (20.4%)	36 (38.7%)	18 (19.4%)	9 (9.7%)	93
6	Farmers receive fair prices for their banana produce	19 (20.4%)	15 (16.1%)	27 (29.0%)	14 (15.1%)	18 (19.4%)	93
7	Market information (price trends, demand) is easily accessible to farmers	68 (47.3%)	31 (21.5%)	28 (19.4%)	10 (6.9%)	7 (4.9%)	93
8	Export opportunities affect local banana prices	38 (40.9%)	21 (22.6%)	18 (19.4%)	10 (10.8%)	6 (6.5%)	93
9	Government policies influence banana market stability	21 (22.6%)	31 (33.3%)	18 (19.4%)	14 (15.1%)	9 (9.6%)	93
10	Competition among sellers affects banana pricing strategies	15 (16.1%)	21 (22.6%)	30 (32.3%)	18 (19.4%)	9 (9.7%)	93

Source: Computed data

Banana prices in the market fluctuate frequently

Out of 93 respondents, eleven (11.8%) respondents are strongly disagree the statement that banana prices in the market fluctuate frequently. Eighteen (19.4%) respondents are disagree, thirty two (34.4%) respondents are neutral, eighteen (19.4%) respondents are agreed and remaining fourteen (15.1%) respondents are strongly agreed the statement. Majority (34.4%) of the respondents are neutral the statement.

Demand for bananas varies based on seasonal factors

Out of 93 respondents, eight (8.6%) respondents are strongly disagree the statement that Demand for bananas varies based on seasonal factors. Thirteen (14.0%) respondents are disagree, thirty three (35.5%) respondents are neutral, twenty two (23.7%) respondents are agreed and remaining seventeen (18.2%) respondents are strongly agreed the statement. Majority (35.5%) of the respondents are agreed the statement.

Supply of bananas is affected by weather conditions

Out of 93 respondents, nine (9.7%) respondents are strongly disagree the statement that Supply of bananas is affected by weather conditions. Fifteen (16.1%) respondents are disagree, nineteen (20.4%) respondents are neutral, twenty three (24.8%) respondents are agreed and remaining twenty seven (29.0%) respondents are strongly agreed the statement. Majority (29.0%) of the respondents are strongly agreed the statement.

Middlemen significantly influence banana pricing

Out of 93 respondents, seven (7.5%) respondents are strongly disagree the statement that Middlemen significantly influence banana pricing. Eleven (11.8%) respondents are disagree, nineteen (20.4%) respondents are neutral, twenty three (24.8%) respondents are agreed and remaining twenty seven (29.0%) respondents are strongly agreed the statement. Majority (35.5%) of the respondents are strongly agreed the statement.

Transportation costs impact the final market price of bananas

Out of 93 respondents, eleven (11.8%) respondents are strongly disagree the statement that Transportation costs impact the final market price of bananas. Nineteen (20.4%) respondents are disagree, thirty six (38.7%) respondents are neutral, eighteen (19.4%) respondents are agreed and remaining nine (9.7%) respondents are strongly agreed the statement. Majority (38.7%) of the respondents are neutral the statement.

Farmers receive fair prices for their banana produce

Out of 93 respondents, nineteen (20.4%) respondents are strongly disagree the statement that Farmers receive fair prices for their banana produce. Fifteen (16.1%) respondents are disagree, twenty seven (29.0%) respondents are neutral, fourteen (15.1%) respondents are agreed and remaining eighteen (19.4%) respondents are strongly agreed the statement. Majority (29.0%) of the respondents are strongly disagree the statement.

Market information (price trends, demand) is easily accessible to farmers

Out of 93 respondents, sixty eight (47.3%) respondents are strongly disagree the statement that Market information (price trends, demand) is easily accessible to farmers. Thirty one (21.5%) respondents are disagree, twenty eight (19.4%) respondents are neutral, ten (6.9%) respondents are agreed and remaining seven (4.9%) respondents are strongly agreed the statement. Majority (47.3%) of the respondents are strongly disagree the statement.

Export opportunities affect local banana prices

Out of 93 respondents, thirty eight (40.9%) respondents are strongly disagree the statement that Export opportunities affect local banana prices. Twenty one (22.6%) respondents are disagree, eighteen (19.4%) respondents are neutral, ten (10.8%) respondents are agreed and remaining six (6.5%) respondents are strongly agreed the statement. Majority (40.9%) of the respondents are strongly disagree the statement.

Government policies influence banana market stability

Out of 93 respondents, twenty one (22.6%) respondents are strongly disagree the statement that Government policies influence banana market stability. Thirty one (33.3%) respondents are disagree, eighteen (19.4%) respondents are neutral, fourteen (15.1%) respondents are agreed and remaining nine (9.6%) respondents are strongly agreed the statement. Majority (33.3%) of the respondents are disagreed the statement.

Competition among sellers affects banana pricing strategies

Out of 93 respondents, fifteen (16.1%) respondents are strongly disagree the statement that Competition among sellers affects banana pricing strategies. Twenty one (22.6%)

respondents are disagree, thirty (32.3%) respondents are neutral, eighteen (19.4%) respondents are agreed and remaining nine (9.7%) respondents are strongly agreed the statement. Majority (32.3%) of the respondents are neutral the statement.

FINDINGS

1. Majority (144) of the small farmers belong to joint family and (33) small farmers are living in nuclear family.
2. Majority of the small farmers,85 respondents belong to medium sized family of 3-6 family members and majority of the large farmers 47 respondents belong to large sized family with family members of three.
3. Majority of the low, middle and high age group people are small farmers.
4. Majority 64 small farmers have high school level education and 33 large farmers are also have high school level education.
5. Majority 66 small farmers are having middle annual family income of Rs. 2,50,001 to Rs. 5,00,000 and, 39 large farmers have middle annual family income of below Rs. 2,50,000.
6. Majority (66) of the small farmer's families involved in agriculture is two and majority (41) of the larger farmer's families involved in agriculture is two.
7. Majority (51)of the small farmers have an experience 5 to 10 years and 27 farmers are 10 to 15 years and move than 15 years of experience in agriculture.
8. Majority (53) of the small farmers says Oct-Nov is the season for banana cultivation and (39) large farmers say Sep-Oct is the season for banana cultivation.
9. Majority small farmers (26) are cultivating Monthan and majority (27) large farmers are cultivating Kadalai.

SUGGESTIONS

The following are the suggestions presented by the researchers.

1. Encourage organic farming, bio-fertilizers, and integrated pest management. Promote drip irrigation and water conservation techniques.
2. Establish cold storage and ripening chambers to reduce spoilage. Improve transportation and logistics facilities.
3. Implement minimum support price (MSP) or price stabilization funds. Use digital platforms for real-time market information.
4. Encourage collective marketing to eliminate middlemen. Strengthen bargaining power of farmers.
5. Promote banana-based products (chips, fiber, juice, etc.).Utilize banana waste for eco-friendly products.
6. Introduce precision farming, satellite monitoring, and ICT tools. Provide training through agricultural extension services.
7. Improve access to credit, insurance, and subsidies. Government support for sustainable agriculture schemes.

CONCLUSION

Sustainable banana farming in Erode district is essential for ensuring long-term agricultural productivity and environmental conservation. While the region has strong potential due to favourable conditions and high productivity, challenges related to market fluctuations, post-harvest losses, and climate change hinder its growth. By integrating sustainable farming practices with efficient market systems, farmers can achieve improved income stability and contribute to overall rural development.

REFERENCE

1. Abdalla Adam Osman, Mahasin El Hag Daffalla, Babiker Ibrahim Habeeb,(2015) "Evaluating Markets of Banana for Sudan", International Journal of Innovative Science, EngineeringandTechnology,2 (5).

2. Alagumani T (2005), Economic Analysis of Tissue cultured banana and Sucker Propagated banana. Agric Econ Res Rev 18: 81-89 http://www.globaleconomy.com//pdffiledownloadaccessedin24thJuly2016.
3. Chand Ramesh, S.S. RajuL .M.Pandey (2007) Growth crisis in Agriculture severity and options at National and state level - Economic and political weekly.
4. Chidambaram, R., et al. (2021). "Capacity Building and Farmer Training for Sustainable Banana Cultivation in Tamil Nadu." Journal of Agricultural Extension and Education, 15(4), 98-115.
5. Dr. C. Parvathi and K. Arulselvam, (2013), "Situational Analysis of Agricultural Production and food security in India." Research world – Journal of Arts,science7 commerce) ISSN– 2231-4172, IV.
6. K.Deepak Arunkumar, (2014)"A study on the problems of agricultural marketing of Banana in thoothukudi district, Tamilnadu", International Journal in Commerce, IT and Social Sciences,1(1).
7. Paramasivan C, (2016), Performance of agro-based industries in India, National Journal of Advanced Research, Volume 2; Issue 6; November 2016; Page No. 25-28.
8. Pawar, B. R., V. V. Landge, P. P. Yeware, and D. S. Deshmukh, (2010), "Marketed surplus and price spread in marketing channels of banana." International Journal of Commerce and Business Management, 3(1), 100-104.
9. Selladurai M (2017), Technopreneurship and development of IT and ITeS industry in India, Imperial Journal of Interdisciplinary Research,Vol.3,Issue .11
10. Selladurai M (2017), Technopreneurship education: Teach and train the youths, Asian Journal of Management, Vol.8,Issue .4