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A Study on Organic Farming Enterprises and Green Business Model in Rural Area Tirunelveli City

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Abstract: *Green business models, which integrate environmental and social considerations into entrepreneurship, play a crucial role in supporting this transformation This study, titled "A Study on Organic Farming Enterprises and Green Business Model in Rural Area, Tirunelveli City, to examine the development, challenges, and prospects of organic farming enterprises in Tirunelveli's rural areas. The research focuses on understanding how farmers adopt organic practices, the role of green business models in promoting sustainability, and the economic and environmental impacts of these initiatives. Data for the study were collected from local organic farmers, entrepreneurs, and agricultural officers through structured questionnaires and interviews. The findings reveal that organic farming enterprises in Tirunelveli are gradually expanding due to increased consumer awareness of health and environmental concerns. However, farmers face major challenges such as high certification costs, limited access to organic inputs, lack of government support, and inadequate marketing facilities. Despite these constraints, organic farming has shown positive effects on soil fertility, biodiversity, and long-term sustainability. The study also identifies that implementing green business models—such as eco-labeling, local value chains, waste reduction, and renewable energy use—can enhance the profitability and competitiveness of these enterprises. Furthermore, the research highlights that community participation, training programs, and government incentives play crucial roles in strengthening organic enterprises. The study concludes that promoting organic farming through integrated green business strategies can contribute significantly to rural economic development and environmental conservation in Tirunelveli. It recommends policy interventions, financial support, and awareness campaigns to create a more sustainable and inclusive agricultural ecosystem.*

Keywords: Organic farming, Green business model, Sustainability, Rural development, Tirunelveli, Environmental conservation

I. INTRODUCTION

Green business models, which integrate environmental and social considerations into entrepreneurship, play a crucial role in supporting this transformation. sustainability has become one of the key concerns in today's world, and businesses across different sectors are adopting practices that are more environmentally friendly. The idea of a green business model is to create value without harming nature, while also supporting economic growth and social well-being. Among the different approaches, organic farming stands out as a strong example of how business and ecology can move together in harmony. In Tirunelveli city, agriculture has always played an important role in the local economy and culture. Traditionally, farmers in this region depended on natural methods, but over time, chemical-based farming became dominant. With growing awareness of health, food safety, and environmental issues, there has been a revival of interest in organic farming. Today, a number of small and medium enterprises in and around Tirunelveli are focusing on organic production and marketing.

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II. REVIEW

Hashemi, F. et al. (2024) entitled a research on the topic "Nature Communications Earth & Environment (2024) — Meta-analysis of 100 LCA studies" to Quantitatively compare environmental impacts of organic vs conventional food using a large LCA evidence base. Systematic collection of ~100 LCA studies and quantitative meta-analysis. 100 LCA studies across many product groups and geographies (secondary data) Meta-analysis of LCA indicators (global warming potential, eutrophication, energy use) Per-area environmental impacts of organic food tend to be lower, but per-mass/per-output differences are often small or non-significant for some indicators; context matters. The increase in organic food production and consumption is a distinct environmental-economic trend worldwide Organic food production systems depend on ecological processes, biodiversity, and nutrient cycles and aim to sustain the health of soils, ecosystems, and people.

E. Rani (2024) entitled a research on topic "Transforming Agriculture — The Rise of Agripreneurship and Innovation in Tamil Nadu". To Document Agripreneurship trends including organic business models in Tamil Nadu. Secondary data + case descriptions of agripreneur ventures. Multiple agripreneurship /enterprise examples in Tamil Nadu. Qualitative synthesis and descriptive metrics. Agripreneurship (aggregation, direct marketing, value-added products) is forging viable green business models — government incentives accelerate scaling. The state's diverse agro-climatic conditions allow it to produce a wide variety of crops, including rice, sugarcane, cotton, groundnuts, and a growing focus on organic farming and horticulture.

Paramasivam (2022) entitled a research on the topic A Strategic Model for Empowering Farmers …"Journal / SLJOL**.** To Survey certified organic growers to develop a strategic framework for sustainable organic farming in Tamil Nadu. Purposive random sampling of 180 S certified organic farms (sourced from certification lists).Descriptive stats, factor analysis or model building (paper builds a strategic framework).Recommends integrated support: certification help, market linkages, capacity building; demonstrates viability of a strategic empowerment model for certified growers. Organic farming has become a widely discussed topic and research in the present decade.

OBJECTIVES

- To understand what a green business model is and how it works in farming.
- To study how farmers in rural Tirunelveli are doing organic farming.
- To find out the benefits of organic farming for farmers, the environment, and the local people.

STATEMENT OF PROBLEM

Agriculture is the backbone of rural livelihoods, and in recent years, organic farming has gained importance as a sustainable alternative to conventional farming. In rural areas of Tirunelveli, many small and marginal farmers are gradually shifting toward organic practices due to increasing awareness of environmental safety, consumer demand for chemical-free food, and the potential for better market value. However, organic farming enterprises face several challenges such as limited access to finance, lack of proper marketing channels, low awareness among consumers, and inadequate government support. At the same time, the concept of green business models which emphasize sustainability, eco-friendly practices, and long-term economic viability has not yet been fully integrated into rural farming enterprises. The gap between the potential benefits of organic farming and the practical difficulties in adopting green business models highlights a significant problem.

III. RESEARCH METHODOLY

Questionnaire were prepared for collecting data. Most of the questions are based on five-point Likert scale technique depending on the level of satisfaction. The sample size for the study constituted to 110 respondents in Tirunelveli city. The data were collected from respondents to fill forms.

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PERCENTAGE ANALYSIS

GENDER-WISE CLASSIFICATION

TABLE

SNO	GENDER	NO OF RESPONDENTS	PERCENTAGE
1.	Male	52	47
2.	Female	36	33
3.	Other	22	20
	Total	**110**	**100**

Source primary data

From the above table out of 110 respondents, the respondents of 47 percentage belonging to male ,33 percentage of respondent are in female,22 percentage are says others . Hence its concluded that the majority of the respondent are male 52 percentage.

LEVEL OF PROFIT FROM ORGANIC FORMING

SNO	Level of profit	No of respondents	percentage
1.	Very high	33	30
2.	Moderate	34	31
3.	Low	22	20
4.	No profit	21	19
	Total	**110**	**100**

Source: primary data

From the above table out of 110 respondents, the 30 percentage of the respondents are belonging to very high, 31 percentage of respondent are in moderate, 20 percentage of the respondents are in low, and19 percentage of respondents are under the level of profit is no profit. Hence its concluded that the majority of the respondent are moderate 34 percentage

SIMPLE RANKING TECHNIQUES

S NO	STATEMENT	AGREE	STRONGLY AGREE	NEUTRAL	DISAGREE	STRONGLY DISAREE	Mean Score	Average
1.	Lack of government support and subsides	48 (240)	37 (170)	14 (42)	8 (16)	6 (6)	4.09	II
2.	High cost of organic certification	50 (250)	32 (160)	16 (48)	8 (16)	4 (4)	4.14	I
3.	Lack of consumer awareness about organic products	46 (230)	30 (150)	20 (60)	10 (20)	4 (4)	4.01	III
4.	Limited market access for organic products	44 (220)	28 (140)	24 (72)	10 (20)	4 (4)	3.93	IV
5.	Difficulty in maintaining organic standards	42 (210)	26 (130)	28 (84)	10 (20)	4 (4)	3.87	VI
6.	Lack of technical	40 (200)	30 (150)	25 (75)	10 (20)	5	3.90	V

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	knowledge and training					(5)		

Source: primary data

The above table highlights the major challenges faced by organic farming enterprises in the rural areas of Tirunelveli City. Among the listed factors, High cost of organic certification ranks first with the highest mean score of 4.14, indicating that most respondents strongly agree that the cost of certification is a major barrier for small and medium farmers. The Lack of government support and subsidies stands second with a mean score of 4.09, showing that farmers feel inadequate policy and financial support from the government hinder their growth. The third major issue identified is Lack of consumer awareness about organic products with a mean score of 4.01, reflecting that limited consumer knowledge affects the market demand for organic goods. Limited market access for organic products ranks fourth (mean score 3.93), suggesting difficulties in distribution and marketing channels. Lack of technical knowledge and training and Difficulty in maintaining organic standards occupy the fifth and sixth positions with mean scores of 3.90 and 3.87 respectively, indicating that farmers still require more technical guidance and continuous training to sustain organic practices.

FINDING

According to Gender wise classification ,the majority of the respondents are male

According to Level of profit from organic farming wise classification, the majority of respondents reported a moderate

According to Sample ranking techniques wise classification, The major problem identified by respondents is the high cost of organic certification with the highest mean score of 4.14, ranking first, indicating that certification expenses are a significant barrier for organic farmers.

SUGGESTION

Government should simplify and subsidize the organic certification process.

Conduct regular awareness campaigns and training on organic methods.

Establish local organic markets or weekly “green bazaars.”

Encourage youth entrepreneurship in organic value chains (packaging, logistics, marketing).

V. CONCLUSION

The study on “Organic Farming Enterprises and Green Business Model in Rural Areas of Tirunelveli City” highlights the growing importance of sustainable agricultural practices in enhancing both environmental health and rural livelihoods. The findings reveal that while organic farming is gaining acceptance among local farmers, several challenges such as limited access to organic inputs, high certification costs, and inadequate market linkages still persist. Despite these constraints, many farmers recognize the long-term benefits of organic cultivation—improved soil fertility, healthier produce, and a positive impact on local biodiversity**.**

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