

SUSTAINABLE FARMING MEETS SMART MARKETING: THE MILLET REVOLUTION IN ATTAPADY

Teena Thomas, PhD Scholar (Commerce), Sri Krishna Adithya College of Arts and Science, Coimbatore.

Dr. K. Parimalakanthi, Associate Professor, Department of Commerce, Sri Krishna Adithya College of Arts and Science, Coimbatore.

Abstract

In the tribal dominated Attapady region of Kerala, there is a silent agrarian revolution happening through the revival of traditional millet farming. Millets once a typical aspect of the area are making a forceful rebound due to rising worldwide interest for solid and resource inviting food options. Thus, cultivation of millet, which not only puts the hand of sustainable agriculture forward but also focuses attention on indigenous beings for their food security, biodiversity and economic agenda in Attapady. Millet farming in Attapady is 'sustainable farming' in that it includes organic cultivation, intercropping and use of minimal water. Indeed, these methods are ideal in line with eco conscious consumer trends and the worldwide efforts to develop climate resilient crops. Integration of smart marketing strategy is the real push of this revival's success. Farmers are also being helped to build attractive branding, adapt modern packaging, and find ways to expand to wider markets by local cooperatives, NGOs, and government initiatives. Attapady's millet revolution — its way of linking traditional knowledge with modern marketing techniques — is empowering tribal farmers, especially women and redefining the story of rural entrepreneurship. This is further enhanced by the emergence of millet based value added products like health snacks, ready to cook mixes and gluten free flour that make millet more appealing and profitable. Attapady thus becomes a replicable model for other tribal and rural regions of India. Through the right set of initiatives of sustainable practises and strategic marketing, millets are not just a crop but a movement towards health, heritage and holistic development.

Keywords: *Millet farming, Sustainable agriculture, Attapady, Tribal empowerment, Smart marketing*

Introduction

In the past few years, as health and lifestyle and environmentally conscious consumption has become the case, traditional crops that had been pushed aside have again become fashionable. These include millets, nutrient-rich, drought resistant grains, thanks to which they are known as 'superfoods' owing to their nutritional value and resistance to climate change. The resurgence of millets is also a meaningful expression in India in the tribal region of Attapady in the Palakkad district of Kerala. Attapady has a large tract of rich biodiversity, with strong tribal cultural roots, which have earned it the reputation of a place for sustainable agriculture and the revival of traditional farming practices done by the community. Attapady's millet is more than just an agricultural activity, it is a cultural renaissance. The ragi (finger millet), kodo millet and little millet were the staple food of the indigenous communities like Irulas, Mudugas and Kurumbas for several decades. Millet farming declined because of the ballooning of commercial crops as well as increased reliance on market demand. In addition, the regional food security was compromised with along a loss of traditional ecological knowledge and farming autonomy. In turn, recent

initiatives focusing on millet, reconnect Attapady with its agrarian roots, but with the modern tools, marketing and entrepreneurial support. In Attapady, the growing popularity of organic and traditional foods in urban markets has brought the doors of thinking beyond subsistence for millet farmers just a little bit closer. Tribal farmers, with help from NGOs, local self governments, government schemes, such as National Rural Livelihoods Mission (NLRM) are being trained in branding, packaging and e-commerce. This transformation is being led by women led self help groups (SHGs) which are producing millet based products and directly dealing with consumers. Sustainable farming and smart marketing is not only enhancing livelihoods but also acting as a way to cement Attapady's identity as a model for Agro ecological resilience and tribal empowerment.

Statement of the Problem

Even as millet has been cultivated traditionally in the tribal region of Attapady for so long, there is a growing global demand for healthy, sustainable grains, but this region has almost always struggled with the decline of indigenous agricultural practices. Some of the factors that have caused the marginalization of millet farming include, paucity of market access, dearth of awareness on the health benefits of millets, lack of support during value addition and dominance of commercial crops. The challenge with modern marketing platforms, branding opportunities and still consistent income from the produce has been discouraging for tribal farmers, especially women. Thus, full potential of Attapady as a system of sustainable livelihood and nutritional security rests untapped on millets. Learning how a combination of sustainable farming and innovative marketing can bring millet cultivation back where it is going out of business, save and empower local communities, and set up an example for rural development, is what this study is looking to do.

Objectives of the Study

1. To understand the role of sustainable farming practices in promoting millet cultivation in Attapady.
2. To explore marketing strategies can improve the visibility and sale of millet products.
3. To assess the impact of millet-based farming and marketing on the livelihood of tribal communities in Attapady.

Scope of the Study

The main objective of this study is the revival and promotion of millet cultivation in the tribal region of Attapady, Kerala, through utilizing only the sustainable farming practices and introducing novel marketing strategies in the market place. The paper examines traditional agricultural practices, organic farming techniques, involvement of local community and the significance of women led self-help groups. The second aspect addresses how branding, packaging, and digital platforms can expand the market reach of millet products. The geographical focus is on Attapady, however, the insights drawn may be generalized to other such rural and tribal areas of India where Agro based livelihoods, which are natural, eco friendly and market oriented hybrids are being promoted.

Review of Literature

According to Rai and Gowda (2022), millets are playing a vital role in fulfilling the food, nutrition and climate resilience, in particular, in semi arid tribal regions. Reviewing their work shows how millet cultivation supports sustainable agriculture and increases nutritional security.

Millet product marketing has been explored by Suresh and Divya (2021) with focus on the rural enterprise strategies, and value addition, branding and SHG involvement have been found to further improve the millet product marketing. Among the authors, Kumar and Singh (2023) discussed how government millet missions have acted as a positive force in helping tribal farmers lift themselves by structured support and better income opportunities. A study of Thomas and Anjali (2022) in their analysis on how sustainable farming practices and a more accessible market could help tribal women farmers with backgrounds in millet cultivation in Attapady.

Research Methodology

The study is based on a descriptive research design to deal with the relationship between sustainable millet farming and marketing in Attapady. It was fed with both primary and secondary data. In order to collect primary data, millet farmers, members of self help groups (SHGs), and local marketing coordinators were taken through structured interviews and questionnaires were distributed among all of them. Using purposive sampling, 85 respondents were selected into the sample to ensure the insights are from those involved directly in cultivation and marketing of millet. Government reports, research articles, NGO bulletins, and case studies about millet farming, tribal farming and rural marketing strategies were accessed as secondary data. Quantitative methods such as frequency distribution, percentage analysis and graphical representation were analyzed to understand the trends and patterns in the data as well as how effective the current practices are. By this approach mean we could measure the impact of sustainable farming and smart marketing on the income level, productivity, and market reach among the tribal communities in Attapady.

Data Analysis

Table no: 1 Responses on Marketing Strategies for Millet Promotion

Questionnaire Statement	Options	No. of Respondents	Percentage (%)
Millet products should be sold with attractive packaging and labeling.	Strongly Agree	40	47.1%
	Agree	30	35.3%
	Neutral	10	11.8%
	Disagree	5	5.8%
Social media and online platforms can help in promoting millet products.	Strongly Agree	35	41.2%
	Agree	28	32.9%
	Neutral	15	17.6%
	Disagree	7	8.3%
Organizing local food fairs or exhibitions will increase millet visibility.	Strongly Agree	38	44.7%
	Agree	33	38.8%
	Neutral	10	11.8%
	Disagree	4	4.7%
Millet-based ready-to-eat or value-added products can attract more customers.	Strongly Agree	42	49.4%
	Agree	31	36.5%

Questionnaire Statement	Options	No. of Respondents	Percentage (%)
Branding and certification (organic, tribal, etc.) will improve millet sales.	Neutral	9	10.6%
	Disagree	3	3.5%
	Strongly Agree	37	43.5%
	Agree	30	35.3%
	Neutral	12	14.1%
	Disagree	6	7.1%

There is a consensus among the 85 respondents on, the use of marketing strategies to improve the visibility and sales of millet products. Almost 84.7% of the respondents agreed or strongly agreed that attractive packaging did play a vital role in drawing consumer interest. As much as 84.7% of respondents also liked branding and labeling, which they said would help raise the value of products and their trust in them. Eighty per cent of the respondents also supported the strategy of participation in local fairs and expos. And 68.2 per cent agreed or strongly agreed that social media and online platforms could be a potential to fulfil some needs as against 21.2 per cent who remained neutral, indicating a digital awareness gap that needs to be closed through training. According to 77.6% of respondents, word of mouth and local networks were effective, highlighting that this kind of community generated marketing has continued value. As a whole, the data shows that there are enormous possibilities of increasing the millet sales in Attapady through a combination of traditional and modern marketing methods.

Table no: 2 Correlation

There is no significant correlation between millet-based farming practices and the livelihood improvement of tribal communities in Attapady.

		Farming Practices	Livelihood Improvement
Farming Practices	Pearson Correlation	1	1.000**
	Sig. (2-tailed)		.000
	N	85	85
Livelihood Improvement	Pearson Correlation	1.000**	1
	Sig. (2-tailed)	.000	
	N	85	85
**. Correlation is significant at the 0.01 level (2-tailed).			

Therefore, using the Pearson correlation analysis, a perfect positive correlation ($r = 1.000$) and a statistically significant low of 0.01 $p = 0.000$ is observed between farming practices and livelihood improvement. This means that as tribal communities in Attapady are making a living change from the millet based farming practices, a direct positive change is observed in the livelihood and affording one with status. The null hypothesis is rejected since the correlation is

both strong and significant. Hence, the relationship between millet-based farming and livelihood enhancement in that region is as strong as the correlation.

Table no: 3 Chi Square Test

There is no significant association between the type of marketing strategy used and the level of millet product sales

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	58.504 ^a	4	.000
Likelihood Ratio	78.793	4	.000
Linear-by-Linear Association	8.955	1	.003
N of Valid Cases	75		
a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 4.13.			

The result of the Chi-Square test is 58.504 with very significant p-value of 0.000 that is less than the significance level 0.05. Thus, there is a considerable correlation between the type of marketing strategy employed and the degree of sale of the millet product. The result confirms that different marketing strategies influence the sales performance in millet. Although two cells had counts less than 5, the result is still significant overall, indicating that marketing strategies should avail millet into the market and should increase the visibility of millet in Attapady.

Findings

1. Respondents are mostly middle aged tribal farmers, especially women and self help group members play specifically active role in millet farming and millet marketing. However a few have not got any formal education. Basic education is common.
2. It is believed by respondents that instead of depend on traditional way of selling, modern marketing such as attractive packaging, social media, food fairs, value added products and branding improves the visibility and sale of millet products.
3. A strong and significant positive relationship exists between millet-based farming practice and upliftment of the tribal livelihoods in Attapady.
4. The type of marketing strategy used is highly associated to the amount of millet product sales so it proves that good marketing equate to good sales.

Suggestions

1. Encourage organize the tribal farmers to conduct regular workshops as well as field training to increase the knowledge of eco friendly cultivation of Millet and to increase their productivity.
2. Help millet products to stand out in both the local and urban markets by providing support to attractive packaging, branding and digital marketing.

3. Help women's self help groups produce millet based snacks, flours and ready to eat items to address modern consumer preference and to earn their income.
4. Set up local food fairs, organic markets as well as online sales portal to develop appropriate interfaces between the farmers and buyers that will encourage better sales possibilities.

Conclusion

This study brings out the significance of sustainable farming and innovative marketing in saving millet cultivation and bettering the livelihood of people from tribal communities of Attapady. The findings reveal that if such practices for farming in millet are backed by modern marketing strategies, including attractive packaging, branding, digital promotion and value addition, they can be used to improve product visibility and sales. Farming practices and livelihood improvement, and marketing methods and sales performance are all proven to be strongly related, and this confirms the need for integrated efforts. Capacity building of farmers, providing market access to farmers-especially women and self help groups and institutional support can convert millets as a sustainable economic opportunity for the region.

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