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A case study of socioeconomic status of organic Agri producing farmers in Enabavi village in Jangaon district of Telangana

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Abstract

The study was conducted on socioeconomic status of organic Agri producing farmers of Enabavi village in Jangaon district of Telangana. The study's key findings were that the village of Enabavi in the Jangaon district has 210 acres of cultivable land overall, 51 farmers, with 51% of them belonging to the 35–50 age group (middle aged), and 25% of them in the 20-35 age group (Young aged). The majority i.e., 57% of farmers had only completed their secondary school. The majority of organic farmers have small land holdings of 1-2 hectares. According to the study, organic paddy experienced a compound annual growth rate of 7.2% over the previous five years. It gave promising results for the rising demand for organic rice. The CAGR for organic cotton over the previous five years, according to the study, was 12%. It provided encouraging evidence of the significant demand for organic cotton.

Keywords: Socioeconomic profile, organic Agri produce, Enabavi village, CAGR

Introduction

Organic farming as per the definition of the USDA study team is defined as "A system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc.) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manures, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection". In another definition, FAO suggested that "Organic agriculture is a unique production management system which promotes and enhances agro-ecosystem, health, including biodiversity, biological cycles and soil biological activity, and this is accomplished by using on farm agronomic, biological and mechanical methods in exclusion of all synthetic off-farm inputs" (Meena *et al.*, 2013) [1].

In the year 2020-21, the organic area under agriculture in Telangana was 4723.74 hectares and farm production were 2509.68 Metric Tonnes (APEDA- Organic Agriculture Statistics, 2020-21). The major districts in Telangana where organic farming is practiced are Vikarabad, Warangal and Karimnagar. The crops grown organically in Telangana are Rice, Maize, Redgram, Green gram, Sesame, Castor, tomato, onion and potato etc. Telangana's first organic village Enabavi is leading the way in natural farming. Around 13 years ago, all families in the village shifted to natural farming without using pesticides or chemicals. This village is about 85 Kilometres from Hyderabad and has got the tag of Telangana's first organic village. Enabavi village of Jangaon district has total area of 210 acres cultivatable land in which paddy is grown in 100 acres, pulses and grains are grown in 50 acres, vegetables are grown in 35 acres and cotton is grown in 25 acres approximately.

Materials and Methods

Enabavi was selected for this study as it is the first organic village in the Telangana. Enabavi is a small village in Lingalaghanpur mandal, in Jangaon District of Telangana State. This village is 85 Kilometres from Hyderabad. North of Hyderabad, in these Enabavi, there are 52 families, with an area of 210 acres and a population of 120 people. (Government Telangana, 2021) [2].

Table 1: General features of the study area

S. No.	Particulars	Enabavi village
1	Population (No)	120
2	Total number of farmers (No)	51
3	Total land holdings (acres)	210
4	Literacy (%)	87

(Government of Telangana, 2021) [2]

To analyse the socioeconomic status of the farmers, fifty-one farmers who (all the farmers in the village) are following organic agriculture procedures were selected purposively. Compound Annual Growth Rate (CAGR) was used to analyze the changes in production and price of organic produce in last five years in Enabavi village.

$$ext{CAGR} = \left(rac{V_{ ext{final}}}{V_{ ext{begin}}}
ight)^{1/t} - 1$$
 $ext{CAGR}$ = compound annual growth rate $V_{ ext{begin}}$ = beginning value $V_{ ext{final}}$ = final value t = time in years

Results and Discussion

Socioeconomic analysis of Enabavi village in Telangana

Enabavi, a quaint village nestled in the Lingalaghanpur mandal of Telangana's Jangaon District, was selected as the focal point of our study due to its unique status as Telangana's pioneering organic village. Located approximately 85 kilometres north of Hyderabad, Enabavi is home to 52 families, spanning an area of 210 acres and nurturing a population of around 120 residents. This village embarked on its organic farming journey back in 2003, with all 52 families embracing this sustainable approach, ultimately earning it the prestigious title of Telangana's first organic village. A striking signboard at the village entrance, depicted in Figure 1, proudly proclaims Enabavi as a "chemical-free village." This transformative shift stemmed from the collective realization of the detrimental effects of chemical-intensive agriculture on their livelihoods and the environment.



Fig 1: Enabavi village board

Transition to organic farming

The broader Warangal region, heavily reliant on commercial crops like cotton, unfortunately, witnessed a surge in farmer suicides, pesticide-related accidents, agricultural debts, and distress caused by unpredictable weather and market fluctuations. Enabavi's journey towards organic farming began gradually. For instance, Ponnam Mallaiah, a 75-year-old farmer, initially observed short-term yield increases with the use of chemical fertilizers and pesticides. However, as input costs continued to rise, neither his yields nor income

saw sustained growth. This realization echoed the wisdom passed down from his grandfather: "This is slow poison; don't use it." After practising natural farming for 19 years, Mr. Mallaiah firmly believes that the path to doubling farmer income, as advocated by Union Finance Minister Nirmala Sitharaman through Zero Budget Natural Farming, is the way forward. He underscores the need for collective action among farmers to restore Mother Earth's health-an ethos shared by Enabavi's residents.

Crop diversity and marketing

Enabavi's small-scale farmers engage in the cultivation of a diverse range of crops, including rice, wheat, cotton, chilies, pulses, oilseeds, millets, and vegetables. These agricultural products, originating from the drought-prone Jangaon district of Telangana, find their way to markets in Singapore, Hyderabad, and local markets, consistently exceeding demand. Farmers generously open their farms to visitors, eagerly explaining their natural farming practices. Notably, many of them had practiced chemical agriculture for over two decades before experiencing a profound shift in perspective, often prompted by personal experiences of losing family members to cancer. Their decision to embrace organic farming was driven by a deep-seated desire for the well-being of their families, consumers of their produce, and a commitment to safeguarding Mother Earth's health.

Socio economic profile of farmers Age of farmers

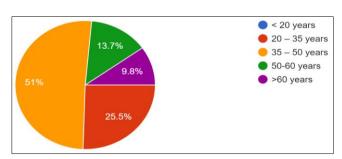


Fig 2: Age of farmers

Figure 2 illustrates that a majority, constituting 51% of the farmers, fall within the middle-aged bracket of 35 to 50 years. Following this group, 25% of farmers belong to the youthful age group of 20 to 35 years, 14% are classified as above middle-aged, ranging from 50 to 60 years, and 10% are seniors aged above 60. These findings underscore the predominance of middle-aged individuals within Enabavi's farming community.

Education qualification of the farmers

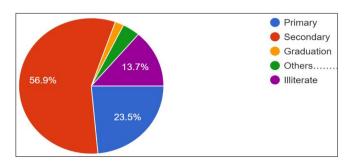


Fig 3: Education qualification of the farmers

As depicted in Figure 3, a majority, accounting for 57% of Enabavi's organic farmers, possess a secondary level of education. Additionally, 23% have completed primary education, 14% are illiterate, 4% have pursued higher education, including degrees such as PhD, MBA, and ITI, while 2% hold undergraduate degrees. This profile emphasizes the prevalence of secondary education among the farming population.

Family size of the farmers

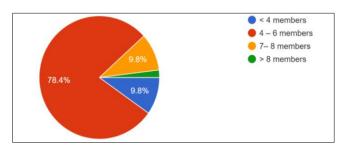


Fig 4: Family size of the farmers

Figure 4 reveals that a significant 78% of the farmers maintain family sizes ranging from 4 to 6 members, followed by 10% with families consisting of 7 to 8 members, another 10% with fewer than 4 members, and a minor 2% exceeding 8

members. These findings highlight the typical family sizes within Enabavi's farming households.

Annual Income of the Farmers

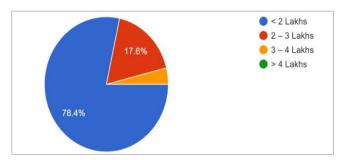


Fig 5: Annual income of the farmers

Regarding annual income, Figure 5 demonstrates that a substantial 78% of farmers report an income of less than two lakhs, while 18% fall within the income range of two to three lakhs, and 4% earn between three and four lakhs annually. These income levels predominantly arise from small landholdings, reflecting the economic realities of Enabavi's farming community.

Land holding of the sample farmers

Table 2: Land holding of the sample farmers

S. No.	Classification	Frequency	Percentage
1	Marginal (Below 1.00 hectare)	14	28.00
2	Small (1.00-2.00 hectare)	21	42.00
3	Semi Medium (2.00-4.00 hectare)	12	23.00
4	Medium (4.00-10.00 hectare)	4	7.00

Table 2 provides an overview of the landholding distribution among the sample farmers, showcasing a predominant ownership of land in the 1 to 2-hectare range. Specifically, 42% of farmers own land within this category, followed by 28% with landholdings below 1 hectare, 23% with land ranging from 2 to 4 hectares, and a smaller 7% possessing land spanning 4 to 10 hectares. This diversity in landholding sizes supports the cultivation of a diverse array of crops in Enabavi, contributing to its success in organic farming.

Organic cropping scenario in the village

The organic cropping scenario in the village was analyzed

using the Compound Annual Growth Rate (CAGR) tool, focusing on organic paddy and organic cotton due to their prominence in Enabavi's organic agriculture.

Growth rate of organic paddy

Table 3 illustrates a significant increase in the quantity and price of organic paddy between 2017 and 2021. The CAGR for this period was calculated at 7.2%, reflecting a robust demand for organic paddy in the market. This trend aligns with the global surge in demand for organic rice, driven by heightened health awareness and consumer preferences.

Table 3: Growth rate of organic paddy

S. No	Year	Paddy quantity (Quintals/year)	MSP of conventional paddy (Rs/qt)	Average price of organic paddy (Rs/qt)	Value in lakhs (Rs)
1	2017	5010	1550	1643	82.314
2	2018	5050	1750	1855	93.677
3	2019	5200	1815	1923	99.996
4	2020	5310	1868	2080	105.138
5	2021	5415	1940	2056	111.332
Calculated value of CAGR for five years (2017 to 2021) was 7.2%.					

Source: Aarush Enabavi Farmers Producers Company Ltd.

As observed from the study that major portion of the land in the village was under cultivation of the organic paddy. Organic rice is enriched with higher nutritional content. Currently the demand for organic rice in food industry is increasing with high growth rate. Globally the demand for organic paddy is increasing at the impressive growth rate due to increasing health awareness, changing lifestyle and increasing number of health-conscious consumers. Farmers in the Enabavi village were fully converted to the organic cultivation of different crops from past decade and having the defined market for the organic paddy is one encouraging element to grow the organic paddy. Covid situation did not affect the market of organic paddy because of the consumer's demand for organic products was much higher.

Growth rate of organic cotton in Enabavi village

Table 4 highlights the growth in both quantity and price of

organic cotton between 2017 and 2021. The CAGR for this period stands at an impressive 12%, indicating a strong market demand for organic cotton. Around 25% of Enabavi's cultivated land is dedicated to organic cotton, and its cultivation brings about several environmental and economic benefits.

Table 4: Growth rate of organic cotton

Year	Cotton Quantity (Quintal/year)	MSP of conventional cotton (Rs/qt)	Average Price of organic cotton (Rs/qt)	Value in lakhs (Rs)	
2017	125	4320	4968	6.210	
2018	135	5450	6267	8.460	
2019	146	5550	6382	9.317	
2020	150	5825	6423	9.634	
2021	156	6025	6928	10.807	
	Calculated value of CAGR for five years (2017 to 2021) was 12%.				

Source: Adarsh Enabavi farmers producers company Ltd.

As observed that high demand for the organic market farmers were encouraged to cultivate more organic cotton. Natural fertilizers are used for growing of organic cotton. The increasing demand for organic cotton was helping to improve soil sustainability, water conservation, air quality, and the livelihoods of farmers. It was also contributing to the fight against climate change. It doesn't harm the soil, has less impact on the air, and uses 88% less water and 62% less energy. Almost all good brands are moving towards sustainability and organic cotton is the best example of ecofriendly and sustainable. Certified organic cotton is free from toxic dyes & fabric treatments including formaldehyde, heavy metals & aromatic solvents. However, organic cotton is a little expensive but considering its benefit, the price looks reasonable. Organic cotton is softer, keeps you cool in summer. Because of its tremendous advantages, it's very much in fashion these days.

Conclusion

The socioeconomic analysis of Enabavi's organic farming community highlights the resilience and commitment of its farmers. Despite facing economic challenges and varying levels of education, these farmers have successfully transitioned to organic farming, contributing to their own well-being and the environment. The growth rates in organic paddy and cotton production, along with the sustained demand for these products, serve as encouraging indicators for the organic agriculture movement in Enabavi. This transformation not only promotes sustainable farming practices but also supports the health of consumers and the planet at large. Enabavi's journey from conventional to organic farming is a testament to the power of collective action and the potential for positive change in agriculture.

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