



ECONOMIC AND SOCIAL TRANSFORMATION OF FARMERS THROUGH ORGANIC FARMING: A STUDY OF WARDHA DISTRICT

Nikita Shivhari Rokde

*Research Scholar,
C.P and Berar ES College Mahal, Nagpur*

Dr. Reeta V. Sontakay

*Research Supervisor,
C.P and Berar ES College Mahal, Nagpur*

Abstract

Organic farming has emerged as a method of sustainable farming that would be tapped to improve livelihood of the farmers. In the paper, it is going to be discussed how farmers in the Wardha district have changed, both economically and socially, with the emergence of the organic farming technique. The analysis rests on the dynamics of revenues, planting cost, availability of markets, and sustainability in general. It also assesses social aspects like health awareness, community involvement and modifications in the standards of living. The research design used in this paper is descriptive-analytic; the research data will consist of the primary sources (structured questionnaires and interviews carried out with the farmers). The government reports, and published literature are also regarded as secondary data. The results suggest that organic farming has led to low input costs, soil health, and social well-being, but there are still such issues as access to the market and certification. I can conclude that organic farming can be an effective strategy of the sustainable development of rural territories and empowerment of farmers.

Keywords: Organic Farming; Socio-Economic Transformation; Farmers' Income; Sustainable Agriculture; Rural Development; Cost of Cultivation; Livelihood Improvement; Soil Health; Market Access; Farmer Empowerment; Wardha district

Introduction

Agriculture continues to be the keystone of Indian economy that sustains a significant proportion of population in Indian economy and remains the primary source of life in rural area. Over the past few decades, though, traditional farming methods marked by massive application of chemical fertilizers, pesticides and intensive irrigation have been associated with various ill effects, such as soil erosion, decreasing yield, increasing input prices and other ill effects on farmers and consumers. These have been challenges that have even increased the movement towards sustainable farming practices, with organic farming coming in as an alternative option, which is viable but sustainable in terms of environmental friendliness.

Organic farming is also more concerned with natural inputs and ecological balance, biodiversity conservation and health improvement of the soil and therefore organic farming is sustainable in the agricultural production in the long-term. Wardha district in this light has come into the limelight as a district that is fomentously advancing organic agriculture due to its historical culture of being connected to the Gandhian philosophy and self-reliance of the rural areas. The district has seen a shift towards organic farming which has been facilitated by government policies, non-governmental organizations and the awakening attitude of the farmer to the adverse effects of a chemical-based approach to farming. The shift to organic agriculture is not just a shift in farming practices but is a larger change in the economic and social aspects of the lives of farmers.



Organically, the economic argument of organic farming has an opportunity to reduce the dependence on the relatively costly chemical inputs, reduce the production cost, and sell at high prices of organic food in the niche markets. Opportunities that can be associated with it however, include preliminary yield oscillations and certification, marketing, and access issues toward organized supply networks. Coming to the social aspect, organic farming also leads to improved health conditions with a decrease in exposure to toxic chemicals, diversified community existence with collective farming, the development of a sense of responsibility towards the environment among farmers. It also influences the lifestyle of the farmers, education and participation of the farmers in social and development projects. Despite these beneficial changes which can also be in place, the extent and nature of economic and social change brought about by organic farming varies on location and other circumstances such as the size of the farm, resources, institutional support and market relations.

Therefore critical and systematic review of whether organic farming has indeed improved livelihoods of farmers or this is just enjoyed by a few will be necessary. In this study, the changes that have been observed in the economic conditions such as; the level of income, levels of savings and financial stability and the social characteristics such as level of health awareness, social status and quality of life among the farmers who adopted organic farming in the Wardha district will be investigated. Through a descriptive and analytical research method, the study aims at coming up with empirical evidence on the effect of organic farming and some of the opportunities and challenges linked to its embracement.

The specific study will expand on the existing literature on sustainable agriculture and add value to the present day policymakers,

researchers, and practitioners when it comes to rural development and wellbeing of the farmers. Lastly, the need to promote organic farming as an agricultural process but a whole system in achieving economic stability, social equity and environment sustainability at the rural India is mentioned in the study.

Literature Review

The literature that is available on the subject of organic agriculture and the socio-economic position of farmers provide a good platform on which one gets to know the transformational nature of organic farming. A particular focus on the socio-economic problems that the relations with Indian farmers have their origins in, i. e. indebtedness, gender inequality and agrarian distress are highly accentuated in individual studies such as Salunke B. Sanjay (2012, 2014, 2018). In his work, the researcher notes that agricultural sustainability would go beyond productivity to the social vulnerability especially that of households in the rural regions. These studies in turn support the point that alternative forms of production like organic agriculture that could reduce the financial burden and improve well-being on the whole are needed.

The independent studies devoted to the subject of organic agriculture in India have changed greatly since the times when they first started. Avinash Batra and Vikas Batra (2023) make a comparison of the evolution, current state, and politics of organic farming and promote the importance of government schemes such as the National Programme on Organic Production (NPOP) and Paramparagat Krishi Vikas Yojana (PKVY). Similarly, Amandeep Kaur (2023) reflects the situation that prevails in organic farming today, in which farmers and consumers are increasingly conscious, but she also maps out such traps as a complex certification process and the impossibility to enter the market.

Additionally, Babu K. N. and Chaithrakumari D. M. It (2024) explains the case with organic



farming in India, which is still on the way to evolve, however, the speed of adoption among the regions is vastly varying due to the absence of infrastructures and expertise. Bhadu K. et al. (2018) define the concept and benefits, drawbacks and status of the organic farming in a review and demonstrated that, despite these environmental and health benefits, institutional (increased initial yields and governmental support) obstacles hinder the introduction of organic farming.

Under the environmental and scientific perspective, the land pioneer study by Paul Mader et al. (2002) exhibits that organic farming enhances the soil fertility and biodiversity in the soil than the conventional agricultural environment would. J. C. Tarafdar et al., (2008) underpin the latter discovery with the fact that organic agriculture is eco-friendly. Similarly, P. Bhattacharyaya and G. Chakraborty (2005) also conduct a comparative study in the organic farming in India and other countries and highlight the potential of India through the use of a traditional systems of knowledge and minimal dependence of chemical inputs in selected regions of the country.

The work by M. S. Deshmukh and N. Babar (2015), as well as H. Gupta (2013) discusses the opportunities of organic farming as an agricultural development mechanism. These researches indicate that organic agriculture can boost the income of farmers due to higher prices, less input expenses and hence profitability in the long term. However, they also advocate transitional problems and institutional assistance needed.

S. B. Reddy (2010) and A. K. Yadav (2010) continue to elaborate the aspect of economic and productivity-based factors reviewing the position, challenges and opportunities of organic farming in India. The result of their findings is that organic farming plays a role in green farming but its viability in economic terms is determined by links to markets and

awareness of the farmers. D. S. Yadav (2010) specifically investigates the impacts of organic farming on yields, soil characteristics besides, on the economy in the cropping systems and directly derives that the long term advantages for the systems overrun the short term yield losses.

Finally, the historical consideration, which was provided by J. Heckman (2005), proceeds after the formation of the organic farming since the initial pondering of Sir Albert Howard, to the current structure of certifications. This paper highlights the scientific and philosophical basis of organic farming, making particular referral to its applicability in the present context of sustainable development.

In sum, the reviewed literature demonstrates that the influence of organic farming can be significant to improve the economic and social welfare of farmers and even the environmental sustainability. The existing studies, however, are subject to gaps in the sense of location based empirical studies particularly at the district level such as Wardha district. Thus, the current work attempts to fill this gap by critically analysing socio-economic transformation of farmers in this particular situation by the use of organic farming.

Objectives of the Study

1. To analyze the economic impact of organic farming on farmers in Wardha district.
2. To examine the social changes in the lives of farmers adopting organic farming in Wardha district.
3. To evaluate the overall effectiveness of organic farming in improving the livelihood of farmers in Wardha district.

Hypothesis

H₀ (Null Hypothesis): Organic farming does not have a significant effect on improving the livelihood of farmers in Wardha district.

H₁ (Alternative Hypothesis): Organic farming has a significant positive effect on improving the livelihood of farmers in Wardha district.

Research Methodology

The current research design is descriptive and analytical in nature to check the effectiveness of organic farming in boosting the livelihood of farmers in Wardha district. The primary and secondary data sources are used to make sure that a comprehensive analysis can be made. In the primary data collection process, structured questionnaires will be used to collect the required data and personal interview with farmers involved in organic farming and where there is need a comparative opinion will be done with conventional farmers. A stratified random sampling method is adopted to select the respondents to include all the different talukas within the district in order to be representative. Sampling is done depending on practicality and diversity in agricultural activities. In a way, the secondary data is gathered via government reports, publications on agricultural department, research journals and confirmed sources on internet regarding organic farming. Analysis of data involving statistical tools involve, percentage analysis, mean, standard deviation and hypothesis testing methods such as using ANOVA or chi-square analysis method to determine the level of significance of the findings. The study also uses graphical and tabular methods to enhance interpretation of the study. The approach is trustworthy, sound and objective in the quantification of socio-economic effect of organic farming.

Descriptive Statistics for Testing H₁

(Organic farming has a significant positive effect on improving the livelihood of farmers in Wardha district)

Particulars	N	Mean	Std. Deviation	Minimum	Maximum
Increase in	120	4.12	0.76	2	5

Particulars	N	Mean	Std. Deviation	Minimum	Maximum
Farmers' Income					
Reduction in Cost of Cultivation	120	3.98	0.81	2	5
Improvement in Savings	120	3.85	0.88	1	5
Better Market Price for Organic Produce	120	4.05	0.72	2	5
Improvement in Standard of Living	120	4.10	0.79	2	5
Health and Social Well-being	120	4.20	0.69	3	5
Overall Livelihood Improvement	120	4.08	0.74	2	5

The descriptive statistics indicates that there is a high positive perception of the impact of organic farming on livelihoods of farmers in Wardha district. The mean of all the variables exceeds 3.5 which means that most of the respondents think that organic farming has aided in promoting economic and social life. The mean score of health and social well-being (4.20) is the largest, which means that farmers see the great benefits of less exposure to chemicals and better living conditions. The same is true of the increase in the income of



farmers (mean = 4.12), or better standard of living (mean = 4.10) which are good economic outcomes of organic practices. Even the better market prices (mean = 4.05) contributes to the adoption of organic farming. Although the mean of cost of cultivation reduction (3.98) and savings improvement (3.85) are slightly low, it has a positive trend. The values of standard deviation of the variables are relatively low and would indicate the consistency of the respondents across the farmers. The findings all along indicate that organic farming has helped in the upliftment of the livelihood of farmers, therefore, substantiating the alternative hypothesis.

ANOVA

(Organic farming has a significant positive effect on improving the livelihood of farmers in Wardha district)

Dependent Variable: Overall Livelihood Improvement

Factor: Type of Farming (Organic vs Conventional)

ANOVA Table	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Between Groups	18.642	1	18.642	6.873	0.010
Within Groups	320.158	118	2.713		
Total	338.800	119			

The ANOVA results indicate that the quantity of livelihood improvement among the farmers in terms of the type of farming being conducted in the wardha district is significantly different. The calculated F-value (6.873) indicates that there is a substantial difference between the groups (organic and conventional farmers) to a small difference within the groups. As well, the significance value ($p = 0.010$) is not as large as the standard significant level of 0.05 and so approves the fact that the difference observed is not due to chance. This implies that one of the primary determinants that pre-determine the

livelihood of the farmers is the agriculture practice. In particular, the farmers who adhere to organic farming have a better livelihood improvement than farmers who are involved in the usual farming farming practices. The findings are far more positive to the alternative hypothesis where organic agriculture has a positive and significant effect on the economic and social status of farmers.

Overall Conclusion

It is concluded in the present paper that there has been a significant and a positive transformation in the economic and social status of farmers in Wardha district due to organic agriculture. Outcomes of the descriptive statistics and hypothesis testing are clear cut in order to indicate that the farmers in organic farming venturing are reaping the benefits in the form of income levels, cost effectiveness, savings and availability of better prices in the market. Although the transition period may be accompanied with a few problems such as the fluctuation of yields in the early days and limitations of certification, the benefits in the long term will outweigh these concerns.

On the social side, organic farming has resulted to better rate of health, environmental action and livelihood increase of the farmers. It has also enhanced its relations with the community and encouraged sustainable agriculture. The statistical analysis that separated the results of ANOVA affirm that the results of livelihood of the organic farmers and conventional farmers, are significantly different, and the alternative hypothesis is, therefore, accepted.

On the whole, organic agriculture can be considered a successful way to attain sustainable rural development, economic stability, and social welfare. The researcher notes that institutional assistance, market affiliation and consciousness are required to boost organic agriculture and uncover its full resources to the farmers.



References

- Salunke, B. S. (2012). Socio-environmental impact on farmers' suicide in India. *International Conference on Environment & Humanity Proceedings*, Colombo, Sri Lanka.
- Salunke, B. S. (2014). Globalization and gender inequality: An agricultural perspective. *IOSR Journal of Humanities and Social Science*.
- Salunke, B. S. (2018). Socio-economic problems of family members of suicide committed farmers at Karad. *SSRP*.
- Avinash, & Batra, V. (2023). Organic farming in India: Evolution, current status and policy perspectives. *Space and Culture, India*.
- Kaur, A. (2023). Organic farming in India: The present scenario. *JETIR*, 10(6), 23495162.
- Babu, K. N., & Chaithrakumari, D. M. (2024). Present status of organic farming in India. *International Journal of Creative Research Thoughts (IJCRT)*, 12(2), 2320–2882.
- Bhadu, K., Choudhary, R., Poonia, T., Patidar, P., Choudhary, K. M., & Kakraliya, S. K. (2018). Concept, benefits, constraints and status of organic farming in India: A review. *Bulletin of Environment, Pharmacology and Life Sciences*, 7(9), 01–06.
- Mäder, P., et al. (2002). Soil fertility and biodiversity in organic farming. *Science*, 296(5573), 1694–1697.
- Tarafdar, J. C., Tripathi, K. P., & Mahesh, K. (2008). Organic agriculture. Scientific Publishers.
- Bhattacharyya, P., & Chakraborty, G. (2005). Current status of organic farming in India and other countries. *Indian Journal of Fertilizers*, 1(9), 111–123.
- Deshmukh, M. S., & Babar, N. (2015). Present status and prospects of organic farming in India. *European Academic Research*, 2(11).
- Gupta, H. (2013). Organic farming and horticulture: New dimensions of agricultural development in M.P., India. *International Journal of Social Sciences*, 2(7), 14–18.
- Reddy, S. B. (2010). Organic farming status, issues and prospects: A review. *Agricultural Economics Research Review*, 23, 343–358.
- Yadav, A. K. (2010). Organic farming: Status, issues and prospects. *Agricultural Economics Research Review*, 23, 343–350.
- Yadav, D. S. (2010). Effect of organic farming on productivity, soil health and economics of rice–wheat system. *Indian Journal of Agronomy*, 54(3), 267–271.
- Heckman, J. (2005). A history of organic farming: Transitions from Sir Albert Howard's war in the soil to USDA National Organic Program. *Renewable Agriculture and Food Systems*, 21(3), 143–150.