Int. J. Sci. R. Tech., 2026 3(4)
A Multidisciplinary peer-reviewed Journal
www.ijsrtjournal.com [ISSN: 2394-7063]

Original Article

Shift From Food Crops To Commercial Crops: A Case Study Of Dhule District

Priyanka D. Nikumbh*

Associate Professor in Geography,s. Zulal Bhilajirao Patil College, Deopur, Dhule (M.S., India). PIN–424 002. (Affiliated to North Maharashtra University, Jalgaon)

ABSTRACT

Agricultural transformation is a key indicator of regional economic and environmental change. This study examines the changes in the proportion of area under major crops in Dhule district over a period of four decades (1970–71 to 2010–11). The analysis focuses on cereals, pulses, food grains, sugarcane, cotton, oilseeds, and other crops. The findings reveal a significant decline in the area under traditional food crops such as cereals and pulses, alongside a substantial increase in commercial crops, particularly cotton. These changes are largely influenced by market forces, irrigation development, and climatic variability. The study highlights the growing commercialization of agriculture and its implications for food security and sustainable development in the region.

Keywords: cropping pattern, agricultural change, cotton cultivation, food grains, Dhule district, agricultural transformation.

INTRODUCTION

Agriculture forms the backbone of the rural economy in Dhule district and plays a crucial role in sustaining livelihoods. Over the past few decades, significant changes have occurred in cropping patterns due to a combination of socio-economic and environmental factors. These include changes in market demand, fluctuations in crop prices, expansion of irrigation facilities, and variability in rainfall patterns.

Traditionally, farmers in the district cultivated food crops such as cereals and pulses to meet subsistence needs. However, with increasing integration into regional and national markets, there has been a noticeable shift toward commercial crops. This transition reflects farmers' attempts to maximize income and adapt to changing economic conditions.

The present study aims to analyse the changes in the proportion of area under different crops between 1970–71 and 2010–11. It also examines regional variations across Tahsil and identifies the key factors responsible for these changes.

METHODOLOGY

The study is based on secondary data obtained from Table 3.10 and Figure 3.9. The proportion of area under selected crops was calculated as a percentage of the gross cropped area for the years 1970–71 and 2010–11.

A comparative analytical approach was adopted to examine changes over time. Tahsil -level analysis was also carried out to identify spatial variations within the district. The crops considered in the study include cereals, pulses, total food grains, sugarcane, cotton, oilseeds, and other crops.

RESULTS AND DISCUSSION

1. Area under Cereal Crops

The study reveals a sharp decline in the area under cereal crops in Dhule district over the forty-year period. The proportion decreased from 54.38% in 1970–71 to 21.96% in 2010–11. This significant reduction indicates a major shift away from traditional staple crops.

One of the primary reasons for this decline is the unremunerative pricing of cereal crops, which discourages farmers from cultivating them.

Relevant conflicts of interest/financial disclosures: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Additionally, cereals are more dependent on rainfall, making them vulnerable to climatic uncertainties.

At the Tahsil level, the decline is more pronounced in Sakri and Shirpur, where farmers have increasingly shifted toward commercial crops. Dhule and Shindkheda Tahsilalso recorded considerable reductions, reflecting a district-wide trend.

2. Area under Total Pulses

Pulses, including green gram, black gram, and tur, are important components of the cropping system. However, the area under pulses decreased from 15.09% in 1970–71 to 10.05% in 2010–11.

This decline may be attributed to lower profitability compared to commercial crops and susceptibility to erratic rainfall. Despite the overall declining trend, regional variations are evident. Dhule, Sakri, and Shirpur Tahsil recorded decreases in pulse cultivation.

In contrast, Shindkheda Tahsil showed an increase from 10.26% to 13.56%, suggesting better adaptation or favorable conditions for pulse cultivation. Notably, Sakri Tahsile experienced a drastic decline from 18.72% to 4.01%, indicating a major shift in cropping preferences.

3. Area under Food Grains

The area under total food grains (cereals and pulses combined) declined significantly from 69.47% in 1970–71 to 32.01% in 2010–11. This indicates that more than half of the area previously devoted to food crops has been diverted to other uses.

The most dramatic change was observed in Sakri Tahsil, where the proportion declined from 75.59% to 14.78%. Similar trends were observed in Shirpur, Dhule, and Shindkheda Tahsil**.**

This decline raises concerns about food security, as reduced cultivation of food grains may increase dependence on external sources.

4. Area under Sugarcane

Sugarcane occupies a relatively small proportion of the cropped area. However, it showed a slight increase from 0.44% in 1970–71 to 1.22% in 2010–11.

The increase is more noticeable in Shirpur Tahsil, where the area expanded from 0.31% to 3.52%. This growth can be attributed to the establishment of sugar factories and the availability of irrigation facilities such as canals and tube wells.

In contrast, other parts of the district experienced limited growth or decline due to the closure of sugar factories and lack of economic incentives.

5. Area under Cotton

Cotton emerged as the most dominant crop in Dhule district during the study period. The area under cotton increased dramatically from 10.13% in 1970–71 to 59.92% in 2010–11.

This remarkable growth reflects a strong shift toward commercial agriculture. Cotton offers higher economic returns compared to traditional crops, making it an attractive option for farmers.

At the Tahsil level, Sakri recorded the highest increase, reaching 82.37% in 2010–11 from less than 1% in 1970–71. Significant increases were also observed in Dhule, Shindkheda, and Shirpur Tahsil**.**

The expansion of cotton cultivation highlights the growing influence of market forces on agricultural decision-making.

6. Area under Oilseeds

Oilseed crops, particularly groundnut and sesame, showed a significant decline in area from 17.3% in 1970–71 to 4.15% in 2010–11.

This reduction is largely due to erratic rainfall and insufficient irrigation facilities, which limit the viability of oilseed cultivation. All Tahsilexperienced a declining trend, indicating a widespread shift away from these crops.

7. Area under Other Crops

The area under other crops remained relatively stable at around 2.70% throughout the study period. However, minor variations were observed at the Tahsillevel.

Dhule and Shindkheda recorded slight increases, while Sakri and Shirpur showed declining trends.

These changes are relatively small and do not significantly affect the overall cropping pattern.

CONCLUSION

The study highlights a significant transformation in cropping patterns in Dhule district over four decades. The decline in cereals, pulses, and food grains indicates a shift away from subsistence agriculture, while the rapid increase in cotton reflects the growing commercialization of agriculture.

These changes are driven by multiple factors, including market profitability, irrigation availability, and climatic conditions. While the shift toward commercial crops has improved farmers' income, it raises concerns about food security and sustainability.

RECOMMENDATIONS

To ensure balanced agricultural development, the following measures are suggested:

Promote sustainable and diversified cropping systems

Improve irrigation infrastructure to support multiple crops

Provide fair minimum support prices for food grains and pulses

Encourage integrated farming practices

Develop policies to balance commercial and food crop production

Table Area Under Different crops in each tahsil of Dhule district (1970-71 and 2010-11)

crop	Dhule		Sakri		Shirpur		Shindkheda		Dhule District Total	
	% to GCA 1970-71	% to GCA 2010-11	% to GCA 1970-71	% to GCA 2010-11	% to GCA 1970-71	% to GCA 2010-11	% to GCA 1970-71	% to GCA 2010-11	% to GCA 1970-71	% to GCA 2010-11
Total Cereals	59.17	35.99	56.87	10.77	46.49	14.59	55.02	26.49	54.38	21.96
Tot Pulses	12.63	9.82	18.72	4.01	18.72	12.81	10.26	13.56	15.09	10.05
Total Food grains	71.80	45.81	75.59	14.78	65.21	27.41	65.28	40.06	69.47	32.01
Sugercane	0.57	0.24	0.77	0.83	0.31	3.52	0.12	0.27	0.44	1.22
Cotton	6.78	47.02	0.67	82.37	19.44	63.83	13.61	46.44	10.13	59.92
Oil seeds	18.33	2.84	20.12	1.62	12.64	5.24	18.12	6.92	17.3	4.15
Other Crops	2.52	4.09	2.85	0.40	2.4	0.00	2.86	6.32	2.66	2.70
GCA	100	100	100	100	100	100	100	100	100	100

REFERENCES

1. Khan, J.I. And Khan S.A. (1992): "Level of Agricultural productivity in Jammu and Kashmir state", Geographical Review of India, Vol. 54, The Geographical Review of India, Vol. 54, No.4. The Geographical society of India Calcutta, pp. 40-47
2. Dasgupta, Satdal(1989): "Difussion of Agricultural Innovations in Village india", Delhi, Wilay Eastern Limited.
3. Farmer, B. H.(1979): "The Green Revolution in South Asian rice fields: environment and Production", The journal of Development studies, 15-4,304-319
4. Sharma, S.K.(1992): " Environment as afactor in Adoption of High Yielding Variety of Seed in M.P", In 107-120 In Noor Mohmmed, (Ed.), New Dimensions in Agricultural Geography, Vo. IV. New Delhi: Concept Publishing company, 1992
5. Sharma,S. K. (2000): "Spatial Frame work and Economic Development (A Geographical Perspective on Resources and regional disparities

in Madhya Pradesh)". Northern Book Center, New Delhi.
6. Ayyar, N. P. (1969): "Crop regions of Madhya Pradesh". A Study in Methodology, Geographical Review of India, pp.1-19.
7. Singh Jasbir and Dhillon S.S.(1998) : Agricultural Geography published by Tata McGraw – hill Publishing company Limited, New Delhi, pp.234-235
8. Mandal, R.B, (1982): " Land Utilization (Theory and practice)", Published by concept publishing company, Balinagar, New Delhi, pp.254
9. Weaver, J.C, (1954): "Crop combination Regions in the middle West". Geographical Review, Vol. XIIV. pp.175-200
10. Nelson H.J.(1965): " A Service classification of American cities," Economic Geography, Vol. 31, pp. 189-210
11. Johnson, B.L.C (1958): "Crop Associated Regions In East Pakistan", Geography, Vol.43, pp.86-103
12. Thomas, D. (1963): "Agriculture in the wales During Nepolieonce wars", Cardiff, University of Wales press.
13. Coppock, J.T.(1964): " Crop, Livestock and Enterprise Combination in England and Wales", Economic Geography, Vol. 40, pp.65-81
14. Rafiullah, S.M. (1965): "A New Approach to functional classification of towns", The geographer, Vol.12,pp.40-53
15. Athawale, (1966): "Some New Method of Crop combination", Geographical Review of India, Vol. XXVII. No. 4, pp.29-33
16. Ayyar, N.P. (1969): " Crop regions of Madhya Pradesh", A Study in Methodology, Geographical Review of India, pp.1-19
17. Husain Majid (1979): " Agricultural Geography", Inter- India Publications, Delhi, pp.118
18. Chisholm, M. (1962): " Patterns of Crop Concentration and Diversification in India:, Economic geography, Vol. 41, pp.44-56
19. Florence, P.S.: "Investment, Location and Size of Plant", (Quoted from Agriculture Geography by W.B, Morgan and R.J.C, Monton op. cit; pp.128

HOW TO CITE: Priyanka D. Nikumbh*, Shift From Food Crops To Commercial Crops: A Case Study Of Dhule District, Int. J. Sci. R. Tech., 2026, 3 (4), 1200-1203. https://doi.org/10.5281/zenodo.19917291