

## **Spatio-Temporal Analysis of Crop Combination and Productivity in Purba Barddhaman District, West Bengal**

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**Abstract :** *The state of West Bengal has obtained top position in India for the highest quantity of paddy production. Besides, undivided Barddhaman district is known as the "rice bowl" of the state for extensive cultivation of this crop. Since 2017, eastern part of the district is known as East Barddhaman district and is more productive than the West Barddhaman district in terms of agriculture. After Green Revolution in India, modern inputs, the change in crop combination, crop rotation etc. have increased the agricultural productivity of the district but not uniformly. In this context, block level changing scenario obtained from spatio-temporal analysis of crop combination, using Weaver's method and from the analysis of productivity of major crops, using Shafi's technique of Overall Yield Index of the area under present East Barddhaman district, from 2004-05 to 2016-17, is highlighted. It reveals the more improvement of peripheral C. D. blocks than those of core area in the district.*

**Key Words:** *Crop combination, crop rotation, green revolution, overall yield index, productivity*

### **Introduction**

Agriculture is one of the most important primary sectors of India and is highly dependent on geographical as well as socio-economic factors. Geographical factors most importantly create a foundation for manipulated socio-economic background and affect various aspects of agricultural activity both directly and indirectly (Singh and Dhillon, 1984).

According to De (1990) the district as a whole, has a good geographical background, providing fertile alluvial soil with a complex network of various rain-fed rivers originating from Chotanagpur plateau in the west. Though the impact of a few physical constraints, such as lateritic soil, rugged terrain, scarcity of water in dry season etc. decrease from west to east in the region, the Purba Barddhaman is more engaged in agricultural pursuits than the western part (De, 1990). However, labelling the district by "rice bowl" is good for many aspects but not for all. Too much emphasis on rice production is not healthy crop culture in the long run. So, diversification in crop combination is needed for consideration. This helps for betterment of productivity by providing opportunities

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# GEOGRAPHICAL REVIEW OF INDIA

Volume 84

Numbers 1 & 2

March & June, 2022

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**N.B.:**– Issue Nos 1&2 have been combined to update the backlog due to Covid-19 Pandemic

# GEOGRAPHICAL REVIEW OF INDIA

VOL. 84, NO. 1 & 2

MARCH  
&  
JUNE, 2022



THE GEOGRAPHICAL  
SOCIETY OF INDIA  
KOLKATA