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ANALYSIS OF AGRICULTURAL SCENARIO: A CASE STUDY ON BANKURA DISTRICT, WB, INDIA

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ABSTRACT

Bankura is one of the important districts in West Bengal because of its cultural as well as historical background. The main economic activities of the district are directly or indirectly related to the agriculture or it is an agro-economic base district. Around 70% of the district population engages in this field although a vast area of the district is not cultivable due to undulation of land and morum soil. In this paper we discuss the overall agricultural scenario of Bankura district.

KEYWORDS: Agricultural scenario, cropping pattern, agro-economic, Bankura district.

INTRODUCTION

Bankura is one of the important districts in West Bengal because of its cultural as well as historical background. The main economic activities of the district are directly or indirectly related to the agriculture. Around 70% of the district population engages in this field. According to Vaidyanathan (1992) cropping pattern in an area depends mostly up on agro climatic, technical and institutional factors. So it is known that weather plays as a dominant factor in determining the agricultural activities. It is also depending on terrain, topography, slope, soils and availability of water for irrigation, use of pesticides, fertilizers and mechanization etc. Geomorphologically the district is diverse in character. The eastern part of the district belongs to great paddy field of West Bengal, whereas in some part of the western side is not suitable for agricultural practice. In this paper we discuss the overall agricultural scenario of Bankura district and its temporal



characteristics as well as recent trends in this field.

OBJECTIVES:

The present study is based on following specific objectives –

- I) To examine temporal characteristics of agriculture activities in Bankura.
- II) To assess the recent trends in agricultural field.
- III) To delineate the overall agricultural scenario of Bankura district.

STUDY AREA:

Bankura district is a quite large district in W.B. occupying 688100 hectares of geographical area. It is the westernmost district in Bardhaman Division (O'Malley, 1995) of the State and included in the area which is known as "Rarh" in Bengal. The district has been described as the "connecting link

between the Plains of Bengal on the east and Chota Nagpur Plateau on the west." (O'Malley,1995) . The District Bankura is bounded by latitude $22^{\circ}38'N$. - $23^{\circ}38'N$. and longitude $86^{\circ}36'E$. to $87^{\circ}47'E$. River Damodar flows along the northern boundary of the district. The adjacent districts are Bardhaman in the north, Puruliya in the west, Paschim Medinipur in the south and Hugli in the south-east. The Survey of India (SOI) topographical sheets covering the districts are 73I, 73J, 73M and 73N (Fig.-1).

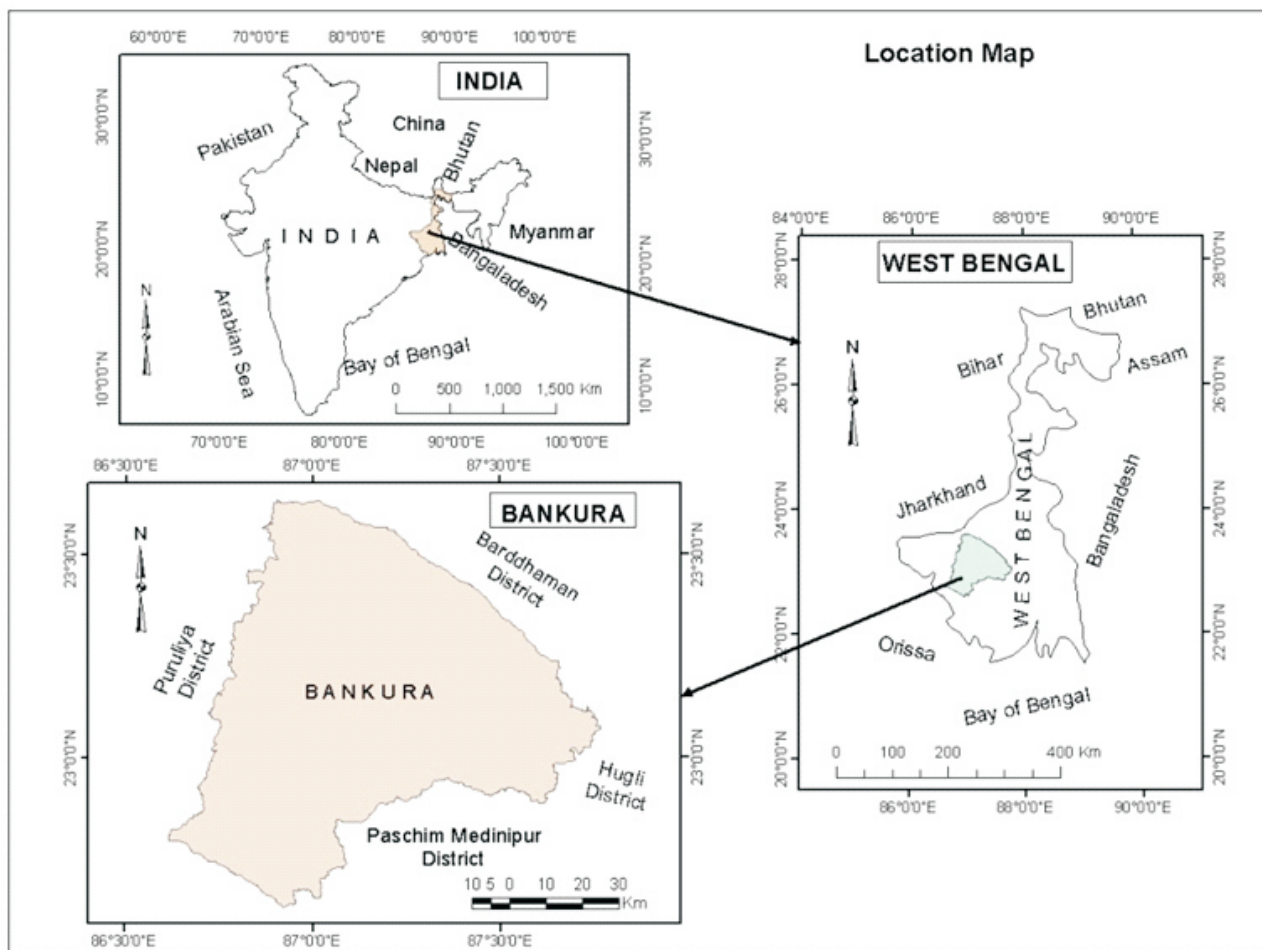


Figure-1: Location Map of Study Area

DATA BASE AND METHODS:

The work is entirely based on secondary data obtained from secondary sources, namely District statistical Handbook of Bankura District (2006, 2011 and 2013) of Bureau of Applied Economic and statistics, District Gazetteer of Bankura District and many others literature and research papers. Data are tabulated in proper way then some general cartographic techniques are adopted to represent the data. All the work has been done in MS Excel software.

RESULT AND DISCUSSION:

The economy of Bankura district is characterized by an agro-economic base although a vast area of the district is not cultivable due to undulation of land and morum soil. Apart from those the rest of the land is fertile and due to availability of sufficient water supplied either by canal or deep tube wells or any other sources (Table-1).

| Year | Irrigated Area (thousand hectares) | | | | | | | | | |
|---------|------------------------------------|-------|------|------|------|---------|-------|------|--------|--------|
| | Govt.Canal | Tank | HDTW | MDTW | LDTW | STW | RLI | ODW | Others | Total |
| 2001-02 | 105.54 | 20.84 | 1.02 | 1.32 | 5.95 | 37.88 | 2.44 | 2.45 | 4.90 | 182.34 |
| 2005-06 | 176.29 | 33.11 | 0.47 | 1.46 | 0.70 | 47.43 | 5.38 | 2.52 | 6.20 | 273.55 |
| 2009-10 | 152.04 | 35.02 | 0.95 | 2.50 | 1.14 | 56.45 | 10.30 | 3.43 | 5.20 | 267.03 |
| 2012-13 | 153.32 | 29.19 | 0.80 | 2.94 | 1.42 | 53.18** | 19.04 | 2.37 | 6.59 | 268.85 |

Table-1: Area irrigated by different source in Bankura district in different year

Source: District statistical Handbook, Bankura District (2006, 2011 and 2013)

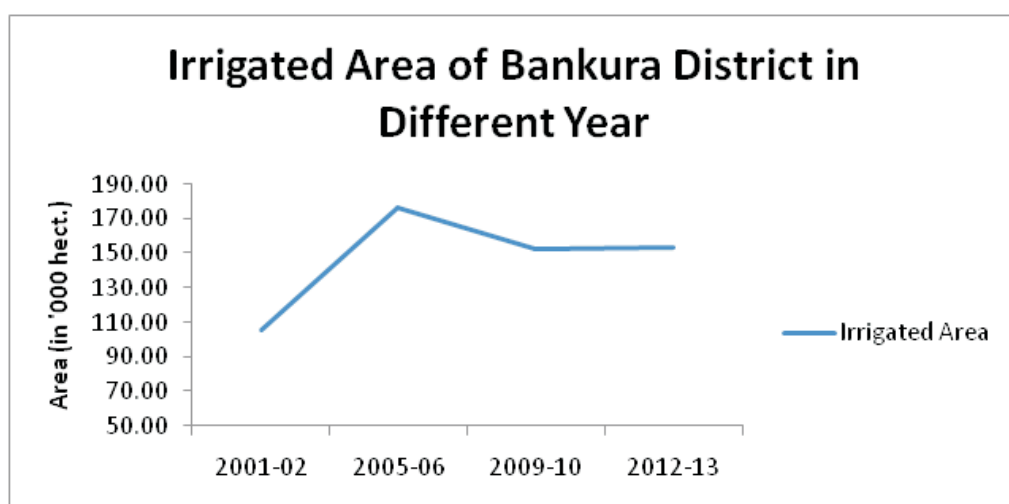


Figure-2: Line graph showing total irrigated area of Bankura in different year.

From above picture it is clear that total irrigated area increases. In 2001-02 total irrigated area was 182.34 thousand hectares which became 273.55 thousand hectares in 2005-06. In the year of 2009-10 the area decreases into 267.03 thousand hectares but after that it starts increasing. So the general trends present that the irrigation facilities of the Bankura district are developing which ultimately may affect on agricultural practice and production.

Table-2 is showing the agricultural scenario of Bankura district. It is also representing the changing scenario. It has been seen that rice is the mostly cultivated crop in the district apart from these other main crops are wheat, maize, pulses, oilseeds, fibers, potato, chili, different types of fruits and vegetables etc. It is also seen that rice cultivated area decreases but yield rates increases which is a noticeable things. Another one is that the area for fruits cultivation increases with time where as cultivation of wheat and pulses decreases. There is another remarkable thing. The production (709.81 to 892.59 thousand tones) as well as the yield rate (12228 to 16318 Kg/hect.) of vegetables is increasing with the time although the area does not increase in this manner. These may because of use of HYV seeds, fertilizer and other modern technology in the field. Increasing irrigation facility also may the acting factor behind it.

Apart from these the rest of the crops do not showing any specific tendency in terms of production and productivity.

| Crops | 2001-02 | | | 2005-06 | | | 2009-10 | | | 2012-13 | | |
|---------------------|-----------------------------|---------------------------------|------------------------------|-----------------------------|---------------------------------|------------------------------|-----------------------------|---------------------------------|------------------------------|-----------------------------|---------------------------------|------------------------------|
| | Area (Thousand hectares) | Production (Thousand tonnes) | Yield rates (Kg./hectare) | Area (Thousand hectares) | Production (Thousand tonnes) | Yield rates (Kg./hectare) | Area (Thousand hectares) | Production (Thousand tonnes) | Yield rates (Kg./hectare) | Area (Thousand hectares) | Production (Thousand tonnes) | Yield rates (Kg./hectare) |
| Rice | 436.4 | 1222.5 | 2801 | 386.9 | 1013.4 | 2619 | 377.3 | 1004.9 | 2663 | 376.2 | 1033.7 | 2747 |
| Wheat | 10.6 | 24 | 2264 | 6.8 | 12.5 | 1842 | 4.1 | 9.9 | 2390 | 2.7 | 6.1 | 2272 |
| Maize | 0.5 | 1 | 1778 | 0.7 | 1.5 | 1931 | 0.2 | 0.4 | 2256 | 0.3 | 1 | 3238 |
| Other Cereals | 0.8 | 0.4 | 500 | 0.5 | 0.4 | 800 | 0.3 | 0.4 | 1199 | 0.3 | 0.2 | 667 |
| Pulses | 0.8 | 0.4 | 530 | 0.7 | 0.4 | 580 | 0.2 | 0.2 | 861 | 0.1 | 0.1 | 701 |
| Oil seeds | 25 | 18 | 719 | 26.5 | 19.4 | 733 | 37.2 | 25.1 | 674 | 32.1 | 30.4 | 950 |
| Fibers | 1.6 | 7.8 | 4.9 | 0.2 | 1.1 | 5.5 | 0.1 | 0.7 | 5.2 | 0.1 | 0.6 | 4.4 |
| Miscellaneous crops | 21.6 | 525.8 | 24343 | 29.6 | 652.9 | 22057 | 34.6 | 1353 | 42279 | 28.2 | 694.2 | 24617 |
| Fruits | 2 | 28.39 | 14195 | 3.74 | 43.1 | 11524 | 7.08 | 49.17 | 6945 | 7.82 | 67.06 | 8575.4 |
| Vegetables : | 58.05 | 709.81 | 12228 | 51.63 | 808.81 | 15666 | 51.4 | 838.47 | 16313 | 54.7 | 892.59 | 16318 |

Table-2: Showing the changing agricultural scenario of Bankura district from 2001-02 to 2012-13

Source: District statistical Handbook, Bankura District (2006, 2011 and 2013)

CONCLUSION:

Bankura is an agro-economic base district although a vast area of the district is not cultivable due to barrier of physical environment. A number of crops are grown in the district like different types of cereals, oil seeds, fibers, fruits and vegetables. Rice is the mostly cultivated crop in the district. Day by day oil seeds, fruits and vegetable cultivation become popular. More research and more attention should be given on this field as maximum percentages of population of the district are engaged in this field. More modern technology should be adopted in the field of agriculture in Bankura district.

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REFERENCES:

1. Hussain, M. (2009). Systematic Agricultural Geography, New Delhi: Rawat Publications.
2. Nath, S. (2016). Productivity and constraint: Agricultural scenario of Assam, India, Indian Journal of

Applied Research.

- 3.O'Malley, L.S.S.(1995): Bankura, Bengal District Gazetteers, Government of West Bengal.
- 4.Singh, J. (1976). "Agricultural Geography" Tata McGraw Hill Publishing Co. Ltd. New Delhi.
- 5.Singh, S. Kaur, M. (2008). Changing Agriculral Scenario and its impact: A study of Rural Panjab Man and Development,123-138.
- 6.Vaidyanathan, A. (1992). Instability in Agriculture: Extent, Causes and Consequences: A review article. Indian Economic Review, 27, 211-222.
- 7.Verma, K. Alam, A. Rizvi,A. H. Gautam, C. (2014). The Changing Scenario in Indian Agriculture: A Review, International Journal of Scientific Research in Agricultural Sciences, 1(7), pp. 118-127.
- 8.Wikipedia (2016). Bankura District. Retrieved from https://en.wikipedia.org/wiki/Bankura_district



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