



CROP DIVERSIFICATION REGIONS IN SINA RIVER BASIN: MAHARASHTRA

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Abstract

Agriculture is a prime economic activity of people in Sina river basin. The concept of region is significant in study of agricultural geography. Agricultural regionalization provides a sound footing and explanation of agricultural practices in an area. Crop diversification is an important method of agricultural regionalization and it is useful for analysis of agricultural practices and planning at micro level such as in Sina river basin. In the present research paper an attempt has made to delineate crop diversification regions in Sina river basin of Maharashtra by applying Gibbs and Martin's index of crop diversification. Different crop diversification regions are the results of difference in soil properties, availability of irrigation facilities and farmer's changing trend towards taking different crops in a season from same piece of field.

Keywords: Region, Agricultural Regionalization, Crop Diversification.

Introduction:

The concept of region developed in the 18th century is still a basic notion in geography. Classically, 'region is a differential segment of the earth surface' (Whittlesy, 1929) or an area having homogeneity in physical and cultural characteristics. As this phrasing suggest, the study of regions was for long time closely identified with a definition of geography as the study of areal differentiation. The delineation of crop diversification regions help in understanding the attributes of agriculture of the given region and explains the decision making process of the farmers. An in-depth understanding of such regions also helps in generalization and the formulation of sound strategies for agricultural planning and development. Diversification in cropping pattern means a variety of crops cultivation on the arable land. The study of crop diversification is of vital important in judging the competition amongst crops for area, scope for rotation in order to maintenance of fertility of soil which ultimately affects agricultural productivity. Crop diversification implies obtaining of the maximum number of crops from the soil. The risk due to natural hazards could be reduced by adopting crops diversification. Crop diversification may refer to the competition that exists among crops in a region. (K. Neerja and B. Krishna Reddy and Y.V. Ramaniah, 2004).

Crop diversification is a concept which is opposite to crop specialization. The farmers all over the world, especially in the developing countries, try to grow several crops in their holding in an agricultural year. In general, higher the level of agricultural technology; lesser will be the degree of diversification. In fact, "it is obvious that greater the number of crops in a combination, greater the degree of diversification" (Ayyar, 1969). Crop diversification leads the competition among the different crops and adoption of judicious crop in order to maintain fertility of soil with mixed farming.

Study Area:

Sina river basin lies in drought-prone area of Maharashtra and is a sub-basin of Bhima river. The study region extended from 17° 22'43" North Latitude to 19°09'09" North Latitude and 74°43'11" East Longitude to 75°53'48" East Longitude. The total geographical area of the river basin is about 12051.446 sq. kms. It accounts 4.73 per cent to the total of Krishna Basin (254743.31sq.k.ms). The study area is bounded by Rahuri tehsil of Ahmednagar district to the north, Beed and Osmanabad districts to the east, Karnataka state to the south and Malshiras and Pandharpur tehsils of Solapur district to the west. Study area comprises a) the parts of Ahmednagar, Pathardi, Parner, Shrigonda, Karjat and Jamkhed tehsils of Ahmednagar district, b) whole Ashti tehsil of Beed district, c) whole