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REVIEW ARTICLE

CHANGING PATTERNS OF AGRICULTURAL LAND USE. CASE STUDY OF DISTT. BHIWANI

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Changing Patterns of Agricultural Land Use. Case Study of Distt. Bhiwani

Vikram Parmar¹ Dr. Mukesh Yadav²

¹Research Scholar, Singhania University, Pachari Bari, Jhunjhunu, Rajasthan

²Asst. Professor, Govt. College of Education, Bhiwani

INTRODUCTION

Agriculture is one of the oldest and the most important occupation of man. It is an economic activity of growing crops and raising livestock. It is primarily a function of climate, soil and man's skill. More particularly, it is an interaction between physical and non-physical factor. In a country like India, where a majority of people live in the rural areas and earn their livelihood from the land itself, the speedy development of agriculture is quite vital. A better agriculture is the basis to an organized economic life, as it constitutes its backbone. If agriculture fails, the entire economy of the nation is shaken. An agricultural geographer studies and analyses different types of agriculture land use, the possibilities of its development, its similarities and dissimilarities with other areas, etc. In the days of advanced technology agricultural geographers have added responsibilities. In India, a large percentage of total population subsists directly or indirectly on agriculture. Indian agriculture contributes about 50% of the national income and provides subsistence to over 70% of people. It provides raw materials for the agro based industries and fodders for the livestock as well.

After considerable discussion and analysis, scholars have following causes of agricultural problems:

1. The pressure of population which previously cantered on forests, soon cantered on agriculture.
2. Failure to adopt mechanization in farming.
3. Dependence of agriculture on the erratic rainfall.
4. Poverty and backwardness.
5. Small farms size, heterogeneity of cropping systems

6. Complexity of tools and techniques requiring new skills.
7. Culture, attitude and perceptions of farmers including resistance to adoption of new techniques and lack of agro-environmental problems.
8. Lack of local technical expertise
9. Uncertainty on returns from investments
10. Precision Agriculture(p A) as new story to Indian farmers needs demonstrated impacts on yields.

The agricultural economy of the study area basically dependent on the vagaries of climate resulting in the frequent periods of drought, which is reflected in large proportion of crop failures. As a result of high range of variability of rainfall and irrigation many parts of BHIWANI district frequently experience famine conditions due to lack of forests most of the area is covered by sand, sandunes & steep slope. Steep slopes harmful for agriculture because it creates problems of soil erosion. It is also problematic in the application of new technological innovations. On steep slopes it is difficult to irrigate the land & use machinery. These are common in western and southern parts of the district.

According to the District Gazettery the general aspect of Bhiwani district may be described as a level plain or the prairies stretching from the North-West to the south east along the North-Eastern margins. Most of the South- Western area slopes South-West to North-East. Some of the detached peaks of the Arevalli ranges which stand out against the horizon. The highest of these are in the Tosham Hill (244 mtrs). A sandy tract stretches down the western portion of the district which presents and appearance of a sea of sandy billows of more or less wave -like forms. The whole Bhiwani district living out a small portion in the east which was a part of a so called

Haryana tract is known as the Bagar. Here the prevailing characteristic is light sandy soil and shifting sand hills interspersed in places with loamy bottoms. The sand hills are known as Tibbas and the lower areas within the sandy area are known as the Taals. As regards the Loharu tehsil, the aspect of tehsil is uniform throughout. It presents a dreary dissolute and a tree less waste dotted with sand hills.

Like other areas BHIWANI district is also in the grip of the law of inheritance. According to this law, all the property of father is divided equally among sons and daughters; which leads to the fragmentation of land. Thus the size of holdings becomes not only small but scattered as well. The fragmentation is harmful in following ways:

1. It reduces the size of the farms.
2. It creates the scattering of farms.
3. It also increases the personal disputes among the farmers.
4. It is difficult to invest in irrigation and other modern facilities when the farms are scattered and small.
5. It also leads to wastage of time and energy.

THE STUDY AREA:

The present study area has been chosen vary rationally, i.e. the choice of the study area has been governed by the following three factors:

1. The author being the resident of the area, so his attachment is natural.
2. The selected area is more backward in the field of agriculture.
3. No study has been carried out on BHIWNI district in respect of changing patterns of Agricultural land use.

BHIWANI district is one of the twenty districts of Haryana state. It came into existence on December 22, 1972 and was from any inaugurated on January 14, 1973. It is named after the headquarter town of BHIWANI. The area of BHIWANI district 5099 square kilometers. It is the second largest district in the state following HISAR. It comprises of five Tehsil Charkhidadri, Loharu, Bawani Khera, Tosham & Siwani .It is bounded by districts of Jhunjhnu of Rajasthan in the West, Hissar district of Haryana in the North ,Mohinder- Garh district of Haryana in the South, Jhajjar & Rohtak districts of Haryana in the West. Geographically speaking BHIWANI district lies in the Southwestern part of Haryana between latitude 28° 19' N 29° 05' N and longitude 75°28' E to 76°28' E (Fig.1). It lies very close to Thar Desert in Rajasthan.The

Bhiwani district is located at distance of 235 Km South West from capital of Haryana (Chandigarh) and 105 Km West from capital of India (Delhi). Ideally, each investigation in agriculture geography should involve four stages namely (1) identification of the problem, (2) the collection of relevant data, (3) the formation of hypothesis and (4) the testing and modification of hypothesis to provide an adequate explanation. Bhiwani district has experienced significant development in the facilities of irrigation through lift-canal irrigation, tube- wells and sprinkler –sets. These changes must have brought about equally significant changes in the use of agriculture land use. The present study aims at evaluating these changing patterns.

METHODOLOGY AND TECHNIQUES:

The present study based on 49 sample villages of district Bhiwani. Each of the sample village representatives of a number of the surrounding villages, falling within a square of the Grid of 4X4 kilometer squares covering the Bhiwani District. Data for crop land use irrigation and other aspects related to agriculture have been collected for the 49 sample villages for 1986 to 2010. The processed information's have been shape through map and diagrams: the tools of a geographer which are very helpful in the evaluation, analysis and synthesis. Primary and Secondary type of data have been used in the present study obtained from the sources given as under:- (i)The Bhiwani District Gazetter.

Three main approaches to the geographical study of subsistence agriculture can be suggested namely an ecological approach, land cultivation approach, and a statistical approach (Mc Master, 1962). A statistical –ecological- physiognomic approach is adopted in the investigation. Agricultural statistics are used to determine the distribution of land-use and crops as percentages. It highlights the significant concentration. The statistical methods are adopted for a good understanding of agriculture. Emphasis is laid on applied ecology, because the object is to study different ways in which man raises crops within a farming system under a particular environment. Physiognomic approach is espoused because it's not only an attempt of an agricultural condition landscape. But it is also an attempt to understand and determine the spatial distribution and pattern of the various agricultural operation of the manifestation and results of natural and human factors.

AIMS AND OBJECTIVES OF THE STUDY:

There is a near unanimous agreement amongst geographers that the primary purpose of a geographical inquire is in the spatial variation of the agricultural activities. In its broadest sense the present work strive to bring to light the changes in the agriculture land-use in Bhiwani district during 1986 to 2010. After interpreting the spatial variation in agricultural activities which are effected by physical

factors and non-physical factors. physical factors are largely governed by the agro-climatic controls of agricultural activities and there after modified by the socio- economic factors. physical bases of farming are primarily the compounds of relief, climate, and soils. the form of land exercises a direct influence on land use mainly through its slope, elevation and ruggedness. In relief, slope is an important element which affects the farming systems. Steep slope is harmful for agriculture because it creates problems of soil erosion. So now in the age of science and technology the non-physical factors or the socio- economic factors are important determinants. In the complex of social arrangement and organizations that under lie co-influence, the types and patterns of farming throughout the world, the occurring theme is the identification of agriculture with the peasantry of life. The Geographic association advocating a greater quantification in the description of the regional distribution. Facts are arranged in a systematic order presents and past agricultural situations are rationally mapped, described, interpreted, and changes are seen in the agricultural land-use. The future course of development is predicted so the main aim of this study is to see the changes in the agricultural land-use on the basis of comprehensive study of climate, soils, water resources, population, land-use, crop distribution, cropping pattern and agricultural regionalization.

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