International Advance Journal of Engineering, Science and Management (IAJESM)
ISSN -2393-8048, January-June 2020, Submitted in March 2020, iajesm2014@gmail.com

A Study of Agricultural Land Uses of Hisar District in Haryana

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ABSTRACT

The past's final result is the present. Therefore, a study into the past is essential for a thorough knowledge of the current patterns of land use and agriculture resources. This does not imply, however, that one should become bogged down in the history of diverse agricultural source phenomena. But looking backwards is inevitable to the extent that it aids in carrying out the present. It offers a more thorough and multifaceted view of the current. It more clearly highlights the trends and issues surrounding the use of agricultural land and resources and provides a better framework for the sensible planning of our agricultural land and its resources, which are essential, finite, and under increasing pressure. The Hisar district's agricultural land use has undergone ongoing changes in the past. But the changes that have occurred there over the past few decades, most of which coincide with the country's planned growth area, are more obvious and quicker. In 1971, the district had 58% of its land under net cultivation; by 2001, that number had increased to 82%. This rise of 24% in net area sown during a 30-year period is mostly attributable to the restoration of arable wasteland, expansion of fallow land used for regular cultivation, newly developed machinery, and improved education. As a result of these modifications, nearly all of the region's arable land was plowed under.

Keyword: Geography, Hisar, Machinery,Agriculture, Occupation, Tradition-Orientation

INTRODUCTION

In the Hisar district, agriculture has long dominated the rural landscape and taken up the majority of cultivators' working hours. It still rules the countryside today. According to the 1991 census, 75% of the population is employed mostly in tilling the land. Despite the modern agricultural setup being heavily planned during the five-year plans, the pace of agricultural development has been consistent. The majority of the Hisar district's agriculture continues to be primarily tradition-oriented in terms of how it uses the soil for food crops to feed people and livestock. The agricultural pattern along my cross-section is entirely under the considerable control of the traditional current proprietorship, and the rural environment continues to be startlingly characteristic of the oriental outlook. The district's economy is largely based on agriculture, according to the information about the agricultural attribute. Ample agricultural resources are available in the research area. The main crops include gram, bajra, cotton, wheat, and oil seeds. The populace works in secondary and tertiary occupations to a greater than 78% degree. Nearly three-quarters of the district's people were either working in agriculture or an occupation that was related to it during the beginning of the 20th century, or they were dependent on those who were working in agriculture for their means of subsistence. According to the 2001 census, around 78% of the country's population lives in rural areas, and the remaining 21.12% lives in urban areas. Compared to 28.66% for the state as a whole, the district's population has about 30.92% major employees. Against 57.77% of the state as a whole, the district's major workers—cultivators and agricultural laborers—make up 69.09% of the workforce, which explains why the district's agricultural activities are of the subsistence variety. The district of Hisar is primarily agricultural. Life in the area used to be characterized by frequent droughts, famines, scarcity, and irregular rains. Large areas of dry, barren land were turned into agricultural land in the region with the introduction of canal irrigation. The Haryana Agricultural University, a prestigious center of learning and research in agriculture and allied disciplines, as well as the long-standing cattle farm in Hisar and the district's virulent peasant traditions, brought about the most remarkable changes to the region's agricultural sector. The area that was irrigated significantly increased once irrigation from the Bhakra Nagai Project and Western Yamuna Canal started.

The objectives of the current study are:

Forming connections between the elements of agricultural land usage. Describing and interpreting agricultural land use trends in space. Calculating the fluctuations in crop trends

and agricultural land use. The potential for agricultural land use has also been investigated, as well as the contribution of agricultural land utilization studies to the comprehension of problems in various places. Recommending ways to solve agricultural issues so that the best possible use of the land is made at the micro level.

A REVIEW OF THE SUBJECT'S WORK

Under the direction of L.D. Stamp, groundbreaking work on the land use survey of Great Britain was completed. The Survey was established in October 1930 with the goal of determining the precise use of each acre of land. The majority of the nation had actually been surveyed by 1933, and the project was completed before war broke out in 1939. "Nationalism and Land Utilization in Great Britain" was the title of a stamps paper that published in Geographical Review in 1937. 'The Land of Britain its Use And Misuse' debuted in 1948 and is remarkable.

In the U.S.A., O.E. Baker' article "Land Utilization in the United States: Geographical Aspects of the Problem" was the first attempt in which trends of land utilization were depicted and emphasis was laid on the need for land classification and surveys. The U.S. department of Agriculture favoured the idea of land use planning for the country. A programme of land use survey was launched in 1935, but it was implemented after 1938.

Japan, which faced the problem of supporting a huge population on its limited cultivable land, took the work of land use survey with enthusiasm and high priority. Similarly, China with its largest population of the world, and its economic problems, needed a land use survey. Buck's work entitled "Land utilization in China" appeared in 1938 and made a landmark.

THE IMPACT OF PHYSICO-CUTULAR FACTORS ON AGRICULTURAL LAND USE

Agriculture is the economic activity that is most impacted by natural factors because it is an open activity. However, in a certain environmental setting, man is not helpless. He responds to the local natural forces and attempts to take advantage of them by using the technology and other resources at his disposal. For a complete understanding of the agricultural geography of a region, it is necessary to understand how the physical and socioeconomic environment affects the agricultural patterns in a given area. Thus, there are three different types of elements that can affect a region's farming system. The first is a physical factor. Cultural aspects 2. 3. The role of technology.

PHYSICAL FACTORS

Geology

The district's hard rock geology is hidden by alluvial and aeolian deposits. There are newer and older alluvial sediments of quaternary age. The former typically occurs on the Ghagghar river's active floodplain in the district's northern part and is made up of sand, silt, clay, and sporadic gravel. Calcareous concretions are combined with other components in a variety of ratios. The sediments are diverse in nature and are deposited on a basement of Precambrian-aged metamorphic and igneous rocks. The alluvial deposits rest on top of bed rock topography that descends in a north-easterly direction. At Jhalnian Fatehbad Tahsil, the highest thickness of alluvium found in a bore hole is 345.5 meters below the surface. Cross section is studied logically in places with a low density of metalled roads, which imposes some limits, and on the basis of data from deep augers up to 5 meters and bore holes dug by the Tube-Well Organization of Haryana.

Soil

The soils of Hisar District gradually varies from light sand to a firm loam and can broadly be classified into three divisions (Fig. 2.1)

Fairly heavy loam : This type (rasuli) of soils is found in Hansi and Narnaund tehsils and parts of Hisar tehsil. These are fairly good for production provided adequate rainfall or irrigation is received.

Light sandy soil : The light sandy soils (bhur) dominate the study area and cover the western and south-western parts of Adampur and Hisar tehsils. These soils are light, highly permeable and have little water holding capacity.

Very heavy clay : This heavy clay (sotar) soils strentch from east to west in Tohana, Ratia and Fatehabad tehsils in the study area. These soils are very difficult to cultivate until well saturated by summer floods. The soils of the study area are having the problem of wind erosion and water-logging.

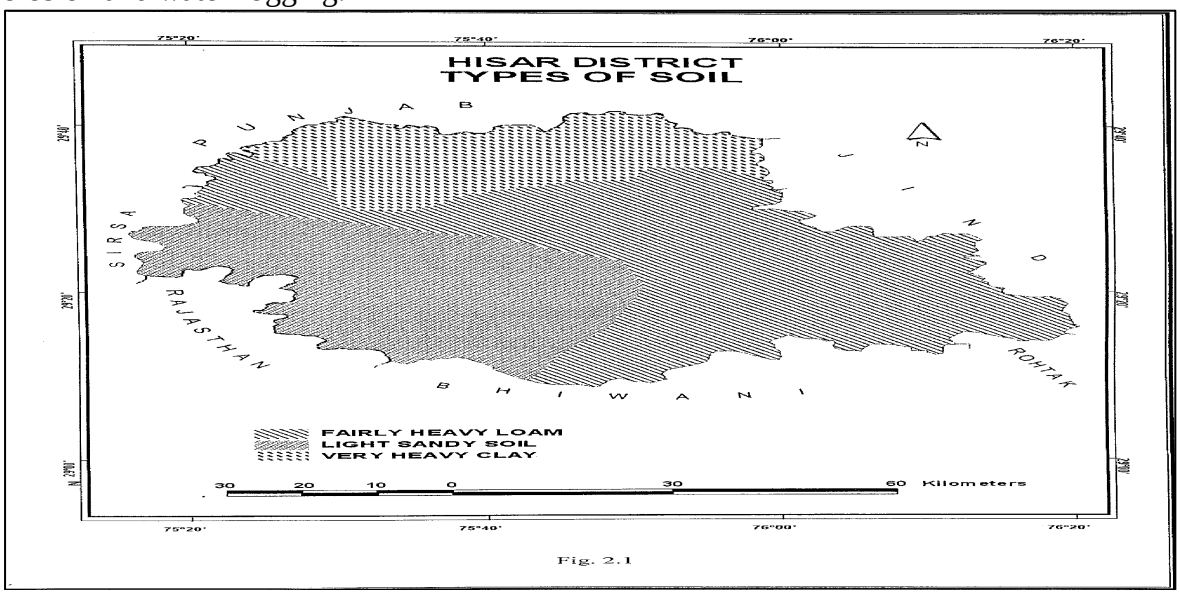

Fig. 2.1

Agricultural Land Use Planning Aspects of Productivity and Nutrients

The need to examine land usage is unavoidable given the worrisome rates of population growth, the widening land-to-person ratio, and potential issues with carrying capacity for nutrients in the land. Since the cultivable land has already risen to its highest point in the research region as well as the state, there isn't much room for future growth. The increase in cropping intensity that caused the total cropped area to expand from 8,41,538 hectares in 1980–81 to 10,03,058 hectares in 2003–04 is a significant development. Unfortunately, the area devoted to pulses has decreased while that devoted to cereal crops (wheat, rice), fiber crops (cotton), and other crops has expanded. During study periods in the Hisar district, the area planted with bajra, oilseeds, and fodder crops showed little to no improvement.

The populace, society, and process

Because it can paint a picture of the region's or area under study's heavily exploited, underused, and empty lands, the study of agricultural landuse planning is very important. Land and resources derived from it are limited. Land is therefore in short supply. Because there is a finite amount of land and a finite number of people who depend on it, it is irreplicable and unreproducible. Over time, they have grown—whether it is the number, the people, or the demands. Therefore, the per capita availability of this resource had been dropping both nationally and globally. Various scholars have used different formulas to calculate agricultural productivity of different regions from time to time. In the present study the agricultural productivity of various crops in this regard. Their output per hectare have been calculated. Besides, the hectare yields of various crops in the component regional units may be expressed as a precentage of corresponding average hectare yields for entire region to obtain indices of yield efficiency. A weighted average of the yield efficiency of all crops in a component regional unit, where the weight are proportion to the share of crop land devoted to each crop, would gave a measure of overall agricultural efficiency/productivity of the component regional unit relative to the entire region.

CONCLUSION AND SUGGESTIONS

Agriculture is mostly reliant on the physical or natural environment. Without bringing up the larger environment, no discussion on the use of agricultural land and its productivity is complete. All natural resources are included in the physical environmental circumstances, whereas the socio-techno-economic environment is artificial. Endowments in the form of physiography, climate, soils, and water resources make up the physical environment. A essential prerequisite for sustained take off stage agricultural productivity in the research area is their wise utilization. In the study area, agriculture has dominated the rural landscape

and taken up the majority of peasants' working hours for millennia. Assuming that the physical characteristics remain constant, the increase in agricultural productivity is the result of socioeconomic, technological, new farm technology, new government agricultural policies, the contributions of agricultural scientists, and hardworking and creative farmers in Haryana. Because they jointly play a significant role in identifying and interpreting the patterns of agricultural features, the research region evaluated the diversity of relief, climate, soil, water resources, and irrigational schemes. The importance of cultural (social, economic, and technological) variables in modern agriculture, however, cannot be understated because they determine the type, scope, and intensity of agriculture and agricultural output. Geographers are beginning to understand that physical factors alone cannot affect agricultural operations, but that physical and non-physical factors both affect overall economic development, therefore agricultural growth must be researched from a similar angle. About 85.0% of the total area in the area has been under net area planted out of the 90% of area that is available for agriculture. The usage of contemporary inputs, such as high yielding seed varieties and mechanical tools like tractors, thrashers, combines, herbicides, and fertilizers for plant protection, has significantly grown. As irrigation has been provided to the study region by the Western Yamuna Canal and Bhakra Main Line Canal, it has grown from 75.0% in 1979–1982 to 87.6% in 2003–2006. In the research area's Tohana, Ratia, and Narnaund regions, tube-well irrigation has become more significant during the past ten years. As a result, cropping intensity in the study region rose from 155.8% in 1979–82 to 172.5% in 1989–92 and 183.9% in 2003–2006. As a result, the crop ranking order in the study region changed from wheat-cotton-gram-bajra-fodder-mustard-rice in 1979–82 to wheat–cotton–rice–mustard–fodder–bajra in 2003–06. Systematic analysis of a single crop has value because it provides insight into the trends, issues, and future prospects of a crop in a region. However, no crop is ever produced in isolation because all field crops within a cropping pattern compete for space. As a result, polyculture is the norm. They are linked in terms of areal strength by a cause-and-effect relationship between the agricultural environment and cropping patterns. Therefore, a study that allows for the identification and elimination of crops that are inconsequential in terms of area is required. Crop-combination analysis can be used to do this. As a result, the study of crop-combination is integrative reality of geographical environment as it (crop-combination) considers the major crops of the region for comprehensive understanding of the crop geography of a region. For agricultural regionalisation/zones and to understand regional imbalance, the research of crop-combination is essential.

REFERENCE:

Singh Jasbir 1968' Agricultural Geography of Haryana', India. Vishal Publications, University Campus, Kurukshetra

Sandhu, A.N. and 1983 'Fundamentals of Agricultural Singh, A.S.Economics', Himalaya Publishing House, Bombay

Sharma, Vijay Kumar, 1978'Quantitative terrain types in Chaur-Rajgarh Tract of Lesser Himalayas', Geographical Review of India, 30

Sauer, Carl 0.,1919'Mapping the utilization of land', Geographical Review

Singh, Trilok1952 'Land Settlement Manual for Displaced Persons in Persons in Punjab and Pepsu', Jullunder', A Punjab government publication

Thomas, D.,1963, Agriculture in the wales during the napolenic wars Cardiff, University of wales press.

Thornthwaite, C.W. 1948'An approach towards a rational classification of clfmate', Geographical, Review 38

Thoman, R.S.,1962, The Geography of Economic Activity', New York, McGraw-Hill

Ved Pal Singh, M.S. Kairan,1987, 'An agricultural views of Haryana', B.R. Publishing Corporation', Delhi-110052

van Valkenburg, S. 1931-36'Agricultural Regions of Asia', Economic Geography