Journal of Advances and Scholarly Researches in Allied Education
Vol. XV, Issue No. 5, July-2018, ISSN 2230-7540

A Study of Geographical Development Based on Agriculture in Hanumangarh District

Dr. Vijay Kumar[1]* Sh. Jagdish Chander[2]

[1] Department of Geography (HOD), D.A.V. College, Sri Ganganagar, Rajasthan

[2] Department of Geography, Mata Jeeto Ji Girls College, Suratgarh

Abstract – The Hanumangarh district was formed on 12.7.1994 from earlier Ganganagar district as 31st district of Rajasthan state. Seven tehsils of Ganganagar districts of Bikaner division viz. Sangaria, Tibi, Hanumangarh, Pilibanga, Rawatsar, Nohar and Bhadra were included into the newly created district of Hanumangarh. The district headquarter Hanumangarh is situated on the bank of Ghaggar River which is the present form of the last mythological river Saraswati. Ghaggar River, which is called as 'Nali' in local dialect divides the district headquarter into two parts. In the north of Ghaggar River, Hanumangarh Town and in the south the habitation of Hanumangarh Junction is situated.

Job of agriculture stays imperative in empowering the district to accomplish and keep up nourishment self-sufficiency, particularly, in a poverty-stricken district. Supportable development of agriculture depends essentially on the procedure of horticultural change, which thus is very much associated with movements in cropping patterns. Lazy move in the cropping pattern towards non-sustenance grain crops in the district is because of moderate development of irrigation, low degree of fertilizer utilization, slow technology adoption and low degree of infrastructure.

Keywords: Agriculture, Economy, Rural

----------X----------

INTRODUCTION

According to the 2011 census Hanumangarh district has a population of 1,774,692 roughly equal to the nation of The Gambiao or the US state of Nebraska. This gives it a ranking of 269th in India (out of a total of 640). Hanumangarh is one of the highest per capita income earning district in India.

District Hanumangarh comes under agro climatic Zone Ib (Irrigated North-Western plains) of Rajasthan. It lies between 290 5' N to 300 6' N latitude and 740 3' to 750 3' longitudes.

It is bounded on the North by Punjab, on the South by Bikaner and Churu, on the East by Haryana and on the West by Sri Ganganagar. In Hanumangarh District, we find hot summer, cool winter , unreliable rainfall and great variation in the temparature. The rainfall mostly restricted to rainy season. The monsoon normally comes in the first week of the July and recedes in the last week of September.

The district has a population density of 184 inhabitants per square kilometre (480/sq mi). Its population growth rate over the decade 2001–2011 was 16.91%.Hanumangarh has a sex ratio of 906 females for every 1000 males.

The lull during the time spent cropping pattern change implies that most government endeavors to diversify agriculture have neglected to take off.

Near about 18000 hectare area in the district (Rawatsar and Tibbi Tehsil) suffering from water lodging conditions in canal command area due to high irrigation water supply and gypsum/hardy layer in sub soils. In this area, hard layer is not permitting percolation of water in sub soils. So ground water table rise upward and create a water lodging condition.

The district has major problem like soil erosion and low fertility status, low availability of ground water with poor quality. Threats of short /long drought spells due to untimely, inadequate and uneven distribution of rainfall, low production level of dairy animals due to poor livestock management, presence of Calcium Carbonate in sub soil, low organic matter,insect pest and disease problems.

Rajasthan is where agriculture development is quicker than different states of the nation even a

water deficient state. Irrigation offices, great nature of seeds, use of fertilizer and other institutional and infrastructure variables are assuming noteworthy job for improvement in agriculture division in the state. Rajasthan is predominantly isolated into two sections that are desert and non-desert.

The state has 61% of desert area where 40% of the populace are living. The greater part of the populace rely upon agriculture in desert and non-desert districts. Since it is water frightened state so there is much potential in wheat and bajra crops yet not in rice crop because rice is water escalated crop in which one kg of rice requires 3000-5000 liters of water. So the state focused on the improvement of generation of wheat and there is much possibility in this regard. Rajasthan is the biggest state as far as area, which has 10.41 percent of area, 5.67 percent of populace, 10.70 percent of live stocks and 8.48 percent of milk generation of India.

Further, all out forest area 4.24, tree secured area 8.92, gross irrigated area 8.95, net irrigated area 9.88, absolute cropped area 11.67 and net area planted is 12.42 percent of India1GOR (2012). Gross domestic product development pace of Rajasthan in 2012-13 is 5.31 percent. The part astute commitment of GSDP at consistent price of 2004-05 in agriculture 19.88, in Industry 31.31 and in administration segment is 48.81 percent. It is proposed in twelfth multiyear plan (2012-17) that the expense on agriculture and unified administration is 5.57 percent. Despite the fact that the state has 61% desert area however the efficiency of significant crops in most recent two decades in desert were developing a lot quicker than in non-desert.

GEOGRAPHICAL DEVELOPMENT BASED ON AGRICULTURE

Cropping pattern implies both existences grouping of crops. It incorporates the escalation of the most productive crops of the district which is viewed as a homogenous soil and climatic qualities, the turn wherein the crop fits in and the force of cropping. Along these lines the term cropping pattern is used in increasingly far reaching sense when we examine in term of cropping pattern for farmers it will mean notwithstanding cropping plan and cropping force most appropriate to the farmers. Cropping pattern alludes to the proportionate area under various crops during an agricultural year. It implies the arrangement of crops at a point of time. Cropping pattern must guarantee the best effectiveness of man, fertilizers, irrigation and different information sources. It is dynamic idea as no cropping pattern can be reasonable for all occasions to come. An effective cropping pattern infers the most productive use of arable land, endless supply of water resources, bio-chemical data sources and the like. Likewise, it must offer the cultivators the likelihood to boost agricultural efficiency per unit area per unit of time. A cropping pattern is dictated by the connection of physical and financial factors over some undefined time frame. No cropping pattern can be useful for all occasions to come. Be that as it may, there is regularly a propensity for the cropping pattern to balance out over some undefined time frame in various agro-climatically homogeneous cultivating area.

The expansion in real esatate portion or production arrangement has been described by a noteworthy move of area from different crops to boro rice, potato and mustard or increment in part of boro rice, potato and mustard to add up to agricultural production contrasted with different crops. Presently, all out agricultural production in value terms of any topographical area at whatever year is the entirety of the output in value terms of various crops created in that district during that specific year. Output of any individual crop in value terms again relies upon real esatate appropriated for developing that crop, yield and price of that crop.

On the off chance that prices are thought to be steady, value of output of each crop changes because of variety in area and yield level. Subsequently, all out agricultural production of some random locale shifts because of changes in gross cropped area (GCA) (entirety of area under every one of the crops, developed in the district), yield of each crop and reallocation of all out area for the production of each crop expecting, prices to be consistent. Changes in agricultural output because of reallocation of land resources to various crops, when all out area under development, yield of each crop and prices stay consistent, speak with the impact of crop enhancement or changing cropping pattern on agricultural production.

The supplement conveying limit of soils fluctuates inside the region as well as village to village and even homestead to cultivate. Soils of the state have low microbial exercises and poor soil organic carbon because of which over 75% soils of the state are not healthy. Insufficiencies of Nitrogen, Phosphorous, Sulfur, Zinc and Iron are very normal. The state possesses 10 percent of the complete geographical area of the nation, however the huge geographical area commands just 1 percent of the absolute water resources in the nation.

Agriculture is essentially downpour encouraged yet it is insufficient and aberrant. Focal point of cropping pattern in downpour bolstered areas is to meet the nourishment necessity of the individuals and grub prerequisite of the creatures. The crops are developed under high chance. In ordinary years, farmers face price fall because of excess in the market while drought years have yield hazard because of aggregate or fractional disappointment of crops. Rajasthan is known for its aberrant and questionable nature of precipitation. As in excess of 60 percent of the gross planted area in the state falls under arid or semi-arid zones in the state, agriculture in the state keeps on being generally downpour bolstered.

DISCUSSION

The northern part of the district is covered by arid soils which are characterized by alluvial soils. These soils are loamy in character. Central part of the district is characterized by entisols, i.e., desert soils which are loamy along Ghaggar river course. Southern part of the district is characterized by arid soils i.e. non-calcic brown desert. Principal means of irrigation in the district is through canals, though some areas are irrigated by wells/ tubewells. Surface water, the main source of irrigation, is utilised through canal network. As per the data available on the website of Dte. of Economics and Statistics, Ministry of Agriculture, Govt. of India, as on 2009-10, net area irrigated from canals is 361603 hectares. Net area irrigated through tubewells is 6170 hectares and that from other wells is 2894 hectares. Only a small area of 179 hectares is irrigated through other sources. Total net area irrigated in the district is 370846 hectares and gross area irrigated is 636384hectares including 622370 hectares area irrigated by canals, 8959 and 4871 hectares by tubewlls and other wells respectively and 184 hectares irrigated by other sources.

The entire Hanumangarh district is covered by Quaternary Alluvium overlain by thin veneer of wind-blown sand in the central part and by high dunes in the southern Part. In the northern part and in the Ghaggar flood plain, alluvium is without any blown sand cover. Quaternary alluvium is mostly fluvial in origin and consists of alternating sequence of sand, silt and clay. The thickness of alluvium varies from 100m in the southern part to over 400m in the northern part. The basement below alluvium consists of rocks belonging to Palana series and Nagaur group of Marwar Super group. Basement rocks consist of claystone, sand stone and basal evaporites sequence.

The depth to water level varies widely depending upon topography, drainage, bedrock geology etc. Depth to water varies from less than 1.7m at Gandehali to 47.25 m at Dudhal in Nohar block. Groundwater level is deeper in southern part of Nohar block and is generally shallower in remaining parts of the district. In general, depth to water level varies from 10m to 30mbgl.

Change in cropping pattern is an indistinguishable piece of agricultural growth process. Regardless of agricultural production it impactsly affects provincial economy. The real effects of changes in cropping pattern are on the (I) growth of agricultural production, (ii) work of work and ideal use of human resources. (iii) Stabilization of farm salary over the seasons and (iv) preservation and upgrade of natural resources. The significance of agriculture has been additionally underlined by the way that the number of inhabitants in the nation is expanding at a quick rate, applying an incredible weight on land and antagonistically influencing the man-land proportion. Because of development of land over hundreds of years, and because of expanding weight of populace on it, the odds of unfavorably influencing the land specifically and condition all in all are additionally good. In this way there is where the land must be used with incredible consideration and where agriculture must be advanced taking in to awareness all the ecological and financial elements. Just logically and keenly, agricultural practices can meet the circumstance.

CONCLUSION

Modern agriculture has nearly seized to be a financial movement performed in shut economy framework described with the highlights of a natural economy. In modern agriculture, exercises in the homestead are composed much the same as the business and accordingly productive information management is unavoidable. Information incorporates fertilizers, pesticides and different methods for production including land and work. The Application of fertilizers is intently between connected to water accessibility and cropping pattern.

REFERENCES

1. Bhattacharya S.N. (2010): Rural Industrialization in India, B R Publishing Corporation, Delhi, p 192

2. Kachru R.P. (2012): Agro-Processing Industries in India - Growth, Status and Prospects; Indian Council of Agricultural Research, New Delhi

3. Jones, G. (2011): The Role of Science and Technology in Developing Countries, Oxford University Press, London, England.

4. Nilakantha Mohanty (2014): Impact of Agro-Based Industries on Rural Economy, Radha Publication, New Delhi.

5. Ramchandran M.K. (2012): 'Economics of Agro-Based Industries,' Vol. I, Mittal Publications, New Delhi

6. ISMA (2014): “Sugar Situation, Indian Sugar Mills Association”, http://www.indiansugar.com

7. Government of India (2012) : “Report of the Task Force on Sugar Industry for the 10th Five Year Plan 2012-2017”, Ministry of Consumer Affairs, Food and Public Distribution, Department of Food and Public Distribution, New Delhi.

Corresponding Author

Dr. Vijay Kumar*

Department of Geography (HOD), D.A.V. College, Sri Ganganagar, Rajasthan