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LEVEL OF AGRICULTURAL DEVELOPMENT AND LAND HOLDING CHARACTERISTICS: A CASE STUDY OF BIBIPUR VILLAGE, HARYANA

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ABSTRACT

A key part of the Indian economy is the agriculture industry. 14% of the GDP is contributed by the agricultural industry. The vast majority of Indians live in villages. Since ancient times, agriculture has been the principal human occupation. It continues to be a significant activity on a global scale. The agricultural level has altered significantly from antiquity to the present. Because of the world's rising population and rising food consumption, agriculture is the most demanding industry. In addition to giving farmers jobs, agriculture also supplies various companies with raw materials. Each year, thousands of studies are conducted at the agricultural level to determine what factors influence a region's ability to produce food, how an area may be improved as an agricultural site, and how productivity can be raised. The agricultural level has altered globally since the Green Revolution began, and it has had a significant impact on India, particularly Haryana, Punjab, and the western U.P. states. Any village, region, or nation's agricultural level depends on a number of variables, including the land's surface, the soil's type and condition, the water's availability, the drainage pattern, irrigation, agricultural practises, the degree of mechanisation, and the use of chemical fertilisers, insecticides, and pesticides, among others. All of these elements influence agricultural development wherever it occurs. The present study shows the land holding characteristics and level of agricultural development in Bibipur Village of Jind district Haryana.

Keywords: Land holding, Agriculture Production, Agricultural Practices, Level of Mechanization

INTRODUCTION

Regardless of title, size, or location, an operational holding is a techno-economic entity that is only or mostly employed for agricultural production and is administered (directed or managed) by one person alone or with aid from others. Operational holding refers to all land that the techno-economic unit has in its actual possession, as opposed to household ownership holding, which is limited to space held by one or more members of the family. An operational holding

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was defined as a piece of property that had some agricultural output going on throughout the reference period and had more or less independent access to technical resources for agricultural activities, such as land, farm machinery and equipment, draught animals, etc. Agenda 21 defines the Earth as a physical entity in terms of topography and spatial characteristics, including natural resources such as soil, minerals, water and biota found on Earth (Vats 1977). These components provide life support systems and a variety of services necessary to maintain the productive capacity of the environment (Ester and Norton, 1977). Land is a major resource and its use has been a major topic in understanding the historical development of the world's diverse civilizations (Date and Pawar, 1988; Hussain, 1976). Haryana is one of the most progressive states in India in terms of agriculture (Sinha, 1958; Singh, 1979). After the introduction of new agricultural techniques in 1965-66, there were significant changes in the area, production and yield of various crops in Haryana, especially in crop pattern selection. Soil is an important natural resource for humans and crops (Subbiah and Ahamad 1980). Its characteristics and fertility determine crop yields and agricultural yields in the area. It is also a very important ecological attribute for humans. Agriculture is mainstay of the economy of Bibipur village and well developed. The residents are well aware about high yielding variety seeds, bio chemical inputs and modern machinery. Water availability in the village is adequate. Therefore, the present study aims to analysis the land holding characteristics and status of agricultural level in the Bibipur village with respect to occupational status of farmers.

STUDY AREA

The present study has been undertaken at micro-level in Bibipur village of Jind district in Haryana. It is a historical village and was founded in 13th century. It lies between 29° 14' 24" to 29° 14' 59" north latitudes and 76° 16' 25" to 76° 17' 06" east longitudes (Fig. 1). The village is located in south direction from Jind town. It is about 10 kilometres away from the district headquarter on State Highways No. 14, which is called Jind-Bhiwani road. The village is surrounded by Ghimana in the north-east, Igra in south-west, Ramgarh in north and Behabalpur in east. It spreads over an area of about 1435 ha. The village is almost a level plain with medium textured sandy and sandy loam soils. Soils are poor in organic matter content and nutrients. Underground water in the village is deep and saline.

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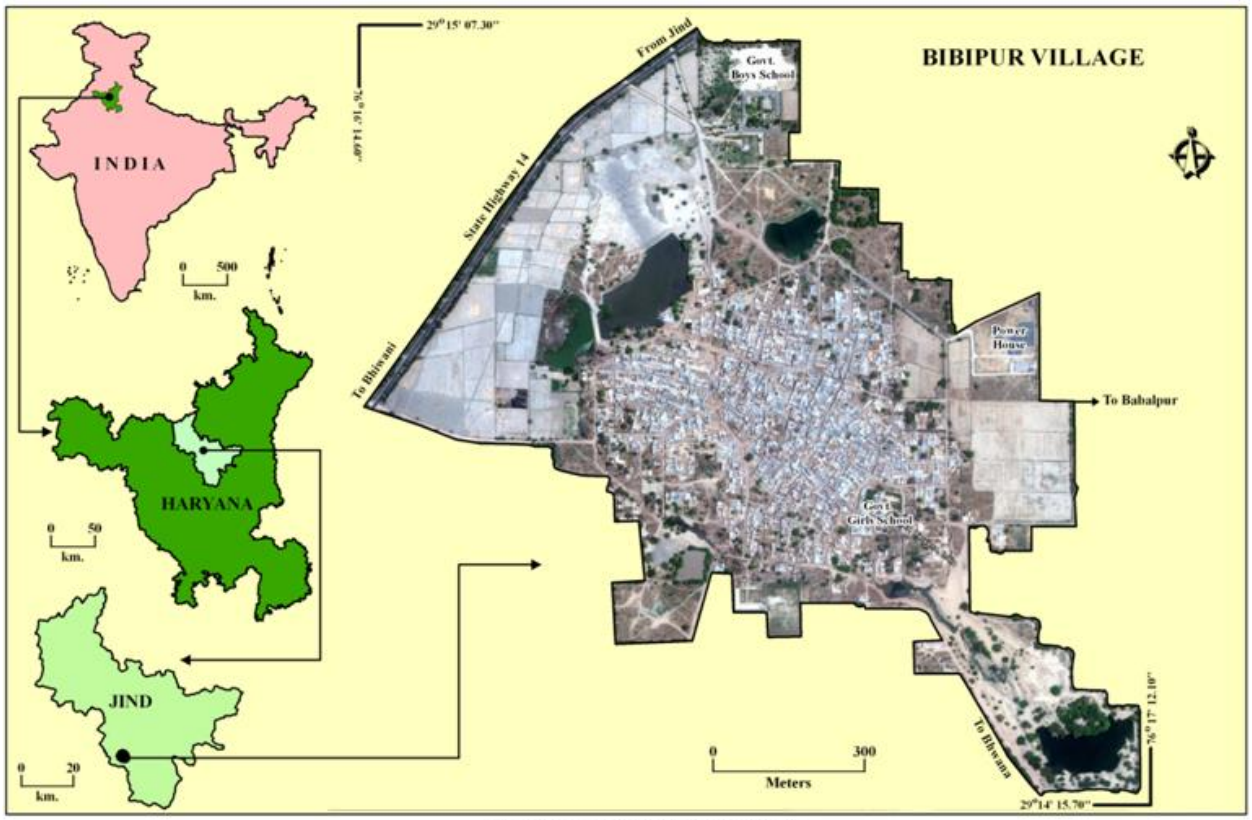

Fig.1: Location Map of Bibipur Village.

Both Kharif and Rabi crops are produced in the village which is irrigated as well as rain-fed. Wheat, mustard, rice and cotton are the major crops grown in the village, while sugarcane, bajra, maize and jowar are minor crops. Buffalo, cows, sheep and goats constitute the livestock of the village. The total population of the village is 4807 persons (Field Survey, 2012). The village is endowed with several infrastructural facilities such as a commercial bank, primary health center, animal hospital, high and senior secondary schools separately for girls and boys. The village economy is primarily based on agriculture and livestock.

OBJECTIVES OF THE STUDY

The following are the main objective of the present study-

- To study the land holding characteristics according to occupational status of households.
- To evaluate the level of yield and agricultural productivity with respect to occupational status.

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- To examine the source and season wise irrigated area under different occupational groups.

DATABASE AND METHODS

The present study is based on the data collected through primary household's survey. The survey was conducted from October 20, 2012 to October 26, 2012. A well-structured questionnaire was designed before proceeding into the field and all 893 households of the village were surveyed. The data were also collected from different secondary sources like patwari, school, anganwadi etc. The collected information has been analyzed and interpreted with the help of simple statistical technique such as percentage. The analyzed data has been presented with the help of tables. The primary data collected from the households of Bibipur village was classified in different social, educational economic and occupational classes in order to capture their inter class differences in the livestock distribution and structure of village. The major occupational classes identified from the collected data with their number of households have been presented in the following table 1.

Table 1 Distribution of household according to occupational status in Bibipur village

Occupation status	No. of household	Household in (%)
Agriculture	444	49.7
Casual labour	245	27.4
Service	88	9.8
Business	44	4.9
Other	72	8.2
Total	893	100.00

RESULTS AND DISCUSSION

Distribution of landholding characteristics according to occupational status

Table 2 reveals that there are 429 households under agricultural occupation who have their own land for practicising agriculture. It was followed by casual labour, service, business and other occupation households. However, 134 households under agriculture occupation also leased in lands from other occupation households. These leased in lands are highest among all the categories of different occupation prevailing in the village. Similarly, it was also observed that

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agriculture occupation households also leased out their land in maximum number followed by service and casual labour occupation households.

Table 2 Distribution of landholding characteristics according to occupational status

Occupational Status	Area Owned	Leased In	Leased Out
Agriculture	429	134	76
Casual Labor	61	7	15
Service	55	2	21
Business	24	3	10
Others	34	9	9
Total	603	155	131

Distribution of Source wise Irrigated area according to occupational status

Table 3 reveals that maximum irrigated area in Bibipur village was found under agriculture occupation households followed by others, service, casual and business occupation households. Maximum irrigated area under agriculture occupation households is in tune with the occupation of these households. Canal and tubewells are two important sources of irrigation in Bibipur village. However, tubewell irrigation is more important and about 80 percent of the total cultivated area is irrigated with tube wells and it was followed by canals (17 percent). Highest irrigated area under tubewells was observed under casual labour occupation households followed by business occupation households (88 percent).

Canal irrigation was found to be more important among agriculture occupation households followed by service category and other households in the village.

Table 3 Source wise irrigated area according to occupational status

Occupational Status	Canal	Tube well	Others	Total
Agriculture	484.3 (18.1)	2101.3 (78.7)	82.7 (3.1)	2668.4 (84.3)
Casual Labor	9.5 (8.2)	103.3 (89.2)	3.0 (2.5)	115.8 (3.6)
Service	23.2 (15.7)	124.0 (84.2)	-	147.2 (4.6)
Business	10.0 (12.3)	70.9 (87.6)	-	80.9 (2.5)
Others	20.5 (13.6)	130.1 (86.3)	-	150.6 (4.7)
Total	547.5 (17.3)	2529.7 (79.9)	85.7 (2.7)	3163.0 (100)

Figures in parentheses are percentage of total

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Distribution of season wise irrigated area according to occupational status.

Table 4 reveals irrigated and unirrigated area according to the occupational status of the Baibipur village residents. About 2700 acres of the land in Bibipur village is irrigated during the rabi cropping season which as followed by kharif season and zaid season. Kharif irrigated area was observed to be highest among services, business and other category household (97.3 percent each) followed by agriculture occupation household in the village. During rabi season 100 percent cultivated area of the business occupation households in the village was found irrigated by different sources followed by agriculture (98.2 percent), services, others and casual labour households. The 100 percent irrigated area of the business occupation households during rabi season can be attributed to small land holding size available with them. Only 40 acres of land is irrigated during zaid season in Bibipur village and service, business and other occupation households irrigate 100 percent of their cultivated area followed by agriculture and casual labor occupation households.

Distribution of yield and productivity under different crops according to occupational status

Table 5 demonstrates the yield and productivity of different crops according to occupational status of households in Bibipur village. It was observed that annual productivity of different crops was found highest among agriculture occupation households followed by casual, service and business category households. The annual productivity of crops is in tune with according to the occupational status of households. The highest annual productivity among agriculture occupation households can be attributed to their involvement with the agriculture profession since long time. Among individuals crops rice yield was observed to be highest among agriculture occupation households whereas cotton yield was found to be highest among service class households. This can be attributed their education and subsequently utilizing various green revolutionary measures in time on their fields. Among rabi crops wheat and mustard yield was found to be highest among service occupation households. Again it can be attributed to their good educational status subsequently timely application of sowing, weeding, watering, tilling and harvesting. The analysis further revealed that annual productivity of cotton, wheat and mustard crops was found to be highest among service occupation households, whereas rice productivity was found to be highest among casual labor occupation households and it is beyond our understanding how such farmers took the highest productivity of rice crop in monetary terms.

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Table 4 Distribution of season wise irrigated area of according to occupational status.

Occupational status	Kharif			Rabi			Zaid		
	Irrigated Area (acre)	Unirrigated Area (acre)	Total Area (acre)	Irrigated Area (acre)	Unirrigated Area (acre)	Total Area (acre)	Irrigated Area (acre)	Unirrigated Area (acre)	Total Area (acre)
Agriculture	1729.2 (97.1)	51.3 (2.9)	1780.5 (65.7)	2223.2(98.2)	39.2 (1.8)	2262.4 (82.0)	16.8 (84.8)	3.0 (15.2)	19.8 (42.8)
Casual labour	314.6 (96.9)	9.7 (3.1)	324.3 (11.9)	125.1(94.5)	7.2 (5.5)	132.3 (4.8)	11.4 (79.2)	3.0 (20.8)	14.4 (31.3)
Service	218.1 (97.3)	6.0 (2.7)	224.1 (8.2)	133.2 (96.2)	5.2 (3.8)	138.4 (5.0)	7.6 (100)	-	7.6 (16.4)
Business	117.9 (97.3)	3.2 (2.7)	121.2 (4.4)	71.8 (100)	-	71.8 (2.6)	3.4 (100)	-	3.4 (7.3)
Others	252.3 (97.3)	6.7 (2.7)	259.0 (9.5)	147.0 (96.6)	5.0 (3.4)	152.0 (5.5)	1.0 (100)	-	1.0 (2.2)
Total	2632.6 (97.2)	77.2 (2.8)	2709.4 (100)	2700.4(97.1)	56.7 (2.1)	2757.1 (100)	40.2 (87.0)	6.0 (13.0)	46.2 (100)

Figures in parentheses are percentage of total

Table 5 Distribution of yield and productivity under different crops according to occupational status.

Occupational status	Rice		Cotton		Wheat		Mustard		Annual productivity per acre (Rs.)
	Yield per acre (kg)	Productivity per acre (Rs.)	Yield per acre (kg)	Productivity per acre (Rs.)	Yield per acre (kg)	Productivity per acre (Rs.)	Yield per acre (kg)	Productivity per acre (Rs.)	
Agriculture	1516.6	34883	817.5	35154	1699.9	23799	699.7	22392	42027.0
Casual labour	1341.3	38850	837.3	36006	1641.8	22985	788.1	25220	32759.9
Service	1018.0	23414	840.0	36120	1911.5	26761	892.8	28571	31029.6
Business	10.3	23805	761.0	32723	1652.13	23129	802.0	25678	27502.6
Others	1403.0	32270	821.0	35303	1454.05	20356	892.4	28556	28267.0

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CONCLUSIONS

Agriculture is the primary occupation of Bibipur village residents and 603 households out of 893 have their own land holdings. However, 155 households lease in their lands to other farmers and 131 lease out their agriculture land for farming operations to other farmers. Among various occupational status groups agriculture group households have the maximum area owned (429 households) and leased out lands (76 households). In addition leased in lands pertain to agriculture occupation household (134 households).

Bibipur village has good facilities of irrigation in the form of canals and tube wells. About 80 percent of the cultivated area is tubewell irrigated followed by canal and other sources of irrigation. In this study, agriculture occupation households and about 85 percent cultivated areas of such households are irrigated. There are three different cropping season in the village namely; kharif, rabi and zaid. The present study shows that there is no significant variation in the landholding characteristics and level of irrigation. The irrigation condition of the village is also good and fields are irrigated both by canals and tube wells. About 80 percent of the cultivated area is tube wells irrigated followed by canal and other sources of irrigation. The irrigated area during kharif and rabi season is more than 95 percent. However, zaid crop are also well irrigated and more than 85 percent cultivated areas during the season is irrigated.

Crop yield and productivity are two important indicators of agriculture development. Among different occupational status groups, annual yield per acre of rice crop was observed to be highest in agriculture group, while cotton yield was observed to be highest among the service group households during kharif season. Annual productivity of agriculture among different socio-economic groups of the village was found to be highest among the agriculture occupation households (Rs.42000 per acre) followed by graduate and above households (Rs.33500 per acre). It was also analyzed from the study that modern agriculture technology is well accepted by Bibipur village households. They are well aware about all bio-chemical inputs, High YieldingVariety seeds, insecticides, pesticides etc.

REFERENCES

Date V. S. and Pawar N. S. (1988):"Agricultural productivity A Micro Level study of Two villages (Maharashtra): Transactions Institute of Indian Geographers, Vol.10 (1).

Ester Able and Norton, (1977) "Agricultural productivity in terms of value of wheat and Rice output in two Regions of India".

Hussain M, (1976): "Agricultural productivity of India: An Exploratory Analysis", The National Geographical Jaurnals of India, pp.113-123.

ISSN: 2455-8834

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Sinha B. N. (1958):"Agricultural Efficiency of India" Karnataka University, Dharwad pp.42-43.

Singh V.R. (1979): 'A method for Analyzing Agricultural productivity' Transactions Institute of Indian Geographers vol. 1, No.1 Jan.1979. P.39.

Subbiah and A. Ahamad (1980), "Determinates of Agricultural productivity in Tamil Nadu India" Transactions Institute of Indian Geographers vol.2

Vats, P.C. (1977): Influence of micro-Geomorphologic units on Land-use and crop production. A case study of village Dundli. The Deccan Geographer, Vol. xv, July-Dec. 1977, pp 317-323.

