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## An economic analysis of production and marketing of chickpea in Bemetara district of Chhattisgarh on area attributes

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### Abstract

The present study was conducted in the Bemetara district of Chhattisgarh. Sixty farmers were selected randomly from the Saja block and Bemetara block. The selected villages are Khati, Saigona and Khairjhitikala from Saja block and Dhadhi, Panchbhaiya and Lalpur from Bemetara block. The primary data were collected for the year 2012-13. The major findings of this study revealed that the average size of holding of the sample households was 3.3 hectares. Production performance of chickpea (during 2000-01 to 2012-13) was observed positive and significant growth in Bemetara district as well as Chhattisgarh state. This was mainly due to positive and significant growth in area and production of chickpea.

**Keywords:** Chickpea, growth and production

### Introduction

Agriculture continues to be the backbone of Indian economy, which has a significant history. The share of agriculture and allied sectors in India's GDP has declined to 13.7 percent in 2012-13 due to shift from traditional agrarian economy to industry and service sectors. Despite a decline in the sector's contribution to GDP, the production of food grains has increased from 230.8 million tonnes in 2007-08 to 255.4 million tonnes in 2012-13. The economic contribution of agriculture to India's GDP is steadily declining with the country's broad-based economic growth. Still, agriculture is demographically the broadest economic sector and plays a significant role in the overall socio-economic fabric of India. The source of livelihood of about 70 percent of population is still agriculture. Pulse production has been stagnated between 11 to 15 million tonnes in the last decade, while the requirement of pulses is estimated to increase to about 20 million tonnes by 2015. As a result of shortfall in production, India has become regular importer of pulses in recent years. There were large differences in both consumption and production of pulse crops to meet the growing domestic demand and to reduce imports and exploit export opportunities. There should be greater emphasis on the adoption of improved package of practices against the existing traditional production technology so that the desired yield may be realized.

This is to a large extent, due to the alarming rise in population in many developing countries, particularly in India. There is no controversy about the fact that a very rapid and drastic reduction in the population growth is an essential prerequisite for solving production problem. Although the green revolution has flourished the cereals, it has not yet influenced impressively the pulse crops. The Indian farmers continue to prefer cultivation of rice and wheat crops to that of pulses. The area under pulse crop is therefore, reduce.

### Results and Discussion

#### 1. General features of the sampled households

The general features of the sample households are presented in Table 1. It is evident from the table that, the average family size was observed 6.76 at the sampled 45 farmers. The literacy rate in the selected households is 49.26 percent. Average size of holding is observed 2.9 hectares per farm and it varied from 0.58 hectare at marginal farms to 6.24 hectares at large farms.

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It is also noticed from the table that the percentage of ST and SC farmers was about 3.33 percent and 18.33 percent respectively in the study area. The percentage of OBC and General caste were observed about 75.00 percent and 1.66 percent respectively.

### 1.1 Land utilization pattern of sampled households

Land use pattern of sampled farmer is given in Table 1. It is evident from table that the per farm total cultivated area was observed to be 0.78 ha, 2.1 ha., 3.22 ha. And 7.11 ha. at marginal, small, medium and large farms along with 3.33 hectare overall average respectively. The overall irrigated area is 85.75 percent to the total cultivated area in the selected households which varied from 64.10 percent at marginal farms

to 87.76 percent at large farms. The average area allocation under paddy is 56.66 percent at sampled farms. The same figures for chickpea and soyabean were observed 85.75 percent and 29.09 percent at different farms.

### 1.2 Source wise irrigated area

Sources wise irrigated area is presented in the Table 2. Table clearly shows that the tube well is main source of irrigation and most of the area (about 67.23 percent) is covered by the tube well irrigation. Canals, ponds and wells are other sources of irrigation in the area which contribute about 32.77 percent to the total irrigated area.

**Table 1:** Demographic features of sampled farmers

S. No.	Particulars	Marginal	Small	Medium	Large	Aggregate
1.	Total number of households	20	15	14	11	60
2.	Total family member	104 (100.0)	120 (100.0)	136 (100.0)	46 (100.0)	406 (100.0)
	a. Male	59 (56.73)	68 (56.66)	75 (55.14)	31 (67.39)	233 (57.38)
	b. Female	45 (43.26)	52 (43.33)	61 (44.85)	15 (32.60)	173 (42.61)
	Average family member	5.2	8	9.71	4.18	6.76
3.	Age groups (years)					
	Below 14 years					
	a. Male	09 (8.65)	12 (10.00)	14 (10.29)	07 (15.21)	42 (10.09)
	b. Female	07 (6.73)	11 (9.16)	12 (8.82)	04 (8.69)	34 (8.37)
	14-60 years					
	a. Male	41 (39.42)	52 (43.33)	59 (43.38)	19 (41.30)	171 (42.11)
	b. Female	27 (25.96)	29 (24.16)	41 (30.14)	11 (23.91)	108 (26.60)
	Above 60 years					
	a. Male	09 (8.65)	04 (3.33)	02 (1.47)	05 (10.86)	20 (4.92)
	b. Female	11 (10.57)	12 (10.00)	08 (5.88)	-	31 (7.63)
4.	Social group	Marginal	Small	Medium	Large	Aggregate
	a. Schedule tribe	-	-	02 (14.28)	-	02 (3.33)
	b. Schedule caste	04 (20.00)	03 (20.00)	02 (14.28)	02 (25.00)	11 (18.33)
	c. Other back ward caste	15 (75.00)	12 (80.00)	09 (64.28)	09 (12.50)	45 (75.00)
	d. General	01 (5.00)	-	-	-	01 (1.66)

**Table 2:** Land utilization pattern of sampled house holds (Ha/farm)

S. No.	Particulars	Marginal	Small	Medium	Large	Average
1.	Total owned land	0.58 (74.35)	1.5 (71.42)	3.02 (93.78)	6.51 (91.56)	2.9 (87.9)
2.	Leased-inland	0.2 (25.64)	0.6 (28.57)	-	-	0.4 (12.1)
3.	Leased-outland	-	-	0.2 (6.21)	0.6 (8.43)	0.4 (12.1)
4.	Total cultivated area	0.78 (100.0)	2.1 (100.0)	3.22 (100.0)	7.11 (100.0)	3.3 (100.0)
5.	Irrigated	0.5 (64.10)	1.7 (80.95)	2.89 (89.75)	6.24 (87.76)	2.83 (85.75)
6.	Un-irrigated	0.28 (35.89)	0.4 (19.04)	0.33 (10.24)	0.87 (12.23)	0.47 (14.24)
7.	Area under paddy	0.36 (46.15)	0.93 (44.28)	1.98 (68.51)	4.23 (59.49)	1.87 (56.66)
8.	Area under chickpea	0.5 (64.10)	1.7 (80.95)	2.89 (89.75)	6.24 (87.76)	2.83 (85.75)
9.	Area under soyabean	0.14 (17.94)	0.27 (12.85)	0.91 (28.26)	2.01 (28.27)	0.83 (25.15)

**Table 3:** Source-wise irrigated area at sampled farms (ha/farm)

S. No.	Particulars	Tubewell	Canal	Tank	Wells	Total irrigated area
1.	Marginal	-	0.41	0.09	-	0.5
			(82.00)	(18.00)		(100.0)
2.	Small	0.98	0.59	0.13	-	1.7
		(57.64)	(34.7)	(7.64)		(100.0)
3.	Medium	1.87	0.54	0.35	0.13	2.89
		(64.70)	(18.68)	(12.11)	(4.49)	(100.0)
4.	Large	4.24	1.15	0.85	-	6.24
		(67.94)	(18.42)	(13.62)		(100.0)
	Average	2.36	0.67	0.35	0.13	3.51
		(67.23)	(19.08)	(10.00)	(3.7)	(100.0)

### Conclusion

The sampled households exhibit varied characteristics, with an average family size of 6.76 and a literacy rate of 49.26%. The average farm size is 2.9 hectares, ranging from 0.58 hectares on marginal farms to 6.24 hectares on large farms. The majority of farmers belong to OBC and SC groups. Land utilization data shows that 85.75% of the cultivated area is irrigated, with paddy being the dominant crop. Tube wells supply 67.23% of the irrigation, while other sources like canals, ponds, and wells contribute 32.77%, emphasizing the region's reliance on diverse irrigation methods.

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