



Research Article

ASSESS THE SOCIO-ECONOMIC AND COMMUNICATION ATTRIBUTES OF CHICKPEA GROWERS IN MADHYA PRADESH

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Abstract- Pulses are very important crops in India both from economic and nutritional aspects and covering area of 20.05 million hectares but production is only 11.14 million tones. In Madhya Pradesh the area of all crops is 16.53 million hectares and production is only 13.89 million tones. The pulses are grown in 4.13 million hectare which is 4 per cent of the total area under all the crops with production of 2.37 million tones which is 6 per cent of the total production of all the crops. Among the major pulse crops grown in Madhya Pradesh, Chickpea is one of the most important crops. Chickpea commonly known as chickpea or Bengal chickpea is the important pulse crop of India. It is one of the major grain legume crops grown as a sole or mixed crop in India. Madhya Pradesh is the biggest chickpea producing state in the country. There is a tremendous opportunity for increasing the production of chickpea crop by adopting the suitable improved technologies. Technological gap can be assessed by considering the difference between recommended technology and technology actually adopted by the farmers. There is urgent need to reduce the technological gap at the farmer fields in pulse production so that the farmers' productivity vis-à-vis income could be increased. In long run, legume pulse will also help in maintaining the soil fertility and sustaining the productivity of the fields.

Keywords- Technological Gap, Chickpea, Socio-economic & Communication attributes

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Introduction

Pulses are main crops in India covering a larger area. The area of all crops in India is 132.72 million hectares and production is 189.25 million tones. The area of total pulse crops in India is 200.50 million hectares but production is only 11.14 million tones.

It has been observed from the yield data of pulse crops of past years that there is still a wide gap between existing production and optimum production required. Non-adoption of improved package of practices, lack of scientific knowledge, skill and poor socio-economic condition of the growers might be the important reasons for low production of all pulse crops.

In Madhya Pradesh, the area of all crops is 16.53 million hectares and production is only 13.89 million tones. The pulses are grown in 4.13 million hectare, which is 4 per cent of the total area of all the crops with production of 2.37 million tones, which is 6 per cent of the total production of all the crops. Among the major pulse crops grown in Madhya Pradesh, Chickpea is one of the most important crops. Chickpea commonly known as chickpea or Bengal chickpea is the important pulse crop of India. It is one of the major grain legume crops grown as a sole or mixed crop in India. Madhya Pradesh is the biggest chickpea producing state in the country. There is a tremendous opportunity for increasing the production of chickpea crop by adopting the suitable improved technologies. This seems possible only when the cultivators adopt the recommended chickpea production technology. It has been observed that the farm production has not been able to

keep the harvest of the modern technology as expected because majority of the farmers do not adopt the recommended technology.

It may be mentioned that in the Central Madhya Pradesh the two districts namely Jabalpur and Narsinghpur having maximum area under leguminous crops. In Jabalpur district the area of all pulses is 160803 hectares and production is 97.00 thousand tones out of which the area of chickpea crop is 65205 hectares with production is 81.1 thousand tones with an average yield of the crop is 1155 kg/ha. While in Narsinghpur district the area of all pulses is 222419 hectares with production is 159.22 thousand tones out of which the area of chickpea crop is 136802 hectares and production is 121.12 thousand tones with an average yield of the crop is 950 kg/ ha. It was planned to conduct scientific study to determine the factors responsible for low production and productivity of chickpea crop like illiteracy, cultural norms, high cost of inputs and agricultural machinery, small size of land holdings, lack of knowledge about plant protection measures, lack of training exposure and lack of knowledge about PSB and *Trichoderma viridae* culture. The specific objectives of the present study are as follows:-

(1) To know the personal socio-economic and communication attributes of farmers.

Materials and Methods

In the present study, an ex-post-facto research design was used. The study was conducted in Central Madhya Pradesh. The Central Madhya Pradesh comprises

seven districts namely Jabalpur, Narsinghpur, Seoni, Damoh, Hoshangabad and Katni. The Jabalpur and Narsinghpur districts of Central Madhya Pradesh were selected purposively for the present study because in *rabi* season chickpea is grown by the farmers as main crop and these districts are famous for production of bold and *gulabi* chickpea in the country. These two districts viz. Jabalpur and Narsinghpur consist of seven and six blocks respectively out of which two blocks from Jabalpur district namely Kundam and Sihora and two blocks from Narsinghpur district namely Babai Chichli and Kareli (total four blocks) were selected randomly for the present study on account of low production of chickpea as compare to the other blocks.

A list of villages of these four selected blocks in which chickpea is grown was prepared with the help of Rural Agriculture Extension Officer of these blocks.

Three villages from each block was selected on the basis of simple random sampling. Thus, 12 villages were included for the study. Thus, the total 180 respondents were selected from four selected blocks for the present study. Data were collected through personal interview method with the help of structured schedule.

Results and Discussion

Socio-psycho-economic and communicational attributes of farmers

The variables selected and studied as independent variables were education, landholding, social participation, occupation, annual income, contact with extension agency, extension participation, experience, training exposure and scientific orientation are presented here:

Table-1 Distribution of farmers according to education

S.NO	Categories	Jabalpur District			Narsinghpur District			Total	
		Frequency	Percentage	Mean	Frequency	Percentage	Mean	Frequency	Percentage
1	Very low (upto primary education) (0-2)	19	21.11	3.68	6	6.66	4.00	25	13.88
2	Low (upto middle education) (3-4)	15	16.67	5.00	19	21.11	5.00	34	18.89
3	Medium (upto higher secondary education) (5-6)	35	38.89	6.00	28	31.12	5.6	63	35.00
4	High (upto college education)(7-8)	21	23.33	7.00	37	41.11	7.16	58	32.23
	Total	90	100.00	5.61	90	100.00	6.1	180	100.00

The data illustrated in Table reveal the distribution of farmers according to education. It was recorded that 38.89 per cent respondents received the education up to higher secondary standard in Jabalpur district while 41.11 per cent respondents in Narsinghpur district acquired education up to the high (college)

level. It can be concluded from the above that in Narsinghpur district the chickpea growers were more educated as compared to Jabalpur district. The mean education of Jabalpur district was 5.61 and in Narsinghpur district was 6.10. The finding was in consistent with the work of Kumar (1996) [2].

Table-2 Distribution of farmers according to extent of social participation

S.NO	Categories	Jabalpur			Narsinghpur			Total	
		Frequency	Percentage	Mean	Frequency	Percentage	Mean	Frequency	Percentage
1	Low (0-3)	71	78.89	1.63	78	86.67	1.60	149	82.78
2	Medium + High(4-9)	19	21.11	4.36	12	13.33	5.25	31	17.22
	Total	90	100.00	2.21	90	100.00	2.08	180	100.00

The data showed the distribution of farmers according to extent of social participation. It is investigated that 78.89 per cent had low participation in Jabalpur district while 86.67 per cent had also found in similar category in Narsinghpur district. Thus, it may be concluded that the higher percentage of chickpea growers

(82.78%) had low social participation this might be due to engagement of maximum time in field work because of medium to large size of land holding. The finding was similar with the work of Shaky (2007) [4].

Table-3 Distribution of chickpea growers according to their land holding

S.NO	Categories	Jabalpur			Narsinghpur			Total	
		Frequency	Percentage	Mean	Frequency	Percentage	Mean	Frequency	Percentage
1	Marginal + Small (upto 5.00 Acres)	14	10.55	3.78	11	12.21	3.54	25	13.88
2	Medium (5.01- 10.0 Acres)	42	46.67	7.61	37	41.12	8.02	79	43.89
3	Large (Above 10 Acres)	34	37.78	12.60	42	46.67	14.38	76	42.23
	Total	90	100.00	8.91	90	100.00	10.44	180	100.00

The data of the Table described the distribution of chickpea growers according to their land holding. It was found that 46.67 per cent growers were having medium size of land holding (5 to 10 acres) in Jabalpur and similar per cent (46.67) of growers having large (more than 10 acres) cultivable land in Narsinghpur district.

Thus, it may be concluded that the majority of growers had medium size (5 - 10 acres) of cultivable land under chickpea cultivation. The finding was in line with the work of Upadhyay (1990) [3].

Table-4 Distribution of chickpea growers according to occupation

S.NO	Categories	Jabalpur			Narsinghpur			Total	
		Frequency	Percentage	Mean	Frequency	Percentage	Mean	Frequency	Percentage
1	Agriculture (0)	33	36.67	0.00	32	35.56	0.00	65	36.11
2	Agriculture + Daily wage work + Caste Occupation(1-2)	8	8.89	2.12	5	5.55	1.00	13	7.22
3	Agriculture + Shop keeping (3)	5	5.55	3.00	6	6.67	3.00	11	6.11
4	Agriculture + Dairy (4)	7	7.78	2.85	6	6.67	4.00	13	7.22
5	Agriculture + (Service + Self Employed) (5-6)	10	7.78	2.00	5	5.55	5.00	15	8.34
6	Agriculture+ Other (7)	27	30.00	7.55	36	40.00	6.00	63	35.00
	Total	90	100.00	3.06	90	100.00	3.20	180	100.00

The data of Table revealed distribution of chickpea growers according to occupation. It was found that out of total chickpea growers 36.67 per cent of the growers were solely dependent on agriculture in Jabalpur district and 40.00 per cent respondents belonged to agriculture with other occupations in Narsinghpur

district. Thus, it may be concluded that 36.11 per cent of chickpea growers solely engaged in agriculture. The similar finding was consistent with the work of Upadhyay (1990) and Prajapati (2006) [3,6].

Table-5 Distribution of farmers according to annual income

S.NO	Categories	Jabalpur			Narsinghpur			Total	
		Frequency	Percentage	Mean	Frequency	Percentage	Mean	Frequency	Percentage
1	Low (Less than Rs. 200000)	57	63.23	1.52	12	13.33	1.61	69	38.33
2	Medium (Rs.200001 to 300000)	21	23.34	2.36	34	37.78	2.58	55	30.55
3	High (Rs.300001 to Above)	12	13.33	3.61	44	48.89	4.27	56	31.12
	Total	90	100.00	2.00	90	100.00	3.28	180	100.00

The data of Table revealed the distribution of farmers according to annual income. It was found that out of the total chickpea growers, 63.23 per cent growers belonged to low level of annual income (less than Rs. 2.00 lakhs) in Jabalpur and 48.89 per cent were having high level of annual income (Rs. 3.00 lakhs and

above) in Narsinghpur district. Thus, it may be concluded that higher percentage of the chickpea growers 38.33 per cent were observed in the low category of annual income (less than Rs. 2.00 lakhs) in both the Jabalpur and Narsinghpur district.

Table-6 Distribution of chickpea growers according to their contact

S.NO	Categories	Jabalpur			Narsinghpur			Total	
		Frequency	Percentage	Mean	Frequency	Percentage	Mean	Frequency	Percentage
1	Low (1-4)	50	55.56	2.6	47	52.22	2.72	97	53.89
2	Medium (5-8)	35	38.88	5.88	32	35.56	6.31	67	37.22
3	High (9-12)	5	5.56	12.2	11	12.22	10.54	16	8.89
	Total	90	100.00	4.41	90	100.00	4.95	180	100.00

The data described the distribution of chickpea growers according to their contact with extension agency. Out of the total chickpea growers, 55.56 per cent of respondents in Jabalpur & 52.22 per cent of respondents in Narsinghpur district

under the category of low contact with extension agency. Thus, it may be concluded that the majority of chickpea growers (53.89%) had low contact with extension agency because the respondent's busy maximum time in field work.

Table-7 Distribution of farmers according to extension participation

S.NO	Categories	Jabalpur			Narsinghpur			Total	
		Frequency	Percentage	Mean	Frequency	Percentage	Mean	Frequency	Percentage
1	Low (3-8)	18	20.00	4.72	9	10.00	3.11	27	15.00
2	Medium (9-14)	29	32.23	11.17	35	38.88	12.37	64	35.55
3	High (15-20)	43	47.77	17.27	46	51.12	17.47	89	49.45
	Total	90	100.00	12.80	90	100.00	14.05	180	100.00

The data of Table revealed the distribution of farmers according to extension participation. Out of total chickpea growers 47.77 per cent of growers had high extension participation in Jabalpur and 51.12 per cent respondents belonged to similar category of extension participation in Narsinghpur district. Thus, it may be

concluded that the higher percentage (49.45%) of chickpea growers had high extension participation. The similar finding was in line with the work of Tomar (2005)[5].

Table-8 Distribution of chickpea growers according to their experience

S.NO	Categories	Jabalpur			Narsinghpur			Total	
		Frequency	Percentage	Mean	Frequency	Percentage	Mean	Frequency	Percentage
1	Low (4-13)	31	34.44	7.12	23	25.55	5.26	54	30.00
2	Medium (14-23)	41	45.56	14.77	48	53.33	12.45	89	49.44
3	High (24-33)	18	20.00	19.12	19	21.12	18.56	37	20.56
	Total	90	100.00	12.80	90	100.00	14.05	180	100.00

The data revealed that distribution of chickpea growers according to their experience in no. of years of chickpea production. Out of the total chickpea growers 45.56 per cent had medium level of experience in Jabalpur and 53.33 per

cent in case of Narsinghpur district belonged to same category of experience. Thus, it can be concluded that the higher percentage of chickpea growers (49.44%) had medium level of experience of chickpea production.

Table-9 Distribution of chickpea growers according to their Training Exposure

S.NO	Categories	Jabalpur			Narsinghpur			Total	
		Frequency	Percentage	Mean	Frequency	Percentage	Mean	Frequency	Percentage
1	Low(0)	20	22.22	0.00	19	21.11	0.00	39	21.66
2	Medium (1)	49	54.44	1.00	40	44.44	1.00	89	49.45
3	High (2)	21	23.34	2.00	31	34.45	2.00	52	28.89
	Total	90	100.00	3.00	90	100.00	3.00	180	100.00

The data of the table described that distribution of chickpea growers according to their Training Exposure. Out of the total chickpea growers 54.44 per cent belonged to medium level of training exposure in Jabalpur and 44.44 per cent in

Narsinghpur district belonged to same category of training exposure. Thus it can be concluded that, the higher percentage of chickpea growers (49.45%) belonged to medium level of training exposure.

Table-10 Distribution of farmers according to scientific orientation

S.NO	Categories	Jabalpur			Narsinghpur			Total	
		Frequency	Percentage	Mean	Frequency	Percentage	Mean	Frequency	Percentage
1	Low (9-11)	37	41.11	8.45	32	35.55	11.78	69	38.33
2	Medium (12-14)	39	43.33	14.61	46	51.12	10.19	85	47.22
3	High (15-17)	14	15.56	12.85	12	13.33	17.91	26	14.45
	Total	90	100.00	11.81	90	100.00	11.78	180	100.00

The data showed the distribution of farmers according to scientific orientation. Out of total chickpea growers 43.33 per cent were in the category of medium category of scientific orientation in Jabalpur and 51.12 per cent of the growers had same

category of scientific orientation in Narsinghpur district. It may be concluded that huge majority of chickpea growers (47.22%) had medium scientific orientation.

Table-11 Distribution of farmers according to technological gap in chickpea cultivation

S.NO	Categories	Jabalpur			Narsinghpur			Total	
		Frequency	Percentage	Mean	Frequency	Percentage	Mean	Frequency	Percentage
1	Low (0.00-33.33)	36	40.00	8.24	56	62.22	10.12	92	51.11
2	Medium (33.34-66.66)	07	7.78	4.32	16	17.78	6.36	23	12.78
3	High (66.67-100.00)	47	52.22	9.54	18	20.00	5.48	65	36.11
	Total	90	100.00	22.10	90	100.00	21.96	180	100.00

The data revealed the distribution of farmers according to technological gap in chickpea cultivation. Out of total chickpea growers 52.22 per cent respondents had high technological gap in Jabalpur and 62.22 per cent belonged to low level of technological gap in Narsinghpur district. Thus, it can be concluded that 51.11 per cent of chickpea growers had low technological gap in chickpea cultivation. The finding is similarity with the work of Kalasriya et. al., (1998) [1].

Conclusion

It was concluded that majority of the respondents belonged to medium size of land holding, had low social participation. It was concluded that majority of the respondents belonged to high category of extension participation, medium level of farming experience, medium level of training exposure. medium scientific orientation category. The mean technological gap of chickpea growers was 12.32 in Jabalpur and 14.45 in Narsinghpur district respectively. It was concluded that majority of the respondents belonged to low technological gap. There is need for some policy intervention and ensuring farmers pulse crops if it is failed or damaged due to any climatic vulnerability or natural disaster which is more prompt in the rainfed agriculture of the Madhya Pradesh.

Conflict of Interest: None declared

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