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## Socio-economic profile of pulse based cropping system of farmers of Chhattisgarh plains

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### Abstract

The study was conducted on 320 pulse based cropping system practicing farmers in Chhattisgarh plains to ascertain their socio-economic characteristics. The selected pulse growing farmers have been interviewed personally with the help of a well-structured and pre-tested interview schedule. The study shows that majority of respondents fall under age group of 36 to 50 years, educated up to middle school, belonged to other backward class, residing with up to medium family members, having membership in more than one organization. Most of the respondents were doing agriculture as main occupation, however many of them were also engaged in subsidiary occupations to support their livelihood. The respondents were also engaged in agricultural labour, nonagricultural labour and animal husbandry, short term credit seeking behavior, average family income was found up to ₹ 200000 per annum. Most of them were having land holding between 2.1 to 4.0 ha.

**Keywords:** Socio-economic profile, pulse based cropping system

### Introduction

The Indian economy is based on agriculture. Agriculture employs over 60% of the population and generates roughly 20% of the country's gross domestic GDP. Agriculture contributes significantly to economic development, food security, poverty relief, and rural development. Pulses are an essential component of the Indian people's daily diet, and they are the cheapest source of protein apart from milk. India has key place in global pulses production and contributes about 25% to the total pulse basket. India is the largest producer (25% of global production), consumer (27% of world consumption) and importer (14%) of pulses in the world. Pulses have long been an important part of the traditional cropping system. They are grown as a sole crop, intercrop, catch crop, relay crop, cover crop and green manure crop *etc.* Cropping system is a kind of sequence and arrangement of crops grown on a given area of land over a period of time. The main objective of study was to analyze the Socio-Economic profile of pulse based cropping System practicing farmers in plain zone of Chhattisgarh.

### Methodology

The present study was carried out in major four pulse growing districts of Chhattisgarh plains. For the purpose of the study, eight blocks (two blocks from each district) were selected. Four villages were selected randomly from each block in this way a total of 32 villages were selected for the study. Ten farmers from each village were selected randomly to comprise a sample of 320 respondents for the study purpose. The data were collected with the help of predesigned interview schedule by approaching the farmers for personal interviews to get more reliable information. Collected data were then tabulated and analyzed using frequency, percentage.

### Results and Discussion

#### Education

Regarding education of the respondents table 1 shows that 9.06 percent of the respondents were illiterate and 19.37 percent respondents were literate only up to primary school level.

**Table 1:** Distribution of respondents according to their education

S. No.	Category	Frequency	Percentage
1	Illiterate	29	9.06
2	Primary School	62	19.37
3	Middle School	84	26.25
4	High School	66	20.63
5	Higher Secondary School	53	16.57
6	Graduate	7	2.18
7	Post Graduate	19	5.94

About 26.25 percent of them had completed middle school, 16.57 percent had completed higher secondary school, and 20.63 percent had completed high school. Only 2.18 percent of the selected respondents got a graduate degree, while 5.94 percent had a postgraduate degree. The results show a somewhat lower than average level of education in the study region, which may be a result of limited access to upper secondary schools and colleges. These results were also supported by Painkra (2014) [8].

**Size of family**

The information on family size is compiled in Table 2 which showed that the majority of respondents (40.00%) had 6 to 10 family members, followed by about 35.31 percent of respondents who had said their family consisted of only up to 5 people, and 24.69 percent of respondents who belonged to large families with more than 10 members.

**Table 2:** Distribution of respondents according to their Size of family

S.No.	Category	Frequency	Percentage
1	Up to 5 members	113	35.31
2	6-10 members	128	40.00
3	More than 10 members	79	24.69

**Caste**

According to the information in Table 3 about the respondents' caste, the majority of them (84.69%) belonged to the Other Backward Class, while 9.38 percent of them were Scheduled Caste members and 4.68 percent were members of other castes. Only 1.25 percent of respondents in the study area were from of Scheduled Tribes. The Other backward class population predominated in this investigation since it was confined to the plain zone of Chhattisgarh state, which is home to the majority of the OBC population. Similar findings were also reported by the Pradhan (2014) [6] and Painkra (2014) [8] who have conducted their research work in the Northern Hills Agro-climatic zone of Chhattisgarh state.

**Table 3:** Distribution of respondents according to their caste

S. No.	Category	Frequency	Percentage
1	Scheduled caste (SC)	30	9.38
2	Scheduled tribe (ST)	4	1.25
3	Other backward class (OBC)	271	84.69
4	Other castes (OC)	15	4.68

**Social participation**

The findings regarding social participation of respondents are presented in Table 4 according to the data, 15.63 percent of respondents were found to be office bearers in one or more organizations, compared to 11.56 percent of respondents who did not belong to any social or political organizations. However, 20.31 percent of respondents said they were

members of at least one organization, and 52.50percent of respondents said they were members of more than one organization.

**Table 4:** Distribution of respondents according to their social participation

S. No.	Category	Frequency	Percentage
1	No membership	37	11.56
2	Member of one organization	65	20.31
3	Member of more than one organizations	168	52.50
4	Office bearer in one or more organizations	50	15.63

**Farming experience**

The results relating the respondents farming experience are shown in Table 5 it indicates that 44.06 percent of the respondents had farming experience between 12 to 24 years, followed by 25.63 percent of them had between 24 to 36 years and 17.81 percent of the respondents were having farming experience up to 12 years. Only 12.5 percent of respondents, according to the data, had been in farming for more than 36 years.

**Table 5:** Distribution of respondents according to their farming experience

S. No.	Farming experience	Frequency	Percentage
1	Up to 12 years	57	17.81
2	12 to 24 years	141	44.06
3	24 to 36 years	82	25.63
4	Above 36 years	40	12.5

All of the respondents belonged to the farming community, and the majority of them started farming when they were young. As a consequence, the sole factor influencing the respondents' extent of farming experience, which was shown to be quite high in the study region, was their age.

**Occupation**

The respondents' occupation is their major source of earnings for supporting their way of life. People who work in more than one occupation in addition to agriculture are assumed to be more able to adapt to new agricultural methods and boost their output and income from existing farming practices Table 6 provides information about the occupations of the respondent's households.

**Table 6:** Distribution of respondents according to family occupation

S. No.	Category	Occupation					
		Main		Subsidiary		Overall Total	
		F	%	F	%	F	%
1	Agriculture	320	100	0	0	320	100
2	Agriculture +Agricultural labour	0	0.00	194	60.6	194	60.6
3	Agriculture +Animal Husbandry	0	0.00	70	21.86	70	21.86
4	Agriculture +Business	0	0.00	44	13.75	44	13.75
5	Agriculture +Non Agriculture labour	0	0.00	28	8.75	28	8.75
6	Agriculture + other	0	0.00	65	20.31	65	20.31

The findings shows that all the respondents were engaged in agriculture and among them 100 percent had agriculture as their main occupation. Agriculture labour was found as the

second most adopted occupation amongst the respondents (60.6%), but all of them were practicing it as subsidiary occupation., Animal husbandry, business and Non Agriculture labour were found as the subsidiary occupation of 21.86 percent, 13.75 percent and 8.75 percent of the respondents, respectively. No respondent were reported that non-agricultural labour, animal husbandry and business were their main occupation. While 20.31 percent, respondent engaged in deferent work as subsidiary occupation for their livelihood.

The findings clearly stated that majority of the respondents depends for their livelihood on agriculture followed by agricultural labour and animal husbandry may be because of selection of only farmers as respondent for this study. These findings are in line with findings of Patange *et al.* (2001) [7] who found that majority (70.62%) of the respondents had farming as main occupation and animal husbandry as their subsidiary occupation.

### Annual income

The majority of respondents primary source of income is agriculture, but because they don't keep such records, it is usually exceedingly challenging to calculate each person's average yearly family income. Through discussion and analysis from many perspectives, an effort was made to determine the respondents' annual family income. The information on the respondents' average annual income and total annual income by occupation is included in the Table 7.

**Table 7:** Average annual income earned from different occupations (Rs. /Annum)

S.No.	Source of income	Average income	percentage
1	Agriculture	209169.67	81.35
2	Agriculture labour	11192.26	4.36
3	Animal Husbandry	5914.30	2.30
4	Business	9502.2	3.70
5	Other	2753.50	1.08
6	Non-Agricultural labour	18560.20	7.21

The findings of Table 7 revealed that highest total income by all the respondents was earned from Agriculture, followed by nonagricultural labour, agricultural labour, business, Animal husbandry and other labour.

### Size of land holding

The data in Table 8 about land holdings showed that about 44.68 percent of the selected farmers had 2.1 to 4 ha of land, followed by 37.82 percent of the respondents had 4.1 to 10 ha of land holding, 13.75 percent had 1.1 to 2 ha of land holding, 2.19 percent had up to 1 ha of land holding, and only 1.56 percent of the respondents had above 10 ha of land.

**Table 8:** Distribution of respondents according to their land holding

S. No.	Land holding	Frequency	Percentage
1	Marginal (up to 1 ha)	7	2.19
2	Small (1.1 - 2 ha)	44	13.75
3	Semi Medium (2.1 - 4.0 ha)	143	44.68
4	Medium (4.1 - 10.0 ha)	121	37.82
5	Big (above 10 ha)	5	1.56

These findings are corroborated by Ven (2013) [10], who said that 31.7 percent of respondents owned 2 to 3 hectares of land. The majority of respondents were semi-medium farmers, as may be inferred from the findings. This could be

due to the fact that parents usually participate in domestic affairs and pass ownership to their offspring, which might further promote the fragmentation of property.

### Credit acquisition

The findings regarding credit acquisition are compiled in the Table 9 it is clear from the data that majority (95.0%) of respondents acquired credit and remaining 5.00 percent respondents were not acquired credit. Verma (2009) also found that majority (75%) of respondents acquired credit. Out of total credit acquiring respondents, majority of them (71.71%) were taken credit from cooperative society, 25.00 percent respondents acquired credit from friend/relatives and only 3.29 percent respondents obtained credit from nationalized banks. Further information revealed that 89.47 percent of respondents selected short-term credit, followed by 7.24 percent who chose medium-term credit, and only 3.29 percent who chose long-term credit.

**Table 9:** Distribution of respondents according to their credit acquisition (Rs.)

S. No.	Particulars	Frequency	Percentage
A	Acquired	304	95.00
B	Not acquired	16	5.00
	Total	320	100
A1	<b>Source</b>		
	Nationalized Bank	10	3.29
	Cooperative Society (with KCC)	218	71.71
	Friends/Relatives	76	25.00
	Total	304	100
A2	<b>Duration of credit</b>		
	Short term	272	89.47
	Medium Term	22	7.24
	Long term	10	3.29
	Total	304	100
A3	<b>Type of credit</b>		
	Cash	275	90.46
	Commodity	29	9.54
	Total	304	100
A4	<b>Purpose of credit</b>		
	Agriculture purpose	283	93.09
	Domestic purpose	21	6.91
	Total	304	100

The majority of respondents (90.46%) that taken up credit in cash, though 9.54 percent received credit in kind, only 6.91 percent of respondents who had obtained credit had accomplished so for domestic purposes, compared to 93.09 percent of all credit-acquiring by respondents for agriculture purpose.

### Conclusions

In this study it was concluded that that majority of respondents falls under age group of middle age, belonged to other backward class, educated up to high school, Most of the respondents were having medium size of family and had having membership in more than one organization. All the respondents were doing agriculture as main occupation, however majority of them were also engaged in animal husbandry and non-agricultural labour as subsidiary occupations to support their livelihood with having land holding of semi medium category (2.1 to 4.0 ha) and having land ownership by male and few joint ownership. All soil types were found in study area but the area of Kanhar soil was

maximum amongst the respondents and annual family income was up to ₹ 200000. Majority of respondents acquired credit from cooperative societies for purchasing the agricultural inputs with acquiring short term credit.

## Reference

1. Farid KS, Tanny NZ, Sarma PK. Factors affecting adoption of improved farm practices by the farmers of northern Bangladesh. *Journal of Bangladesh University*. 2015;13(2):291-298.
2. Kumar D, Sharma KD, Jadoun YS, Bhadauria P. A study on the extension of adoption of sprinkler irrigation system by the farmers in Jhunjhunu district of Rajasthan. *Agricultural Science Digest*. 2014;32(1):33-37
3. Lakra PK, Chaturvedi MK, Yadaw KN, Verma LR. Socio economic status of hybrid rice growers in surguja district of chhattisgarh. *Journal of Plant Development Sciences*. 2012;4(4):511-516.
4. Narbaria S. Study on adoption of system of rice intensification (SRI) technology among farmers of Dhamtari district (C.G.). M.Sc. Thesis, Indira Gandhi Krishi Vishwavidyalaya, Raipur. c2013, p. 57.
5. Onumadu FN, Osahon EE. Socio-Economic Determinants of Adoption of Improved Rice Technology by Farmers in Ayamelum Local Government Area of Anambra State, Nigeria. *International journal of scientific & technology research*. 2014;3(1):212-215.
6. Pradhan SK. Study on biotic factors affecting the Productivity of scented rice varieties amongst the Tribal farmers of Jashpur district (Chhattisgarh). M.Sc. (Ag.) Thesis, Indira Gandhi Krishi Vishwavidyalaya, Raipur; c2014. p. 43-46.
7. Patange DD, Wangkar SD, Kulkarni AN, Kalyankar. Effect of socioeconomic variables on milk production of Marathwad Buffalo. *Maharashtra Journal of Extension Education*. 2001;20:92-96.
8. Painkra VK. Assessment of technological gap among tribal farmers of Jaspur, district (Chhattisgarh). M.Sc. (Ag) Thesis, Indira Gandhi Krishi Vishwavidyalaya, Raipur; c2014. p. 49-50.
9. Rathod MK, Damodhar P. Impact of MAVIM activities on empowerment of rural women. *Indian Journal of Extension Education*. 2015;15(1):8-11.
10. Ven DBJ. Socio-economic factors affecting adoption of improved agricultural practices by small scale farmers in South Africa. *African Journal of Agricultural Research*. 2013;8(35):4490-4500.
11. Verma SK. A study on knowledge and adoption of organic farming practices in paddy cultivation among the tribal farmers of Kanker; c2009.