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Socio economic profile of the farmers of Balrampur district of Chhattisgarh state

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Abstract
A study on adoption of recommended maize production technology among the farmer of Balrampur-ramanujganj district (C. G.) was out during 2016-17. By following the simple random sampling. 120 respondent were selected from 6 village of Balrampur block. The data was elicited through personal interview method. The findings of this study reveals that the majority of the respondents were found in middle age group having Illiterate level of education belonged to other back word(OBC), had joint family and more than five member in family with no membership in any organization. Majority of respondents had Agriculture as their main occupation and most of the respondents belonged to the income category of Rs. 1,00,000-1.50,000, and had small size (2.51 to 5.00 acre) of land holding. Maximum numbers of respondents were having medium level of economic motivation and innovativeness. Majority of the respondents were having low level of extension contact and medium level of information source.

Keywords: education, innovativeness, mass media exposer, adoption of recommended maize production technology

Introduction
Maize is grown throughout the year in India, but mainly as kharif crop with 85 per cent of the area under cultivation in the season. India contributes merely about 2.5 per cent in world maize production. Karnataka, Rajasthan, Andhra Pradesh, Maharashtra, and Uttar Pradesh are the major maize producing states; together contribute 60 per cent of area and 70 per cent of maize production in India. Agriculture is an important factor for sustainable development and poverty reduction in many developing countries (Ouma and Groote, 2011) [7]. It is one of the most important sectors that can promote growth, reduce poverty and increase food security. Seventy percent of the poor in developing countries live in rural areas, and 80% of them practice agriculture as a livelihood (Smale, and Jayne, 2011) [9]. Therefore, rural and agricultural development remain an imperative condition for sustainable development and poverty reduction.

In Chhattisgarh the total area under maize cultivation is about 221.49 thousand ha. in kharif season and 66.64 thousand ha. in Rabi season. And the production of maize is about 148.80 T. with productivity 1905 kg/ha. (Agri. Directorate of Chhattisgarh). In Balrampur district the total area under the maize cultivation is about 33.77 thousand ha. And production of maize is about 70.35 MT with the productivity 2286 kg/ha. (Ag. Dept. Report 2014 Ambikapur, Govt. of Chhattisgarh).

Materials and Method
Balrampur-ramanujganj district of Chhattisgarh state was selected purposively, as this districts rank second in area and production of maize crop. There are 6 block in the district. Out of which one block i.e. Balrampur was selected purposively on the basis of maximum area under maize crop. The villages having maximum area under maize cultivation were listed in descending order in consultation with the department of agriculture. From the list, six villages having maximum area under the crop were selected block. From each selected village, 20 farmer were selected by simple random sampling method. Thus the sample for study constituted of 120 respondents from the selected villages of the block.

Operationalization of socio economic variables and their measurement.

Age

The age of the respondents was considered as informed by them during personal interview was conducted. The chronological age of the respondents was considered for analysis. The age was categorized as young (up to 35 years), middle (36 to 55 years) and old (above 55 years), by given score 1, 2 and 3 respectively.

Cast

The caste of respondents was categorized as general, other backward cast, schedule cast, and schedule tribes by given score 1, 2, 3 and 4 respectively.

Education

The informal and formal schools of the respondents were considered as their education status and it was categorized as Illiterate, Primary school, Middle school, High school, Higher Secondary, Graduate and above, by given score 1, 2, 3, 4, 5 and 6 respectively.

Occupation

Occupation is defined as the source of income of an individual respondent and it was categorized into 2 group (agriculture and agriculture + subsdiary), given score 1 and 2 respectively.

Type of family

Total number of dependents living with respondents family was considered as type of family of the respondents.it was the categorized as joint and nuclear family, by given score 1 and 2 respectively.

Land holding

It is operationally defined as the total acres/ha of land possessed by an individual respondent at the time of investigation. The respondents were categorized into marginal farmer (<2.5 acre), small farmer (2.51 to 5 acre) and big farmer (>5 acre), by given score 1, 2 and 3 respectively.

Annual income

In this study, total annual income from all the available sources of the respondents and was categorized as Low (50000-100000), Medium (100000-1.50000) and High (1.50000-200000), by given score 1, 2 and 3 respectively.

Economic motivation

Economic motivation refers "to the extent of which an individual is instigated towards achievement of maximum economic profit through his own farm". Further, the respondents were divided into three categories in termes of economic motivation by applying following formula: E. M. I. = Mean ± S.D. (Standard Deviation)

Categories	Score
Low level of economic motivation (< Mean - S.D.)	up to 17
Medium level of economic motivation (in between Mean ± S.D.)	18 to27
High level of economic motivation (>Mean+ S.D.)	more than 28

Innovativeness

It is operationally defined as the degree to which users promptly take decision to accept a new idea, practice or technology introduced in a social system. Information was collected on three-point continuum namely "agree", "undecided", "disagree", by given score3", „2" and „1", for positive statements 1, 2, for negative statement respectively. On the basis the respondents were categorized as follows:

Categories	Score
Low (up to 21)	1
Medium (22-32)	2
High (above 32)	3

Extension contacts

This is operationally defined as the "frequency with which a respondent comes in contact with extension agents i.e. RAEO"s, ADO"s, SADO "s, Subject matter specialist (SMS) and Agricultural scientist within a specific period of time". The extent of contact was measured into three categories viz., never, Sometime or always in a year, once in a month and weekly with a score 0, 1, 2 and 3 respectively.

The respondents were grouped in to three categories by using following formula: E. C. I. = Mean ±S.D. (Standard Deviation)

Categories	Score
Low level of extension contact (< Mean- S.D.)	up to 17
Medium level of extension contact (in between Mean ± S.D.)	18 to27
High level of economic motivation (>Mean + S.D.)	more than 28

Sources of information

A set of 13 information sources were identified including personal, group and mass media and each source was given equal weightage and categories were made according to the use of information sources:

The respondents were divided in to three categories for use of information sources by using following formula: S.I.I = Mean ±S.D. (Standard Deviation)

Categories	Score
Low level of use of information sources (<Mean- S.D.)	up to 3
Medium level of use of information sources (in between Mean±S.D.)	4 to 7
High level of use of information sources (>Mean+ S.D.)	8and above

Categories	Score
Nil	1
Low (1-3 sources)	2
Medium (4-6 sources)	3
High (more than 6 sources)	4

Social participation

The term social participation in this study refers to the degree of involvement of the respondents in formal/ informal organization as a member of executive/office bearer or both. A social participation score was computed for each respondent on the basis of his membership and position in various formal/ informal organizations and categorized into following subheads:

Sl. No.	Category	Score range
1	Membership in one organization	1
2	Membership in more than one organization	2
3	No membership in any organization	3

Result and Discussion

1. Socio-personal characteristics of the respondents

Age, education, category, type of family, and social participation were considered as socio-personal characteristics of the respondents.

Age

Age was considered as a factor, since it reveals the ability of an individual to take positive decisions for achieving his needs and it influences the farmer to choose and to adopt a particular technology.

Table 4.1: Age wise distribution of the Respondents

S. N.	Categories	Frequency	Percentage
1.	Young (up to 35)	13	10.83
2.	Middle (36-55)	54	45.00
3.	Old (above 55)	53	44.17
	Total	120	100.00

It is observed from the table that the majority of the respondents (45.00%) were belonged to middle age group (36 to 55 year), 10.83 per cent respondents were under young age group (up to 35 year) and 44.17 per cent respondents were of old age group (more than 55 year).

The probable reason might be that, usually farmers of middle age are enthusiastic and having moderate experience in farming and have more work efficiency than younger and older ones. Further, middle aged farmers possess more physical vigour and more family responsibilities than younger ones. Saxena, K.K. And kushwah, T.S. 2004.) [8].

Caste

As regarded to category, maximum number of the respondents (70.55%) belonging to other backward cast (OBC), followed by 13.33 per cent were under other Schedule tribes (ST), 10.00 per cent respondents were from general caste and only 4.17 per cent respondents belonged to schedule caste.

Table 4.2: Caste wise distribution of the Respondents:

S. N.	Categories	Frequency	percentage
1.	general	12	10.00
2.	OBC	87	72.50
3.	SC	5	4.17
4.	ST	16	13.33
	Total	120	100.00

Education

Education is the process of bringing about desirable changes in the behavior of an individual. Educational status of an individual is considered as one of the major influencing factors for knowledge gain and adoption.

Table 4.3: Education wise distribution of the Respondents

S. N.	Categories	Frequency	Percentage
1.	Illiterate	30	25.00
2.	Primary school	12	10.00
3.	Middle	23	19.17
4.	High school	13	10.84
5.	Intermediate	19	15.83
6.	Graduate	16	13.33
7.	Above	7	5.83
	Total	120	100.00

When we discuss the data in table 4.1 the level of education of the respondents, it was found that 25.00 per cent of the respondents were illiterate. Followed by 19.17 per cent respondents were found under the category of middle school level where as 15.83 per cent respondents were intermediate level. 13.33 per cent of the respondents were graduate level. 10.83 per cent respondents were high school level. 10.00 per cent respondents were primary school level and only 5.83 per cent respondents had education up to above. These findings are supported by the findings of Chidananda (2008) [4].

Type of family

Family of the respondent also an important factor that contributed to adopt new technology.

Table 4.4: Family type wise distribution of the Respondents:

S.N.	Categories	Frequency	Percentage
1.	Joint	62	51.67
2.	Nuclear	58	48.33
	Total	120	100.00

Maximum 51.67 per cent respondents belong to joint family and rest 48.33 per cent are belong to nuclear family.

Social participation

The term social participation in this study refers to the degree of involvement of the respondents in formal/ informal organization as a member of executive/office bearer or both.

Table 4.6: Social participation wise distribution of respondents

S.N.	Categories	Frequency	Percentage
1.	Participation in one organization	36	30.00
2.	Participation in more organization	23	19.17
3.	No membership	61	50.83
	Total	120	100.00

Social participation gives an idea about the respond ents participation in social activities. As regard to social participation, maximum number of respondents 50.83 per cent had no membership in any organization followed by 30.00 per cent of respondents had membership in one organization. There were 19.17 per cent respondents who were having his membership in more than one organization. The findings of the study are in consonance with Vijay kumar (2000) and Sandesh (2004).

2. Socio-economic characteristics of the respondents.

Occupation, annual income, land holding and were considered as socio-economic characteristics of the respondents.

Occupation
Occupational status is conceptualized by any activity in which a person was regularly engaged to achieve standardized award utilization.

Table 4.7: Occupation wise distribution of the Respondents:

S. N.	Categories	Frequency	Percentage
1.	Agriculture	72	60.00
2.	Agriculture+ Subsidiary	48	40.00
	Total	120	100.00

Regarding the distribution of occupation, it is observed from table 4.7 that maximum respondents (60.00%) were involved in Agriculture, and only 40.00 per cent were engaged in agriculture + Subsidiary (cast occupation / business / service).

1. Annual income
Income is an important factor which makes the farmers amenable to adopt any scientific technology, which can be considered as result of farm telecast viewing. With a right kind of income generated through farming or other enterprise promotes confidence in farmer to try out the innovations and practices. Therefore in was considered as a factor.

Table 4.8: Annual income wise distribution of the Respondents:

S. N.	categories	Frequency	Percentage
1.	Low(50000-100000)	39	32.50
2.	Middle(100000-1.50000)	50	41.67
3.	High(more than 500000)	31	25.83
	Tota	120	100.00

It was found that 41.67 per cent respondents were having their annual income between Rs. 1,00,000-1.50,000, followed by 32.50 per cent of respondents had their annual income between Rs. 50,000-1,00.000, and only 25.83 per cent respondents had annual income more than 5,00,000. The result clearly indicated that maximum number of the respondents belonged to Rs.1,00,000-1.50000 annual income group (fig. 4.8). These findings are supported by the findings of Babanna (2001) [3].

2. Land holding
Land holding of the respondents is directly proportional to the type of farmer category, which is a marginal, small and big farmer.

Table 4.9: Land holding wise distribution of the Respondents:

S. N.	Categories	Frequency	percentage
1.	Marginal farmer(<2.5 acre)	52	43.33
2.	Small Farmer(2.51-5.00 acre)	66	55.00
3.	Big farmer (>25.00 acre)	2	1.67
	Total	120	100.00

Table 4.9 indicates that the maximum number of the respondents (55.00%) had small size of land holding (2.51 to 5.00 acre), followed by 43.33 per cent belonged under marginal category (<2.5 acre), however only 1.67 per cent respondents had large size of land holding (>25.00 acre). This trend is in line with the findings of Vathsala (2005) [10].

3. Psychological characteristics of the respondents.
Economic motivation and innovativeness were consider as a psychological characteristics of the respondents

Economic motivation

Table 4.11: Distribution of respondents according to their economic motivation:

S.N.	Statements	Agree		Undecided		Disagree	
		F	%	F	%	F	%
1.	Effort should be made for more production and income.	73	60.83	31	25.83	16	13.333
2.	A best successful farmer is who earn maximum profit.	57	47.50	63	52.50	0	0.000
3.	The farmer should grow cash crop than cereal crop for economic profit.	97	80.83	23	19.17	0	0.000
4.	To farmer the important thing earn cannot be defined in the form of wealth.	83	69.17	37	30.83	0	0.000
5.	A farmer should make efforts for new information so that he may get more income.	103	85.83	17	14.17	0	0.000

Table 4.12: Distribution of respondents according to their economic motivation

S.N.	Categories	Frequency	Percentage
1.	Low level of economic motivation (9-17 score)	23	19.17
2.	Medium level of economic motivation (18-27 score)	72	60.00
3.	High level of economic motivation (above to 27 score)	25	20.83
	Total	120	100.00

The table 4.12 shows that the distribution of the respondents according to their economic motivation, it was found that 60.00 per cent respondents had medium level of economic motivation, while 20.83 per cent and 19.17 per cent respondents had high and low level of economic motivation respectively.

1. Innovativeness
It is operationally defined as the degree to which users promptly take decision to accept a new idea, practice or technology introduced in a social system.

Table 4.13: Distribution of respondents according to their innovativeness

S.N.	Categories	Frequency	Percentage
1.	Low level of innovativeness (11-21 score)	19	15.83
2.	Medium level of innovativeness (22-32 score)	81	67.5
3.	High level of innovativeness (above 33 score)	20	16.67
	Total	120	100.00

The result shows in table 4.13 that 67.50 per cent respondents had medium level, 16.67 per cent had high innovativeness and 15.83 per cent respondents had low level innovativeness towards new maize production technology. These results are in line with the results of Nagesha (2005) [6].

Communicational characteristics of the respondents: extension contact and source of information were consider as communication characteristics of the respondents.

Extension contact

This is operationally defined as the "frequency with which a respondent comes in contact with extension agents i.e. RAEO"s, ADO"s, SADO "s, Subject matter specialist (SMS) and Agricultural scientist within a specific period of time". The extent of contact was measured into three categories viz., never, Sometime or always in a year, once in a month and weekly with a score 0, 1, 2 and 3 respectively.

Table 4.15: Extension contact wise distribution of the respondents:

S.N.	Categories	Frequency	percentage
1.	Low (up to 17)	66	55.00
2.	Middle(18-27)	43	35.83
3.	High (above 28)	11	9.17
	Total	120	100.00

The result of table 4.15 indicates that the maximum number of respondents (55.00%) had low level of extension contact, followed by 35.83 per cent respondents had medium level of extension contact and only 9.13 per cent respondents had high level of extension contact. The results are in consonance with findings of Kishor babu (2004) reported that majority of the farmers had low contact with extension agency.

Source of Information

A set of 13 information sources were identified including personal, group and mass media and each source was given equal weightage and categories were made according to the use of information sources.

Table 4.17: Distribution of respondents according to overall utilization of source information

S.N.	Level of utilization of information Sources	Frequency	Percentage
1.	Low(0-3)	31	25.83
2.	Medium(4-7)	71	59.17
3.	High(above to 8)	18	15.00
	Total	120	100.00

The findings of table 4.17 indicates that the majority of the respondents (59.17%) had medium level utilization of information sources, followed by 25.83 per cent respondents had low level of utilization of information sources, while only 15.00 per cent respondents had high level of utilization of information sources

Conclusion

It is concluded from the study that most of the farmer of the Balrampur-ramanujganj district were in middle age category, most of the farmer belong to other backward cast (OBC), maximum farmers are illiterate, least social participation with respect to their socio economic condition, psychological characteristics and communicational characteristics. Thus, there is an urgent need to increase the socio economic profile of maize growers, through proper utilization of source of information, extension contact, exhibition, kisan-mela and training programs in different aspects.

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