Socio-Economic Profile of Sugarcane Growers in Lakhimpur Kheri District of Uttar Pradesh

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***Abstract*—This paper presents an analysis of the socio-economic profile of sugarcane growers in Lakhimpur Kheri district of Uttar Pradesh. A total of 200 farmers were surveyed and categorized into marginal, small, medium, and large farm holders. The study examines demographic, educational, occupational, and income characteristics to understand how these factors influence sugarcane cultivation. The findings reveal that most growers are adults, belong to the Other Backward Classes and primarily depend on agriculture as their main occupation. The study concludes that socio-economic status plays a crucial role in determining productivity and access to agricultural resources.**

***Index Terms*—Socio economic profile, Sugarcane, Marginal, Small, Medium, Large.**

I. INTRODUCTION

Sugarcane (Saccharum officinarum L.) is one of the most important commercial crops in India and plays a vital role in the country's agricultural economy. India is the second-largest producer of sugarcane in the world after Brazil, contributing around 20% of the global sugar production. In India, it is grown over an area of 5.17 million hectares with total production of about 439.43 million tonnes and productivity 84.91 ton/ha. (Directorate of Economics and Statistics, Department of Agriculture and Cooperation). Uttar Pradesh(224.25 million tonne) is the largest production under sugarcane production in the country fallowed by Maharashtra(123.97 million tonne), Karnataka(59.35 million tonne), Tamilnadu(14.41 million tonne) and Gujarat (13.36 million tonne) these five states share the most important sugarcane producing states. The crop serves as a raw material for sugar, jaggery, ethanol, and various by-products, thus significantly influencing the rural economy and employment. In U.P 125 Mills in operating condition and crushed about 1098.82 lakh tonnes sugarcane till 2022-23 and sugar production is around 104.82 lakh tonnes. The sugar recovery from sugarcane in 2022-23 was 9.54 -11.50 percent. (Source- Department of cane and sugar industries, 2022-23). In Lakhimpur kheri district, sugarcane is grown in 300345 hectare with a production 20476624 tonnes while productivity 856.44 quintal/ha. (Statistic Bulletin, District Lakhimpur Kheri, 2023). Socio-economic factors such as age, education, family type, income, and landholding size significantly affect farmers' production efficiency and adoption of improved agricultural practices. This study aims to analyze the socio-economic characteristics of sugarcane growers in Lakhimpur Kheri district to understand their impact on the overall sugarcane economy.

II. MATERIALS AND METHODS

The study was conducted in district Lakhimpur Kheri of U.P. was selected purposively as were the major producer of sugarcane. Out of fifteen, two blocks namely Mitauli and Kumbhi were selected purposively on the basis of highest area under the sugarcane crop production. Two villages from each block were selected randomly. A total of 200

sugarcane farmers were selected randomly from the village. The data were collected using a structured interview schedule. The primary market for sugarcane at village level and secondary market for sugarcane at block and district level in Lakhimpur Kheri district was selected. The different processing unit of sugarcane existing in the study area, two small processing units and one processing unit was selected for the study of different processing of sugarcane products and by-products marketing margins and price spread in the marketing of sugarcane.

A total of 200 sugarcane growers were selected and classified into four categories: Marginal farmers: less than 1 ha, Small farmers: 1–2 ha, Medium farmers: 2–4 ha, Large farmers: more than 4 ha. Data were collected through structured interviews using a pre-tested questionnaire. Descriptive statistics such as percentage and averages were used to analyze the data.

III. RESULTS AND DISCUSSION

Table-1 indicates that the majority (51%) of sugarcane growers were adults (31–60 years), followed by young farmers (38%) and old farmers (11%). This indicates that middle-aged individuals are more actively engaged in sugarcane farming due to their experience and physical ability to manage agricultural activities.

Table-1 Distribution of the respondents on the basis of age (n=200)

S.N.	Age level	Marginal n = 97	%	Small n= 59	%	Medium n=38	%	Large n= 6	%	Total n=200	%
1	Young (18-30 years)	40	41.24	22	37.29	13	34.21	1	16.67	76	38
2	Adult (31-60 years)	48	49.48	32	54.24	19	50.00	3	50.00	102	51
4	Old (above 60 year)	9	9.28	5	8.47	6	15.79	2	33.33	22	11
	Total	97	100	59	100	38	100	6	100	200	100

Education plays an essential role in the adoption of modern agricultural techniques. The study shown in Table-2 represents that 20.5% of farmers had completed intermediate education, while 18% were graduates and 15.5% had studied up to junior high school. Only 10% were illiterate. This indicates a moderate literacy level among farmers, which can influence technology adoption.

Table-2 Education level of sugarcane growers (n=200)

S.N	Education level	Marginal n= 97	%	Small n= 59	%	Medium n=38	%	Large n= 6	%	Total n=200	%
1	Illiterate	8	8.25	8	13.56	3	7.89	1	16.67	20	10.00
3	Up to primary	13	13.40	6	10.17	5	13.16	0	0.00	24	12.00
4	Up to junior high school	14	14.43	9	15.25	7	18.42	1	16.67	31	15.50
5	Up to high school	18	18.56	6	10.17	5	13.16	1	16.67	30	15.00
6	Intermediate	21	21.65	16	27.12	4	10.53	0	0.00	41	20.50
7	Graduate	17	17.53	9	15.25	8	21.05	2	33.33	36	18.00
8	Post graduate and above	6	6.19	5	8.47	6	15.79	1	16.67	18	9.00
	Total	97	100	59	100	38	100	6	100	200	100

Agriculture was found to be the primary occupation for 70.5% of respondents, while 17% combined agriculture with agribusiness and 12.5% were engaged in agriculture along with agribusiness and service. This diversification suggests a gradual shift toward mixed income sources.

Table-3 Occupation of the sugarcane growers (n=200)

S.N.	Occupation level	Marginal n = 97	%	Small n= 59	%	Medium n=38	%	Large n= 6	%	Total n=200	%
1	Agriculture	77	79.38	42	71.19	19	50.00	3	50.00	141	70.50
2	Agriculture+Agribusiness	11	11.34	10	16.95	11	28.95	2	33.33	34	17.00
3	Agriculture+Agribusiness+ service	9	9.28	7	11.86	8	21.05	1	16.67	25	12.50
	Total	97	100	59	100	38	100	6	100	200	100

Agriculture was found to be the primary occupation for 70.5% of respondents, while 17% combined agriculture with agribusiness and 12.5% were engaged in agriculture along with agribusiness and service. This diversification suggests a gradual shift toward mixed income sources.

Table-4 Social class composition of the sugarcane growers (n=200)

S.N.	Caste category	Marginal n = 97	%	Small n=59	%	Medium n=38	%	Large n=6	%	Total n=200	%
1	General caste(GN)	17	17.53	5	8.47	4	10.53	3	50.00	29	14.50
2	Backward caste(OBC)	52	53.61	39	66.10	21	55.26	2	33.33	114	57.00
3	Scheduled caste(SC)	28	28.87	15	25.42	13	34.21	1	16.67	57	28.50
	Total	97	100	59	100	38	100	6	100	200	100

The study revealed that 57% of sugarcane growers belonged to the Other Backward Classes, followed by 28.5% from Scheduled Castes and 14.5% from the General category. This shows that sugarcane cultivation is a major occupation among the Other Backward Classes population in the district.

Table-5 Annual income of sugarcane growers (n=200)

S. N.	Annual income	Marginal N = 97	%	Small N= 59	%	Medium N=38	%	Large N= 6	%	Total N=200	%
1	Lower income (up to Rs. 50000)	53	54.64	13	22.034	9	23.68	0	0.00	75	37.5
2	Medium income (Rs. 50001- 200000)	30	30.93	25	42.373	11	28.95	1	16.67	67	33.5
3	Higher income (Rs. Above 200000)	14	14.43	21	35.593	18	47.37	5	83.33	58	29
	Total	97	100	59	100	38	100	6	100	200	100

Income distribution shows that 37.5% of farmers fell under the lower income group (up to ₹50,000), 33.5% in the medium income group (₹50,001–₹2,00,000), and 29% in the higher income group (above ₹2,00,000). Most large and medium farmers belonged to the higher income group, while marginal farmers were largely in the low-income category.

Table-6 Family type of sugarcane growers (n=200)

S.N.	Particulars	Marginal N = 97	%	Small N= 59	%	Medium N=38	%	Large N= 6	%	Total N=200	%
1	Nuclear family	71	73.20	43	72.88	29	76.32	3	50.00	146	73.00
2	Joint family	26	26.80	16	27.12	9	23.68	3	50.00	54	27.00
	Total	97	100	59	100	38	100	6	100	200	100

A majority (73%) of respondents lived in nuclear families, while 27% were part of joint families. The predominance of nuclear families suggests a trend toward smaller household sizes in rural areas, which may affect labor availability for farm work.

Table-7 Average size of holding under different size group of sample farms (n=200)

Size of sample farms	No. of respondents	%	Total area	%	Average size
Marginal	97	48.5	65.92	23.44	0.68
Small	59	29.5	77.4	27.53	1.32
Medium	38	19	106.26	37.79	2.8
Large	6	3	31.6	11.24	5.27
Total	200	100	281.18	100.00	

The average landholding size varied from 0.68 ha for marginal farmers to 5.27 ha for large farmers. Medium farms had an average size of 2.8 ha. This indicates that the majority of the farmers in the study area belong to the small and marginal categories.

IV. SUMMARY & CONCLUSION

The majority of sugarcane growers are middle-aged and have moderate educational attainment, Agriculture remains the dominant occupation, though diversification is slowly emerging, OBC farmers constitute the largest proportion of sugarcane growers, Most families are nuclear, indicating modernization in social structure,The majority of farms are small and marginal, leading to economic constraints in production, Income levels are directly related to farm size and educational background.

The socio-economic characteristics of sugarcane growers in Lakhimpur Kheri district highlight significant disparities in landholding, income, and education. Marginal and small farmers face resource constraints that affect their productivity and profitability. Strengthening educational programs, improving access to credit, and promoting cooperative marketing systems can enhance the socio-economic conditions of sugarcane growers. Policymakers should focus on inclusive agricultural development to ensure equitable growth across farm categories.

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