



Sugarcane Growers' Socio-economic and Psychological Attributes in the Balrampur Area of Uttar Pradesh, India

Alimul Islam ^{a*} and Dipak Kumar Bose ^{aω#}

^a Department of Agricultural Extension and Communication, SHUATS, Prayagraj, India.

Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JSRR/2022/v28i130483

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/81804>

Original Research Article

Received 02 November 2021
Accepted 05 January 2022
Published 10 January 2022

ABSTRACT

Sugarcane is cultivated mainly for its juice from which sugar, jaggery, and sugar palm are processed. Most of the world's sugarcane is grown in subtropical and tropical regions. Sugarcane is an established source of sugar and the current benchmark for efficient bio fuel production is the first generation feedstock. The present study was conducted to measure the socioeconomic and psychological characteristics of sugarcane growers in the Balrampur district, which was purposively selected. The study was conducted in 24 selected villages in Tulsipur tehsil of the Balrampur district of Uttar Pradesh. The samples consisted of 316 respondents who were selected through the proportional random sampling method. The respondents were personally interviewed during February to May 2020. Data was collected through a pre-structured and pre-tested interview schedule and the study on socio-economic characteristics showed that most of the respondents (51.58%) were middle-aged. Respondents were illiterate (62.78%), they took up agricultural farming as their primary occupation and had operational land up to 1 hectare with an income level was medium level of Rs.750000/- It was also revealed that most of the respondents sometimes took part in social participation. whereas (67.08%) had medium-level participation in sugarcane grower extension programs, while 33.86 and 44.30 per cent of them had medium and low levels of innovation respectively. (58.86%) of the respondents had moderate cosmopolitnness. Respondents

[≡] Research Scholar;

[°] Associate Professor;

[#] Dr.;

*Corresponding author: E-mail: alikhhan9695@gmail.com;

try to get more information and try new ideas and techniques within their budget and limits as well as farmers who are prone to innovations try to collect information about new technology from different aspects, they want to learn new farming methods, improve production and technologies and adopt those technologies at a faster rate with maximum accuracy.

Keywords: Sugarcane; socio- economic; attributes; growers; psychological.

1. INTRODUCTION

The cultivation of sugarcane in India dates back to the Vedic period. The earliest mention of sugarcane cultivation is found in Indian writings of the period 1400 to 1000 B.C. It is now widely accepted that India is the original home of *Saccharum* species. *Saccharin barberi* and Polynesian group of the island especially New Guinea is the center of origin of *S. officinarum*. It belongs to the family Gramineae (Poaceae), class monocotyledons, and order glumaceae sub-family panicoidae, tribe Andriopogoneae, and sub tribe saccharininea. The cultivated canes belong to two main groups: (a) thin, hardy North Indian types *S.barberi* and *S.Sinense* and (b) thick, juicy noble canes *Saccharum officinarum*. A highly prized cane is *S. officinarum*. As per official record (**Farmers portal government of India**).

Sugarcane (*Saccharum officinarum*) family Gramineae (Poaceae) is a widely grown crop in India. It helps in providing employment to several people, directly or indirectly, apart from making a significant contribution to the national exchequer. The sugarcane-producing countries of the world extending from tropical to sub-tropical regions between latitudes 36.7°N and 31.0°S of the equator. (**Farmers portal government of India**). Sugarcane originated in New Guinea where it has been known for thousands of years. Sugarcane plants are cultivated in Asia and the Indian subcontinent through human migration. Here, in India, it cross-breeds with some of the wild sugarcane varieties we know today.

Sugarcane is considered one of the main and most eco-friendly crops of Indian agriculture. Sugarcane is the most prominent sector of the economy of Balrampur district, as more than 50 percent of Balrampur's population is engaged in agriculture and allied activities for their livelihood. (**Annual Report Sugarcane - 2012-13**) The policy and objective of the government are to ensure stability in agricultural production and increase agricultural production to meet the

food requirement of the growing population and meet the raw material needs of agro-based industries, thereby providing employment opportunities to the rural population.

2. RESEARCH METHODOLOGY

Balrampur district is one of the cities in the Indian state of Uttar Pradesh, a district adjacent to the country of Nepal and is a part of the Devipatan division as well as the historical Awadh Regions. (**Portal of Balrampur district of Uttar Pradesh**). Sugarcane occupies a prominent position in the area, production and productivity of important crops grown mainly in Balrampur district. This study was done to find out the socio-economic status and psychological attributes of the farmers because there are large number of sugarcane farmers. Balrampur district is divided into nine blocks, out of which 2 blocks were randomly selected for the study. A total of 316 respondents were selected from twenty-four villages selected using the proportionate random sampling technique. The study attempted to understand the socio-economic status and psychological attributes of the respondents such as age, educational status, occupational status, type of family, area of land holding, annual income, experience in sugarcane cultivation, social participation, extension agency linkage. Mass media exposure, decision making ability, information sharing behavior, risk orientation were considered for the present study. Although there are several psychological attributes are prevailing in the study area but the study area covered only major one i.e. Level of innovativeness, level of scientific orientation and cosmopolitness for the present study. Percentage analysis and cumulative frequency method were used to analyze and interpret the data.

3. RESULTS AND DISCUSSIONS

Presents the findings of the study, as well as related analysis and discussion, in light of the study's objectives-

Table 1. Age wise distribution of the respondents N=316

S.No.	Categories	Frequency	Percentage
A.	Age		
1.	Young (Up to 35)	69	21.84
2.	Middle (36 to 55)	163	51.58
3.	Old (Above 55)	84	26.58
B.	Education		
1.	Illiterate	74	23.42
2.	literate (Can read and write)	23	7.28
3.	Primary	49	15.51
4.	Junior High School	53	16.77
5.	High School	55	17.40
6.	Intermediate	43	13.61
7.	Graduate and above	19	6.01
C.	Occupation		
1.	Agriculture	145	45.85
2.	Agriculture + Animal husbandry	120	37.93
3.	Agriculture+ Fisheries	28	8.85
4.	Agriculture + Poultry	23	7.27
D.	Annual income		
1.	Low(up to Rs. 75,000)	146	46.20
2.	Medium (Rs. 75,001 to 1,50,000)	108	34.17
3.	Large (above Rs. 1,50,000)	62	19.62
E.	Land holding		
1.	Up to 1 ha. (Marginal)	160	50.63
2.	1 – 2 ha.(Small)	112	35.44
3.	Large (Above 2 ha.)	44	13.93

Particulars	Social participation					
	Regular		Occasional		Never	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1. Cooperative Society	117	37.04	129	40.82	70	22.15
2. Village Panchayat	101	31.96	195	61.70	20	6.32
3. Social	107	33.86	165	52.21	44	13.92

4.	Organization Cultural	26	8.22	110	34.81	180	56.96
5.	Organization Religious	86	27.21	61	19.30	169	53.48
6.	Organization Educational	90	28.48	173	54.74	53	16.77

Extension contacts		Contacts					
		Regular		Occasional		Never	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1.	Village Development Officer	139	43.98	129	40.82	48	15.18
2.	Additional Development Officer	71	22.46	154	48.73	91	28.79
3.	Block Development Officer	36	11.39	164	51.89	116	36.70
4.	Subject Matter Specialists	109	34.49	119	37.65	90	28.48
5.	District Agriculture Officer	41	12.97	168	53.16	107	33.86

The table shows that majority of the respondents (51.58%) were in middle age group. The older age group followed by (26.58%) respondents were old age group and (21.84%) respondents were young age group. It was found that majority of the respondents (76.58%) were literate and (23.42%) of respondents were illiterate, most of the farmers were from poor and low educational background but they are engaged in improving their educational status in the study area. The results of the present study are consistent with the results of Pal et.al. [1].

It shows that among the respondents (45.85%) were engaged in agriculture as their main occupation for their livelihood, followed by (37.93%) and (8.85%) the respondents in agriculture + animal husbandry and agriculture + fisheries were engaged. It can be said that most of the respondents took agriculture + horticulture and agriculture + animal husbandry as their main occupation for their livelihood. The possible reason for this finding could be to adopt horticulture and animal husbandry along with agriculture to achieve higher annual income and better environmental conditions as well as resource availability for these enterprises. On the other hand, if we talk about the income of farmers. It shows that (46.20%) respondents Rs. 75000/- were in the low annual income group, whereas (34.17%) the respondents were in the middle level of the annual income group of Rs. 75001 to 150000. Whereas (19.62%) of the respondents were largely in the annual income group above Rs 1500000. Thus, the table shows that most of the respondents were living in a low level of income, as a result of which their families were not in good condition. While in a case of sugarcane holdings, (50.63%) respondents were marginal farmers while (35.44%) respondents were small farmers while (13.93%) respondents were from large farmers. It is clear that most of the sugarcane growers belonged to the category of marginal farmers, followed by small and medium farmers respectively. Zaidi et al. [2] also found that socio-economic status of sugarcane growers in Bijnor district of Uttar Pradesh.

In case of social participation (37.04%) respondents regularly visited the co-operative society to collect agricultural information, followed by (40.82%) respondents occasionally visited to co-operative society for collect the agriculture information and, (22.15%) of the

respondents never visited to the co-operative society for this while majority of the respondents (61.70%) occasionally visited the Gram Panchayat, whereas, (31.96%) of the respondents regular visited the Gram Panchayat for collecting information while (6.32%) of the respondents never visited to gram panchayat. It was also found that (33.86%) respondents regularly visited social organizations for collecting the various information, while majority of the respondents (52.21%) respondents occasionally visited social organizations, followed by (13.92%) respondents never visited social organizations whereas (34.81%) respondents occasionally visited cultural organizations for information, it was also found that (8.22%) respondents regularly visited in cultural organization and majority of the respondents (56.96%) never visited to cultural organization whereas (27.21%) of the respondents regular participating in religious organization while (19.30%) of the respondents occasionally participating in religious organization whereas most of the respondents (53.48%) never participating in this organization. It was also found that majority of the respondents (54.74%) sometimes attended educational organizations, whereas (28.48%) of the respondents regular attending educational organization, while (16.77%) never attended educational organizations. It was also evident from the above table is (43.98%) respondents were regularly meeting with Village Development Officer in the study area whereas (40.82%) respondents often met with Village Development Officer while (15.18%) never meet with the Village Development Officer of the village. Balachandra et al. [3] also similar findings regarding socio-economic conditions of sugar cane cultivators. It was also found that, (22.46%) respondents were regularly meeting with Additional Development Officer while (48.73%) respondents met often and (28.79%) respondents never met whereas (11.39%) of respondents were meeting with Block Development Officer regularly while (51.89%) met with often basis whereas (36.70%) respondents never met with Block Development Officer of their block. In the case of Subject Matter Specialists, (34.49%) of respondents met with them regularly, and (37.65%) respondents on an often basis while (28.48%) respondents never met with them, while (12.97%) respondents met with the District Agriculture Officer of their district regularly, and (53.16%)

Table 2. Distribution of respondents according to their Psychological characteristics. N= 316

S.No.	Categories	Frequency	Percentage
A	Level of Innovativeness		
1.	Low (0-3 score)	140	44.30
2.	Medium (4 – 6 score)	107	33.86
3.	High (above 7 score)	69	21.84
B	Level of Scientific Orientation		
1	Low (0-6 score)	82	25.94
2	Medium (7 – 12 score)	186	58.86
3	High (above 12 score)	48	15.18
C	Level of cosmopoliteness		
1.	Low (0-6 score)	82	25.94
2.	Medium (7 – 12 score)	186	58.86
3.	High (above 12 score)	48	15.18
	Total	316	100.00

respondents met him often basis whereas (33.86%) respondents never met. Kumar et al. [4] similar findings also reported the Socio-Economic Characteristics of Sugarcane Growers in Hamirpur District of Uttar Pradesh.

3.1 Psychological Characteristics of the Respondents

Psychological Characteristics refers to particular feature or quality of a person, animal, or other unit of interest, especially any of the enduring qualities or traits that define an individual's nature or personality in relation to others. (**American psychological association**).

The Table 2 indicated that (44.30%) respondents were in low innovativeness category whereas (33.86%) respondents were in medium innovativeness category while (21.84%) were in high innovativeness category while level of scientific orientation (25.94%) had low level, (58.86%) had medium level whereas (15.18%) of the respondents had low level of scientific orientation whereas regarding cosmopoliteness (25.94%) respondents had low cosmopoliteness whereas (58.86%) respondents had medium cosmopoliteness while (15.18%) sugarcane growers had high level of cosmopoliteness. Jagatpal et al. [5] also found that Psychological Behavior of the Sugarcane Growers in Sitapur District (U.P.)

4. CONCLUSION

It was concluded that the majority of the people are middle-aged, literate, marginal farmers, and their main occupation is agriculture and their average level of annual income. Social participation was moderate and overall

extension connectivity was also low. Psychological symptoms were found to be of moderate level. The time has come to improve the socio-economic status and psychological characteristics of the farmers through proper extension strategies and government development programs, which will lead to all-around development in the rural area.

ACKNOWLEDGEMENT

I acknowledge the Department of Extension Education and communication, Sam Higgin Bottom University of Agriculture technology and sciences, Prayagraj U.P for providing all sorts of facilities required for conducting this research. The author is especially thankful to Dr. Dipak Kumar Bose, Associate Professor, SHUATS, Prayagraj who helped me in conducting this study. The authors are also thankful to extension functionaries of agricultural development of Balrampur district farmers who are co-operated during data collection.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Pal Arun Kumar, Katiyar Rahul, Singh HC, Rajmani. Socio-Economic profile of sugarcane growers in district Moradabad, Uttar Pradesh, India, International Journal of Current Microbiology and Applied Sciences. 2017;6(9):1217-1229.
2. Zaidi Naheen Haider and Munir. Socio-economic status of sugarcane growers: A case study of bijnor districts in western

- Uttar Pradesh. International Journal of Development Research. 2014;4(8):1550-1554.
3. Balachandra Mineelkumar, Fatima Nusrat. Socio-economic conditions of sugar cane cultivators in karnataka: a case study of kalaburagi district. Review of Research. 2019;8(9):1-9
 4. Kumar Dheerendra, Maurya AS, Jagatpal Kumar Sanjay, Kumar Gaurav. Socio-economic characteristics of sugarcane growers in Hamirpur District of Uttar Pradesh. Int. J. Pure App. Biosci. 2017; 5(6):571-573.
 5. Jagatpal, Doharey RK. Communication and psychological behavior of the sugarcane growers in Sitapur District (U.P.), India, International Journal of Current Microbiology and Applied Sciences. 2017;6(3):2013-2020.

© 2022 Islam and Bose; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

*The peer review history for this paper can be accessed here:
<https://www.sdiarticle5.com/review-history/81804>*