



A Study on Socio-Economic Status of Cabbage Growers in Krishnagiri District of Tamil Nadu, India

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Authors' contributions

This work was carried out in collaboration between both authors. Author VB designed the study, collected data, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author RS assisted in designing the questionnaire for data collection and managed literature searches. Both authors read and approved the final manuscript.

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ABSTRACT

Rural development is crucial for the development of the nation. Socio-economic status is dynamic in nature. Socio-economic status provides information on the association between certain factors and the livelihood of vegetables growers. In this study; an attempt had been made to understand the reality of cabbage growers. Krishnagiri was purposefully selected. Kelamangalam block was chosen for the study. The aim of the study was to collect data regarding the characteristics of sample farm households and categorize them into closely related sub groups. Total sample size used for this study was 120. Data was collected by a personal interview method. The personal variables, social variables, economic variables, farming related variables are taken into account to

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summarize the socio-economic status of cabbage farmers. Based on the data, Agriculture was the main occupation in the study area. Majority of sample farmers had moderate experience in farming. Most of sample farmers had smaller land holdings. Most of the farmers were found to be in the low income group.

Keywords: Rural development; livelihood; economic variables; social variables.

1. INTRODUCTION

Rural development is crucial for the development of the nation. The farmers who mostly rely only on agriculture usually find it difficult in satisfying their basic needs whereas; farmers engaged in other allied activities have better opportunities to fulfill their basic requirements which in turn results in improving their socio-economic status (Ratna et al., 2024). Socio-economic status is a combined measurement of the economic and social position of an individual or a group in relation to others in the society (Rahman et al., 2021; Sudhanshu et al., 2023). It has a profound role in determining individuals' accessibility to the common resources, landholdings, educational background etc (Akinniran & Taiwo, 2016; Badekhan & Devi, 2018). An individual's socio-economic status includes basic information about his or her age, family composition, occupation, and other factors such as income, farm size and other essential amenities (Asokhan et al., 2024). Socio-economic status is dynamic in nature since it is subjected to change over a period of time (Kudamala et al., 2019). Socio-economic status provides information on the association between certain factors and the livelihood of vegetables growers (Gahatraj et al., 2019). The socio-economic status provides an insight into how families live their lives in society. Farming communities' perceptions are better understood through socio economic status (Singh et al., 2023; Reddy et al., 2017).

Area under cabbage cultivation has increased in the state of Tamil Nadu. The area under cabbage cultivation is 3754.30 hectares. The total production of cabbage is 257652.46 tons per hectare. Krishnagiri district has 2744.32 hectares under cabbage cultivation and production of 188008.86 tons per hectare (Thakur et al., 2018; Roy et al., 2013). In this study, an attempt has been made to understand the ground reality of cabbage grower's social and economic status which will help the policymakers to formulate suitable policies and strategies for the well-being of the cabbage growers (Himshikha, 2016; Mandla et al., 2023). The main objective of this study was to find how social and economic

factors play a crucial role in crop patterns of the area. The finding of the study will help to design appropriate extension programs to boost cabbage growers in the study area and other areas (Mehta et al., 2020). With this as a background, the present study was conducted to understand the various effects of social and economic factors on cabbage production in the Krishnagiri district of Tamil Nadu.

2. MATERIALS AND METHODS

2.1 Study Area Selection

Multistage sampling technique was used for selection of districts, blocks and villages. Krishnagiri was purposefully selected. The Krishnagiri district was first in terms of area and production of cabbage in Tamil Nadu. Cabbage is grown during the winter season in Krishnagiri district. Kelamangalam block was chosen because this block was one of the leading producers of cabbage and also had a high area under cabbage cultivation. In the last stage four villages were selected based on the area under cabbage cultivation from the block.

2.2 Tools and Techniques of Data Collection

A pre-tested structured interview schedule was prepared for collection of personal details like age, education etc; economic details like income, occupation, details regarding land holding and farming related aspects like area under cultivation and facilities available for crop. The aim of the study was to collect data regarding the characteristics of sample farm households such as age, educational status, size of operational holdings, etc and further categorize into closely related sub groups. Data was collected by a personal interview method. Descriptive statistical analysis like the average, frequency and percentage were used to analyze the data collected. For this study a total sample of 120 cabbage farmers were interviewed from the selected block using proportionate random sampling method. The respondents were

proportionally allocated among the selected four villages (40+35+25+20=120) on the basis area under cabbage cultivation.

3. RESULTS AND DISCUSSION

The data collected in the selected block is presented in accordance with relevant domains to gain better perspectives of socio- economic characteristics of farmers.

3.1 Personal Variables

The personal variables of the respondents include their age, marital status, occupation and level of education. According to the age-wise analysis, 64.17 percent of cabbage growers were middle aged between 35 and 55 years, followed by old age farmers above 55 years. Young cabbage growers below 35 years represent 7.5 percent of the total cabbage growers. According to the results, the middle age group had the highest share among the respondents. Majority of the sample respondents are married (91.67 percent) and unmarried are only 5.83 percent and few of the respondents were widowed (1.67 percent) and divorced (0.83 percent). As far as

occupational aspect goes 74.17 percent of the sample households are farmers which means agriculture is the main occupation and business constitutes 19.17 percent of the total occupational status. Service and office workers make up 6.66 percent of the occupational distribution. The level of literacy influences the level of adoption of new technologies on the farm. It is evident that a high proportion of farmers with primary education at 35.83 percent followed by farmers with secondary education at 30 percent and collegiate education at 15 percent. The Percentage of illiterate farmers was 19.17 percent and secondary education was predominant among cabbage farmers.

3.2 Social Variables

The social variables of the respondents include their castes, family structure and their organizational membership are presented in Table 2. The table shows the average proportion of adult males among the respondents was 2.76 and 2.47 for females and 1.07 for children. The average family size among respondents was found to be 6.24 members.

Table 1. Distribution of the respondents by their Personal variables

Sl. No.	Personal variables	Frequency	Percentage
1.	Age		
	Below 35 years	9	7.50
	Between 35-50 years	40	64.17
	Above 50 years	71	28.33
	Total	120	100
	Mean	53.71	
	Standard Deviation	11.40	
2	Marital status		
	Unmarried	7	5.83
	Married	110	91.67
	Widowed	2	1.67
	Divorced	1	0.83
	Total	120	100
3	Occupation		
	Farmers	89	74.17
	Business	23	19.17
	Service Sector	8	6.66
	Total	120	100
4	Educational Status		
	Illiterates	23	19.17
	Primary education (between 1-5th class)	43	35.83
	Secondary education (between 6-12th class)	36	30.00
	Diploma/degree holders	18	15.00
	Total	120	100

Source: Computed from primary data collected by author during survey

Table 2. Distribution of the respondents based on Social variables

Sl. No.	Social variables	Frequency	Percentage
1	Family Composition of Sample Households		
	Average Male	2.76	44.23
	Average Female	2.41	38.62
	Average Children	1.07	17.50
	Average Family size	6.24	100
2	Family structure		
	A) Type of family		
	Nuclear	81	67.50
	Joint	39	32.50
	Total	120	100
	B) Family size		
	Small (up to 4 members)	42	35.00
	Medium (5-8 members)	71	59.17
	Large (More than 8 members)	7	5.83
	Total	120	100
3	Caste		
	SC/ST	23	19.17
	BC	46	38.33
	MBC	49	40.83
	OC	2	1.67
	Total	120	100
4	Organization membership		
	Non Members	94	78.33
	Member of a formal organization	12	10.00
	Office bearer of formal organization	3	2.50
	Member of non-formal organization	11	9.17
	Total	120	100

Source: Computed from primary data collected by author during survey

The majority of the respondents (70.31 percent) had a small size family up to four members, followed by 27.19 percent and 2.5 percent respondents having medium-sized families (5-8 members) and large size families (more than 8 members), respectively. The majority of the respondents (40.83 percent) were from the most backward caste (MBC). Only 1.67 percent of respondents belonged to the upper caste, followed by backward caste (BC) 38.33 percent and SC/ST (19.17 percent). Nearly 67.50 percent the respondents were residing in nuclear families while the remaining 32.50 percent of the respondents were from joint families. As for membership and participation in organization only 10 percent were part of formal organization and 9.17 per cent in part of non formal organization. Most of the respondents (78.33 percent) were never part of any form of organization. Only 2.50 percent of respondents were office bearers of formal organization.

3.3 Economic Variables

The economic variables of the sample farmers can be measured as their size of landholding, type of housing, land ownership, annual income of farmers. From Table 3 it could be inferred that 56.67 percent of the sample farmers had lands less than 2.5 acres, while 40 percent of the farmers had lands between 2.5 acres and 5 acres. The farmers with land more than 5 acres were less and were only 3.33 percent compared to others. It could be concluded that the majority of sample farmers had a smaller size of land and the farmers with more land share were found less in the study area. Majority of the cabbage growers had their own land (70.83 percent) and leased land was also used for cultivation purposes (29.17 percent). Out of 85 owned farm land 61.18 percent was owned individually and 38.82 percent of the land were joint ownership.

The sample households were post-stratified into three different groups based on the annual income. Households with an annual income of below Rs.2 lakhs were categorized as low income group, households with annual income of Rs.2 lakhs to Rs.5 lakhs were classified as middle income group and those with annual income exceeding Rs.5 lakhs were classified as high income group. Households with an annual income of below Rs.2 lakhs were 60.83 percent, households with an annual income between Rs.2 lakhs and Rs.5 lakhs were 27.50 percent and an annual income exceeding Rs.5 lakhs were 11.67 percent. As far as housing is concerned more than three fourth had their own houses (87.50 percent) and only 12.50 percent didn't have their own houses and were staying in rented houses. Each and every household had television and

91.67 percent had a refrigerator in their houses, washing machines were owned by only 13 respondents (10.83 percent) and only 4 respondents had Air conditioners installed in their houses. In transportation, 51.67 percent had a bicycle, 33.33 percent owned a scooter and the most common mode of transport were bikes owned by 81.67 percent of the respondents and car owners were meager 5.83 percent.

3.4 Farming Related Variables

From Table 4 it could be inferred that 65.83 percent of the sample farmers had an experience of 10 to 20 years in cabbage cultivation, while 11.67 percent of the farmers had an experience of less than 10 years. The farmers with rich experience of more than 20 years were less

Table 3. Distribution of the respondents based on Economic variables

Sl. No.	Economic variables	Frequency	Percentage
1	Landholding		
	A) Size of land		
	Marginal farmers (Less than 2.5 acres)	68	56.67
	Small farmers (between 2.5 and 5 acres)	48	40.00
	Large farmers (More than 5 acre)	4	3.33
	Total	120	100
	B) Type of Holding		
	Owned	85	70.83
	Leashed	35	29.17
	Total	120	100
	C) Type of ownership		
	Individual ownership	52	61.18
	Joint ownership	33	38.82
	Total	85	100
2	Annual Income		
	Below Rs.2 lakhs	73	60.83
	Rs.2 lakhs to Rs.5 lakhs	33	27.50
	Exceeding Rs.5 lakhs	14	11.67
	Total	120	100
3	Housing		
	Owned	105	87.50
	Rented	15	12.50
	Total	120	100
4	Other household facilities		
	A) Electronic Appliances		
	Television	120/120	100
	Refrigerator	110/120	91.67
	Washing Machine	13/120	10.83
	Air Conditioner	4/120	3.33
	B)Transportation owned		
	Bicycle	62/120	51.67
	Scooter/Moppet	40/120	33.33
	Bike	98/120	81.67
	Car	7/120	5.83

Source: Computed from primary data collected by author during survey

Table 4. Distribution of the respondents by Farming related variables

Sl. No.	Farming variables	Frequency	Percentage
1	Farming Experience of the Sample Farmers		
	Below 10 years	14	11.67
	Between 10 to 20 years	79	65.83
	More than 20 years	27	22.50
	Total	120	100
2	Type of Land		
	Wetland	34	28.33
	Irrigated land	86	71.67
	Dry land	0	0
	Total	120	100
3	Irrigation		
	Wells	10/120	8.33
	Canals	112/120	93.33
	Bore wells	22/120	18.33
4	Area under Cabbage in the Sample Farms		
	Less than one acre under cabbage cultivation	52	43.33
	One acre under cabbage cultivation	50	41.67
	More than one acre under cabbage cultivation	18	15
	Total	120	100
5	Livestock Particulars of sample respondents		
	Poultry	509	79.40
	Cattles (Cows and Buffaloes)	79	12.32
	Sheep and goats	53	8.53
	Total	621	100

Source: Computed from primary data collected by author during survey

Table 5. Distribution of the respondents by Service variables

Sl. No.	Particulars	Frequency	Percentage
1	Extension activities (Demonstration, Workshops, etc)	12/120	10.00
2	Kisan Credit card	57/120	47.50
3	Crop insurance	62/120	51.67
4	Credit facilities		
	Borrowing from Money lenders	78/120	65.00
	Bank loan	89/120	74.17
	Borrowing from friends and relatives	17/120	14.17

Source: Computed from primary data collected by author during survey

and constituted only 22.5 percent of the total cabbage growers. Most of the cultivated lands were irrigated lands (71.67 percent) and wetlands (28.33 percent). The most common source of irrigation was canal irrigation (93.33 percent). 18.33 percent have bore wells and 8.33 percent have wells for irrigation.

Based on details collected regarding the area under cabbage cultivation in the sample farms, it could be inferred that 43.33 percent of the sample farmers had less than one acre of land under cabbage cultivation, while 41.67 percent of the farmers had a land holding of one acre for cabbage cultivation purpose. The farmers with a landholding more than one acre were very few

15 percent compared to other landholdings. From the above results, it could be concluded that the majority of sample farmers had less than one acre of land under cabbage cultivation and the farmers with more than 1 acre of land under cabbage were found less in the study area. The total population of livestock was 621 in total. In the sample household poultry occupied 79.40 percent, cattle were 12.32 percent, sheep and goats were 8.53 percent.

3.5 Service Variables

Farmers require timely financial services and accessible means of financial resources to ensure proper cultivation. Beneficiaries of

insurance and government schemes etc are accounted for and furnished in Table 5.

From the table it can be seen that only 12 (10 percent) among 120 respondents are accessing the extension services offered by the government to the farmers. 47.50 percent of the respondents hold a kisan credit card and 51.67 percent of the farmers have insured the crops under crop insurance schemes provided by the government. In the financial aspect, banks served as the major credit source (74.17 percent) but still 65 percent of the farmers turn to moneylenders for financial needs and 14.17 percent have borrowed from friends and relatives.

4. CONCLUSION

In depth observation of socio economic status gives us the overall picture of the farming community and the sustainability in the society. Understanding of the socio-economic status of the farmers and its determinants will help in accelerating the process of effective transfer of technology as it largely affects the adoption process (Sherpa & Rana, 2023).

Based on the research, Agriculture was the main occupation in the study area as the majority of the people were engaged in agriculture (74.11 percent) followed by their own business (19.17 percent). From the results based on Table 3, it could be concluded that the majority of sample farmers (65.83 percent) had moderate level of experience in farming from 10 years to 20 years. Most of the sample farmers had a smaller land holding (less than 2 acres) and the farmers with more 5 acres land were found less in the study area. 60.83 percent of the respondents were found to be in the low income group (less than 2 lakh per annum) in the study area. Livestock serves an important source of income for farm families. Adding livestock to the cropping system significantly reduces the risks associated with farm income.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare NO generative AI technologies (Chat GPT, COPILOT, etc) and text to image generators have been used during the writing and editing of manuscripts.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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