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The social profile of farmers in Rupnagar district of Punjab

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Abstract
Agricultural education is essential for increasing agricultural production, profitability, ecological responsibility, agricultural technology, and environmental and ecological stability. The current study investigates the socioeconomic elements that contribute to the significance of Punjab's farming community, specifically in the villages of Marauli Kalan, Rattangarh, Bhateri, Badwali, Rampur Manda, and Marauli Khurd, which are all located in the districts of Rupnagar and Chamkaur sahib. A questionnaire-based methodology was used for this investigation. The 125 farmer interviews have been recorded. The research's purpose is to learn about the population's living and working conditions. The goal of this inquiry was to have a complete grasp of the socioeconomic situation. While many people's lives have improved, there are still individuals who find themselves in the same situation. The overall socioeconomic situation of the town, the occupational structure, educational attainment, labour force income, residential features, and government activities must all be researched. Small farmers constituted the majority of responders (about 50%), with around 20% having finished their middle school education. Furthermore, the majority of them—roughly 90%—obtain their information from input dealers or private groups.

Keywords: Agriculture, socioeconomic, survey, farmers, livestock

Introduction
India is widely recognised as a global agricultural powerhouse, with agriculture playing a significant role in the country's economy [1]. Agriculture is the most important factor and the main contributor to the Indian economy. Agriculture is an important sector of the Indian economy, accounting for 20.19 percent of GDP [2]. The states of Uttar Pradesh, Haryana, and Punjab are known as the "Agricultural Hub of India." Agriculture is the main source of employment in rural India, employing half of all workers globally [3]. Agriculture generates nearly 58% of Indian income, and the population is still growing rapidly [4]. Agriculture is worth $400 billion to India's economy, ranking second only to China. Wheat (Triticum aestivum L.), the world's most important cereal crop, is a staple food for roughly one-third of the world's population [5]. Between 2016 and 2017, it provided about 21% of all cultivated land (30.597 million hectares) and 35% of total food production (98.38 million tonnes) [6]. Rice (Oryza sativa), India's staple crop, is critical to both economic growth and food security [7]. It provides more than one-fourth of all calories consumed and is grown on more than one-fifth of all gross cropped land [8]. Rice and wheat are the two main crops discussed in this essay. A survey of 125 farmers from five villages in Kharar, Punjab, was conducted. These important crops are primarily grown by these farmers. The primary goal of this paper is to discover how Punjabi farmers in Roopnagar are farming right now, to learn about their land holdings, total input costs, total yield produced, and profits made.

Socioeconomic status is an important factor in sustainable agriculture, which incorporates digital technologies, artificial intelligence, and critical thinking. Major issues can be identified using questionnaire surveys, which can then be used to spark interaction in the search for solutions. Some of the most important variables that affect health status while minimising the difficulties farmers face are agronomic techniques, soil sampling, and socioeconomic status (Singh et al., 2022) [10]. The current state of society in developing countries is rapidly transitioning from an underdeveloped to a developed economy, in tandem with the advancement of social conditions (Chandna, 2010) [9]. These changes, however, are not uniform across the board. Rural areas are typically far less developed than urban areas in many ways, including social, economic, and cultural ones.

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Crop diversification has the potential to significantly boost the agricultural industry's economy. Furthermore, greater output growth, increased farm income, job creation, preservation of valuable soil and water resources, satisfaction of consumer preferences for nutrient-dense, high-value foods, support rural livelihoods, sustainable use of natural resources, and poverty reduction are now required. This study considers a variety of factors that may have an impact on it, such as climate, soil and agronomic conditions, agricultural inputs, productivity, and international trade. (Anuja *et al*., 2022) [1].

Objectives
1. Learn more about farmers' primary source of income. Examine the plants or animals that they keep. This aids understanding of their economic endeavors.
2. Learn about the challenges farmers face, such as weather issues, getting their products to market, and having limited resources. Concurrently, determine any opportunities they see for improving or expanding their farming endeavors.

Materials and Methods
The current study aims to understand the socioeconomic status of farmers in Rupnagar's Chamkaur sahib tehsil, specifically in the villages of Marauli kalan, Rattangarh, Bhateri, Badwali, Rampur Manda, and Marauli khurd. A questionnaire-based methodology was used for this investigation. The primary source of data serves as the study's foundation. The interviews with the 125 farmers were recorded. The village censuses of Maraulikalan, Rattangarh, Bhateri, Badwali, Rampur Mandali, and Marauli Khurd were included in the study area and village overview. In the data collection procedure, the quantitative method is used. The majority of the data came from a census conducted in these villages. The villages have 125 residences, all of which are occupied by self-employed business owners, government personnel, and farmers. In-person door-to-door interviews and a structured questionnaire were used to collect data. Focus groups, community group interviews, and direct observation are also employed as quick evaluation procedures. In-person interviews with local elders and villages in the surrounding area are also undertaken to get qualitative data.

Results and Discussion
According to the research, nearly all farmers have internet connection on their phones. Farmers who farm with partners and family make up around 52% of the villages (based on data from 125 farmers). Due to the limited opportunities that traditional farming provides, some farmers believe that their children should not work in agriculture. 70% of farmers own between one and ten acres of land, with 12% owning more than ten acres. Approximately 18% of farmers had less than an acre of land. Seventy-two percent of farmers own farm equipment and machinery, while the other 28 percent share it through a cooperative society. For information about agriculture, farmers largely depended on input dealers (64%), Progressive friend/ relative (24%), Kissan Melas (8%), and newspapers (4%). Grain crops account for the vast majority of crops grown. The crops include vegetables (12%), rice (99%), fodder (65%), and wheat (97%) are produced. The survey found that 22% of farmers treat their seeds, 63% have already treated their seeds, 9% do not treat their seeds, and 6% are unaware of the procedure. Farmers used IPM (45%), chemical

control (40%), and biological control (15%) for managing insect pests [Anuja *et al*., 2022] [12]. Weed removal methods included both chemical and manual methods. The majority of farmers used tractors to prepare the land, and they only used two ploughings. Similar conclusions have been reported by [Paul *et al*. (2016)] [11], with an average cost of two thousand rupees per ploughing. According to the soil testing questionnaire results, the farmers were unaware of the importance of having their soils tested. While some farmers also kept ox for ploughing, the majority of farmers kept cows and buffaloes as livestock. The total number of cows and buffaloes in the villages included in the survey was 65 percent and 80 percent, respectively, but the number of oxen was only 10. Approximately 50% of farmers own both. [Dhawan *et al*., 2016] [13].

Social personal profile
The following are the different subjects that the socioeconomic survey looked at.

Cast
The data from the survey use, shows the caste system, is depicted in Fig 1 image. The population of the village was divided into three castes: general, OBC, and SC/ST.
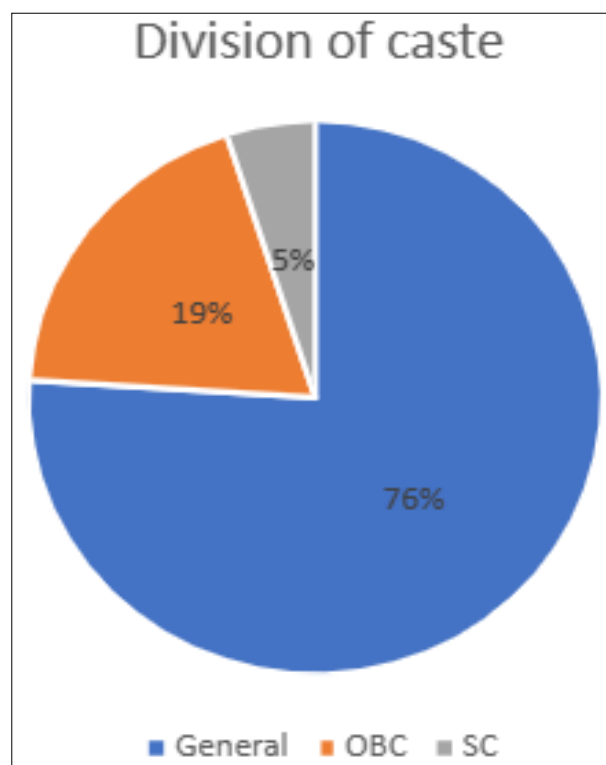

Fig 1: Division of caste

Most of the farmer about 76% belongs to General category, 19% belongs to OBC category and only 5% belongs to SC category.

Age
Age and qualifications are the two most important factors influencing all occupations. According to the data collected, 44% of farmers are between the ages of 30-40, 40% are between the ages of 40- 60, and the remaining 16% are over the age of 60 as shown in Fig 2 (age group).
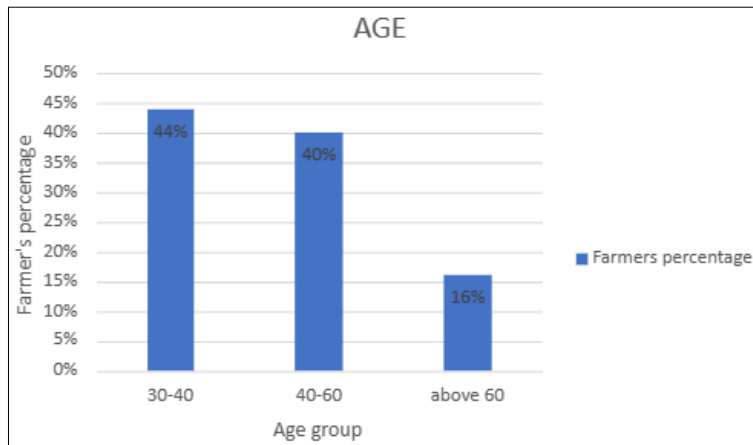
Fig 2: Age group

Phone and internet connection
According to the Figure 3 (Phone and internet connection), overall 84% of respondents have mobile phones and. 24% of these frames are members of agricultural groups on social media (Facebook, WhatsApp, Twitter and Telegram). Only 16% of respondent do not have any type of mobile phone.
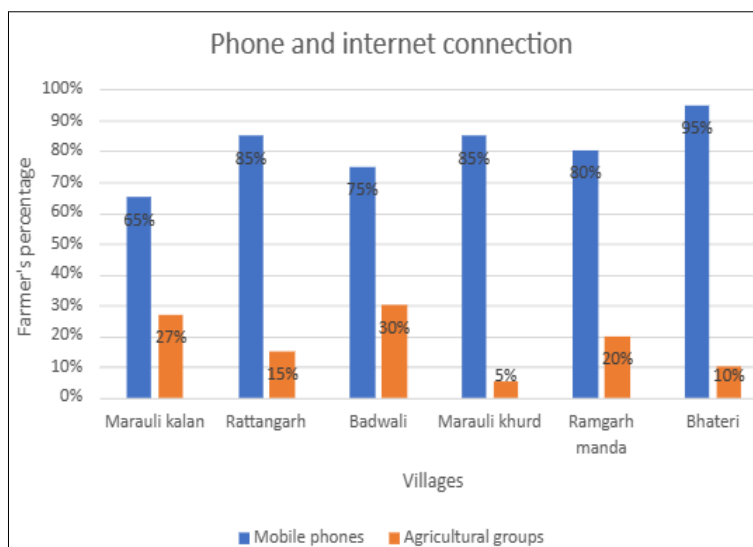

Fig 3: Phone and internet connection.

Family composition
According to an analysis of the survey results, 64% of farmers have nuclear families and 36% have joint families is depicted in, Fig 4 (family composition).
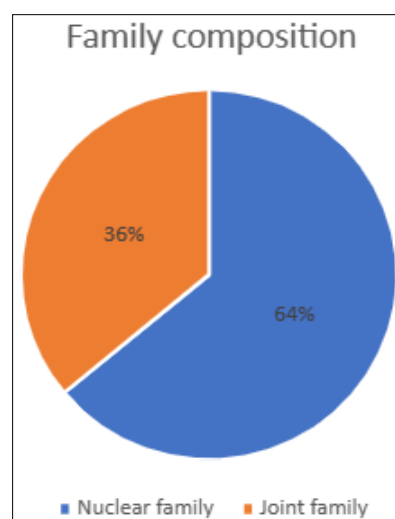

Fig 4: Family composition

Land holdings

Table 1: Land holdings and farmers percentage

Land holdings	Farmer %
Marginal	18
Small	50
Medium	20
Large	12

As can be seen in Table 1, the majority of the 120 farmers, or 50%, are small farmers with 1-2 hectares. The marginal farmers (18%), who own less than one hectare of land, are followed by the medium farmers (20%), who own between 4-10 hectares. More than 10 hectares of land are owned by 12% of the last large farmers as shown in above figure.
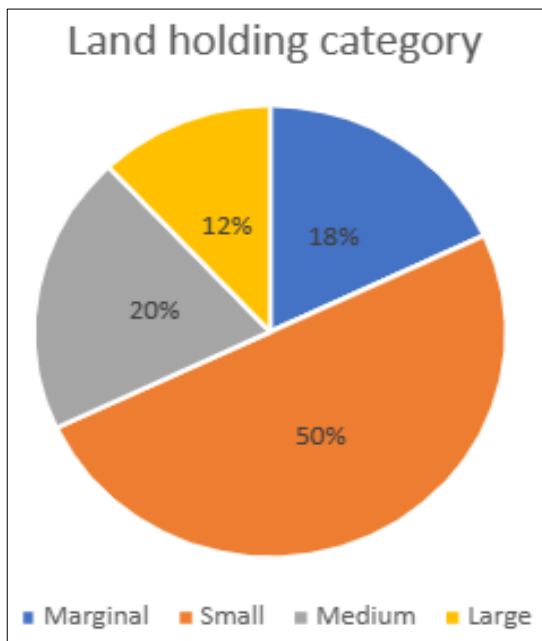

Fig 5: Land holding category

Academic Qualifications

The corresponding academic qualification levels in the villages were satisfactory; 61% of the population is matric pass, 20% has passed the 12th grade, 5% has graduated, and 14% is illiterate.
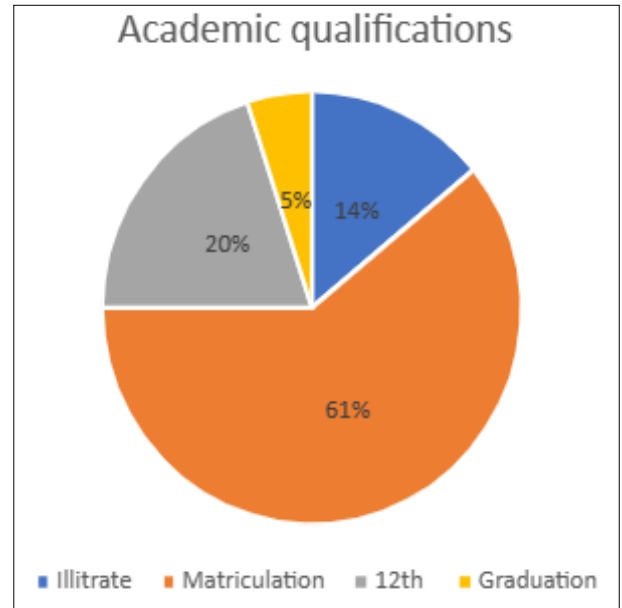

Fig 6: Academic Qualifications

Source of information

Every respondent has a distinct set of extension contacts and information sources. 64% of all respondents contacted input dealers, who primarily serve as excellent sources of information for farmers regarding new seeds and agrochemicals. Farmers also get information from the newspaper (4%), Progressive farmers, friends (24%), Kisan Melas (8% of respondents), and field trips (which help them improve their farming skills) in their communities (Kharar, Ludhiana).
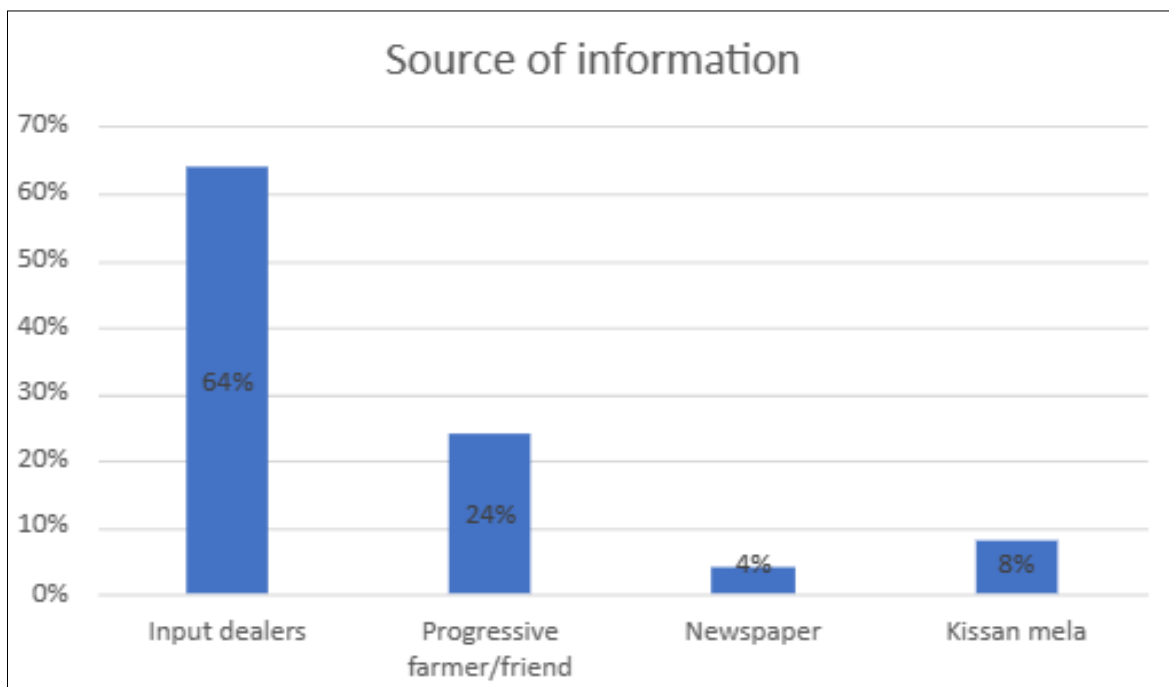

Fig 7: Source of information

Crop grown status
According to Fig 8 (crop grown status), 96 percent of farmers grow wheat, 99% grow rice, 52 percent grow bajra, 65 percent grow chari, and 12 percent grow vegetables.
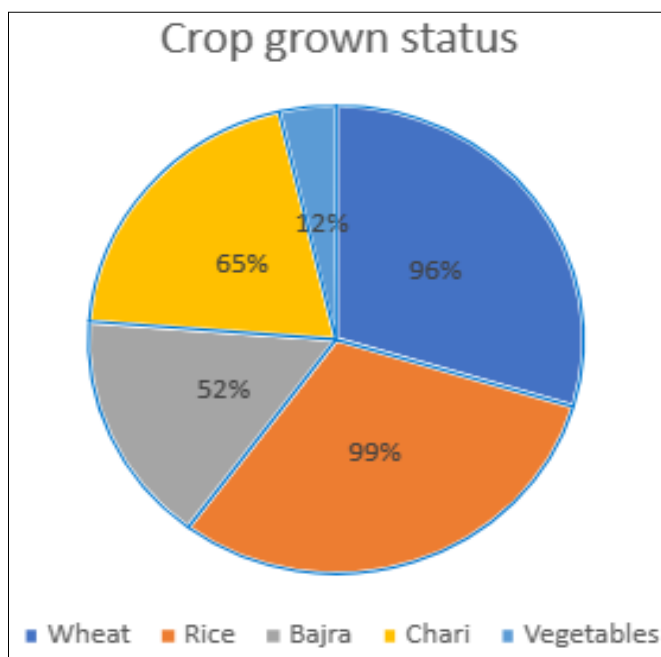

Fig 8: Crop grown status

Farm machinery status
The vast majority of respondents (44%) own all of the necessary tools for daily living, such as tractors, carts, and ploughing implements. However, the majority of farmers rent expensive equipment such as combine harvesters, threshers, super seeders, seed drills, and potato planters, which are only used on a seasonal or annual basis. Only 28% of respondents claimed to own every tool in their possession, while approximately 28% of farmers did not own any tools at all; instead, they rented every tool from co-ops and other farmers for a set fee based on the type of tool and length of time.
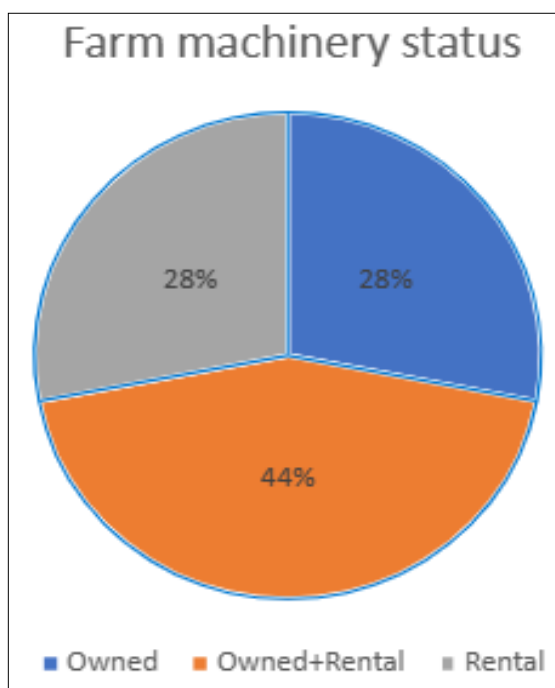

Fig 9: Farm machinery status

Documents
The majority of respondents, or 100% and 100% respectively, only have the two required documents (Aadhar card and ration cards). None of the respondents have any benefit cards, such as the KCC, MGNREGA, or soil health cards.

Conclusion
The current study has examined the factors that determine the farmer community's position in the Punjabi villages of Marauli Kalan, Rattangarh, Bhateri, Badwali, Rampur Manda, and Marauli Khurd. Data from the study's main source was gathered. Many factors influence a farmer's socioeconomic status, especially if their background is in agriculture. The study comes to the conclusion that farmers' standing is significantly impacted by factors like the age, education, health, and use of modern technologies by the head of the household. The socioeconomic survey indicates that there is significant room for improvement in the social and economic conditions of the people living in the villages of Marauli Kalan, Rattangarh, Bhateri, Badwali, Rampurmanda, and Marauli Khurd. Because of the expansion of educational opportunities in the area, the locals have begun to adopt modern living standards. If the village receives government support for infrastructure projects such as appropriate schools, medical facilities, modern agricultural technologies, and other facilities, it can experience significantly more economic development. In conclusion, "Socioeconomic" study is an important part of education because it helps us understand the state of society, people's living standards, and our country's social and economic conditions. Because of this, the "Socio-Economic Survey" is critical to our educational system.

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