International Journal of Multidisciplinary Research and Development
www.allsubjectjournal.com
ISSN Online: 2349-4182 ISSN Print: 2349-5979
Received: 17-06-2024, Accepted: 11-07-2024, Published: 03-08-2024
Volume 11, Issue 8, 2024, Page No. 1-10

# Socio-economic status of small and marginal farmers in Bulandshahr district

**Atvir Singh[1], Manisha[2]**
[1] Professor, Department of Economics, Chaudhary Charan Singh University, Meerut, Uttar Pradesh, India
[2] Research Scholar, Department of Economics, Chaudhary Charan Singh University, Meerut, Uttar Pradesh, India

**Abstract**
The study is carried out to understand the prevailing socio-economic conditions of marginal and small farmers of Bulandshahr District. Marginal and small farmers form a significant portion of the region's agro-community but face various socioeconomic challenges. Cultural and socioeconomic factors contribute to the marginalization of landholdings, resulting in poor economies of scale and decreased productivity. The majority (51.0%) of respondent farmers were between 46 and 60 years old, male (96.7%), Hindu (98%), and married (93.3%). Additionally, a significant portion belonged to backward castes (50%) and had a middle to secondary level of education (30-40%). The study found that 87.7% of marginal and 95.2% of small farmers inherited land from their ancestors. About 86% of farmers followed traditional farming methods, with wheat being the major crop. Over 70% of respondent farmers used multiple cropping patterns. As for water sources, around 65% of marginal and 61% of small farmers used hand pumps for clean water, while almost all farmers depended on tube wells for irrigation. Both, small and marginal farmers, used medium-quality fertilizers and pesticides. In terms of prosperity, farmers in Gulaothi (53%) and Sikandrabad (60%) blocks were found to be comparatively prosperous among the seven blocks, with both farm and non-farm activities being practiced. Most male laborers were hired at 450 rupees daily while female laborers earned around 350. Two-wheelers were the primary mode of transport for 64.2% of marginal and 89.4% of small farmers. Amongst market choices, the majority of both marginal and small farmers preferred local markets for any sale or purchase of agricultural inputs or output. Livestock served as a crucial additional income source, with three-fourths of respondent farmers reporting ownership. Buffaloes and cows were the dominant livestock in rural families, generating an income of 10,000 to 15,000 per month. Additionally, 24% of marginal and 32% of small farmers were involved in horticulture activities. The study also found that marginal farmers earned rupees 1-1.5 lakh monthly, while small farmers earned up to rupees 2 lakhs. Annual income data suggested that small farmers (1.5 - 2 lakhs) were generally in higher income groups than marginal farmers (0.5 - 1 lakhs). Moreover, personal savings were reported by 43.4% of marginal and 51.9% of small farmers. Cash was the preferred mode of payment for surplus crops among marginal (50%) and small farmers (43.3%), and it took less than 45 days to clear the payments.

**Keywords:** Socio-economic status, demographic profile, small and marginal farmers, farming and non-farming activities, livestock and horticultural activities

## Introduction

Small and marginal farmers, representing over 86% of the farming population, play a crucial role in shaping the agricultural landscape in India. Their dedication and hard work sustain diverse and vibrant agricultural practices across the country. Between 2010-11 and 2015-16, the proportion of small and marginal farmers in India increased from 84.9% to 86.2%. However, the total area under farming decreased, and the average size of land holdings also declined during this time. Farmers are classified based on the size of their landholdings: marginal farmers own up to 1 hectare of agricultural land and often practice subsistence farming due to limited resources, while small farmers own land between 1 and 2 hectares.

Uttar Pradesh is the fifth largest and most populous state in the country, occupying 7.3% land area of India and nearly 17% of India's population lives in the state (up.gov.in). The state's economy is primarily based on agriculture, with 47% of the population directly dependent on it for their livelihood, and had the highest number of operational holders out of a total of 146.45 million operational holdings in the country (10th Agriculture Census, 2015-16). The state is blessed with fertile Indo-Gangetic plains and is a significant contributor to the nation's food security. Approximately 28% of India's wheat and 12% of its rice are produced in Uttar Pradesh. The state also plays a major role in sugarcane production, accounting for 44% of the country's total output.

Western Uttar Pradesh, including the district of Bulandshahr, is home to hardworking farmers who significantly contribute to the state's agricultural output and sustain the food supply chain. Located in the Meerut Division between 28.0° and 28.4° north latitude and 77.0° and 78.0° east longitude, Bulandshahr benefits from fertile soil and well-developed irrigation, thanks to its position between the Ganga and Yamuna rivers. Covering 4,353 sq. km, or 1.48% of Uttar Pradesh's total area, the district includes seven tehsils and 16 blocks, with a total of 1,246 villages (Bulandshahar.nic.in). Khurja and Sikandrabad are notable industrial areas, contributing to the local economy through pottery, ceramics, and handicrafts. Products like dhurries and khes provide income for many rural families engaged in handloom activities. The district is well-connected to surrounding cities by paved roads and offers various facilities, including markets, hospitals, mandis, schools, and colleges.


**Fig 2:** Districts of Uttar Pradesh, grouped by division

Bulandshahr is an agricultural district that benefited from the Green Revolution, leading to abundant cultivation of crops such as sugarcane, wheat, rice, maize, and potatoes. Marginal and small farmers form a significant portion of the region's agro-community but face various socioeconomic challenges. Cultural and socioeconomic factors contribute to the marginalization of landholdings, resulting in poor economies of scale and decreased productivity. These farmers also struggle with financial stress due to inadequate credit access and unpredictable market conditions, impacting their mental health and well-being. Water management issues and costly irrigation facilities further hinder crop productivity. Limited access to education prevents the adoption of modern farming practices. These issues impede economic progress. Understanding these challenges is crucial for developing targeted policies to improve the socio-economic status and productivity of farmers. Against this backdrop, an attempt has been made to analyse the socio-economic conditions of small and marginal farmers of Bulandshahr district, Uttar Pradesh.

**Objectives of the study**

The study of Bulandshahr District is carried out to understand the prevailing socio-economic conditions of marginal and small farmers as a broad objective. To achieve this, the following specific objectives have been set:

- To analyse the socio-demographic profile of small and marginal farmers.
- To assess the economic status of small and marginal farmers.

To achieve the stated objectives, we collected primary data through structured interviews. We used tables and graphs, such as bar diagrams, to summarize the study's data. The current study has been meticulously organized to conclude. The introduction includes a justification of the study, a statement of the problem, and the study's objectives. The next section deals with the literature review, focusing on major research gaps. After defining the research gap the database and the research methodology are mentioned. Subsequently, the results and discussion, including the major findings of the study, are presented. The conclusion and policy suggestions are provided in the final section.

In India, the average landholding of small farmers is declining, placing them at the brink of being classified as marginal farmers. There is an urgent and compelling requirement for sustainable agriculture and food security, underscoring the need for comprehensive rural development planning (Chandrakar *et al*., 2021) [3]. Marginal farmers rely on formal sources of information such as Kissan Sahayak, a government agricultural support program, and Gram Pradhans, who are village heads responsible for local governance. In addition to these formal channels, farmers gather information from informal sources including discussions with family members and television programs focused on agriculture and farming broadcasted through mass media (Singh *et al*., 2023) [11]. There is a worrying trend indicating a decrease in the interest of young individuals in pursuing careers in agriculture. This decline is largely attributed to the reduced financial viability of agricultural pursuits, prompting many to seek opportunities in the tourism and related service sectors instead. To address this trend, it is crucial to enhance the profitability of agriculture, thereby creating a compelling reason for individuals to remain engaged in farming. This can be achieved through improved access to credit, markets, and

extension services (Reddy *et al*., 2017). The farmers demonstrate moderate levels of economic motivation, indicating a balanced desire for financial advancement, and scientific orientation, suggesting a basic understanding and openness to adopting modern agricultural practices (Singh *et al*., 2023) [11]. Farmers' decision-making process in crop production scheduling is significantly influenced by a multitude of socio-economic factors. These factors encompass aspects such as access to capital, market conditions, government policies, and technological advancements in agriculture. The adoption of agricultural technologies is also greatly impacted by factors such as education, age, awareness, financial limitations, land ownership, labour availability, and environmental considerations. Governmental policies and subsidies have the potential to enhance the well-being of farmers. Furthermore, clear communication from agricultural scientists can promote the uptake of cost-effective and environmentally sustainable production technologies (Mukherjee *et al*., 2023) [9].

Das *et al*. (2020) [4] in their study pointed out that 62% of marginal households in India are directly involved in livestock activities, such as raising cattle, poultry, and other animals. This increasing trend in livestock adoption among farmers is influenced by a variety of factors, including the farmers' level of experience, their occupation, the amount of land and labour they have access to, and the overall socio-economic environment. Livestock plays a significant role in not only providing a source of income for these farmers but also in improving their overall socioeconomic status and livelihoods. Singh (2012) [12, 14] in his study stated that to ensure the sustainable viability of marginal and small farmers in India, it is imperative to focus on providing job opportunities in rural areas. Additionally, suitable policy support for the development of the livestock sector and other allied activities is essential.

In addition, it is worth noting the rich body of literature at the state level, which encompasses studies specifically focusing on the socio-economic conditions of small and marginal farmers from different states. Singla (2003) [15] conducted a study on the sustainability of small and marginal farmers in the Ludhiana district, Punjab. The findings indicated that these farmers' survival was attributed to inheriting land, utilizing family labour, and primarily consuming cereals/milk produced on their farms. Additionally, they improved their modest standard of living by selling the surplus in the market. The study suggested that a combination of complementary enterprises and technology, supported by effective interventions such as training, credit, and access to profitable markets, could significantly contribute to the development of these farmers.

Farming serves as the main livelihood for the majority of small and marginal farmers in Punjab. Additionally, more than half of these farmers pursue secondary occupations, with a strong emphasis on farm-based entrepreneurship. In terms of demographic characteristics, a significant proportion of farmers belong to the general category and tend to have nuclear families consisting of 2-5 members. Notably, most farmers cultivate land ranging from 5 to 15 acres, with the majority operating on less than 5 acres (Anjana & Sidhu, 2022) [2]. In the agricultural landscape of the Patiala district in the state of Punjab, an overwhelming number of small-scale farmers, who form the backbone of the region's economy, find themselves trapped in a cycle of intractable debt. This prevalent issue not only impacts their livelihoods but also poses a significant threat to the overall agricultural sustainability of the area (Pal & Singh, 2012) [12, 14]. A study by Jadhav *et al*. (2023) [6] examines the economic sustainability of small and marginal farmers in Nashik district, Maharashtra. The research categorizes farmers as either viable (with a positive economic surplus) or non-viable (with a negative economic surplus) based on their income and expenses. The study's recommendation emphasizes the potential for improving the economic viability of farmers through reductions in non-essential expenditures and increased engagement in off-farm activities. The farmers of Maholi and Hargao Blocks in the Sitapur district of Uttar Pradesh face challenges due to low literacy and limited knowledge of innovative agricultural methods. With agriculture being the main source of income for most, it is imperative to introduce modern agricultural practices to uplift the socio-economic status of the farmers in the Sitapur district (Mukesh Sehgal *et al*., 2018) [16]. A study by Roy *et al*. (2013) and Raghav (2014) ascertained that the farmers in the mountainous regions, particularly Uttarakhand, are showing reluctance to adopt enhanced farming techniques due to the perceived increase in production costs. In contrast, larger farmers have embraced these technologies, citing benefits such as higher yields and reduced pest-related issues. Moreover, farmers with a background in education and exposure to science and technology exhibit a greater propensity to embrace new agricultural technologies. These findings underscore the significance of prioritizing farmer education, as it plays a pivotal role in influencing the adoption of innovative technologies within the agricultural sector. The North Eastern region of India heavily depends on agriculture for its livelihood. Despite a high literacy rate ranging from 91 to 93%, there is a significant lack of knowledge about advanced agricultural practices. The crops being cultivated include paddy, maize, soybean, sesame, ginger, strawberry, mustard, French bean, brinjal, okra, tomato, roselle, Mizo Chilli, cabbage, and broccoli, but there is a dearth of awareness concerning improved management practices. Additionally, these farmers are socioeconomically underprivileged and have not been able to keep up with the advancements in society. Introducing modern technology facilities has the potential to elevate their socioeconomic standards (Vanlalhmuliana *et al*., 2021). Gomatee Singh (2012) [12, 14] in his study attempted to analyse the factors that influence farmers in district Bulandshahr, western Uttar Pradesh, to grow crops based on the size of their land holdings. The major findings list out that the majority of farmers in Bulandshahr district rely on agriculture as their main source of income. The choice of crops and the level of production are greatly influenced by factors such as land size, capital, marketing, labour, transportation, economic conditions, and institutional support. Farmers evaluate the economic feasibility of a crop within their social, physical, and political environment before making any decisions**.** In a study conducted by A.S. Maurya *et al*. (2017) [8], an in-depth analysis of the socio-economic status of brinjal growers in the specific blocks of Lakhoti and Jahangirabad was undertaken. These two blocks were purposefully chosen from a total of 16 blocks in the Bulandshahr District. The study revealed that the majority of the respondents were involved in small-scale dairy farming, had limited resources, belonged to medium-sized families, relied on canal

irrigation facilities, and depended on agriculture as their main source of income, with an annual income exceeding Rs. 1,50,000/-. Furthermore, the study indicated that the respondents exhibited a moderate level of access to information and a medium level of scientific and risk orientation.

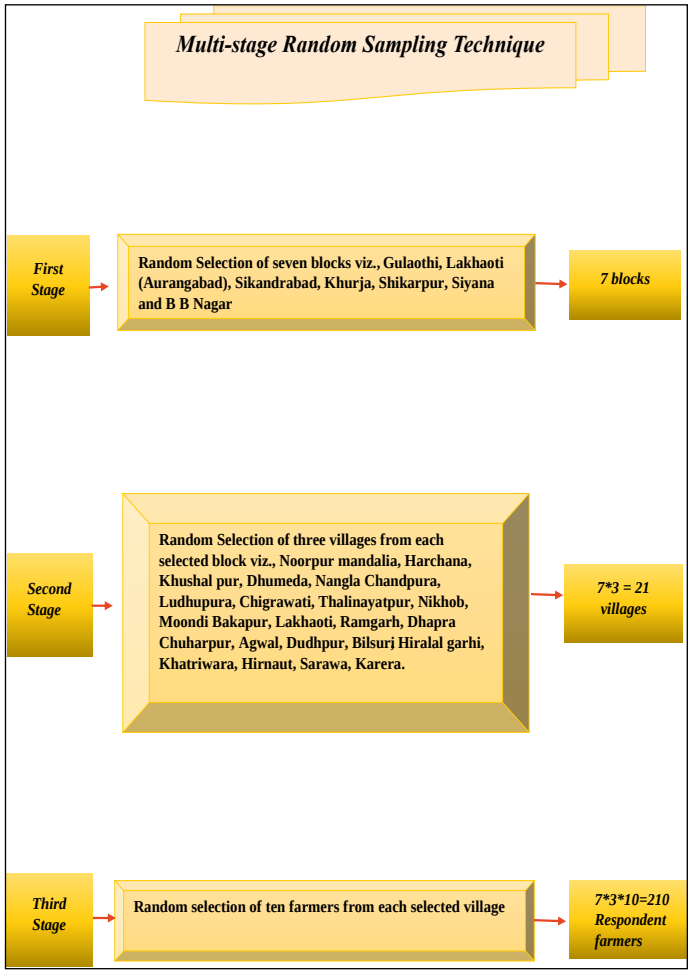
In light of time and space constraints, we have conducted a review of relevant literature aligned with our objectives. This review includes discussions on sustainability, the socio-economic status of small and marginal farmers, factors influencing their livelihoods, the present and future landscape of the rural livestock sector, youth engagement in farming, technology adoption, debt, socio-demographic profiles, livestock management, the lack of formal sources of information and credit, and the challenges these farmers encounter. However, comprehensive research on how these factors interact and collectively impact the socio-economic status of these farmers is limited.

Furthermore, most existing literature focuses on specific states or regions in India, such as Punjab, Maharashtra, Goa, Uttarakhand, and Tamil Nadu. In the case of Uttar Pradesh, from the literature reviewed, we found only crop-specific, regional-based studies with scanty attention given to western Uttar Pradesh. Against this backdrop, it's necessary to examine the various factors that influence the socioeconomic status of small and marginal farmers in Bulandshahr district of Uttar Pradesh.

**Data Base and Research Methodology**

The study is based on primary data collected through a field survey. A carefully designed personal interview schedule was used to gather information from the target population in selected areas. The interview schedule was crafted to capture key variables such as age, gender dimensions, educational status, farm sizes, land status, cropping patterns, quality of inputs, resource access, market dynamics, daily wage, farm, and non-farm income, mode of payment, and institutional access of sample households for the year 2023-24. These socio-economic factors impact their overall quality of life, economic security, prospects for upward mobility, and the evaluation of government initiatives. In addition to primary data, secondary data from reputable sources such as periodicals and government agency reports were also used.

To achieve the objectives of the study, a multi-stage random sampling technique was used to collect primary data from the Bulandshahar district. Firstly, we created a list of all 16 developmental blocks in the district. Then, we randomly selected seven blocks—Gulaothi, Lakhaoti (Aurangabad), Sikandrabad, Khurja, Shikarpur, Siyana, and B.B. Nagar—for the study. Next, we randomly chose three villages from each selected block, and finally, we selected ten small and marginal farmers from each village for a total sample size of 210 farmers. We requested assistance from the Village Pradhan and other responsible individuals in locating the targeted farmers. Our research methodology involved using both primary and secondary data to assess the impact of government agricultural policies on the socio-economic conditions of small and marginal farmers. We used tables, graphs (such as bar diagrams), figures, and flow charts to organize and summarize the data after data mining.



## Results and Discussion

### Demographic Profile

The demographic profile provides a comprehensive outlook on the characteristics and composition of the sampled farmers. Age, gender, religion, social category, marital status, and family size are some of the demographic factors considered in this study. Here is the demographic classification of the respondent farmers.

**Table 1:** Demographic Profile of the Respondent Farmers

| Particulars | Category | Frequency | Percent |
|---|---|---|---|
| **Age** | **18-35** | 24 | 11.4 |
| | **36-45** | 31 | 14.7 |
| | **46-60** | 107 | 51.0 |
| | **Above 60** | 48 | 22.9 |
| **Gender** | **Male** | 203 | 96.7 |
| | **Female** | 7 | 3.3 |
| **Religion** | **Hindu** | 206 | 98.1 |
| | **Muslim** | 4 | 1.9 |
| **Category** | **Gen** | 24 | 11.4 |
| | **OBC** | 105 | 50.0 |
| | **SC** | 81 | 38.6 |
| **Marital Status** | **Married** | 196 | 93.3 |
| | **Unmarried** | 14 | 6.7 |
| **Education Status** | **Illiterate** | 11(10) | 7(7) |
| | **Primary** | 10(9) | 14(14) |
| | **Middle** | 41(39) | 31(30) |
| | **Secondary** | 30(28) | 42(40) |
| | **Graduate** | 14(13) | 10(10) |
| **Number of dependent** | **1** | 19 | 9.0 |
| | **2 to 3** | 148 | 70.5 |
| | **4 to 5** | 21 | 10.0 |
| | **More than 5** | 5 | 2.4 |
| | **No children** | 17 | 8.1 |
| | **Total** | 210 | 1.0 |

**Source:** Author's calculation from primary survey

The data in Table 1 shows that the largest group of respondent farmers (51.0%) falls within the '46-60 years' age bracket, while 22.90% are above 60 years old. Less than 30% of the farmers are in the young (18-45 years) age group, indicating that the majority of respondent farmers are in the 46-60 age range. More than 95% of respondent farmers are male, while only 3% are female, indicating that males are the major contributors in the field. Out of the total 210 respondent farmers, 98.1% are Hindus, while only 2% are Muslims, indicating that Hindus are the dominant community. The caste-desegregated profile of the sample reveals that around 50% of respondents belong to the backward class, while 38.6% are from the scheduled caste, and only 11.4% are from the general category, highlighting that the majority of the farmers belong to the backward caste. Regarding marital status, more than 90% of farmers are married, and only 6.7% are unmarried. In terms of education, 39% of farmers in the marginal category have a middle-level education, followed by 28% with secondary education and 13% with a graduate level. In the small category, similar trends are observed, with the highest percentage having a 40% secondary level, followed by 30% with middle-level education and 10% with a graduate level. Additionally, 70.5% of respondent farmers have 2-3 dependents in a family, followed by 10% of farmers having 4-5 dependent members in the family.

### Agricultural practices

The survey respondents are categorized into two groups: Inherited and Sharecropper, based on their landholdings, i.e., whether they own the land or receive a share in return for their services. The distribution of farmers is presented in Table 2. The table indicates that 87.70% of marginal farmers and 95.20% of small farmers own inherited land. In contrast, only a small percentage of respondents from both categories are sharecroppers: 12.30% of marginal farmers and 4.80% of small farmers. Therefore, it is evident that most small farmers benefit from inherited property. Given the rapid technological advancement and modern agricultural practices, the purpose of the classification in the table above is to investigate the types of agricultural practices followed by the farmers. Approximately 86% of both groups of farmers still rely on traditional techniques used by their ancestors, while only 0.90% of respondents are adopting modern practices. Around 13% are integrating both practices as per their convenience or suitability. Consequently, it is concluded that the practices followed by forefathers remain significantly relevant.

The primary crop grown by the farmers in the district is wheat, with 74.8% of marginal and 67.30% of small farmers cultivating it, followed by sugarcane (49.1% of marginal and 56.7% of small farmers). A smaller proportion of marginal (29.2%) and small farmers (37.5%) grow rice, while less than 10% grow maize. This indicates that wheat is the major crop grown among the farmers of the district.

**Table 2:** Agricultural practices followed by the respondent farmers

| Particulars | Marginal | Small |
|---|---|---|
| | Percentage | |
| **Land Status** | | |
| Inherited | 87.7 | 95.2 |
| Share Cropper | 12.3 | 4.8 |
| **Practices** | | |
| Those Adopted from forefathers | 86.8 | 86.5 |
| New/Modern practices | 0.9 | 0 |
| Both | 12.3 | 13.5 |
| **Major Crops** | | |
| Wheat | 74.5 | 67.3 |
| Sugarcane | 49.1 | 56.7 |
| Rice | 29.2 | 37.5 |
| Maize | 6.6 | 7.7 |
| **Crop Selection Pattern** | | |
| Single Crop | 33 | 25 |
| Multiple Crop | 67 | 75 |
| **Crop Storing** | | |
| Self-done | 32 | 33 |
| By Labour | 0 | 0 |
| Both | 68 | 67 |
| **Place of Storage** | | |
| Home | 0 | 0 |
| Mills | 0 | 0 |
| Both | 100 | 100 |
| **Source of Clean Water** | | |
| Personal Hand Pump | 65.1 | 61.5 |
| Government Hand Pump | 1 | 1.9 |
| Submersible | 33 | 36.5 |
| **Source of Irrigation** | | |
| Well | 0 | 0 |
| Tubewells | 100 | 100 |
| Canals | 0 | 0 |
| Others | 0 | 0 |
| **Quality of Chemical Fertilisers** | | |
| High | 15.1 | 10.6 |
| Medium | 80.2 | 86.5 |
| Low | 4.7 | 1.9 |
| **Quality of Pesticides** | | |
| High | 5.7 | 3.8 |
| Medium | 72.6 | 56.7 |
| Low | 20.8 | 38.5 |
| **Quality of Seeds** | | |
| High | 12.3 | 11.5 |
| Medium | 72.6 | 76 |
| Low | 15.1 | 12.5 |
| Total | 106 | 104 |

**Source:** Author's calculation from primary survey

The farming system is influenced by factors such as land availability, rainfall, and irrigation facilities. The study categorizes two crop selection patterns: single and multiple crops. More than 70% of the farmers follow multiple cropping farming systems, with 33% of marginal and 25% of small farmers growing only one crop at a time. Thus, it is evident that marginal and small farmers in the district practice multiple cropping.

Crop management is crucial in improving crop growth, development, and yields. It involves agricultural practices from seed sowing to storage and marketing. The classification of various crop management factors and farmer practices is mentioned in the table. The results show that 68% of marginal farmers and an equivalent number of small farmers consider both methods for storing and managing crops, followed by only 32% of farmers who do it themselves. None of the respondents depend solely on labour. More than 60% of both marginal and small farmers depend on laborers.

The storage of crops is essential for preserving harvested crops and livestock products. The study categorizes two forms of storage facilities: Home and Mills. It is found that 100 percent of small as well as marginal farmers prefer both places to store their crops based on output and availability of storage places.

Access to clean water is important for health, food preparation, hygiene, and overall well-being. It also prevents the spread of health risks and aids agricultural productivity. Among the marginal farmers, 65% reported personal hand pumps as their source of clean water, while

33% reported submersibles and only a few (2%) mentioned government hand pumps. Similarly, 62% of small farmers mentioned personal hand pumps, followed by submersibles (37%). Hence, it is indicated that most small and marginal farmers depend on their infrastructure to access clean water.

With reliable irrigation, farmers can ensure that the crop receives a consistent and adequate supply of water. Proper irrigation is necessary for crop diversification, which can enhance food security. All the surveyed marginal and small farmers predominantly use tube wells as their primary means of irrigation. Farm inputs include machinery, labour, fertilizers, pesticides, and seeds, which are essential for enhancing agricultural productivity. The quality of these inputs significantly impacts crop yields, farm income, and overall sustainability. Farmers must have high-quality inputs to maintain their farm practices.

The majority of marginal and small respondent farmers (80% and 87% respectively) use medium-quality fertilizers, while 15% of marginal and 11% of small farmers use high-quality fertilizers. Only 1% of small farmers reported using poor-quality fertilizers. Additionally, the majority of farmers reported using medium-quality pesticides. As for seeds, 73% of marginal farmers and 76% of small farmers reported utilizing medium-quality seeds, with very few mentioning high-quality seeds. This indicates that the predominant practice among both farmer groups is the use of medium quantity and quality of inputs.

**Economic Profile**

The economic status of small and marginal farmers depends on the asset holdings and occupation of the family members. Farmers have assets such as land, agricultural equipment, houses, livestock, vehicles, etc.

**Land Holding**

Understanding landholding is crucial for studying the socio-economic status of farmers. This study focuses on two categories of farmers: marginal farmers, who have landholdings of less than 1 hectare, and small farmers, who have landholdings between 1 and 2 hectares. Table 3 shows the classification of small and marginal farmers based on their landholding capacity in each block.

**Table 3:** Land-based classification of farmers

| | Block | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Gulaothi** | **Siyana** | **B.B. Nagar** | **Aurangabad** | **Khurja** | **Sikandrabad** | **Shikarpur** |
| **Marginal** | 14(46) | 18(60) | 15(50) | 18(60) | 15(50) | 11(36) | 15(50) |
| **Small** | 16(53) | 12(40) | 15(50) | 12(40) | 15(50) | 19(63) | 15(50) |
| **Total** | 30 | 30 | 30 | 30 | 30 | 30 | 30 |

**Source:** Author's calculation from primary survey
**Note:** Figures in parenthesis show percentages

Remember the following information: In Aurangabad and Siyana, 60% of respondents own land up to 1 hectare, and 40% are small farmers. In B.B. Nagar, Shikarpur, and Khurja, 50% of respondents have marginal land, and 50% are small farmers. In Sikandrabad, 60% of farmers are small, and in Gulaothi, 53% of farmers are small. This indicates that farmers in Gulaothi and Sikandrabad are relatively prosperous compared to the other districts.

Besides the assets held and occupations of family members, other factors such as wage disparities, vehicle ownership, various sources of income including livestock and horticultural activities, annual income, mode of payment, and access to credit facilities all influence the economic conditions of small and marginal farmers. Table 4 shows how these factors contribute to the farmers' income.

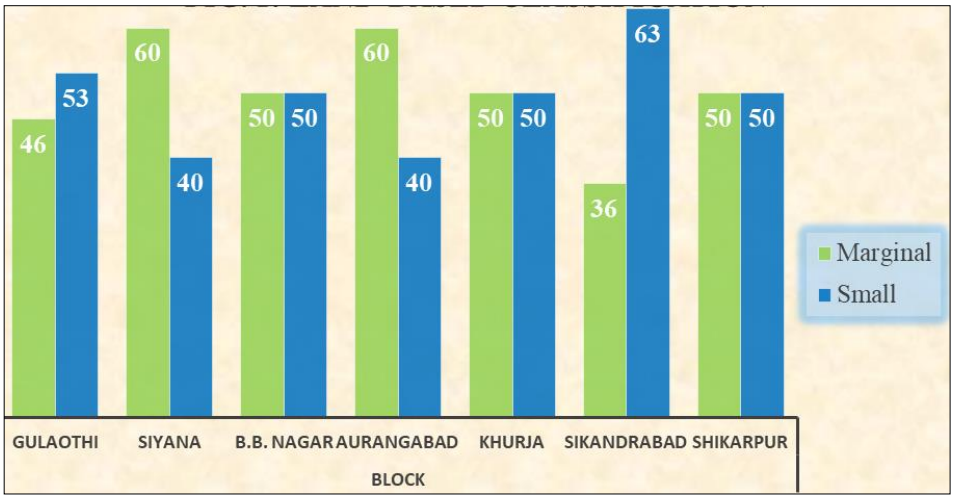



**Fig. 1:** Land-based classification

Occupation plays a significant role in determining the socio-economic status of farmers. Farmers' occupational background is divided into three categories: those involved in farming activity, those in non-farming activity, and those involved in both. According to Table 4, approximately 35% of respondents with marginal landholdings are involved in farming activity, while about 28% of small landholders prefer farming activity. Only a small portion of the respondents rely exclusively on non-farming activities, while 60% of farmers from the marginal category and 69% from the small category heavily depend on both occupations. This indicates that farmers in the selected

blocks, especially small farmers, rely on both farming and non-farming activities.

Additionally, 67% of small farmers and 32% of marginal farmers hired male laborers at the rate of 450 rupees. Similarly, 3 out of 106 marginal farmers and 8 out of 104 small farmers hired male laborers at the rate of 550 rupees. Female labour is available at lower wages for farming, with 32% of marginal farmer respondents hiring female labour at the rate of 350 rupees. It is also observed that during peak sowing and harvesting seasons, demand for labour increases, pushing wages up to 650 rupees for male laborers, but no such change is seen for female laborers.

**Table 4:** Classification of the Respondent Farmers based on Economic Practices

| Particulars | Marginal | Small |
|---|---|---|
| | Percentage | |
| **Occupation** | | |
| Farming Activity | 34.9 | 27.9 |
| Non-Farming Activity | 4.7 | 2.9 |
| Doing Both | 60.4 | 69.2 |
| **Production for Self-Consumption** | | |
| Yes | 74.5 | 67.3 |
| No | 25.5 | 32.7 |
| **Daily wage of Male Labour** | | |
| 350 | 0 | 3.8 |
| 450 | 32.1 | 67.3 |
| 550 | 2.8 | 7.7 |
| 660 | 0 | 1 |
| **Daily wage of Female Labour** | | |
| 250 | 2.8 | 7.7 |
| 350 | 32.1 | 71.2 |
| 450 | 0 | 1 |
| 550 | 0 | 0 |
| **Vehicles Possession** | | |
| Two-wheeler | 64.2 | 89.4 |
| Four-wheeler | 35.8 | 10.6 |
| **Agriculture Marketing** | | |
| **Place for selling Wheat Crop** | | |
| Local Market | 74.5 | 67.3 |
| N/A | 25.5 | 32.7 |
| **Place for selling Sugarcane** | | |
| Sugar Mill | 49.1 | 56.7 |
| N/A | 50.9 | 43.3 |
| **Place for selling horticultural output** | | |
| Local Market | 24.5 | 32.7 |
| N/A | 75.5 | 67.3 |
| **Respondent Farmers engaged in livestock activities** | | |
| Number of farmers | 74 | 74 |
| **Livestock holding** | | |
| Cattle (Buffalo and Cow) | 74 | 74 |
| **Livestock Purpose** | | |
| Secondary source of income | 0 | 0 |
| Domestic consumption | 35 | 28 |
| Both | 39 | 46 |
| **Income earned (Rs. Per month)** | | |
| 1,000-5,000 | 16 | 12 |
| 5,000-10,000 | 16 | 17 |
| 10,000-15,000 | 18 | 24 |
| More than 15,000 | 4 | 3 |
| Nil | 46 | 44 |
| **Respondent Farmers engaged in Horticultural activities** | | |
| **Number of farmers** | 24.5 | 32.7 |
| **Income earned (Rs. Per month)** | | |
| 0-50,000 | 0 | 0 |
| 50,001-1 lakh | 0 | 0 |
| 1,00001-1.5 lakh | 24.5 | 0 |
| 15,0001-2 lakhs | 0 | 9.6 |
| Above 2 lakhs | 0 | 23.1 |
| N/A | 75.5 | 67.3 |
| **Annual Income** | | |
| 0-50,000 | 21.7 | 0 |
| 50001-1 lakh | 53.8 | 0 |
| 100001-1.5 lakh | 0 | 21.2 |
| 150001-2 lakhs | 0 | 46.2 |
| Above 2 lakhs | 0 | 0 |
| N/A | 24.5 | 32.7 |
| **Sources of Credit** | | |
| Big Land owners | 16 | 13.5 |
| Personal Savings | 43.4 | 51.9 |
| Government Welfare Schemes | 0 | 0 |
| Relatives | 25.5 | 20.2 |
| **Payments** | | |
| **Mode of Payment** | | |
| Cash | 50.9 | 43.3 |
| Cheque | 0 | 0 |
| NEFT | 0 | 0 |
| Cash and online both | 49.1 | 56.7 |
| **Minimum time for payment clearance** | | |
| Less than 45 days | 50 | 54.8 |
| Less than 3 months | 29.2 | 18.3 |
| 3-6 months | 6.6 | 12.5 |
| 5-9 months | 3.8 | 5.8 |
| 9-12 months | 5.7 | 3.8 |
| More than 12 months | 4.7 | 4.8 |
| **Total** | **106** | **104** |

**Source:** Author's calculation from primary survey

Subsistence farming is a type of farming in which farmers grow crops to meet the needs of their families on small landholdings. 74.50% of marginal farmers and 67.30% of small farmers engage in sustainable agriculture practices. However, the agricultural produce of 26% of marginal farmers and 32.70% of small farmers is insufficient to meet their self-consumption needs. This highlights a significant concern regarding output loss faced by the farmers.

Most small farmers (89.40%) and marginal farmers (64.20%) own two-wheeler vehicles as their mode of transport. Four-wheeler vehicles are fewer in number, with only 10.60% of small farmers and surprisingly, 35.80% of marginal respondents owning a four-wheeler—more than three times the number of small farmers with four-wheelers. Thus, it is evident that small farmers primarily use two-wheelers as their mode of transport, while marginal farmers tend to have four-wheelers comparatively.

Agricultural marketing is vital for the economy as it involves the buying and selling of agricultural products, bringing producers and consumers together through a series of essential activities. The farmers/households reported two major crops: wheat and sugarcane. 74.50% of marginal farmers and 67.30% of small farmers prefer to sell wheat in the local market.

Additionally, 49.10% of marginal farmers and 56.70% of small farmers sell their sugarcane output locally. When it comes to selling horticultural produce, the majority of both marginal and small farmers opt for local markets.

A substantial proportion of the rural population relies on livestock as an additional source of income. Based on the sample survey, around three-fourths of the farmers reported owning livestock. It was observed that 74% of marginal and 74% of small farmers depend on livestock as an additional source of income. Livestock is a critical component of the agricultural system in India, particularly among small and marginal farmers. Supplementary livelihood options and household consumption are considered driving factors for small and marginal farmers' dependency on livestock. Livestock rearing is an effective means to alleviate poverty and improve children's nutrition within households, providing substantial benefits. A large proportion of sampled farmers—48% of small farmers and 41% of marginal farmers—rear cattle or have livestock for domestic purposes and as an additional source of income. This is followed by 37% of marginal and 29% of small farmers who rear livestock solely for domestic consumption. Approximately 28% of both marginal and small farmers do not engage in either of these purposes. 74% of marginal and small farmers rear cattle, either to generate additional income or to provide nutritional value to their family members. Meanwhile, 26% of farmers do not rear cattle or other livestock. Therefore, among the livestock kept, buffaloes and cows occupy dominant positions in rural families.

18% of marginal and 24% of small farmers fall into the income bracket of 10,000-15,000 per month. Additionally, 16% of marginal and 17% of small farmers earn between 5,000-10,000 per month. Only 4% of marginal and 3% of small farmers fall into the highest income bracket of more than 15,000 per month. A significant proportion of farmers, 46% of marginal and 44% of small, do not earn any income from livestock. This implies that, on average, 50% of farmers (both marginal and small) fall into the income bracket of 1,000-15,000. In contrast, 45% of farmers rear cattle for domestic consumption without earning income from them, while a small proportion enjoys the highest income bracket.

Horticulture plays a significant role in the agricultural landscape of Bulandshahr district. The region benefits from a favourable climate and fertile soil conditions, supporting the cultivation of a wide variety of horticultural crops. Major horticultural crops in the area include fruits, vegetables, and flowers. The above table lists that 24% of marginal farmers and 32% of small farmers are involved in horticulture activities. The monthly income earned by the marginal farmers is between 1 and 1.5 lakh. On the other hand, small farmers earn, on average, above 1.5 lakh. Conclusively, less than 50% of respondent farmers are involved in horticulture activities. Marginal farmers earn between 1 and 1.5 lakh, whereas small farmers earn up to 2 lakh per month.

In this study, the annual income of respondent farmers is divided into five categories. 53% of marginal farmers have an income of 50,001 to 100,000 per year, while 21.7% have an income of up to 50,000 per year. On the other hand, 46.2% of small farmers have an income of 150,001 to 200,000, and 21.2% have an income of 100,001 to 150,000. 24.5% of marginal and 32.7% of small farmers do not earn any income. These findings show that small farmers are entering higher income brackets compared to marginal farmers. Access to credit is crucial for the growth and stability of farmers in agriculture, allowing them to invest in important inputs such as seeds, fertilizers, equipment, and technology. Institutional sources like Regional Rural Banks and Commercial banks play a crucial role in providing structured and affordable credit, which can significantly improve the financial conditions of farmers. The most common sources of credit are personal savings, with 52% of small and 43% of marginal farmers relying on them, followed by loans from relatives (20% and 26%) and loans from large landowners (14% and 16%). Bank loans are slightly more prevalent among marginal farmers (15%) compared to small farmers (14%). It is noted that 51% of marginal farmers receive payments for their produce in cash, while a higher percentage of 57% of small and 49% of marginal farmers receive payments through a combination of cash and online payments. An increasing trend of adopting online payment methods is evident, especially among small farmers. Furthermore, 50% of marginal and 55% of small farmers report that payment clearance for their agricultural produce takes less than 45 days, while a significant proportion reports longer payment clearance periods, ranging from 3 months to more than 12 months, indicating potential delays in certain transactions.

**Conclusion**

The comprehensive survey of farmers in the Bulandshahr district presents a detailed analysis of their demographic, socio-economic, and agricultural characteristics. Predominantly, the farming community in the district comprises individuals aged between 46-60 years, primarily male and of the Hindu faith. A considerable proportion belongs to backward and scheduled castes, with the majority being married and possessing middle-level and secondary education. The prevalence of inherited land ownership and the widespread use of traditional farming methods are notable, with wheat emerging as the predominant crop, followed by sugarcane.

Moreover, over 70% of farmers engage in multiple cropping, underscoring their adaptability to local conditions and agricultural cycles. Of particular interest are the comparatively prosperous farmers in Gulaothi (53%) and Sikandrabad (60%), who predominantly partake in both farm and non-farm activities to sustain their livelihoods. Notably, there exists a gender wage disparity in agricultural labour, with male laborers being compensated at a higher rate than their female counterparts. Livestock, particularly buffaloes and cows, serves as a crucial additional income

source, and horticulture also holds considerable significance for many farmers. In the realm of credit, the majority of farmers rely on loans from non-institutional sources, while the clearance of online payments for agricultural produce remains an area of concern. Notwithstanding these challenges, the farmers within the study universe have exhibited resilience by diversifying their farming practices and establishing supplementary income sources, thereby ensuring the sustenance of their livelihoods.

**Policy Recommendations**

Based on the comprehensive findings of this study, the policy recommendations below address the challenges faced by small and marginal farmers in the study area.

- The government needs to promote and enforce the adoption of modern farming practices.
- Aggressive investment in farmer education and training programs is urgently needed.
- A mechanism must be developed to ensure easy access to formal credit sources and enforce crop diversification.
- Livestock rearing and horticulture can be developed as important sources of supplementary income for farmers.
- Government agencies should improve market access for small and marginal farmers.
- The government should shift its focus to stabilizing prices and implementing targeted programs for marginalized farmers.
- The government should implement focused programs to address the gender gap and rigorously monitor these programs decisively.
- The government should regularly evaluate the implementation of agricultural policies and schemes.

These recommendations aim to foster sustainable agricultural development, improve livelihoods, and enhance the overall socio-economic status of farmers in Bulandshahr district.

**Limitations of the study**

Due to time and resource constraints, this study is limited to only seven blocks within the district. The study specifically focuses on evaluating the socio-economic status of small and marginal farmers. To understand the socio-economic landscape of farmers in Bulandshahr district, selecting a representative sample that includes farmers from all categories is crucial.

**References**


1. Amitha CD, Karthikeyan C, Mansingh JP, Kumar R, Kumar D, Patil SG. Socioeconomic Categorization- A New Classification for the Farm Households. Indian Journal of Extension Education,2023:59(3):38-42.
2. Anjana RA, Sidhu K. Socio-economic Profile of the Farmers in Five Agro-Climatic Zones of Punjab, India, Asian Journal of Agricultural Extension, Economics and Sociology,2022:40(9):8-16.
3. Chandrakar K, Chandrakar D, Debasis Das. Socio-economic survey of operational holding of farmers and status of small and marginal farmers in India. International Journal of Home Science,2021:7(1):105-107.
4. Das Arghyadeep, Raju R, Patnaik Neela. Present Scenario and Role of Livestock Sector in Rural Economy of India: A Review. International Journal of Livestock Research,2020:10:22-30.
5. Gulati A, Terway P, Hussain S. Performance of agriculture in Uttar Pradesh. In: Gulati, A., Roy, R., Saini, S. (eds) Revitalizing Indian Agriculture and Boosting Farmer Incomes, India Studies in Business and Economics, Springer, Singapore, 2021, 175-210.
6. Jadhav RS, Shinde H R, Pisal AA, Jadhav MS. An economic viability of small and marginal farmers in Nashik district of Maharashtra, Pharma Innovation Journal,2023:12(4):1891-1894.
7. Karthik TT, Ramprasad TP. A Study on Socio-Demographic Profile of Farmers. Journal of Emerging Technologies and Innovative Research,2023:10(4):2349-5162.
8. Maurya AS, Yadav RN, Singh DK, Singh D, Singh, VK, Kaushal P, *et al*. Socio-Economic Status of Brinjal Growers in Bulandshahr District of Western Uttar Pradesh, India. International Journal of Current Microbiology and Applied Sciences,2017:6(8):361-365.
9. Mukherjee A, Roy P, Sanya D, Roy TN, Shih Yu (Simon) Wang. Does socio-economic dynamics influence crop yield variability? Current Science, 2023, 125(8).
10. Singh A, Singh A, Parmar K Rajmani. Socio-economic Status in C.D. block Kalyanpur in Kanpur Nagar (U.P.). International Archive of Applied Sciences and Technology,2020:11(3):166-176.
11. Singh A, Doharey RK, Singh A, Singh A, Tripathi A, Singh A. The socio-economic traits of farmers of Varanasi district regarding cyber extension tools and services. International Journal of Statistics and Applied Mathematics,2023:8(3):226-230.
12. Singh G. Factors Influencing Cropping Pattern in Bulandshahr District-With Special Reference to the Size of Land Holding. International Journal of Scientific and Research Publications, 2012, 2 (5).
13. Singh K, Singh S, Kingra HS. Agrarian Crisis and Depeasantisation in Punjab: Status of Small/Marginal Farmers Who Left Agriculture, Indian Journal of Agricultural Economics, Indian Society of Agricultural Economics,2009:64(4):585-603.
14. Singh M. Challenges and Opportunities for sustainable viabilities of marginal and small farmers in India, Agricultural situation in India,2012:59:133-142.
15. Singla NK. Viability of small and marginal farmers in Punjab, M.Sc Thesis, Punjab Agricultural University, Ludhiana, India, 2003.
16. Sehgal M, Kumar R, Kumar R, Srivastava D, Singh A, Saurbah. Socio-economic Status of Farmers of Sitapur District of Uttar Pradesh: A Case Study. International Journal of Current Microbiology and Applied Sciences, 2018, 7.
17. All India Report on Agriculture Census 2015-16, Agriculture Census Division, Department of Agriculture, Cooperation & Farmers Welfare Ministry of Agriculture & Farmers Welfare, New Delhi, 2020.
18. All India Report on number and area of operational holdings (2019), Situation Assessment Survey of Agricultural Households, Land and Holdings of Households in Rural India (NSS Report No. 587(77/33.1/1), Ministry of Agriculture and Farmers Welfare. https://up.gov.in/en/page/social-demographyhttps://bulandshahar.nic.in/