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SOCIO-ECONOMIC PROFILE AND EMPOWERMENT STATUS OF WOMEN MEMBERS IN FARMER PRODUCER ORGANIZATIONS OF ASSAM INDIA

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ABSTRACT

Farmer Producer Organizations (FPOs) have emerged as important institutional mechanisms for strengthening the livelihoods of small and marginal farmers through collective production, input procurement, marketing, value addition and improved access to institutional services. The participation of women in FPOs is particularly important for promoting inclusive agricultural development and strengthening their socio-economic position. The present study examined the socio-economic profile of women members associated with a Women Farmer Producer Organization in Jorhat district of Assam. Primary data were collected from 150 women members through personal interviews using a structured and pre-tested interview schedule. A multistage sampling procedure was followed, wherein Jorhat district and one Women Farmer Producer Organization were purposively selected, followed by selection of 150 members through simple random sampling. Descriptive statistical techniques such as frequency, percentage, mean and standard deviation were used for analysis. The findings revealed that the mean age of respondents was 37 years, with a standard deviation of 9.55 years and an age range of 19–64 years. The mean landholding was 2.825 bighas, ranging from 0.9 to 5.4 bighas. A substantial proportion of respondents had higher secondary or graduate-level education, while agriculture remained the predominant occupation. Nearly two-thirds of respondents belonged to nuclear families, and 42.7 per cent reported annual household income below ¹ 50,000. More than half of the respondents had been members of the FPO for less than six months. The findings indicate that the selected FPO primarily comprised economically active rural women engaged in agriculture with relatively small landholdings. Strengthening training, market access, financial inclusion and institutional participation can further improve the socio-economic benefits of FPO membership.

Key words: Farmer Producer Organization, women farmers, socio-economic profile, rural women, Assam, FPO membership, agriculture

Introduction

Agriculture remains an important source of livelihood in India, with rural women contributing substantially to crop production, livestock management, post-harvest activities and household food security. Despite their significant contribution, women frequently face

constraints in accessing productive resources, institutional credit, agricultural technologies, extension services and organized markets.

Farmer Producer Organizations have emerged as institutional mechanisms for addressing several of these constraints through collective action. FPOs facilitate

aggregation of farm produce, collective procurement of inputs, marketing, value addition and improved market linkages. Collective organizations can strengthen the bargaining position of small and marginal farmers and improve their access to institutional and market opportunities.

The importance of women's participation in such organizations extends beyond agricultural production. Women's involvement in collective organizations can improve their access to information, training, financial services, markets and institutional networks. Such participation may consequently contribute to improvements in livelihood opportunities and women's socio-economic position.

The uploaded study identifies a research gap concerning empirical evidence on women members of FPOs in Assam and particularly emphasizes the need to understand their socio-economic characteristics. The present paper therefore focuses specifically on the socio-economic profile of women members of a Women Farmer Producer Organization in Jorhat district of Assam.

Research Gap

Although previous studies have examined FPOs in relation to agricultural marketing, collective action, income generation and rural livelihoods, empirical evidence concerning the socio-economic characteristics of women FPO members in Assam remains limited. The North-Eastern region has received comparatively less empirical attention in research on women-centered producer organizations.

A detailed understanding of the socio-economic profile of women members is essential for designing appropriate institutional interventions, capacity-building programmes, financial services and market-oriented activities. The present study attempts to address this gap by describing the demographic and socio-economic characteristics of women participating in a Women FPO in Jorhat district.

Objectives

The specific objective of the study was:

1. To examine the socio-economic profile of women members associated with Farmer Producer Organizations in Assam.

Materials and Methods

Study Area

The present investigation was conducted in Jorhat district of Assam, one of the major agricultural districts of North-East India. Agriculture forms the backbone of

the district's economy, with rice, mustard, vegetables, pulses, and horticultural crops constituting the principal farming systems. Women actively participate in almost every stage of agricultural production, including nursery raising, transplanting, intercultural operations, harvesting, post-harvest processing, and marketing. Despite their significant contribution, women often experience limited access to productive resources, institutional credit, extension services, and organized markets. Consequently, Women Farmer Producer Organizations (WFPOs) have emerged as important institutional mechanisms for improving women's participation in agricultural enterprises through collective action, input procurement, value addition, and market linkages. The thesis selected Jorhat district because of the active functioning of a women-led Farmer Producer Organization and its relevance for assessing women's socio-economic upliftment.

Research Design

The study adopted a descriptive and analytical research design using a cross-sectional survey approach. Primary data were collected directly from women members of the selected Women Farmer Producer Organization through personal interviews conducted using a structured and pre-tested interview schedule.

The descriptive component of the study was used to summarize the socio-economic characteristics of respondents, whereas the analytical component assessed different dimensions of women's empowerment using standardized statistical procedures.

Source of Data

The study utilized both primary sources of information. Primary data were collected directly from women members through personal interviews using a structured questionnaire.

Sampling Procedure

A multistage sampling procedure was adopted for

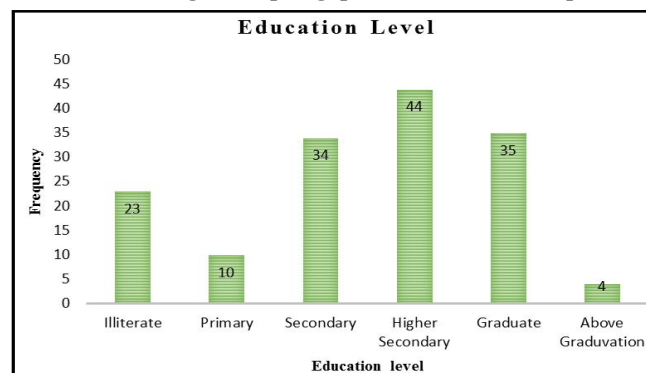


Fig. 1: Graphical representation of Educational Status of Respondents.

selecting respondents. In the first stage, Jorhat district of Assam was purposively selected because of the presence of an active Women Farmer Producer Organization.

In the second stage, one Women Farmer Producer Organization was selected for detailed investigation.

Finally, 150 women members were selected from the membership list using Simple Random Sampling (SRS) to ensure equal probability of selection and minimize sampling bias. The thesis specifies that the study was based on primary data collected from 150 women members using purposive and simple random sampling techniques.

Statistical Analysis

The collected data were coded, classified, and analysed using appropriate statistical software.

The present paper primarily employed descriptive statistical techniques.

Frequency Distribution

Frequency analysis was used to summarize respondents according to different socio-economic characteristics.

Percentage Analysis

Percentage analysis was used to compare respondents across different demographic categories and empowerment levels.

The percentage was computed as:

$$\text{Percentage} = \frac{\text{Total Respondents}}{\text{Frequency}} \times 100$$

Mean:

The arithmetic mean was used to summarize continuous variables.

$$\text{Where } \bar{x} = \frac{\sum x}{n} = \frac{\text{sum of all the observations}}{\text{Total number of observations}}$$

$\bar{x}$ = Mean

Standard Deviation: Standard deviation measured the

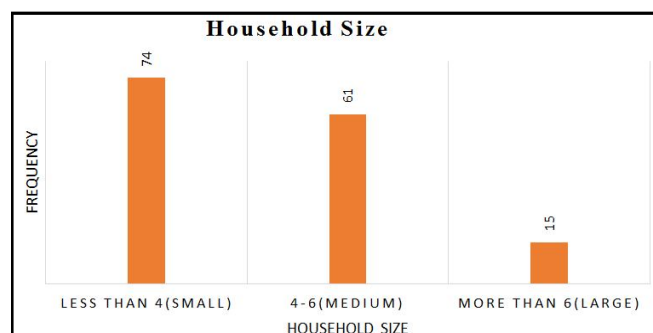


Fig. 2: Graphical representation of Household Size of Respondents.

Table 1: Age and Land hold size Distribution of Respondents.

Variables	Mean	SD	Minimum	Maximum
Age	37	9.55	19	64
Land hold Size	2.825	1.48	0.9 Bigha	5.4 Bigha

variability of observations around the mean.

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum (x_i - x_{mean})^2}{n}}$$

Where,

S.D = Standard Deviation

x_i = Observations

x_{mean} = Arithmetic mean

n = Number of observations

Classification of Empowerment Levels

Composite empowerment scores were classified into:

Low scores belong under the categories less than (Mean— Standard Deviation)

Medium scores belong between Mean $\pm$ Standard Deviation

High scores belong between Mean + Standard Deviation

Results and Discussion

Socio-Economic Profile of Women Members

Understanding the socio-economic characteristics of women members is fundamental for assessing their participation in Farmer Producer Organizations (FPOs) and evaluating the effectiveness of institutional interventions. Socio-economic variables influence women's access to productive resources, adoption of agricultural innovations, participation in organizational activities, and ultimately their level of empowerment. The present study examined respondents' demographic and socio-economic characteristics, including age, education, family composition, occupation, landholding, farming experience, annual income, and duration of FPO membership.

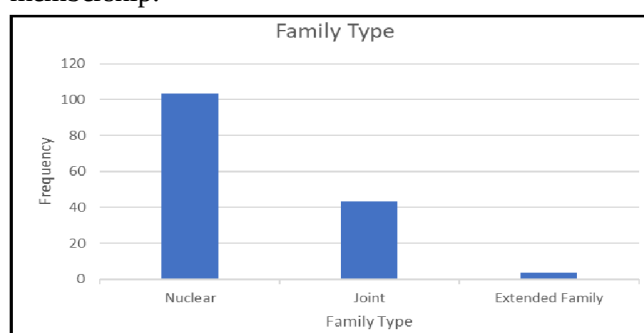


Fig. 3: Graphical representation of Respondents According to their Family Type.

Table 2: Distribution of Respondents According to their Educational Status.

Education Level	Frequency	Percentage
Illiterate	23	15.3
Primary	10	6.7
Secondary	34	22.7
Higher Secondary	44	29.3
Graduate	35	23.3
Above Graduation	4	2.7
Total	150	100

Age Land hold Size Distribution of Respondents

Age is one of the most important determinants of participation in agricultural enterprises because it influences farming experience, decision-making ability, physical capacity, and willingness to adopt innovations. Landholding remains one of the most important indicators of agricultural resource availability.

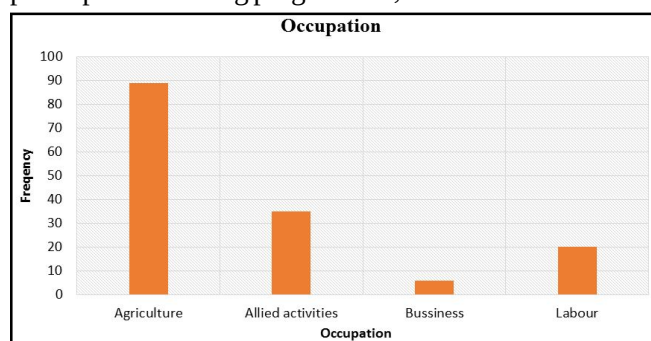
The descriptive statistics presented in the table indicate that the mean age of the respondents was 37 years, with a standard deviation of 9.55 years. The age of the respondents ranged from 19 to 64 years, indicating considerable variation in the age composition of the respondents. This suggests that the study included both relatively young and older participants.

With respect to landholding size, the respondents possessed an average landholding of 2.825 bighas, with a standard deviation of 1.48 bighas. The landholding size varied from a minimum of 0.9 bigha to a maximum of 5.4 bighas. Thus, the respondents represented households with relatively small and varying sizes of landholdings.

The present findings corroborate those reported by Amitha *et al.* (2021), Gupta *et al.* (2020), and Rathour *et al.* (2022), who also observed that middle-aged farmers constituted the majority of FPO members.

Educational Status

Education plays a critical role in strengthening women's capacity to understand agricultural technologies, participate in training programmes, maintain farm records,

**Fig. 4:** Graphical representation of Respondents According to their Occupation.**Table 3:** Distribution of Respondents According to their Household Size.

Household Size	Frequency	Percentage
Less than 4 (Small)	74	49.3
4 – 6 (medium)	61	40.7
More than 6 (Large)	15	10.0
Total	150	100

and engage effectively with institutional mechanisms.

The findings indicated that most respondents had attained secondary education, while smaller proportions had primary education, higher secondary education, graduate-level education, or no formal schooling.

The relatively satisfactory educational status among respondents may have contributed positively to their participation in FPO activities, attendance at training programmes, adoption of improved agricultural practices, and communication with extension agencies.

Higher educational attainment generally enhances women's confidence in participating in meetings, maintaining financial records, and interacting with marketing agencies, thereby strengthening both economic and social empowerment.

These findings agree with Amitha *et al.* (2021), who reported that most FPO members had completed primary or secondary education.

Household Size

Household size influences labour availability, dependency ratio, household expenditure, and agricultural decision-making.

The study observed that the majority of respondents belonged to medium-sized families, followed by small and large families.

Medium-sized households generally provide adequate family labour for agricultural operations while maintaining manageable household expenditures. Such households are better positioned to participate in collective farming activities organized through FPOs.

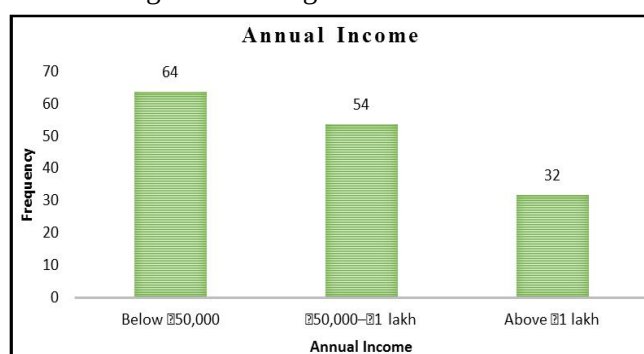
**Fig. 5:** Graphical representation of Respondents According to their Annual Income.

Table 4: Distribution of Respondents According to their Family type.

Type of Family	Frequency	Percentage
Nuclear	103	68.7
Joint	43	28.7
Extended Family	4	2.7
Total	150	100

Table 5: Frequency Distribution of Respondents According to their occupation.

Occupation	Frequency	Percentage
Agriculture	89	59.3
Agri. & Allied activities	35	23.3
Business	6	4.0
Labour	20	13.3
Total	150	100

Family Type

Family structure influences women's participation in household decision-making and agricultural management.

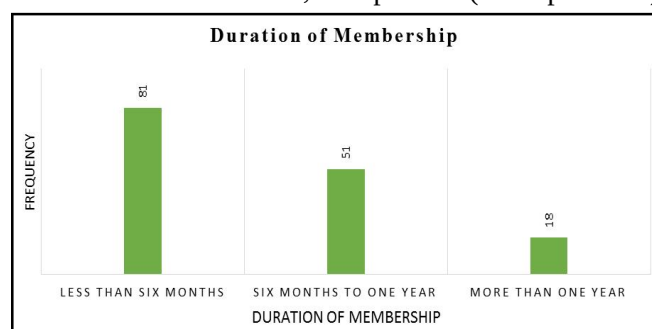
The findings indicated that most respondents belonged to nuclear families, whereas fewer respondents were members of joint families.

Women from nuclear households often enjoy relatively greater autonomy in agricultural and household decisions compared with those living in extended family structures. Consequently, they may participate more actively in FPO meetings, training programmes, and marketing activities.

Primary Occupation

The distribution of respondents according to their occupation reveals that agriculture was the predominant occupation, accounting for 59.3 per cent (89 respondents) of the total 150 respondents. This indicates that a majority of the respondents were primarily engaged in farming activities as their main source of livelihood.

About 23.3 per cent (35 respondents) were engaged in agriculture and allied activities, indicating the importance of allied agricultural activities as an additional or alternative livelihood source. Further, 13.3 per cent (20 respondents)

**Fig. 6:** Frequency Distribution of Respondents According to their Duration of Membership.**Table 6:** Frequency Distribution of Respondents According to their Annual household income.

Annual Income	Frequency	Percentage
Below Rs 50,000	64	42.7
Rs 50,000 – Rs 1 lakh	54	36
Above Rs 1 lakh	32	21.3
Total	150	100

of the respondents were engaged as labourers, while only 4.0 per cent (6 respondents) were involved in business activities.

Overall, the findings indicate that agriculture and agriculture-related activities constituted the major occupational base of the respondents, with more than four-fifths of the respondents (82.6%) primarily dependent on agriculture and allied activities.

Annual Household Income

Annual income reflects the economic well-being of respondents and influences their ability to invest in agricultural production.

The findings revealed that most respondents belonged to the medium-income category, while comparatively fewer respondents belonged to low- and high-income groups.

Participation in FPO activities may contribute to income improvement by facilitating collective marketing, reducing input costs, improving access to quality agricultural inputs, and enhancing price realization.

Previous studies by Rathour et al. (2022), Singh et al. (2019), and Anand et al. (2025) similarly reported higher income among FPO members compared with non-members.

Duration of Membership in FPO

Membership duration reflects respondents' exposure to organizational activities and institutional support.

The majority of respondents had maintained membership in the FPO for a moderate period, indicating sustained participation in organizational programmes.

Longer membership duration generally provides greater opportunities to benefit from training, market linkages, financial services, and leadership development initiatives.

Table 7: Frequency Distribution of Respondents According to their Duration of Membership.

Membership Duration	Frequency	Percentage
Less than six months	81	54.0
Six months to one year	51	34.0
More than one year	18	12.0
Total	150	100

The socio-economic profile of women members demonstrates that Farmer Producer Organizations in the study area primarily serve economically active, smallholder women farmers with moderate educational attainment and substantial agricultural experience. The predominance of middle-aged respondents, secondary education, small landholdings, and agriculture as the principal occupation indicates that FPOs are effectively engaging the segment of the rural population most dependent on agriculture for household livelihoods.

The findings also suggest that the socio-economic characteristics of respondents provide a favourable foundation for strengthening women's empowerment through institutional interventions. Education enhances women's ability to utilize training programmes and agricultural technologies, while farming experience facilitates adoption of improved production practices. Furthermore, collective participation through FPOs may partially compensate for the limitations associated with small landholdings by improving access to markets, agricultural inputs, institutional credit, and extension services.

Conclusion

Farmer Producer Organizations have emerged as an important institutional mechanism for promoting inclusive agricultural development and improving the livelihoods of small and marginal farmers in India. The present study examined the socio-economic profile and multidimensional empowerment status of women members associated with a Women Farmer Producer Organization in Assam. The findings demonstrate that the majority of respondents belonged to the middle-aged category, possessed secondary-level education, depended primarily on agriculture for their livelihood, and owned small or marginal landholdings. These socio-economic characteristics reflect the typical profile of rural women farmers in Assam and highlight the relevance of collective institutional approaches for strengthening their livelihoods.

The study further demonstrates that Farmer Producer Organizations facilitate women's access to agricultural inputs, training programmes, extension services, market opportunities, and institutional networks, thereby creating favourable conditions for socio-economic advancement. Nevertheless, challenges such as limited access to formal credit, inadequate market infrastructure, restricted participation in organizational governance, and persistent socio-cultural barriers continue to limit the transition from medium to high levels of empowerment.

Overall, the findings confirm that Farmer Producer Organizations can serve as effective instruments for promoting sustainable rural development and gender-inclusive agricultural growth. Strengthening institutional support, expanding capacity-building programmes, improving financial inclusion, enhancing market access, and encouraging women's leadership within FPO governance structures will further improve the effectiveness of these organizations. The evidence generated by this study contributes to the growing body of literature on women-centered agricultural institutions and provides useful guidance for policymakers seeking to promote gender-responsive agricultural development in Assam and similar socio-economic contexts.

Limitations

The study was based on 150 women members of one selected Women Farmer Producer Organization in Jorhat district. Therefore, the findings should be interpreted within the geographical and institutional context of the study. The descriptive design also limits the ability to establish causal relationships between FPO membership and socio-economic outcomes.

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