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### A comparative study on the socio-economic status of members and non-members of farmer producer organisations in Telangana

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#### Abstract

Farmer Producer Organisations (FPOs) have emerged as an institutional mechanism to enhance the income and livelihood security of small and marginal farmers through collective action. The present study was undertaken to examine the difference in socio-economic status between members and non-members of FPOs in Mahaboobnagar district of Telangana. A descriptive research design was adopted. Four FPOs promoted by two Producer Organisation Promoting Institutions (POPIs) were selected, and a total sample of 240 respondents comprising 120 FPO members and 120 non-members was drawn using random sampling. Socio-economic status was measured using the modified Kuppaswamy Scale (2017), based on education, occupation, and annual income. Respondents were categorized into five socio-economic classes, and a two-sample Z-test was employed to test the significance of difference between the two groups.

The findings revealed that a majority of FPO members belonged to middle (35.84%) and upper-middle (28.34%) socio-economic categories, whereas most non-members were concentrated in the lower-middle (50.83%) category. With respect to income, 46.66 per cent of members fell under the medium income category, compared to only 19.20 per cent of non-members. The calculated Z value (3.17) was found to be significant at 1 per cent level, indicating a statistically significant difference in socio-economic status between members and non-members. The study concludes that membership in FPOs is associated with improved socio-economic standing, suggesting that collective institutional participation plays a vital role in enhancing farmers' livelihoods. The findings provide empirical support for strengthening FPO-based interventions as a strategy for rural development.

**Keywords:** Farmer producer organisations, socio-economic status, comparative study, Telangana

#### Introduction

Agriculture remains a critical sector in the Indian economy, particularly in terms of rural employment and livelihood security. Despite its importance, small and marginal farmers continue to face structural constraints such as fragmented landholdings, limited access to institutional credit, high input costs, weak market linkages, and price volatility. These challenges often result in low farm profitability and restricted socio-economic mobility. In response to these systemic issues, collective action models have increasingly been promoted as mechanisms to enhance farmers' bargaining power, reduce transaction costs, and improve access to markets and services.

The theoretical foundation for Farmer Producer Organisations (FPOs) is rooted in the principles of collective action and institutional economics. According to Olson's (1965) <sup>[5]</sup> theory of collective action, individuals can achieve greater economic benefits by organizing collectively to overcome market failures and reduce coordination problems. Similarly, transaction cost economics (Williamson, 1981) <sup>[11]</sup> emphasizes that institutional arrangements such as producer organisations can reduce information asymmetry, uncertainty, and market inefficiencies. In the agricultural context, producer organisations facilitate economies of scale in input

procurement, aggregation of produce, value addition, and market negotiation (Markelova *et al.*, 2009) <sup>[4]</sup>. These institutional mechanisms are particularly relevant for smallholders, who otherwise operate in isolation and possess limited market power.

In India, the Government and development agencies such as NABARD have actively promoted FPOs as instruments of inclusive agricultural growth and rural transformation. The PRODUCE Fund and subsequent national initiatives have strengthened institutional support systems to enable farmers to participate in organized markets. Empirical studies suggest that membership in producer organisations enhances income levels, improves access to quality inputs, facilitates credit linkages, and strengthens market participation (Trebbin, 2014; Singh, 2012) <sup>[9, 7]</sup>. However, the extent to which such institutional participation translates into measurable improvements in socio-economic status remains a subject of empirical inquiry.

Socio-economic status (SES) is widely recognized as a multidimensional construct reflecting an individual's relative position within a social system, typically measured through education, occupation, and income. SES serves as an important indicator of livelihood security, social mobility, and economic well-being. From a development perspective, institutional participation such as membership

in FPOs, can be conceptualized as a pathway for socio-economic advancement through enhanced human capital, financial capital, and social capital formation.

While several studies have examined the performance and operational efficiency of FPOs, comparative analyses of socio-economic differentials between members and non-members remain limited, particularly in the context of Telangana. Understanding these differences is essential to evaluate whether FPO membership contributes to upward socio-economic mobility or merely reflects pre-existing advantages among participating farmers.

Against this backdrop, the present study aims to assess and compare the socio-economic status of FPO members and non-members in Mahaboobnagar district of Telangana. By employing the modified Kuppaswamy Socio-Economic Status Scale (2017) and statistical comparison of means, the study seeks to empirically test whether institutional participation through FPO membership is associated with significant socio-economic improvement.

### Materials and Methods

A descriptive research design was adopted for the study. The state of Telangana was chosen purposively for the study as the investigator hails from this state. Mahaboobnagar district was selected purposively as the district is actively promoting number of FPOs under PRODUCE fund (source: NABARD). Two POPI's (Producer Organization Promoting Institutes) i.e. Child Care Organization (CCO) NGO from Nagarkurnool and Society for Integration and Rural Development (SIRD) NGO from Wanaparthi were purposively selected for the study as they are actively promoting FPOs from the last five years. Four FPOs were selected randomly from two different promoting institutes present in the Wanaparthi and Nagarkurnool mandals respectively. From each of the selected FPO, thirty farmer members and thirty non-members were selected by following random sampling procedure. The sample constituted of 120 farmer members and 120 non-members. Socio-Economic status refers to the socio-economic standing or position of the respondent in comparison to the other members of social system to which respondent belongs. This variable was measured using Kuppaswamy scale (2017) modified based on Consumer Price Index. The parameters of the scale included Education of the respondent, Occupation of the respondent and Annual income. On the basis of these parameters' respondents were categorized into five categories viz. Upper class, Upper

middle class, Lower middle class, Upper lower class, Lower class based on their total scores obtained. Two sample z test was used to find the significant difference between means of two samples that is farmer members of FPOs and non-members.

### Hypothesis

$H_0$  - There is no significant difference in socio-economic status of members and non- members of FPOs.

### Results and Discussion

Socio-economic status of respondents has been measured using modified Kuppaswamy scale (2017). The data presents status of respondents on the basis of three parameters- Education, Occupation and Annual Income.

#### Education

Data regarding education of people are presented in Table 1, which indicates that little more than one-fourth (27.5%) of the member farmers were educated up to middle school followed by primary school (21.67%), 17.5 per cent were educated up to high school, whereas only 9.16 per cent were educated up to graduation, nearly ten per cent (8.34%) were literate who could only read and write. Only 5.83 per cent of farmer members were illiterate. Whereas, little less than one-fourth (23.5%) of non-member farmers were educated up to middle school followed by (21%) were literate who could read and write only. Twenty per cent were educated up to primary school, while 10.83 per cent were illiterate, 7.5 per cent were educated up to intermediate level. Only 1.67 per cent of non-members were educated up to graduation.

The farmers with a good level of education have tendency towards changes in the social system. With the formation of FPOs, more of the literate farmers had joined with the hope of changing their socio-economic status. Among the literate farmers, most of them were having middle school level of education. However, in case of non-members the efforts of government in increasing awareness about education among farming community could help them attain a good education. The findings of the present study are supported by Rajput *et al.* (2016) [6], Darshan (2019) [1] who reported that most of the member farmers were educated up to middle school (35.33%) followed by primary school (26.67%) and most of non-members were educated up to middle school (34.67%) followed by primary school (22%).

**Table 1:** Distribution of respondents on the basis of education

| S. No. | Categories                               | Member farmers (n=120) |            | Non-member farmers (n=120) |            |
|--------|------------------------------------------|------------------------|------------|----------------------------|------------|
|        |                                          | Frequency              | Percentage | Frequency                  | Percentage |
| 1.     | Graduate or postgraduate                 | 11                     | 9.16       | 2                          | 1.67       |
| 2.     | Intermediate or post high school diploma | 12                     | 10         | 9                          | 7.5        |
| 3.     | High school certificate                  | 21                     | 17.5       | 19                         | 15.5       |
| 4.     | Middle school certificate                | 33                     | 27.5       | 28                         | 23.5       |
| 5.     | Primary school certificate               | 26                     | 21.67      | 24                         | 20         |
| 6.     | Literate                                 | 10                     | 8.34       | 25                         | 21         |
| 7.     | Illiterate                               | 7                      | 5.83       | 13                         | 10.83      |
| Total  |                                          | 120                    | 100        | 120                        | 100        |

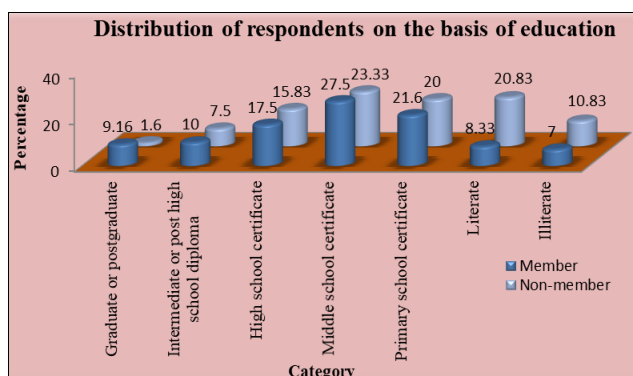


**Fig 1:** Distribution of respondents on the basis of education

### Occupation

Data regarding occupation of members of FPO and non-members are presented in Table 2, which indicates that most (37.5%) of the member farmers had agriculture as primary occupation, while 27.5 per cent were unskilled workers, followed by 19.16 per cent of respondents were skilled workers. The unemployed farmer-members were 9.16 per cent, 5.84 per cent of the respondents were shop owners and

only 0.84 per cent farmer members were semi-professional. None of the members were employed in particular profession. Whereas, one-third (33.34%) of the non-members were unskilled workers, while 30.84 per cent were having agriculture as primary occupation, followed by 21.66 per cent of respondents who were unemployed. Only 9.16 per cent of respondents were skilled workers and five per cent of respondents were shop owners and none of the non-members were found in the categories of semi-professional and professional.

The results showed that most of the members of FPOs were having agriculture as primary occupation and most of the non-members were unskilled workers. The reason might be due to majority of respondents were having marginal and small land holding and only agriculture did not provide them enough income so they have taken up other occupations along with agriculture. The results of the present study are in line with the findings of Kavin and Divya K (2019) <sup>[2]</sup> who reported that most of the farmer members of FPOs were having agriculture as their primary occupation and most of the non-members were unskilled workers.

**Table 2:** Distribution of respondents on the basis of occupation

| S. No. | Categories          | Member farmers (n=120) |            | Non-member farmers (n=120) |            |
|--------|---------------------|------------------------|------------|----------------------------|------------|
|        |                     | Frequency              | Percentage | Frequency                  | Percentage |
| 1.     | Profession          | 0                      | 0          | 0                          | 0          |
| 2.     | Semi- profession    | 1                      | 0.84       | 0                          | 0          |
| 3.     | Clerical,shop owner | 7                      | 5.84       | 6                          | 5          |
| 4.     | Skilled worker      | 23                     | 19.16      | 11                         | 9.16       |
| 5.     | Agriculture         | 45                     | 37.5       | 37                         | 30.84      |
| 6.     | Unskilled worker    | 33                     | 27.5       | 40                         | 33.34      |
| 7.     | Unemployed          | 11                     | 9.16       | 26                         | 21.66      |
| Total  |                     | 120                    | 100        | 120                        | 100        |

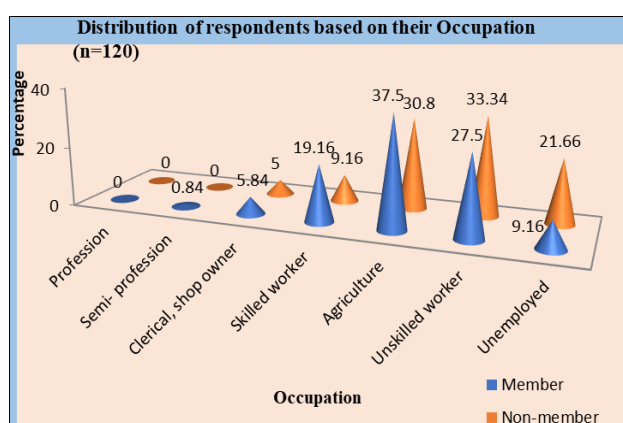


**Fig 2:** Distribution of respondents on the basis of occupation

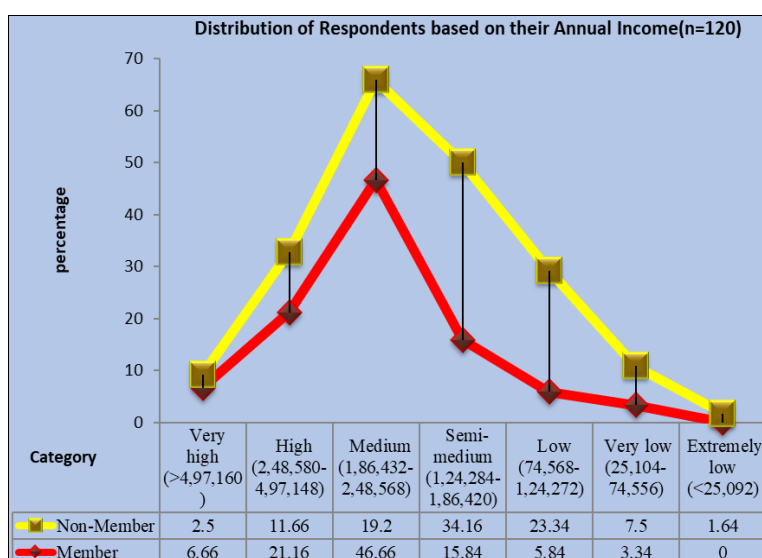
### Annual income

It is evident from the Table 3, that most (46.66%) of the member farmers had medium annual income and 21.16 per cent were having high annual income, while 15.84 per cent

of member farmers had semi-medium annual income and 6.66 per cent members had very high annual income, nearly ten percent of the members were in category of low (5.84) and very low (3.34) annual income. None of the respondents had extremely low annual income. Whereas, (34.16%) of non-members had semi-medium annual income followed by 23.34 per cent of respondents had low annual income, 19.20 per cent of respondents had medium annual income, 11.66 per cent of respondents had high annual income, while ten per cent of the non-members were in very low (7.5) and very high (2.5) annual income and only 1.64 per cent of the respondents had extremely low annual income. The reason might be because majority of members and non-members had small and marginal land holding and mostly, they were semi-skilled workers. The results of the present study were contradicting with the findings of Darshan (2019) <sup>[1]</sup> who reported that most of the farmer members were under medium income category and most of the non-members had low annual income.

**Table 3:** Distribution of respondents on the basis of annual income

| S. No. | Categories                      | Member farmers (n=120) |            | Non-member farmers (n=120) |            |
|--------|---------------------------------|------------------------|------------|----------------------------|------------|
|        |                                 | Frequency              | Percentage | Frequency                  | Percentage |
| 1.     | Very high (>4,97,160)           | 8                      | 6.66       | 3                          | 2.5        |
| 2.     | High (2,48,580-4,97,148)        | 26                     | 21.16      | 14                         | 11.66      |
| 3.     | Medium (1,86,432- 2,48,568)     | 56                     | 46.66      | 23                         | 19.20      |
| 4.     | Semi-medium (1,24,284-1,86,420) | 19                     | 15.84      | 41                         | 34.16      |
| 5.     | Low (74,568- 1,24,272)          | 7                      | 5.84       | 28                         | 23.34      |
| 6.     | Very low (25,104- 74,556)       | 4                      | 3.34       | 9                          | 7.5        |
| 7.     | Extremely low (<25,092)         | 0                      | 0          | 2                          | 1.64       |
| Total  |                                 | 120                    | 100        | 120                        | 100        |

**Fig 3:** Distribution of respondents on the basis of annual income

### Socio-economic status

The data in Table 4, indicates that a little more than one-third (35.84%) of member farmers were under middle class category followed by 28.34 per cent of members who belonged to upper-middle class, while 26.66 per cent of farmer members belonged to lower-middle class and 9.16 per cent of member farmers were from the lower class. None of the farmer member were under category of upper class. Whereas, half (50.83%) of non-members were in the category of lower-middle class followed by 25 per cent of non-members were in middle class category, while 13.34 per cent of non-members belonged to lower class and 10.83 per cent of non-members were in upper-middle class category. It is evident that nearly ninety per cent of farmer members were in upper-middle, middle, lower-middle class and ninety per cent of non-members were in middle, lower-middle and lower class.

It is evident from the Table 4, that the majority of the farmer members fell in the range of middle class to upper middle class. The participation in FPOs had been helping the member farmers to get assured income from the farming activities. It was reported by the farmer members of FPOs that producer organisation helped them in the procurement process, bargaining power exercise to reduce the cost of inputs and other costs of transportation, marketing etc. This had been the reason for increasing economic status of farmer members to a considerable extent.

In the case of non-members, the majority were in the category of lower-middle class as they were deprived of getting low-cost inputs and they were also not receiving regular procurement facilities. The results of the present study are in agreement with the findings of Vedaari (2018) [10] who reported that most of the members of FPOs were in middle class category and most of the non-members were in the category of lower-middle class.

**Table 4:** Distribution of respondents on the basis of socio-economic status

| S.NO  | Categories                 | Member farmers (n=120) |            | Non-member farmers (n=120) |            |
|-------|----------------------------|------------------------|------------|----------------------------|------------|
|       |                            | Frequency              | Percentage | Frequency                  | Percentage |
| 1.    | Upper class (26-29)        | 0                      | 0          | 0                          | 0          |
| 2.    | Upper middle class (16-25) | 34                     | 28.34      | 13                         | 10.83      |
| 3.    | Middle class (11-15)       | 43                     | 35.84      | 30                         | 25         |
| 4.    | Lower middle class (5-10)  | 32                     | 26.66      | 61                         | 50.83      |
| 5.    | Lower class (<5)           | 11                     | 9.16       | 16                         | 13.34      |
| Total |                            | 120                    | 100        | 120                        | 100        |

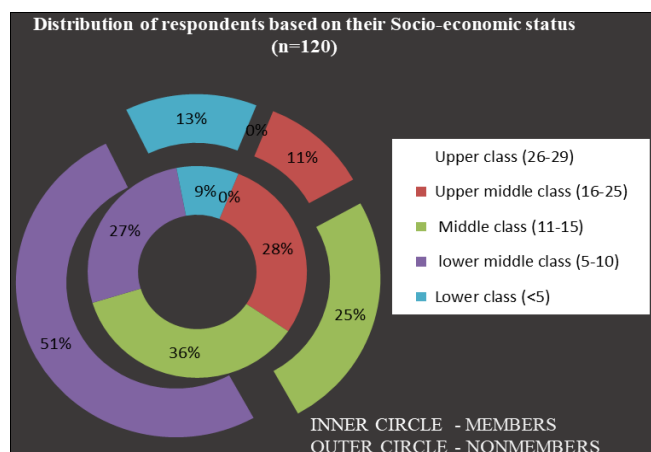


**Fig 4:** Distribution of respondents on the basis of socio-economic status

**Table 5:** Comparison of socio-economic status of farmer members of FPOs and non-members based on the z-score

| S. No. | Particulars                | Members (n=120) | Non-members (n=120) |
|--------|----------------------------|-----------------|---------------------|
| 1.     | Mean socio-economic status | 13.74           | 12.01               |
| 2.     | Z score                    | 3.17**          |                     |

(\*\*=Significant at 0.01 per cent level of significance  $Z_{tab @ 0.01} = 2.57$ )

The z test was applied to compare the significance of difference between the socio-economic status of farmer members of FPOs and non-members. It was observed from the table that the calculated z value was greater than the table z value. Hence null hypothesis stating there was no difference in the means of socio-economic status of farmer members of FPOs and non-members was rejected. The results of the present study are in agreement with the findings of Suneesha (2018) [8] who reported that there is a significant difference in socio-economic status of members of FPOs and non-members.

### Conclusion

The present study examined the socio-economic differences between members and non-members of Farmer Producer Organisations in Mahaboobnagar district of Telangana. The findings clearly indicate that FPO membership is positively associated with improved socio-economic status. A higher proportion of member farmers were concentrated in the middle and upper-middle socio-economic categories, whereas non-members were predominantly found in the lower-middle and lower categories.

The significant difference observed through the Z-test confirms that institutional participation through FPOs contributes to measurable improvements in education, occupation patterns, and annual income levels. Members reported better access to input procurement, enhanced bargaining power, reduced transaction costs, and improved market linkages, which collectively contributed to higher income levels and improved socio-economic positioning.

The results reinforce the theoretical premise of collective action and institutional economics, which suggest that organized participation can reduce market inefficiencies and enhance economic outcomes for smallholders. While socio-economic advancement cannot be attributed solely to FPO

membership, the study provides strong empirical evidence that collective institutional engagement serves as an important pathway for livelihood enhancement and social mobility.

Therefore, strengthening FPOs through policy support, capacity building, financial linkages, and market integration can further enhance their developmental impact. Expanding membership coverage and ensuring inclusion of resource-poor farmers may contribute significantly to rural socio-economic transformation.

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