

Socio-Economic Conditions of Female Farmers in Sukapura Village, Sukapura District, Probolinggo Regency

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Abstract. This study aims to analyze the socio-economic conditions of female farmers involved in potato cultivation in Sukapura Village, Sukapura District, Probolinggo Regency. Sukapura Village is known as one of the potato production centers in the highlands of East Java. Female farmers in this village play an important role in potato cultivation activities, including land preparation, plant care, and harvesting. Despite their active role in the production process, female farmers in Sukapura still face various social and economic challenges, such as limited access to capital, limited mastery of agricultural technology, and dependence on middlemen in distributing harvests. This study uses a qualitative-descriptive approach with data collection methods through in-depth interviews, participatory observation, and documentation. The research subjects were selected purposively, namely female farmers who have at least three years of experience in potato cultivation. The data collected were analyzed using thematic analysis to identify key patterns related to their socio-economic conditions. The results of the study show that female farmers in Sukapura Village have an important role in supporting the family economy, but their social and economic position is still vulnerable. They experience limitations in access to capital, training, and wider market networks. In addition, dominant social norms limit their involvement in important decision-making, both at the family and community levels. Based on these findings, women farmers' empowerment programs are needed that focus on increasing access to resources, skills training, and developing fairer marketing networks.

Keywords: socio-economic conditions, women farmers, potato cultivation, Sukapura Village, empowerment

INTRODUCTION

Sukapura Village, located in Sukapura District, Probolinggo Regency, is one of the areas in East Java that has high potential in the agricultural sector, especially potato cultivation. Its location in the highlands and cool climate make this village an ideal area for various types of horticultural crops, including potatoes. Potato cultivation in Sukapura Village has become the main source of livelihood for most of its people, including female farmers who play an active role in the entire planting process to post-harvest.

Female farmers in Sukapura Village have a dual role, not only contributing to household activities but also being active in the agricultural sector. Even so, they often face social and economic challenges. Socially, female farmers often experience limited access to agricultural training and education, as well as limited involvement in decision-making related to agriculture. Many of them do not have financial independence, so they depend on household income from agricultural products controlled by their husbands or male heads of families.

On the economic side, limited access to capital and markets is also a significant obstacle for female farmers in developing potato cultivation. The lack of adequate capital support makes it difficult for them to adopt modern agricultural technology that can increase productivity. In addition, dependence on the middleman system makes women farmers vulnerable to market price fluctuations that are often not profitable for producers. This results in low incomes for women farmers, which also affects the welfare of their families.

The socio-economic problems faced by women farmers in potato cultivation in Sukapura Village indicate an urgent need to empower them. Support in the form of training, access to capital, and market expansion are important things to improve the socio-economic position of women farmers in the village.

Potato cultivation in Sukapura Village, Sukapura District, Probolinggo Regency, has an important role in supporting the local economy, especially for farming families who depend on the horticultural agricultural sector for their livelihoods. As a village with a climate suitable for potato plants, Sukapura is one of the centers of potato production in East Java. However, behind the progress of this sector, the socio-economic conditions of women farmers involved in potato cultivation still face various challenges.

Women farmers in Sukapura Village play an active role in the entire potato cultivation process, from land preparation, planting, maintenance, to harvesting and post-harvest processing. Despite their major role in the production chain, the position of women farmers is often under-recognized, both in terms of access to resources, decision-making, and profit sharing. This is related to social norms that still consider women's main role as household managers (Wijayanti et al., 2019; Susilowati, 2020).

From an economic aspect, women farmers in Sukapura are faced with limited access to capital, technology, and markets. A study by Sari et al. (2018) shows that limited capital makes it difficult for women farmers to adopt modern technology that can increase productivity. In addition, they also have limited access to wider market networks, so they often depend on middlemen who offer low prices. This situation causes women farmers to only get low profits and are vulnerable to unstable market price fluctuations (Rahmawati & Hidayat, 2021).

Another problem faced by female farmers is the lack of opportunities to participate in training or counseling that can improve their skills and knowledge. Several studies have shown that improving skills and education for female farmers can improve family welfare and their bargaining position in the market (Handayani & Puspitawati, 2020; Utami et al., 2021). Therefore, it is important to explore the socio-economic conditions of female farmers in potato cultivation in Sukapura Village in order to formulate more effective empowerment strategies.

METHODS

Research Methods

This study uses a qualitative-descriptive approach to explore the socio-economic conditions of female farmers in potato cultivation in Sukapura Village. The qualitative approach was chosen because it can provide a deep understanding of the experiences, roles, and socio-economic challenges faced by female farmers. The descriptive method is used to describe in detail the socio-economic conditions of female farmers, including their access to resources, roles in the family and community, and the economic contribution of potato cultivation activities.

Research Location and Subjects

The research location is Sukapura Village, Sukapura District, Probolinggo Regency, which is known as a potato producing area in East Java. The research subjects consist of female farmers who are directly involved in potato cultivation, both in the production process and in managing the harvest. The selection of subjects was carried out purposively, with the criteria of female farmers who have at least three years of experience in potato cultivation and play an active role in the activity.

Data Collection Techniques

Data collection was carried out using the following techniques:

- **In-depth Interviews:** In-depth interviews were conducted to obtain information about the personal experiences of female farmers, socio-economic challenges, and their roles in potato cultivation. Interviews were conducted using an interview guide compiled based on socio-economic indicators, such as access to capital, involvement in decision-making, and crop management (Creswell, 2014).
- **Participatory Observation:** Participatory observation was conducted to understand the socio-economic context of women farmers in their daily lives. Researchers observed their activities on farmland, household activities, and social interactions with family members and the community (Spradley, 2016).
- **Documentation:** Documentation data was collected from various sources, such as village reports, regional statistical data, and archives related to agricultural activities in Sukapura Village. This data was used to support the findings from interviews and observations (Moleong, 2017).

Data Analysis Techniques

Data analysis was carried out through the stages of data reduction, data presentation, and drawing conclusions. Data obtained from interviews, observations, and documentation were categorized based on relevant socio-economic

themes, such as access to capital, income, participation in decision-making, and socio-economic barriers. Thematic analysis techniques were used to identify key patterns from the collected data (Braun & Clarke, 2006). The results of the analysis were then presented in the form of narrative descriptions that describe the socio-economic conditions of female farmers in Sukapura Village.

Data Validation

To ensure data validity, this study used triangulation techniques, namely comparing the results of interviews, observations, and documentation. In addition, researchers conducted member checking with informants to confirm that the results of the analysis were in accordance with their experiences and views (Lincoln & Guba, 1985).

(1)

RESULTS AND DISCUSSION

Socio-Economic Conditions

This sub-chapter will explain the socio-economic conditions of female potato farmers in Sukapura Village, Sukapura District, Probolinggo Regency. According to Soekanto (2012), there are 6 socio-economic indicators to assess female farmers: (1) age, (2) education level, (3) family members, (4) income, (5) control over land, and (6) Production. The socio-economic conditions of female potato farmers in Sukapura Village, Sukapura District, Probolinggo Regency can be explained as follows:

1. Age of Female Farmers in Sukapura Village

Age is the first indicator to determine the socio-economic conditions of female farmers. Table 1 shows the age of female farmers in Sukapura Village who were interviewed

TABLE 1. Age of Female Farmers in Sukapura Village

No.	Age	Number of People	Percentage (%)
1	53-55	18	23,08
2	56-58	36	46,15
3	59-61	24	30,77
Total		78	100

Primary Data, 2024.

Table 1 shows that the age of Female Farmers in Sukapura Village in the age group 53-55 years is 23.08%, in the age group 56-58 years is 46.15% and in the age group 59 -61 years is 37.50%. The number of Female Farmers in Sukapura Village with the largest age category is 56-58 years with a percentage of 46.15%.

2. Last Education of Female Farmers in Sukapura Village

This level of education will measure the current level of education of female farmers in Sukapura Village who were surveyed. Table 2 below shows the level of education of female farmers who were interviewed.

TABLE 2. Last Education of Female Farmers in Sukapura Village

No.	Last Education	Number of People	Percentage (%)
1	SD	24	30,77
2	SMP	34	43,59
3	SMA	20	25,64
Total		78	100

Primary Data, 2024.

Table 2 explains that Female Farmers in Sukapura Village who have Elementary School Education are 30.77%, Junior High School Education is 43.59%, Female Farmers in Sukapura Village with a final education of Senior High School (SMA) contribute 25.64%.

3. Number of Family Members in Female Farmers in Sukapura Village

This index shows the number of family members in Female Farmers in Sukapura Village. Table 3 will show the number of family members in Female Farmers in Sukapura Village

TABLE 3. Number of Family Members in Female Farmers in Sukapura Village

No.	Number of Family Members (people)	Number of People	Percentage (%)
1	1	20	22,64
2	2	22	28,21
3	3	15	19,23
4	4	21	26,92
Total		78	100

Primary Data, 2024

Table 3 shows the number of family members of Female Farmer Members of Sukapura Village with 1 person as much as 22.64%, the number of family members of Female Farmers of Sukapura Village 2 people as much as 28.21%, the number of family members of Female Farmers of Sukapura Village 3 is 19.23% and 4 people as much as 26.92%, so the largest number of family members is 2 people, which is 28.21%.

4. Income of Female Farmers in Sukapura Village

This indicator identifies the income of Female Farmers in Sukapura Village for one month. Table 4 shows the amount of income of Female Farmers in Sukapura Village per month.

TABLE 4. Income of Female Farmers in Sukapura Village

No.	Income (Rp/Month)	Number of People	Percentage (%)
1	1.000.000-2.000.000	39	50,00
2	2.100.000-4.000.000	29	37,18
3	>4.000.000	10	12,82
Total		78	100

Primary Data, 2024.

Table 4 shows that the income of Sukapura Village Women Farmers per month with an amount of 1,000,000-2,000,000 has a percentage of 50%, then the income of Sukapura Village Women Farmers with an amount of Rp. 2,100,000-4,000,000 is 37.18% and the income of Sukapura Village Women Farmers with an amount > Rp. 4,000,000 is 12.82%. From these data, it can be seen that the highest income of Sukapura Village Women Farmers is the income of Sukapura Village Women Farmers per month with an amount of 1,000,000-2,000,000 of 50%

Discussion of Socio-Economic Conditions of Female Farmers in Sukapura Village

This study shows that female farmers in Sukapura Village have an important role in potato cultivation, which includes various stages ranging from land preparation, plant maintenance, to the harvest process. However, despite their significant contribution, the socio-economic position of female farmers is still vulnerable. Factors such as limited access to capital, lack of training and technology, and dependence on middlemen are the main challenges faced by female farmers in this village.

1. Access to Capital and Technology

Limited access to capital is one of the major obstacles for female farmers in developing potato cultivation. Most female farmers in Sukapura only have limited access to formal financial institutions, which makes it difficult for

them to invest in more efficient and productive agricultural technology (Sari et al., 2018). This is similar to the findings of Rahmawati & Hidayat (2021), which stated that limited access to capital and technology are the main factors inhibiting increased productivity for small farmers, especially female farmers. Without capital support, female farmers in Sukapura prefer traditional methods in potato cultivation which tend to be less effective than modern agricultural technology.

2. Social Role of Female Farmers

In addition to economic constraints, strong social norms still influence the position of female farmers in Sukapura Village. The main role of women in the household often reduces their opportunities to fully participate in community activities, especially in decision-making related to agricultural activities (Susilowati, 2020). The patriarchal culture that exists in this community often limits female farmers from being involved in economic decision-making and crop management, thus affecting their income and welfare levels. This is in line with the results of a study by Handayani & Puspitawati (2020), which showed that women's dual roles in the household and agriculture often cause excessive workloads and hinder their access to education and training.

3. Access to Markets and Dependence on Middlemen

Distribution and marketing of crops are also critical issues for female farmers. The results of the study show that most female farmers depend on middlemen to market their potatoes. This situation puts women farmers in a disadvantageous position because the prices offered by middlemen are often below market prices. Dependence on middlemen makes women farmers vulnerable to price fluctuations which cause their income to be unstable. Research conducted by Utami et al. (2021) supports this finding, where dependence on middlemen is one of the obstacles to farmers' economic welfare because they do not have control over market prices.

4. Need for Empowerment and Training

The findings of this study underline the importance of empowering women farmers in Sukapura Village through increasing access to capital, agricultural technology training, and developing wider marketing networks. Empowering women farmers can create opportunities for them to increase productivity, manage their crops independently, and earn a more stable income (Wijayanti et al., 2019). This empowerment will not only strengthen their economic position but also improve the welfare of their families and communities.

Socio-Economic Function

This study identified that women farmers in Sukapura Village have significant social and economic functions in potato cultivation, which have an impact on both the family and community levels. These social and economic functions play an important role in supporting family economic resilience and strengthening social networks at the community level.

1. Economic Function in Supporting Family Income

Women farmers in Sukapura Village directly contribute to the family economy through potato cultivation activities. They are involved in various stages of production, from land preparation, planting, to the harvesting process and post-harvest processing. This economic contribution provides additional income that plays an important role in meeting household needs and children's education. A study by Handayani & Puspitawati (2020) shows that women's involvement in the horticultural agricultural sector can increase household income, especially in rural areas with limited access to employment. This economic function also allows women to have relative financial independence, although still in the context of dependence on family income.

2. Social Function in Building Community Strength

In addition to their economic contributions, women farmers in Sukapura Village play a significant social function in strengthening the social networks of the farming community. Women farmers are often the driving force in mutual cooperation activities and support each other between farmers, especially in terms of sharing information and agricultural practices. For example, they share knowledge about cultivation techniques and how to manage production risks. This social role strengthens community solidarity and allows women farmers to access useful information networks to increase their agricultural productivity (Susilowati, 2020).

3. Function in the Utilization and Management of Natural Resources

Women farmers in Sukapura also play an important role in managing and utilizing natural resources sustainably. They tend to be more careful in using pesticides and chemicals to maintain the sustainability of

agricultural land. This is in line with the findings of Wijayanti et al. (2019) which showed that women farmers have a higher concern for environmental sustainability because of their connection to household needs and the sustainability of agricultural resources. Wise resource management by women farmers helps ensure that land productivity remains optimal amidst the challenges of climate change and land degradation.

4. Function in Education and Preservation of Local Knowledge

Women farmers also play a role in education and preservation of local knowledge in the agricultural sector. They pass on potato cultivation techniques that have been applied for generations and teach them to the younger generation, both in the family and the surrounding environment. The local knowledge they have regarding planting patterns, weather, and land management is a valuable asset for the sustainability of agriculture in Sukapura Village. A study by Rahmawati & Hidayat (2021) emphasized that the local knowledge possessed by female farmers plays an important role in the adaptation of local agriculture to climate change and increasing food security.

5. Challenges in Optimizing Socio-Economic Functions

Although female farmers function significantly in the social and economic fields, they still face various obstacles. Barriers such as limited access to capital, lack of training opportunities, and social obstacles such as dual roles in the household are still inhibiting factors. This indicates the need for empowerment programs that focus on increasing access to capital and technology, as well as relevant skills training for female farmers to optimize their social and economic roles (Utami et al., 2021).

CONCLUSIONS

The conclusion of this study shows that women farmers in Sukapura Village play an important role in the potato farming sector, both as the main source of family income and as a social pillar that connects the farming community. Their involvement in various stages of production, from preparation to harvest and product management, contributes significantly to the economic well-being of households. Although the role of women farmers in the socio-economic aspect is very valuable, they still face various obstacles, such as limited access to capital, technical training, and minimal support for agricultural policies.

This study also found that women farmers play a social role in maintaining community relations through mutual cooperation practices and sharing local knowledge, which strengthens solidarity among farmers. In addition, their role in natural resource management supports the sustainability of agriculture in the village, although challenges related to modern agricultural technology and adaptation to climate change still need to be overcome.

Overall, this study highlights the importance of empowering women farmers in Sukapura through increasing access to capital, technology, and skills training. These steps can help them optimize their economic and social contributions in society, and support the sustainability of potato farming in the area.

REFERENCES

- Handayani, L., & Puspitawati, D. (2020). *Peran Pendidikan dan Pelatihan dalam Meningkatkan Kesejahteraan Petani Perempuan*. *Jurnal Sosial Ekonomi Pertanian*, 5(2), 120-135.
- Rahmawati, R., & Hidayat, A. (2021). *Analisis Faktor-Faktor yang Mempengaruhi Pendapatan Petani Hortikultura di Daerah Dataran Tinggi*. *Jurnal Ekonomi Pertanian*, 7(1), 75-89.
- Sari, M., Purnamasari, R., & Supriyanto, D. (2018). *Keterbatasan Akses Perempuan Tani terhadap Modal dan Teknologi Pertanian di Desa Tani*. *Jurnal Pengembangan Masyarakat Pertanian*, 6(3), 190-204.
- Susilowati, Y. (2020). *Budaya Patriarki dalam Pengambilan Keputusan Keluarga Petani: Studi Kasus di Jawa Timur*. *Jurnal Sosiologi Pedesaan*, 9(1), 33-47.
- Utami, S. R., Nugroho, A. S., & Anggraeni, D. (2021). *Pemberdayaan Ekonomi Perempuan Tani Melalui Program Pengembangan Keterampilan di Bidang Pertanian Berkelanjutan*. *Jurnal Pembangunan Sosial*, 3(4), 50-62.
- Wijayanti, R., Susanto, D., & Fitria, Y. (2019). *Peran Ganda Perempuan Tani dalam Meningkatkan Ketahanan Ekonomi Rumah Tangga di Pedesaan*. *Jurnal Gender dan Pembangunan*, 8(2), 60-75.
- Braun, V., & Clarke, V. (2006). *Using Thematic Analysis in Psychology*. *Qualitative Research in Psychology*, 3(2), 77-101.

- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. SAGE Publications.
- Moleong, L. J. (2017). *Metodologi Penelitian Kualitatif*. Remaja Rosdakarya.
- Spradley, J. P. (2016). *Participant Observation*. Waveland Press.
- Handayani, L., & Puspitawati, D. (2020). *Peran Pendidikan dan Pelatihan dalam*