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Gender Relations in Oil Palm Development: Access, Control, Participation, And Benefits Among Farming Households

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ABSTRACT: The development of the palm oil industry is not just about increasing farmers' incomes. Other aspects are changing as well, such as gender relations within their households. This study aims to explore gender relations in greater depth, using the Harvard Gender Analysis Framework. It focuses on access, control, participation, and the benefits experienced by each member of oil palm farming households. This study used a mixed-methods approach, combining quantitative and qualitative methods. The results showed that women in oil palm farming households are highly active in reproductive matters, with up to 90% participating. They are also involved in productive activities, primarily as plantation workers, with 70% participating. Access to land remains limited, with 76.9% of households lacking land management rights. Furthermore, decision-making in education is dominated by men (95%), while decision-making in health is dominated by women (97.5%). In terms of economic benefits, men derive greater benefits from oil palm and non-farm income, while women derive social benefits through their role in managing family health. The findings indicate gender-based disparities in the distribution of access, control, and benefits.

KEYWORDS: farming households, gender relations, oil palm

INTRODUCTION

The palm oil industry has experienced growth over the past few decades, marked by an increase in the area of oil palm plantations. According to data from the Central Statistics Agency (2024), the area of oil palm plantations in 2023 was approximately 15.9 million hectares and increased to 16.0 million hectares in 2024, representing a 0.50% increase over the course of one year. The expansion of oil palm plantations is not only driven by State-Owned Large Plantations (PBN) and Private Large Plantations (PBS) but also by Smallholder Plantations. Specifically, over the past four years (2021–2024), smallholder plantations saw a 14.03% increase in the area under oil palm cultivation, followed by PBS at 6.66% and PBN at 1.68%. This indicates that the expansion of the oil palm sector is inextricably linked to its role in supporting the economy. The role of oil palm in the economy is evident in the growth of the national economy through increased export value, job creation, the supply of industrial raw materials, and its contribution to government revenue.

Oil palm expansion is not limited to PBN and PBS; data show that smallholder plantations have experienced an average annual increase in cultivated area of approximately 3.15% over the past four years, which is higher than that of PBN and PBS. This trend has emerged because the oil palm commodity plays a role in increasing community income—particularly that of farmers—and has become one of the leading plantation commodities and a source of livelihood for farming households. Consequently, the development of the oil palm sector has increased farmers' household income through enhanced economic value of the commodity, stable income, and the emergence of livelihood diversification (Feintrenie et al., 2010; Elvawati et al., 2019, 2025). This means that the development and growth of the oil palm plantation industry have brought about

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economic and social changes in the community. Thus, the development of oil palm plantations has become one of the key factors in the changing economic structure of farming households, particularly through increased sources of income and changes in community activities. Economic changes resulting from oil palm plantations not only affect household income but also have the potential to alter gender dynamics within households. According to Chrisendo et al. (2020), the expansion of oil palm plantations contributes to improved household economic conditions for farmers through increased income and diversification of income sources. Income generated from oil palm improves households' access to food and enhances family well-being. On the other hand, labor efficiency on oil palm plantations allows household members to allocate time to additional work outside of farming, thereby expanding the family's sources of income. The development of the oil palm industry affects farming households not only as economic units but also as spaces where gender roles are defined. Thus, the expansion of the oil palm commodity influences the division of gender roles; in other words, oil palm affects the division of labor between men and women. Consequently, the expansion of oil palm plantations has led to changes in the household labor structure, as the cultivation system requires relatively less labor compared to traditional crops. These changes have affected the division of labor between men and women, with men tending to have greater opportunities in economic activities such as farm labor, while women have seen a decline in their involvement in family farming. The reduction in employment opportunities for women in the plantation sector indicates that the transition to oil palm does not always have the same impact on all household members, as it remains influenced by differences in access, economic opportunities, and prevailing social norms (Kubitza et al., 2024). In other words, the development of the oil palm commodity not only affects household income but also has the potential to alter gender relations within the household—including changes in reproductive and productive activities, as well as access to and control over economic resources, assets, education, health, and participation in the community. Based on this, the objective of this article is to analyze the transformation of gender relations within oil palm farming households through an analysis of access, control, participation, and benefits using the Harvard gender analysis framework.

MATERIALS AND METHODS

This study employs a mixed-methods approach, which combines quantitative and qualitative methods within a single research design. The qualitative approach is used to gain an in-depth understanding of the phenomenon through descriptive data in the form of words, experiences, and observed behaviors, as explained by Moleong (2018). This approach was chosen because research on the transformation of gender relations in oil palm farming households requires an understanding that is not based solely on numerical data but also necessitates an in-depth exploration of experiences, the division of roles, and the process of change in relationships between men and women within the household. According to Creswell J. W. (2019), the mixed-methods approach is a research methodology that combines quantitative and qualitative methods to gain a more comprehensive understanding of a phenomenon. Quantitative data are used to identify patterns of gender relations through indicators of access, control, participation, and benefits, while qualitative data are used to explain how these changes in relationships occur within the households of oil palm farmers.

This study was conducted among oil palm farming households in AB Village in West Sumatra, Indonesia. The research location was selected because the primary economic activity of the community in that area is in the oil palm plantation sector, making it relevant to examine changes in gender relations in household management and economic activities. The research informants consisted of oil palm farming households. The rationale for this selection was to obtain information regarding their experiences, division of labor, decision-making, and changes in gender roles. The data collection techniques used in this article include observation, questionnaires, in-depth interviews, and document analysis, with quantitative data analysis using descriptive statistics and qualitative analysis using the Miles-Huberman model, which consists of data collection, data display, conclusion verification, data reduction, and data collection (Sugiyono, 2019).

RESULTS AND DISCUSSION

The development of oil palm plantations has brought about changes in the lives of farming households, including in the division of roles between women and men. In oil palm farming households, women not only perform domestic tasks but are also involved in various economic activities that support household sustainability. Changes in commodities and the increasing economic orientation of families due to oil palm cultivation can affect the division of labor, sources of income, and women's involvement in productive activities. Several studies indicate that oil palm expansion impacts the livelihood strategies of farming households, including changes in work patterns and the roles of family members in economic activities (Feintrenie, 2010; Euler et al., 2017). Therefore, an analysis of women's activities within oil palm farming households must be examined through two main aspects: reproductive activities related to family care and productive activities related to economic endeavors.

Profile of Household Activities Among Oil Palm Farmers

Reproductive Activities

Women's reproductive activities in oil palm farming households reflect their role in sustaining family life through domestic work, such as preparing meals, caring for family members, maintaining health, and keeping the home clean. Based on the research findings, women in oil palm farming households are highly involved in reproductive activities. Reproductive activities include tasks related to the upkeep and sustainability of the household, such as food preparation, caring for family members, maintaining family health, and keeping the home clean. This is illustrated in Figure 1 below;

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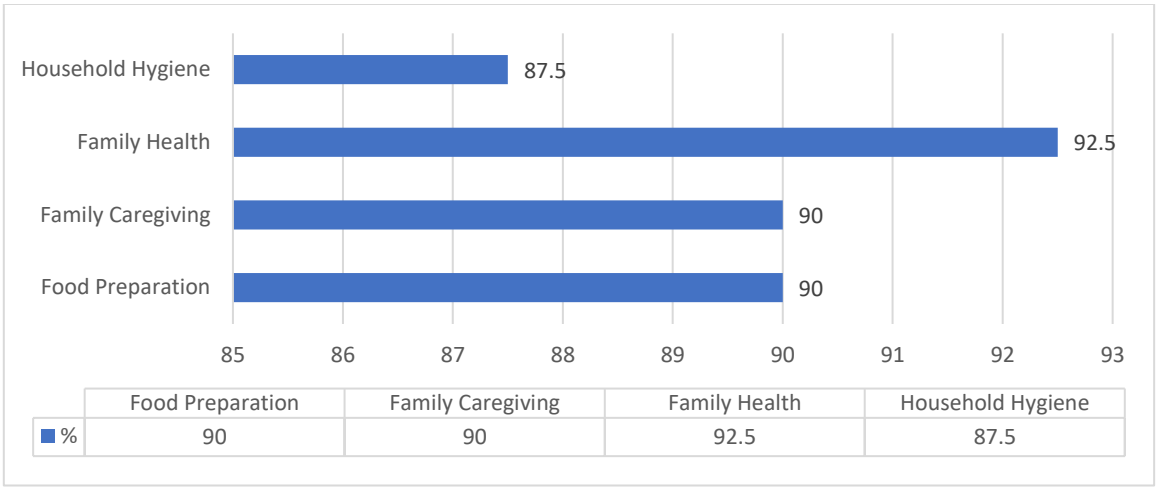


Figure 1. Profile of Women's Reproductive Activities Based on the Harvard Gender Analysis Framework in Oil Palm Farming Households

Based on Figure 1 above, it can be seen that women's highest level of involvement is in family health activities (92.5%), followed by food preparation (90%) and family care (90%). Meanwhile, household cleaning accounts for 87.5%. The high percentages across all indicators show that women remain the primary actors in performing household domestic work compared to men.

From the perspective of the Harvard Gender Analysis Framework, reproductive activities are included in the activity profile used to identify the division of labor between men and women. The predominance of women's involvement in reproductive activities indicates that the gender role division in oil palm farming households still places women as the party responsible for managing household needs and caring for the family.

These findings indicate that although farming households have experienced economic changes through oil palm plantation activities, these changes have not significantly shifted women's domestic responsibilities. Women continue to perform reproductive functions as part of household management strategies, while at the same time potentially engaging in productive activities to support the family economy. This situation illustrates the dual roles of women in oil palm farming households. This means that women's roles in oil palm farming households do not affect their reproductive activities; on average, 90% of women's involvement in reproductive activities falls into the "very high" category compared to men. This indicates that women remain the primary actors in carrying out reproductive functions within oil palm farming households.

Productive Activities

Productive activities are those that produce goods or services and contribute to household income. In the case of oil palm farming households, women are involved in various productive activities, such as gardening, working as plantation laborers, trading, raising livestock, and growing food crops (see Figure 1.2).

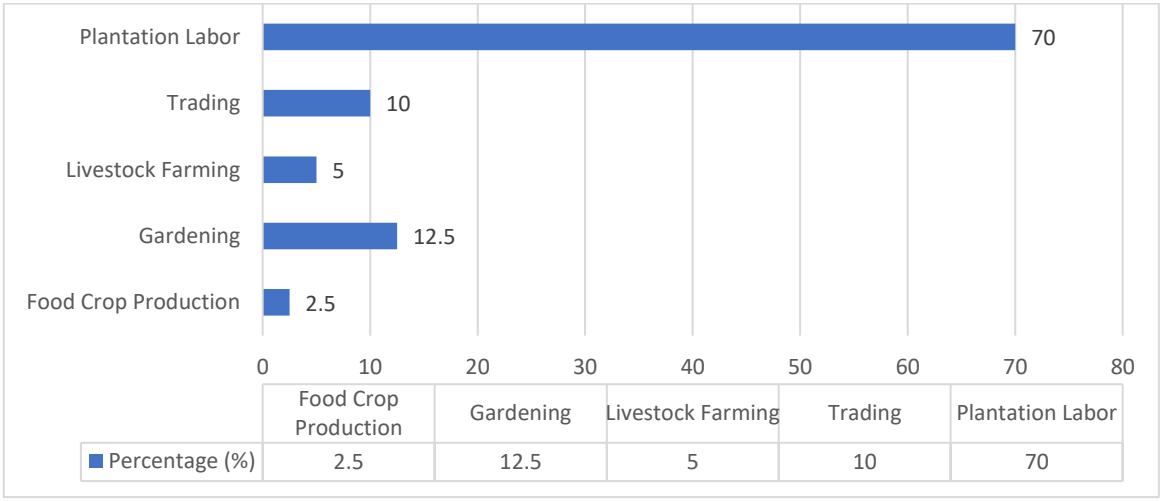


Figure 1.2. Profile of Women's Productive Activities Based on the Harvard Gender Analysis Framework in Oil Palm Farming Households

Figure 2 above shows that the presence of the oil palm industry has led to a shift of women into the productive sector. The data indicate that 70% of women in oil palm farming households work as plantation laborers. This finding indicates that the oil palm plantation sector has become the primary source of livelihood for women in the study area. Additionally, 12.5% of women work as farmers, 10.0% as traders, 5.0% as livestock farmers, and only 2.5% rely on food crop production as their primary source of livelihood. This means that the predominance of women as plantation workers indicates that the expansion of oil palm plantations has created employment opportunities for women in rural areas, particularly in oil palm plantation regions.

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Based on the data above, it is evident that women's productive activities are still dominated by wage-based employment rather than starting their own businesses. The low proportion of women working in food crop production, livestock farming, and trade indicates that the diversification of productive livelihoods remains limited. This pattern suggests that although women make a significant contribution to household income, their involvement remains concentrated in labor-intensive work, with relatively limited ownership of productive assets.

Based on the reproductive and productive activities (Figures 1 and 2) above, it can be concluded that, in terms of reproductive activities, women continue to shoulder an average of 90% of domestic responsibilities, and they are also involved in productive activities aimed at meeting the family's economic needs. This means that women experience a dual role; in other words, they perform reproductive functions within the household and productive functions that contribute to the family's income.

Access to and Control over Resources

Access to and Control over Resources (Land)

According to the Harvard Analysis Framework, land tenure rights are part of the analysis of access to and control over resources. Access to land is a critical factor because it determines individuals' opportunities to engage in productive activities, derive economic benefits, and participate in decision-making regarding the management of productive resources (March et al., 1999). Research findings indicate that men dominate women in terms of land cultivation rights; the data show that women's control over land cultivation rights is only 7.7%, meaning that 92.3% of men have independent rights to cultivate land (see Figure 3.3).

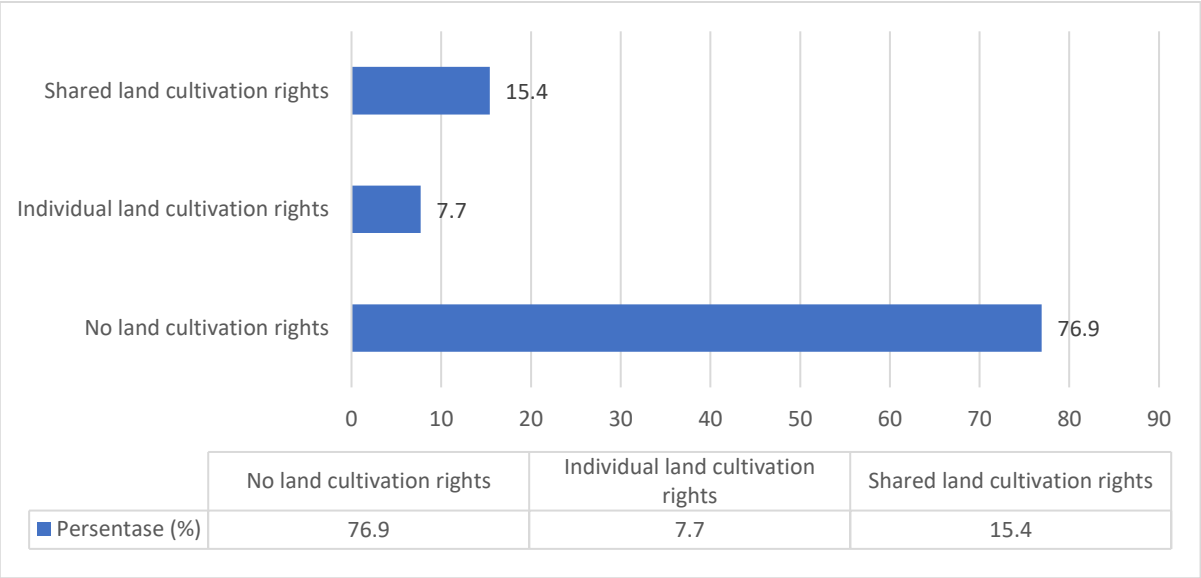


Figure 3. Women's Access to Land Resources Based on Land Tenure Rights in Oil Palm Farming Households

Based on the figure above, it can be seen that joint land management rights (for both women and men) remain minimal at 15%. This indicates that the majority of respondents face limitations in accessing productive resources in the form of land. Low levels of land cultivation rights can affect respondents' involvement in agricultural activities, particularly in determining land management and the use of agricultural produce. From a gender-based development perspective, this situation indicates that access to land does not necessarily translate into equal control over resources. An individual may contribute to agricultural activities but may not necessarily have the authority to determine land use or the utilization of agricultural produce. Therefore, gender analysis must examine the relationship between men and women in terms of gaining access to, performing roles related to, and reaping the benefits of agricultural resources (March et al., 1999).

From the perspective of control, control over resources refers to an individual's ability to determine the use, management, and decision-making regarding the resources they possess. In the context of oil palm farming households, land is one of the primary productive resources, viewed not only in terms of ownership or access but also in terms of who has the authority to regulate its use. Based on research findings regarding control over land resources, it is evident that decision-making authority regarding land management still lies predominantly with men rather than women. Male dominance in land-related decision-making indicates that men hold a stronger position in determining various aspects of land management, such as land use and plantation maintenance activities, as well as decisions regarding the purchase and sale of land. In other words, women's limited control over land resources reflects a division of roles that remains influenced by social constructs within farming households. Therefore, gender-responsive development must focus not only on increasing women's access to productive resources but also on enhancing their participation in decision-making processes so that the benefits of development can be shared more equitably among all household members (March et al., 1999).

Access to and Control Over Economic Resources

Economic resources are a key component used to assess gender relations within households. One indicator of access is access to economic resources, which reflects the opportunities men and women have to earn income, while control refers to the authority to manage and determine the use of those resources. Based on the research findings, there is a significant disparity between men's and women's incomes (see Table 1). The data indicate that men's access to economic resources remains far greater than women's, with a highly significant income gap between the two groups. This disparity indicates that men have broader opportunities to engage in income-generating productive activities, whether in oil palm farming or

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economic activities outside the agricultural sector. Conversely, women's low income suggests that their access to economic opportunities remains limited. This situation may be influenced by the gender-based division of labor, in which women predominantly perform domestic work and supporting roles in farming operations that often do not yield direct financial compensation (March et al., 1999).

Table 1 Distribution of Income by Gender and Source of Livelihood in Oil Palm Farming Households

Source of Livelihood	Male (IDR)	Female (IDR)
Oil Palm Farming	20,021,120	1,331,900
Non Farm Activities	16,774,500	85,700

Source: compiled from primary data for 2025

Meanwhile, from the perspective of control over resources, this reflects a person's ability to determine how a resource is used, managed, and utilized. Control is not only related to asset ownership but also involves the authority to make strategic decisions regarding household economic resources (Kabeer, 1999). Based on research findings regarding control over decisions to sell assets, 95% of respondents stated that the decision to sell assets rests with men, while 5% stated that it rests with women. Thus, it is evident that decision-making regarding household assets remains dominated by men. This means that male dominance in decisions to sell assets indicates that men hold greater influence over the management of household economic resources. From a gender perspective, assets are not only understood as material possessions but also as resources that can determine bargaining power and authority within the household. This means that even though women are active in the economic sector, control over decision-making regarding family assets is still determined and dominated by men.

Access and Control in Decision-Making in Education and Health,

Decision-making within households is a key indicator for identifying gender relations and the distribution of power between men and women. In this study, the analysis focuses on two main areas—education and health—to illustrate how decision-making patterns vary by gender (Figure 4).

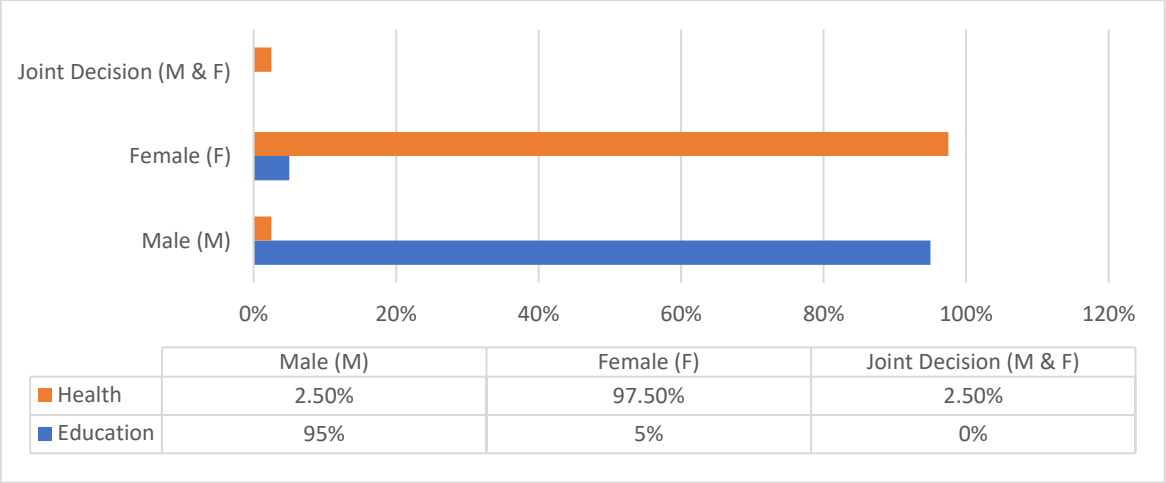


Figure 4. Household Decision-Making by Gender 2025

The research findings indicate different patterns of household decision-making in the fields of education and health. In the field of education, decision-making is dominated by men (95%), while women contribute only 5%; no joint decision-making between husbands and wives was observed. Conversely, in the health sector, decision-making is dominated by women (97.5%), while men contribute only 2.5%. Joint decision-making was found only in the health sector, at a rate of 2.5%.

Male dominance in decision-making in the field of education indicates that education is viewed as a strategic family investment closely linked to the management of economic resources and household planning for the future. From the perspective of the Harvard Framework, this situation indicates that men have greater control over strategic resources, particularly the economic resources that determine educational investments. Consequently, women have relatively limited scope to participate in determining educational choices for family members.

Conversely, women's dominance in decision-making in the health sector reflects their traditional role as primary caregivers responsible for maintaining the health and well-being of the family. Women generally play a role in determining when to seek medical treatment, choosing health services, managing a nutritious diet, and monitoring the health of children and other family members. Research findings show that women have greater control over reproductive and domestic matters.

Gender Participation

Gender participation refers to the involvement of men and women in various development-related activities, both at the household and community levels. Participation is not only measured by involvement in an activity, but also by who is involved, the nature of their contributions, and their opportunities to access information and build social networks (March et al., 1999).

Based on the research findings, community participation in social institutions indicates that there are several forms of respondent involvement in community organizations. The data show that 50% of women and 62.5% of men are involved in organizations. The type of organization most commonly joined by women is religious organizations at 37.5%, while other organizations such as Posyandu, PKK, financial activities, KPPS, and

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religious/sports activities each account for 12.5%. Meanwhile, men on average join social organizations such as farmers' groups, youth organizations, and local village organizations. This participation indicates that oil palm farming households are involved in social activities that are part of the community development process—not only within organizations but also in other social activities such as community work (gotong royong). Thus, for farming households, organizations serve as spaces for men and women to interact, gain knowledge, and participate in social activities within their local communities.

From a gender perspective, participation in development is not only related to men's involvement in agricultural economic activities but also encompasses women's roles in social and institutional activities. Research findings indicate differences in the types of organizations in which men and women participate. These differences in the forms of involvement reflect a gender division of roles shaped by social and cultural norms, which in turn influence the patterns of men's and women's participation in the development process (Moser, 1993; Kabeer, 1999). According to the Gender and Development (GAD) approach, equal participation is measured not only by the presence of men and women in an activity but also by their equal opportunities to contribute, voice their aspirations, and influence decision-making processes in development (Rathgeber, 1990).

Analysis of Benefits within the Harvard Gender Analysis Framework for Oil Palm Farming Households

Within the Harvard Gender Analysis Framework, benefit indicators are used to examine the outcomes or gains obtained by men and women from their involvement in productive activities, resource management, and household life. The benefits analyzed include economic benefits (income, production output, access to livelihoods) and social benefits (family well-being, access to education and health care, and decision-making roles). A benefits analysis is essential for determining whether the outcomes of oil palm agricultural development are equitably shared by men and women. The research findings indicate that the division of economic activities still follows traditional gender patterns, in which men are more involved in paid productive work, while women often take on domestic activities and supporting roles that are less economically visible (see Figure 1 and Table 1). These conditions suggest that men derive greater economic benefits due to their more dominant involvement in income-generating productive activities. Men tend to benefit from activities directly related to oil palm production, plantation management, and wage labor. The magnitude of men's economic contributions also has the potential to strengthen their bargaining position within the household, particularly in decisions related to resource allocation and family economic planning.

Meanwhile, women continue to benefit from the oil palm agricultural system, albeit in different forms and to varying degrees. Women's involvement in oil palm farming households provides benefits through their contributions to managing family needs, regulating household consumption, and caring for family members. Based on decision-making data, women play a dominant role in the area of health (97.5%), indicating that women derive social benefits in the form of recognition for their role in maintaining the health and well-being of the family.

However, women's low income indicates that the direct economic benefits from the oil palm sector remain unequal. This is also linked to data on land management rights, where 76.9% of respondents do not have land management rights, only 7.7% hold individual rights, and 15.4% hold collective rights. Limited access to land as a productive resource reduces women's opportunities to derive economic benefits from the oil palm industry. According to a Harvard analysis, this situation demonstrates that limited access to resources affects an individual's ability to reap benefits.

In addition to economic benefits, the oil palm farming system also provides social benefits to households. Income from the oil palm sector helps meet families' basic needs, such as education, health care, food, and other household needs. Based on decision-making data, social benefits in the field of education are predominantly controlled by men (95%), while those in healthcare are predominantly controlled by women (97.5%). This pattern indicates that social benefits within households are still divided along gender role lines: men play a greater role in strategic decisions, while women play a greater role in aspects of family well-being and care. On the other hand, the low rate of joint decision-making (0% in education and 2.5% in health) indicates that social benefits in the form of partnership and equality within households remain limited. From the Harvard perspective, the benefits of agricultural development are not only measured by income growth but also by the extent to which men and women have equal opportunities to access outcomes, recognition, and influence within the family. Thus, based on Harvard's "benefits" indicators, oil palm agricultural development has provided benefits to households, but their distribution is still influenced by gender relations. Increased access for women to land, income, productive activities, and decision-making is necessary so that the economic and social benefits of the oil palm sector

CONCLUSION

Oil palm expansion not only contributes to increased household income but also influences gender relations between men and women in terms of reproductive and productive aspects, as well as access, control, participation, and benefits. The research findings indicate that gender relations in oil palm agricultural development still reveal disparities in roles and the distribution of resources. In the reproductive sphere, women play a major role in household management and family welfare, while in the productive sphere, women also participate in economic activities, although the benefits they receive are still lower than those of men. Regarding access to resources, the majority of households do not yet have land management rights (76.9%), so control over productive assets remains limited and affects the opportunities for both men and women to obtain economic benefits. Household economic activities are dominated by plantation labor (70%), indicating a high dependence on the plantation sector. Men are more dominant in income-generating productive activities, while women play a greater role in domestic activities and managing family well-being.

In terms of control and decision-making, men are more dominant in the field of education (95%), while women are more dominant in the field of health (97.5%). This situation indicates that the division of authority is still influenced by traditional gender role constructs, in which men have greater control over strategic decisions, while women play a role in family care. In terms of benefits, men derive greater economic benefits from oil palm and nonfarm activities because they have higher incomes than women, while women gain social benefits through their roles in managing household health and needs. Overall, oil palm development has benefited farming households; however, the distribution of access, control, participation, and benefits remains unequal. Therefore, it is necessary to increase women's access to productive resources, economic opportunities, and joint involvement in decision-making so that oil palm development can proceed in a more equitable and gender-responsive manner.

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