
Analysis Of Smallholder Decision-Making In Replanting Programs

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ABSTRACT

This study is to investigate the amount of decision-making participation by smallholders in the palm oil replanting programme as well as the factors that impact the participation of smallholders in this programme. This study was carried out by performing survey research with quantitative methodologies, including observation, interviews, questionnaires, and documenting previous findings. The evaluation was conducted in the Kempas District of the Indragiri Hilir Regency between September and December 2022. In this study, the number of samples was decided to be 38 persons using the technique of Simple Random Sampling from farmers who engaged in the oil palm replanting programme. Data was collected using questionnaires that had previously been evaluated for their validity and reliability. The Likert scale will be used in the data analysis approach to measure smallholder decision-making in oil palm replanting initiatives, and multiple linear regression analysis will be utilized in the data processing. According to the research project's findings, the interpretation of the degree of smallholder decision-making in the oil palm replanting programme was placed in the questionable category 53.4% of the time after doing regression analysis. When it comes to smallholder decision-making in oil palm replanting projects, age, education, farm area, experience, income, social environment, economic environment, and extension activities, all play a key role. Farming area and years of experience are two factors that play a key role in the decisions made by smallholder farmers in the oil palm replanting programme carried out in the Kempas District of the Indragiri Hilir Regency of the Riau Province.

Keywords: Decision Making, Replanting Program, Palm Oil

INTRODUCTION

The plantation subsector of the Indonesian economy has an important strategic role, serving, among other functions, as an employer of labour, a provider of food, a contributor to the expansion of the manufacturing industry, and a source of foreign cash for the nation [1]. It is anticipated that the development of plantation sub-sectors will foster growth, and equity, and enhance rural communities' welfare, particularly those concentrated around oil palm plantations [2].

Because there is such a high demand for products processed with palm oil, both domestically and internationally, palm oil-based commodities are currently crops with promising futures. This can be inferred from the fact that there is a significant amount of demand for these products. Indonesia, a tropical nation with a sufficient amount of land, has a fantastic chance to build oil palm plantations, both on the scale of governmental investment, national private investment, and international

investment, as well as on the scale of smallholder-managed farms [3]. According to data from the Director General of Plantations in 2020, oil palm plantations in Indonesia have reached an area of 12.3 million ha. These plantations are managed by state, and people-owned plantation companies, and 4.7 million ha of them are oil palm plantations owned by the people[4].

The government is attempting to build oil palm farms held by the people to continue the function of oil palm in an environmentally friendly and sustainable manner. As required by Article 93 of Law No. 39 Year 2014 on Plantations, the government has enacted a policy for the collection of funding for oil palm plantations [5]. As a step in the implementation process, the Government Regulation (PP) No. 24 of 2015 concerning the Collection of Plantation Funds, the Presidential Regulation (Perpres) No. 61 of 2015 concerning the Collection and Use of Oil Palm Plantation Funds, and Presidential Regulation No. 24 of 2016 concerning the Collection of Oil Palm Plantation Funds all came into effect [5]. These rules and regulations serve as the foundation for defining and carrying out the technological development of oil palm plantations in a planned and directed way. This policy offers a foundation upon which priority scales may be established for the expansion of smallholder-owned oil palm farms in accordance with their respective requirements.

Smallholders who are members of farmer organizations, farmer groups, cooperatives, and other smallholder institutions are eligible to receive this help for the growth of oil palms through the Palm Oil Plantation Fund Management Agency. These policies include replanting oil palm plants with the category of plants aged 25 years, as well as independent plants that use non-superior seeds even though they have not yet entered the age category of plants aged 25 years, as well as assistance with facilities and infrastructure, as well as the development of human resources [5], [6].

The activity aims to improve the productivity of oil palm plantations held by

smallholders by integrating all components of the process by which oil palm farms are developed. One of the Indragiri Hilir Regency districts with a significant amount of community planting potential is the Kempas District. The Kempas District comprises ten villages and two Kelurahan, and it has a total area of 36,449 hectares at an elevation of ten metres above mean sea level [7]. According to information obtained from the agriculture office of Indragiri Hilir, the total area of community plantations is 1,276.40 hectares, with the orientation of immature crops (TBM) covering 210 hectares and yielding plants (TM) covering 1,050 hectares. There are a total of 16 plantation farmer groups [7]. Through the Oil Palm Plantation Fund Management Agency, the sub-district was given funding for replanting oil palms in 2017. (BPDPKS). The sole village in the Kempas District that has registered to take part in the oil palm replanting initiative is Rumbai Jaya Village. This settlement covers a total area of 124.2 hectares, while the surrounding plantation land is around 283.2 hectares [8].

However, for farmers to engage in the oil palm replanting programme, they need to fulfil many conditions first. This presents a challenge for plantation farmers interested in the programme but not yet ready to enrol [9]. Farmers of oil palm plantations in the Kempas District face a difficult choice when deciding whether or not to participate in this initiative. On the one hand, oil palm replanting is an important factor in developing productivity [10]. This is because oil palm plantation replanting is a necessity that needs to be done. After all, the existing oil palm trees that are 2-5 years old are no longer productive, and the yield is decreasing every month. Furthermore, oil palm plantation replanting is one of the important factors in developing productivity because it is a necessity that needs to be done. On the other hand, further planning about revenue is required once the rejuvenation process has been carried out for as long as the plant is in a state in which it has not yet generated anything.

MATERIALS AND METHODS

This investigation was conducted in the Kempas District of the Indragiri Hilir Regency in the Riau Province. This sub-district is one of the sub-districts that participated in the oil palm replanting programme from the government and has a large area of oil palm plantations in Indragiri Hilir Regency, which is the reason why this sub-district was chosen as the location of the study. The study site selection was carried out intentionally or, more specifically, deliberately. This research was carried out between September 2022 and December 2022. This study was carried out by employing quantitative methodologies and survey research in its methodology. Survey research is study that is undertaken by collecting a list of questions answered to respondents, and it is used to analyze the symptoms of a group or individual behaviour, as well as data mining through

questionnaires and interviews. Quantitative methods are methods for testing certain theories by examining relationships between variables. These variables are measured (usually with research instruments) and analyzed using statistical procedures.

Farmers who had enrolled to participate in the government's palm oil replanting programme were selected as samples. These farmers were located in Rumbai Jaya Village, which is located in the Kempas District. During this investigation, 38 farmers who were participants in an oil palm replanting initiative were selected at random to serve as samples. The sampling method used was simple random sampling.

RESULTS AND DISCUSSION

Smallholder Participation in the Oil Palm Replanting Program at Various Decision-Making Levels

Using primary data as a measuring stick, the outcomes of examining farmers' decisions during the oil palm replanting programme in Kempar District, Indragiri Hilir Regency, were determined [11]. The farmer decision-making value in the oil palm replanting programme is calculated as follows: 1,318 for the score obtained divided by a maximum score of 2,470 and multiplied by 100%. This is based on the value of the questionnaire, which includes the stages of farmer decision-making, namely introduction, persuasion, decision, and confirmation. As a result, smallholders constitute 53.4% of the program's decision-makers for the oil palm replanting initiative [12].

Because of the stringent standards that farmers must fulfil to take part in the oil palm replanting programme run by the government, the degree of decision-making among farmers who fall into the cautious group is rather low. At first, the

criteria that were given to farmers consisted solely of filling out each farmer's biodata and writing a letter stating the oil palm land that the farmers possessed [13]. However, when those requirements were done, further needs were given that needed to be fulfilled.

Analysis of factors influencing smallholder decision-making in oil palm replanting programs

A multiple linear regression test conducted with the SPSS 18 programme and a confidence level of 95 percent ($\alpha = 0.05$) was used to analyze the factors influencing the decision-making process of smallholders in the oil palm replanting programme. These factors included age, education, experience, farm area, income, social environment, economic environment, and extension activities [14]. The findings of an analysis on the factors that influence the decisions made by smallholders in the oil palm replanting programme are reported in the table that can be found in table 1.

Table 1. Analysis of Factors Influencing Decision Making

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
Dimension 0 1	,654 ^a	,427	,269	2,12306

According to Table 1, regression models can be explained by multiplying the value of the coefficient of determination R Square by 100 percent. If this calculation yields the result that RSquare has a value of 0.427, then the coefficient of determination obtained is 42.7 percent. This demonstrates that variable x (age, education, farm area, experience, income, social environment, economic environment, and extension activities)

CONCLUSION

The following is a conclusion that may be drawn based on the findings of the discussion and analysis that analyses the decision-making analysis of smallholders participating in the oil palm replanting initiative in the Kempas District: The proportion of smallholders in the oil palm

contributes 42.7 percent to the decision making process of smallholders in the oil palm replanting programme [14]. That indicates that 57.3% is impacted by other factors unrelated to the variable x. In addition, the value of R, which is a sign of the correlation coefficient, was found to be 0.654.

replanting programme in the Dolok Masihul District who have chosen to participate is 53.4%, placing them in the category of being reluctant. In oil palm replanting initiatives, agricultural area and farming experience are two factors that impact the decisions made by smallholders

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