



Institutional Paradox in Rice Farmer Business Insurance Participation

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ABSTRACT

Rice Farmers Business Insurance (AOTP) is one of the risk protection instruments developed by the government to reduce farmers' losses due to crop failure. However, the participation rate of farmers in the AOTP program is still relatively low. This study aims to describe the status of land ownership and institutional characteristics of non-AOTP farmers in Banyuwangi Regency. The study used a quantitative descriptive approach with primary data sources obtained through interviews and observations of 44 non-AOTP farmers. The variables analyzed included land ownership status, participation in counseling, activity in farmer groups, institutional capacity of farmer groups, and participation in social institutions. The results showed that most of the non-AOTP farmers owned their own land, most of the respondents also actively participated in extension activities, participated in farmer groups, and were involved in other social institutions. However, the majority of farmers consider that farmer groups are less able to facilitate the needs of farmers. These findings show that low farmer participation in AOTP is not necessarily related to low institutional involvement, but can be related to institutional capacity that is not yet optimal in supporting farmers' needs. Thus, strengthening the institutional capacity of farmers is one of the strategies that need to be prioritized in increasing farmer participation in the AOTP program.

Keywords — *Institutions, Farmer Groups, Agricultural Insurance, Empowerment*

1. Introduction

Rice farming has become one of the ways of life that has a vital role for the Indonesian nation. Rice farming is one of the strategic subsectors in Indonesia's agricultural development because it plays an important role in providing national food and a source of livelihood for most farming households. In its development, farming is also a part of the decline that continues to develop and becomes one of the heritage as well as culture. However, rice farming activities face various risks that can cause economic losses for farmers. These risks include climate change, floods, droughts, attacks by plant pest organisms, and various other production uncertainties that have the potential to reduce crop yields and even cause crop failure. Uncertainty is due to the fact that farming is highly dependent on the production process from various natural conditions. This condition puts

farmers in a vulnerable position to loss of income and sustainability of farming businesses. The ability to manage risks is a must in minimizing losses from all farms [1].

In an effort to reduce the impact of these risks, the government has developed the Rice Farmer Business Insurance Program (AOTP) as one of the risk protection instruments in the agricultural sector [2]. This program provides protection to farmers in the event of crop damage that meets the claim criteria so that farmers receive compensation that can be used as capital to continue farming activities in the next planting season. The existence of AOTP is expected to increase the economic resilience of farmers while supporting the sustainability of national food production. Insurance is governance in reducing the potential for disasters and other things that cannot be controlled [3].

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Although the AUDP program has been implemented in various regions of Indonesia, the level of farmer participation still shows relatively diverse achievements and tends to be not optimal. Various studies show that farmers' interest and participation in AUDP are still influenced by various factors, both derived from farmer characteristics and external factors related to the institutional environment and program implementation. In some regions, low farmer participation is also associated with limited socialization, mentoring, and suboptimal program implementation at the field level. Participation is an important part of the program's success [4].

Studies on AUDP have grown quite rapidly in recent years. Most of the research focuses on the analysis of the factors that influence farmers' decision to participate in the AUDP program. The variables that are widely studied include the age of the farmer, education level, number of family members, farming experience, land area, income, perception of risk, and perception of the benefits of the insurance program. Characteristics that include influencing are age, length of farming, land area and education [5]. Other research also highlighted the role of farmer groups, willingness to pay premiums, and various aspects of program implementation in increasing farmers' interest in AUDP.

However, most previous studies have placed more farmers participating in AUDP as the object of the study. As a result, information about farmers who choose not to participate in the AUDP program is still relatively limited. In fact, non-participating farmer groups are important groups to understand because they can provide information about characteristics and conditions that may be the cause of low program participation. An understanding of the characteristics of non-participant farmers is needed to complement the results of previous research that focused more on the factors driving farmer participation.

In addition, there is still limited research that specifically examines the status of land ownership and institutional characteristics in non-ATP farmers. Land ownership status is an important aspect of farming because it relates to the level of resource control, decision-making patterns, and farmers' perception of farming

risks. Land-owning farmers, tenant farmers, and farmers who cultivate land through a cooperative system have different levels of attachment and economic consequences to farming risks. However, this aspect is still relatively rarely described specifically in groups of farmers who do not participate in AUDP.

On the other hand, agricultural institutions have an important role in supporting agricultural development through the provision of information, strengthening the capacity of farmers, and facilitating various government programs. Farmer groups and extension activities are the main means of spreading agricultural innovation and information. Previous research has shown that the role of farmer groups has a relationship with farmers' interest in AUDPs. However, there is still little research that specifically describes the institutional conditions of non-ATP farmers, including participation in extension activities, activeness in farmer groups, institutional capacity of farmer groups, and involvement in other social institutions.

Based on this description, this study was conducted to describe the status of land ownership and institutional characteristics of farmers who are not participants in Rice Farmer Business Insurance (AUDP) in Banyuwangi Regency. In particular, this study aims to describe the land ownership status of non-AUDP farmers, describe the institutional characteristics of non-AUDP farmers which include participation in counseling, activity in farmer groups, institutional capacity of farmer groups, and participation in social institutions, and identify the relationship between land tenure status and institutional conditions of non-AUDP farmers. The results of the research are expected to provide useful empirical information as the basis for the formulation of strategies to increase farmer participation in the AUDP program and strengthen agricultural institutions at the local level.

2. Methods

This research was carried out in Banyuwangi Regency, East Java Province. The study uses a quantitative descriptive approach that aims to describe the characteristics of non-participating farmers of Rice Farmer Business Insurance (AUDP). The descriptive approach



was chosen because it was appropriate to explain the actual condition of the respondents based on the observed variables without testing the causal relationship between variables.

The data used in this study are primary data obtained through structured interviews and field observations. Interviews were conducted using questionnaire instruments that were prepared according to the research objectives, while observations were conducted to support and verify the information obtained from the respondents. The analysis unit in this study is rice farmers who do not participate in the Rice Farmer Business Insurance Program (AOTP). The number of respondents analyzed was 44 non-AOTP farmers in the study area.

The variables analyzed were focused on the institutional characteristics and land ownership status of non-ATP farmers. These variables include participation in extension activities, activity in farmer groups, institutional capacity of farmer groups, participation in social institutions, and land ownership status. Participation in extension activities is used to describe the level of involvement of farmers in obtaining agricultural information and innovation. Activeness in farmer groups is used to describe farmer participation in farmer organizations at the local level. The institutional capacity of farmer groups is measured based on farmers' perceptions of the ability of farmer groups to facilitate the needs of their members. Participation in social institutions is used to describe farmers' involvement in social organizations outside of farmer groups, while land ownership status is used to identify the forms of land tenure sought by farmers.

The data that has been collected is analyzed using descriptive statistics through the preparation of frequency distribution and percentage calculation for each research variable. Descriptive analysis was used to provide a systematic picture of the characteristics of non-AOTP farmers based on the categories of each observed variable. The results of the analysis are presented in the form of frequency and percentage distribution tables, then interpreted descriptively to explain the condition of land ownership status and institutional characteristics of non-AOTP farmers in Banyuwangi Regency.

3. Discussion

The results of the study show that farmers who are not participants in the Rice Farmers Business Insurance (AOTP) in Banyuwangi Regency have relatively diverse institutional and land tenure characteristics. Even though they did not participate in the AOTP program, most of the respondents still had connections with various agricultural and social institutions that developed in rural environments. Institutions are one of the important parts of farmers' lives in developing their business [6].

Based on the results of the study, as many as 61.4% of non-AOTP farmers are farmers who own their own land, while 25.0% cultivate leased land and 13.6% cultivate land through a cooperative or profit-sharing system. These findings show that the majority of non-AOTP farmers are farmers who own land assets independently. This condition is interesting to observe because theoretically the ownership of productive assets is often associated with the ability of farmers to access various agricultural development programs, including agricultural insurance programs. The agricultural development program in question is a government policy effort to facilitate agricultural progress by minimizing the obstacles faced [7].

The dominance of land-owning farmers in the non-AOTP group indicates that land ownership does not automatically encourage farmers to participate in insurance programs. These findings show that farmers' decisions not to participate in AOTP may not be solely determined by land tenure status, but also influenced by other factors such as risk perception, program benefit perception, farming experience, and farmers' confidence in their ability to manage farm risk. Included in this is the perception of farmers in trust in Insurance instruments [8]. In many cases, land-owning farmers have a greater degree of control over farming resources and are more likely to develop risk mitigation strategies based on their experience and resources than relying on formal protection instruments such as insurance. Risk mitigation was developed as part of farmers' experience in dealing with uncertain situations.

The next characteristic is related to the participation of farmers in extension activities. The results showed that as many as 54.5% of



respondents participated in counseling activities one to three times, while the other 45.5% always participated in counseling activities according to the set schedule. These findings show that most non-AUTP farmers still have access to agricultural extension activities held in their regions. This condition indicates that the low participation in AUTP cannot be fully explained by the limited access to information through counseling. Counseling organized by the government or by private institutions or business institutions leads to certain interactions with farmers. Farmers have a close relationship with extension workers, not solely related to the program [9].

Agricultural extension is one of the important instruments in the process of disseminating agricultural development innovation and information. Through counseling, farmers obtain various information about cultivation technology, government policies, and programs aimed at improving the sustainability of farming [10]. However, the results of this study show that the existence of counseling is not necessarily able to encourage farmers to take part in AUTP. In other words, access to information is not always directly proportional to changes in farmers' behavior. The information received through counseling still needs to be followed by the process of understanding, trusting, and adapting the program to the needs of farmers in order to be able to influence farmers' decisions to participate in AUTP.

Subsequent findings showed that 56.8% of non-AUTP participants were active in the farmer group, while the other 43.2% were inactive. These results show that most non-AUTP farmers remain connected to farmer organizations at the local level. Farmer groups have been seen as one of the strategic institutions in agricultural

development because they function as a vehicle for learning, a vehicle for cooperation, and a vehicle for production for their members.

The activeness of farmers in farmer groups should open up greater opportunities for farmers to obtain information about various government programs, including AUTP. However, the results show that being active in farmer groups does not automatically result in participation in agricultural insurance programs. These findings indicate that the success of farmer groups in disseminating information is not necessarily followed by success in changing farmers' decisions. Therefore, the existence of farmer groups needs to be understood not only in terms of the number of members or the level of participation, but also from the aspect of the institutional capacity possessed.

This is strengthened by the results of research on the institutional capacity of farmer groups. As many as 72.7% of respondents stated that farmer groups were less able to facilitate the needs of farmers, 11.4% stated that farmer groups were not able to facilitate farmers' needs, and only 15.9% assessed that farmer groups were able to facilitate farmers' needs. This finding is one of the most important results in this study because it shows that there is a gap between institutional existence and institutional capacity perceived by farmers.

Table 2. Institutional Capacity

No	Institutional capacity	Quantity	Percentage (%)
1	Farmer groups are unable to facilitate farmers' welfare	5	11.4
2	Farmer groups are less able to facilitate farmers' welfare	32	72.7
3	Mamp farmer group facilitates farmers' needs	7	15.9
Total		44	100.0

Empirically, most farmers are still active in farmer groups, but at the same time they consider that farmer groups have not been able to carry out the facilitation function optimally. This condition shows that farmer institutions have not been fully able to meet the expectations of their members in

Table 1. Participation in extension

No	Attendance at extension	quantity	Percentage (%)
1	1-3 times	24	54.5
2	Always follow the schedule	20	45.5
Total		44	100.0



providing information, assistance, and access to agricultural development programs. In the context of AOTP, low institutional capacity can have an impact on the lack of optimal socialization process, registration assistance, and administrative facilitation needed in the implementation of agricultural insurance programs.

The results of the study also showed that as many as 72.7% of respondents followed other social institutions, while 27.3% did not follow social institutions. The high level of participation in social institutions shows that non-AOTP participants have relatively good social networks. These social networks can be a source of information, social support, or a means of exchanging experiences between farmers.

These findings show that farmers' non-participation in AOTP is not always related to the low social capital they have. On the other hand, most non-AOTP farmers actually have a fairly high level of involvement in various social activities in the community. Therefore, the low participation in AOTP seems to have more to do with specific factors related to the insurance program itself than to the social isolation of farmers. This is related to the meaning of AOTP by farmers, where the relationship between insurance development is not related to adoption but more related to cultivation practices [11].

Overall, the results of the study show an interesting phenomenon. The majority of non-AOTP farmers are landowners, have access to extension activities, are active in farmer groups, and are involved in various social institutions. However, they still chose not to participate in the AOTP program. This condition shows that increasing farmers' participation in AOTP is not enough to be done only through increasing the frequency of counseling or expanding institutional networks. Efforts to increase participation need to be directed at improving the quality of institutional services, strengthening the capacity of farmer groups, and increasing farmers' understanding of the benefits and relevance of AOTP to their farming needs. Naturally, there is a risk reluctance factor. And this condition is part of the policy in taking strategic steps by counseling institutions to increase awareness [12].

The findings of this study provide an implication that the future development of AOTP needs to consider the characteristics of the target farmers more specifically. In this case, the severity and frequency of past extreme weather, farming typology, socio-economic background, and the ability to pay farming communities need to be considered when introducing crop insurance programs in the region [13]. An approach that focuses only on the provision of information may not be effective enough if it is not followed by institutional capacity building that is able to build farmers' trust and confidence in the benefits of the program. Thus, strengthening farmer institutions can be one of the important strategies to increase the effectiveness of AOTP implementation and expand farmer participation in agricultural risk protection programs.

4. Conclusion

Non-participating farmers in Rice Farmers Business Insurance (AOTP) in Banyuwangi Regency are dominated by farmers who own their own land, while the rest work on leased land and cooperation systems. Most farmers still have access to extension activities, are active in farmer groups, and are involved in social institutions. However, the majority of respondents considered that farmer groups were still not able to facilitate the needs of farmers. These findings suggest that low farmer participation in AOTP is not necessarily related to low institutional access or information, but rather indicates a gap between available institutional capacity and farmers' perceptions and needs of agricultural insurance programs.

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6. References

- [1] S. Bairagi, A. K. Mishra, dan A. Durand-Morat, "Climate risk management strategies and food security: Evidence from Cambodian rice farmers," *Food Policy*, vol. 95, hal. 101935, 2020, doi: 10.1016/j.foodpol.2020.101935.
- [2] A. Chamuah dan R. Singh, "Responsible governance of civilian unmanned aerial vehicle (UAV) innovations for Indian crop insurance applications," *Journal of Responsible Technology*, vol. 9, hal. 100025, 2022, doi: 10.1016/j.jrt.2022.100025.
- [3] M. R. S. Hidayat, A. Wahyudi, dan S. Haryadi, "Hilirisasi produk jagung berbasis pemberdayaan koperasi dalam meningkatkan nilai tambah ekonomi di wilayah Pasuruan," *Jurnal Pengabdian Agribisnis Terapan*, vol. 4, no. 1, hal. 45–58, 2026.
- [4] M. Farzaneh, M. S. Allahyari, C. A. Damalas, dan A. Seidavi, "Crop insurance as a risk management tool in agriculture: The case of silk farmers in northern Iran," *Land Use Policy*, vol. 64, hlm. 225–232, 2017.
- [5] W. Tyas, L. Pratama, A. N. Azizah, M. Rohmah, dan A. Aminoto, "Faktor-faktor yang memengaruhi partisipasi petani dalam program Asuransi Usaha Tani Padi (AUTP) di Desa Triyoso, Kecamatan Belitang, Kabupaten OKU Timur," *Jurnal Agrimanex*, vol. 4, no. 2, hlm. 185–194, Mar. 2024.
- [6] Muksin, Hari R., Tanti K., dan Titik I., "The main problems of na-oogst tobacco agribusiness in Jember," *IOP Conf. Ser.: Earth Environ. Sci.*, vol. 207, no. 1, 2018, Art. no. 012012, doi: 10.1088/1755-1315/207/1/012012.
- [7] E. Elahi, Z. Khalid, M. Z. Tauni, H. Zhang, dan X. Lirong, "Extreme weather events risk to crop-production and the adaptation of innovative management strategies to mitigate the risk: A retrospective survey of rural Punjab, Pakistan," *Technovation*, vol. 117, 2022, Art. no. 102255, doi: 10.1016/j.technovation.2021.102255.
- [8] M. King and A. P. Singh, "Understanding farmer's valuation of agricultural insurance: Evidence from Vietnam," *Food Policy*, vol. 99, p. 101861, 2021, doi: 10.1016/j.foodpol.2020.101861.
- [9] U. Maman *et al.*, "Formulating Extension Model to Encourage Staple Food Diversification: A Solution to Food Crisis Potential," *Universal Journal of Agricultural Research*, vol. 9, no. 4, pp. 138–148, 2021, doi: 10.13189/ujar.2021.090405.
- [10] Muksin, Rizal, dan Iskandar R., "Analysis of the Sustainable Status of Post Disaster Crop Production in Sigi Regency, Central Sulawesi Province," *IOP Conf. Ser.: Earth Environ. Sci.*, vol. 672, no. 1, hlm. 012031, 2021.
- [11] D. Pan, M. He, dan F. Kong, "Risk attitude, risk perception, and farmers' pesticide application behavior in China: A moderation and mediation model," *Journal of Cleaner Production*, vol. 276, hal. 124241, 2020, doi: 10.1016/j.jclepro.2020.124241.
- [12] S. Fahad, J. Wang, G. Hu, H. Wang, X. Yang, A. A. Shah, N. T. L. Huong, dan A. Bilal, "Empirical analysis of factors influencing farmers crop insurance decisions in Pakistan: Evidence from Khyber Pakhtunkhwa province," *Land Use Policy*, vol. 75, hlm. 459–467, 2018, doi: 10.1016/j.landusepol.2018.04.016.
- [13] S. Fahad dan W. Jing, "Evaluation of Pakistani farmers' willingness to pay for crop insurance using contingent valuation method: The case of Khyber Pakhtunkhwa province," *Land Use Policy*, vol. 80, hlm. 159–166, 2019, doi: 10.1016/j.landusepol.2018.10.024.

