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PARTICIPATION OF SUBAK MEMBERS IN THE DEVELOPMENT OF FIELD ECOTOURISM IN TABANAN REGENCY, BALI

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ABSTRACT

Subak group is a traditional organization in the field of water distribution and farming management in Bali. Mangesta Village is selected by UNESCO as on of the World Heritage Area. This research was conducted with the objectives of knowing: 1) Participation of subak members on the development of rice field ecotourism in mangesta village, penebel sub- district, tabanan regency, 2) Factors that influenced Participation of subak members on the development of rice field ecotourism in Mangesta village, Penebel sub-district, Tabanan regency. The method used in this research is descriptive analysis. Sampling group was done purposively based on hamlet that had field ecotourism, while the sampling of farmers as the respondents was done by simple random sampling. The total sample was 60 farmers as partof wongaya betan subak group. They where some members of the wongaya betan subak group. The analysis method used is the proportion and multiple linear regression analysis with Backward method. The research results showed that the Participation of subak memberson the development of rice field ecotourism in Mangesta village was categorized as moderate. Attitude, education, intensity following of extension, and gender have significant effect on participation. While age, main job, experience as farmer, and encouragement from community leaders have no significant effect on participation.

***Keywords**: Participation, Subak group, ecotourism, rice, farming*

INTRODUCTION

Bali Island is a world tourism destination that has a beautiful natural panorama and cultural diversity that attracts tourists to visit. This has spurred the development of tourism in Bali so that it requires the participation of various parties, such as local governments, communities, and tourism-related service provider agencies to manage it. In agriculture-based tourism activities, one of the attractions that tourists are very interested in in Bali is the Subak System. Subak was designated by UNESCO as World Cultural Heritage on 29 June 2012 with the label Cultural Landscape of Bali Province: the Subak System as a Manifestation of the Tri Hita Karana Philosophy: The Subak System as a Manifestation of the Tri Hita Karana Philosophy). The tourism sector makes less and less agricultural land. Seeing this reality, ideally there is a solution that can synergise the development of tourism and agriculture.

Tourism activities will be carried out properly if there is participation from various parties. Participation is the most important factor in supporting the success or development of an activity, especially in activities that involve many parties and require planning in running it. Through participation, all aspects related to the implementation of activities to achieve goals involving many people can be realised in the tourism sector.

Mengesta Village has a variety of natural and cultural potential, including the subak system that needs protection. The protection and management of subak as a World Cultural Heritage needs to be done properly and sustainably, in order to provide economic benefits for the community as well as the preservation of nature and culture. Subak Mangesta is famous for its beautiful panoramic view of the mountains and beautiful rice fields. Subak in Mangesta Village is not only used as a traditional irrigation facility but also as an agricultural-based tourism sector. irrigation facilities but also as an agriculture-based tourism sector. The tourism sector is able to support the economy of the people involved in these activities.

Subak management in Mangesta Village will be able to realise three goals at once

concerning welfare, economy and ecosystem at the same time. tourism is one of the external forces that influence the direction and choices for regional development. Tourism development is expected to be sustainable and prevent as much negative impact as possible from tourist visits to subak areas, or the Balinese system of rice field management and irrigation. Agriculture-based tourism in Mangesta Village is now growing with increasingly adequate infrastructure.

The development of the subak area in Mangesta Village is adjusted to its potential, thus requiring the participation of subak members regarding the management of the potentials that exist in the subak area to support the development of the subak area as ecotourism. Tourism activities and development aim to drive the national and regional economy, improve welfare and community income. Development of tourism development involves various sectors of life. Therefore, tourism has a wide influence or impact, both on the economic, social, cultural, political and environmental sectors. One strategy for environmental sustainability is through ecotourism development activities (Antara et.al., 2017). In general, ecotourism development must be able to improve the quality of human relations, improve the quality of life of the local community and maintain environmental quality.

THEORETICAL FOUNDATIONS

1. Participation

   Many definitions of participation have been put forward by experts, but in essence they have the same meaning. Participation comes from English participate which means to include, take part (Wijaya, 2004). Participation is the mental and emotional involvement of individuals in group situations that grow from self-awareness without any pressure that encourages them to achieve the group's goals and take responsibility for the group. Wazir (2009) says that participation can be defined as a person's conscious involvement in social interaction in a particular situation. With this understanding, a person can participate when he finds himself with or in a group, through various processes of sharing with others in terms of values, traditions, feelings, loyalty, compliance and shared responsibilities.

2. Forms of participation

   From this opinion, Hamijoyo (2007) states that there are several forms of real participation, namely:

   a) Money participation is participation to facilitate business efforts to achieve the needs of people who need help.
   b) Property participation is participation in the form of contributing property, usually in the form of work tools or tools.
   c) Labour participation is participation given in the form of labour for the implementation of efforts that can support the success of a programme that can support the success of a programme.
   d) Skills participation, which is providing encouragement through the skills they have to other community members who need it to other community members who need it.
   e) Participation of ideas, opinions or constructive thoughts, both to develop the programme and to facilitate the implementation of the programme, as well as to provide experience and knowledge to develop the activities in which they participate.

3. Subak

   Subak is a rice field irrigation system in Bali with an agrarian socio-religious concept. The definition of Subak has been stated in the Regional Regulation (Perda) of Bali Province Number 9 of 2012 concerning Subak. Subak is defined as a traditional organisation in the field of water use and or crop management at the farming level in indigenous communities in Bali that is socio-agrarian, religious, economical, which historically continues to grow and develop.

   Subak as an organisation of farmers managing irrigation water that has a rice field area, water source, Subak temple and is autonomous. From the definition of Subak, it can be concluded that Subak has limitations, namely having a rice field area, having a source of irrigation water either from springs, dams, empelan, water divider buildings or temuku. All rice fields in Bali must be incorporated into a particular Subak, in addition to varying in size, the management structure, number of members, regulations (awig-awig) and membership dues also vary greatly.

4. Ecotourism

   Ecotourism is a form of tourist travel to natural areas that is carried out with the aim of conserving the environment and preserving the lives and welfare of local residents (Damanik, 2006). Ecotourism is a concept of sustainable tourism

development. Ecotourism is a sustainable tourism development concept that aims to support efforts to preserve the environment in this case nature and culture and increase community participation in management, thus providing economic benefits to the community and local government.

The management system of rice field ecotourism is to maintain the rice field environment owned by each local farmer and also by maintaining traditions and also methods commonly carried out by farmers starting from how to cultivate land, prepare land, harvest rice to how to distribute it with little modification to be able to improve the economy of farmers. This can then be an attraction for tourists. Rice field ecotourism is one of the new movements to present educational tourism that is not only for fun but also at the same time increase knowledge (Prihartini, 2017).

RESEARCH METHOD

The basic method used in this research is descriptive method. Surakhmad (1990) states that the descriptive method is an effort to collect or compile data, then analyse the data and display it to describe the existing situation. Descriptive method is the search for facts about problems in society, certain situations, about relationships, activities, attitudes, views and ongoing processes in society and the influence of phenomena with appropriate interpretation. The sampling location was purposive, namely Mangesta Village.

Sampling of subak member respondents was taken by simple random sampling method, where samples were taken randomly from all subak members in Mangesta Village. From all subak members, 60 respondents were taken as the research sample.

The conclusion of the hypothesis whether accepted or rejected is done through analysis of the data obtained. The analysis was carried out by tabulating the data that had been collected. After that, the analysis was carried out using several methods that adjusted to the hypothesis. The analysis techniques that can be used are:

1. Data Validity and Reliability Analysis
   a. The data validity test is calculated using SPSS 23.0 for window software. the results must have> 0.256 in order to be considered valid.
   b. The data reliability test for 60 respondents must have a value of >0.70 so that a question item can be said to be reliable.
2. Quantitative Analysis

a. To test the hypothesis in the first objective using the proportion test with the following equation:

The first hypothesis regarding the participation of subak members in the rice field ecotourism group was tested using the proportion test.

1) Hypothesis testing
   Ho: P ≤ 50%
   Ha: P > 50%
   With explanation:
   Ho : It is suspected that a small proportion (<50%) of subak members actively participate in the development of rice field ecotourism.
   Ha : It is suspected that most (>50%) subak members actively participate in the development of rice field ecotourism.
2) Level of significance at α = 5% (0.05)
3) Testing statistics

   Testing is done using the formula:

$$\text{Z count} : \frac{\frac{x}{n} - Po}{\frac{1-Po}{Po-n}}$$

   Description :
   X : number of actively participating samples
   N : total number of samples (60 subak members)
   Po : confidence coefficient (50 %)

4) Testing criteria
   Z count ≤ Z table then Ho accepted, Ha rejected
   Z count > Z table then Ho is rejected, Ha is accepted

b. Second Hypothesis Testing

The second hypothesis about the factors factors affecting the participation of subak members in the development of ecotourism in rice fields in Mangesta Village was tested using multiple linear regression analysis.
The equation is:

Y=A+b1.X1+b2.X2+b3.X3+b4.X4+b5.X5+b6.X6+b7.X7+b8.X8

Description:

Y : participation of subak members in the development of ecotourism of rice fields in Mangesta Village
A :constant number b1-b6: regression coefficient
x1 : age
x2 : education level
x3 : attitude
x4 : encouragement of community leaders
x5 : Intensity of attending counselling
x6 : farmer experience
x7 : Type of work
x8 : Gender

Hypothesis testing:
Ho : Age, education level, attitude, encouragement of community leaders, intensity of attending counselling, farmer experience, employment status, gender do not affect the participation of subak members in the development of ecotourism rice fields in Mangesta Village.
Ha : Age, education level, attitude, encouragement of community leaders, intensity of attending counselling, farmer experience, employment status, gender affect the participation of subak members in the development of ecotourism of rice fields in Mangesta Village.

By using SPSS software 23.0 for windows, the following analyses can be carried out:

1. R square or the coefficient of determination shows the percentage of the dependent variable that can be explained by the independent variable. For the number of independent variables that are more than 1, adjusted R square is used.
2. From the ANOVA test or F test to determine whether the independent variables jointly affect the dependent variable, the following conclusions can be drawn:
   If the value of F count> F table then the independent variables jointly affect the dependent variable.
3. The t test is conducted to determine whether or not there is an influence of each independent variable on the dependent variable, the decision making is as follows dependent variable, then the decision is as follows (with a significance level = 0.05)
   If the sig value < α then Ho is rejected
   If the sig value ≥ α then Ho is accepted
4. Dummy test to determine the effect of farmer employment status.

RESULTS AND DISCUSSION

1. Participation of Subak Members in the Development of Rice Field Ecotourism

In this study, the person or the subject of participation is Subak members while the object is the development of ecotourism in rice fields. The development of rice field ecotourism requires the participation of farmers in Mangesta Village. Participation that can be done in the form of participation of labour, money, property, ideas. Participation of subak members in this study is seen based on how subak members participate in the type of participation for the development of ecotourism of rice fields. The forms of participation used in this study are: Participation of labour, participation participation of money, participation of property, participation of ideas..:

A. Labour participation.
   Energy participation in this case where subak members are given in the form of energy for the implementation of efforts that can support the successful development of ecotourism rice fields. The results of data analysis of the participation of energy is as much as 70.46%. Based on the analysis of the distribution of the level of labour participation of subak members, it was found that most subak members participated in attendance at group meetings.
B. Money participation
   Money participation is given to facilitate efforts to achieve the needs of subak members who require financial assistance. The results of data analysis of the participation of money is 31.43%, the result is the lowest among other levels of participation. Based on the analysis of the distribution of the level of participation of money subak members found that subak members participate in providing funds to build supporting facilities in the development of ecotourism rice fields.
C. Participation of ideas.
   Participation in the form of contributing ideas, opinions or thoughts to develop programmes or to facilitate the implementation of activities to develop

the activities they participate in. The results of data analysis of the participation of ideas/ideas are 60.04%. Based on the analysis of the distribution of the level of participation of ideas / ideas of subak members, it is found that subak members contribute their ideas to develop innovations that can be developed in rice field ecotourism.

D. Property participation.
in this case participation in the form of contributing property, usually in the form of work tools, tools, and land. The results of data analysis for the level of participation of ideas / ideas The results of data analysis of property participation are 50.48%. Based on the distribution analysis of the level of property participation, subak members mostly participate in the provision of work tools.

Furthermore, the proportion test is carried out to determine the first hypothesis whether it is in accordance with the results of the research above as follows:

It is suspected that most (more than 50%) subak members actively participate in the development of ecotourism in rice fields in Mangesta Village, Penebel District. To test the first hypothesis using the proportion test with the following equation:

Ho : P ≤ 50%
Ha: P > 50%

With:

Ho : It is suspected that a small proportion (<50%) of subak members actively participate in the development of ecotourism in rice fields.

Ha : It is suspected that most (>50%) subak members actively participate in the development of ecotourism of rice fields.

Equation :

$$\text{Z count} : \frac{\frac{x}{n} - Po}{\frac{1-Po}{Po-n}}$$

Description:

X : number of samples that actively participated

N : total number of samples (60 subak members)

Po : confidence coefficient (50%)

Level of significance at α = 0.05 (5%), n = 60

Testing criteria:

Z count > Z Table then Ho is rejected, Ha is accepted

Z count ≤ Z Table then Ho is accepted, Ha is rejected

a. Significance level α = 0.05 (5%)
b. Test statistic
Equation:

$$\text{Z count} : \frac{\frac{x}{n} - Po}{\frac{1-Po}{Po-n}}$$

$$\text{Z count} : \frac{\frac{10}{60} - 0{,}5}{\sqrt{0{,}5}\frac{1-0{,}5}{60}}$$

$$\text{Z count} : \frac{-0{,}3}{0{,}0645}$$

Z count: -4,651

Z tabel : - 1,645

c. Testing Criteria
Z count ≤ Z Table then Ho is accepted, Ha is rejected
Z count> Z Table then Ho is rejected, Ha is accepted
d. Conclusion
Z count < Z Table then Ho accepted, Ha rejected

Based on the results of calculations using the proportion test, the results show that Zhitung is -4.651 while Z Table is -1.645 or it can be said -4.651 <-1.645 so Ho is accepted. This means that less than equal to 50% of subak members actively participate in the development of ecotourism of rice fields in Mangesta Village, Penebel District.

2. Factors influencing the participation of subak members in the development of ecotourism of rice fields

The results of multiple linear analysis with the Backward method to determine the factors that influence the Participation of Subak members can be seen in Table 1.

Table 1. Factors Influencing the Participation of Subak Members

No.	Variable	Regression Coefficient (B)	t count	Sig.	Ket
1.	Attitude (X1)	0,92	4,90	0,00	*
2	Intensity of attending Counselling (X3)	0,93	2,27	0,02	*
3	Gender (X4)	6,01	2,06	0,04	*
4	Education (X6)	0,76	2,18	0,03	*
	stanta	-11,64			
	R *Square*	0.50			
	Adjusted R *Square*	0,47			
	F Hitung	14,21			

Description:

* : Significant at α = 5%

Source: Primary Data Analysis, 2018

Based on Table 1, it can be seen that there are four independent variables that significantly affect the participation of subak members at the significance level α = 5%. Independent variables that have a significant effect on the participation of subak members in the development of ecotourism rice fields include attitudes, intensity of following counselling, education, gender, and other factors. Based on the results of multiple linear regression analysis, the regression equation is obtained as follows:

Y= -5.97 + 0.92X1 + 0.93X3 + 6.01X4 + 0.76X6

Description:
Y : Participation of subak members in the development of ecotourism of rice fields in Mangesta Village, Penebel District

The Adjusted R Square value shows how much the entire independent variable explains the dependent variable. An Adjusted R Square value close to 1 means that the regression model will provide more precise results. Based on Table 7.8. It is known that the Adjusted R Square value is 0.47, which means that 47% of the participation of subak members in the development of ecotourism rice fields is influenced by variables of attitude, intensity of attending counselling, education, gender and the remaining 53% of subak members' participation is influenced by other variables outside the model. The calculated F value obtained based on the results of multiple linear regression analysis is 14.21.

Based on the results of multiple linear analysis, it is known that the factors that have a real influence in the development of ecotourism rice fields are attitude, intensity of attending counselling, education, gender. Attitude is a person's tendency to act in doing something. Gibson et al. (1996) stated that attitude is a positive or negative feeling or mental state that is always prepared, learned, and regulated through experience that gives a special influence on a person's response to people, objects, and circumstances. The attitude variable consists of three aspects, namely cognitive, affective and conative. Based on the analysis Based on the analysis, the conative aspect is the aspect that has the highest percentage, which means that subak members agree to learn about the development of rice field ecotourism in Mangesta Village and implement innovations that support the development of rice field ecotourism. The second factor is the intensity of attending counselling. The intensity of following counselling is the extent to which the intensity of following counselling plays its role in assistance and activeness in following counselling related to the development of

ecotourism of rice fields. The intensity of counselling is the frequency of subak members getting the information they need. The third factor is education. A person's level of education will affect the ability to understand new information he receives. The fourth factor is gender. Gender is the biological difference between men and women. Based on data on the gender distribution of subak members, the number of male subak members is 47 people and female subak members are 13 people. Gender affects a person's participation because male subak members are considered stronger, aggressive in achieving goals, but on the other hand women are considered more diligent, submissive, and disciplined in carrying out tasks.

CONCLUSIONS

1. Participation of subak members in the development of ecotourism in rice fields in Mangesta Village, Penebel Sub-district included sometimes as evidenced by a percentage of 53.10%. The number of subak members who participate ≤ 50%, which is as much as 16.67%.
2. Factors that significantly influence the participation of subak members in the development of ecotourism of rice fields in Mangesta Village, Penebel District are Attitude, Education, Intensity of attending counselling, Gender.
3. Factors that do not significantly influence the participation of subak members in the development of ecotourism of rice fields in Mangesta Village, Penebel District are age, type of work, encouragement of community leaders, and experience as a farmer.

SUGGESTION

1. **For Subak Members:**
   a. Increase participation in providing funds for ecotourism of rice fields, by making contributions every month with an agreed nominal according to the ability of subak members so that it is not burdensome and funds can still be collected.
   b. The provision of facilities and infrastructure for the management of rice field ecotourism must be improved to help smooth activities.
2. **For the Government and related Stakeholders:**
   a. Increase counselling visits from various related parties to Mangesta Village so that the intensity of attending counselling will increase.
   b. Increase public awareness about the importance of education so that it can increase their participation in the development of rice field ecotourism.
   c. Encourage male farmers as drivers of rice field ecotourism that can involve women.
   d. Providing concrete examples of the benefits of rice field ecotourism to subak members.
   e. Provide training in the management of rice field ecotourism in order to increase income.

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