

# The Influence of Motivation on The Behavior of Sustainable Teak Forest Management In Buton Selatan District, Southeast Sulawesi, Indonesia

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**Abstract.** This study aims to see how much motivation influences the behavior of sustainable teak forest management. This research in South Buton District involved 200 farmers who manage teak forests. Furthermore, the research uses quantitative descriptive analysis and structural equation model analysis to see the magnitude of the influence. The analysis results show that farmers' motivation to manage sustainable teak forests is in the high category. Furthermore, motivation directly influences the behavior of sustainable teak forest management. This illustrates that farmers desire to continue to protect and manage teak forests well for their survival and to achieve a sustainable environment in teak forest areas in South Buton Regency.

**Keywords:** Motivation, Behavior, Teak Forest Management

## INTRODUCTION

The legal provisions at the national level that regulate forests are Law Number 19 of 2004 as a confirmation of Law Number 41, 1999 concerning Forestry. The law governs forestry, including community rights and obligations in forest conservation. The position of society is divided into two opposing sides. Communities, as actors of development in their daily activities, can act as protectors of forest sustainability. They are local experts, information holders, and translators (usable knowledge), which are helpful in management and development planning [1]. However, the community can also be the leading actor in forest destruction. So, the determination of policies must follow environmental conditions, both from an ecological perspective and a socio-cultural perspective of the community.

Specifically, the potential for teak forests in Southeast Sulawesi is marked by the production of teak logs of 40,000 m<sup>3</sup> of logs and sawn timber exceeding 26,000 m<sup>3</sup> per year (Southeast Sulawesi in figures, 2021). The condition of the teak forests in South Buton Regency faces a threat of degradation. The logging of trees is taking place on a large scale and leaving empty land quite fertile. As a result, teak saplings grew wild on the ground and did not receive special attention from the landowners. As a result of the logging, it isn't easy to find teak wood that is 60-70 years old, even if there are old teak trees that can be found in the wilderness. Data from the Forest Service for 2020 shows the area of teak forest land in South Buton reaches 24,524.89 ha.

Teak forests in Sampolawa and Batauga sub-districts are a vast teak forest expanse exceeding 24 thousand ha. In the last ten years, these forest areas have been logged due to changes in forest status to areas for other uses (APL) based on the Decree of the Minister of Forestry of the Republic of Indonesia No. 465/Menhut-II/2011. The irony is that changes in the region have led to massive deforestation without wise supervision. As a result, more than 12,000 ha or 50% of the forest land area is experiencing aridity.

Based on this, the role of the community in forest management needs special attention because the ecological function of teak forests must be maintained. Community behavior in teak forest management is generally based on the intention to achieve prosperity or maintain teak plants in the hope that they can be cut down and sold. Based on the theory expressed by [2], teak wood with intensive silvicultural techniques can be cut at the age of 15. In contrast, planting with conventional techniques produces good quality wood at 30 to 40 years [3]. The planting pattern in the research location is community forest managed by conventional methods so that harvesting is ideally done on plants over 30 years old.

As an effort to maintain teak cultivation and the ecological quality of teak forests, community behavior in teak forest management must be controlled appropriately. Several theories of behavior formation form the basis of this study to find the right strategy. Kollart [4],[5] revealed a model of behavior change depending on the empowerment variable. This theory reveals that a person's behavior is formed by the potential and knowledge he has. In this study, researchers describe this potential as social capacity, managerial and technical mastery which are assessed as collective potential. Meanwhile, knowledge is considered the community's internal potential, obtained based on the experience and information received.

## **RESEARCH METHOD**

This research was conducted in Sampolawa and Batauga sub-districts in South Buton Regency. There were 200 respondents as heads of households of for farmers. he type of research used is quantitative research with a survey research approach. Data collection techniques using observation and questionnaire instruments by analyzing through inferential descriptive statistics to see how much influence motivation has on people's behavior in teak forest management.

## **RESULT AND DISCUSSION**

### **Result**

#### 1. Descriptive Statistical Analysis

Farmers' motivation in environmental preservation aims to develop and conserve teak forests to meet the socio-economic needs of farmers and environmental sustainability. This instrument consists of 16 statements and includes three social, economic and ecological indicators. The analysis results show that the statistical value of farmer motivation has a minimum value of 2.937, a maximum value of 4.75, a mean value of 3.978 and std—deviation of 0.423. Furthermore, the distribution of respondents'

answers about farmer motivation is presented in Table 1.

Table 1. Farmer Motivation Descriptive

<b>Category</b>	<b>Interval</b>	<b>Frequency</b>	<b>Percentage</b>
Very low	1.0 - 1.7	0	0%
Low	1.8 - 2.5	0	0%
Currently	2.60 - 3.39	17	9%
Tall	3.4 - 4.19	126	63%
Very high	4.20 - 5.0	57	29%
<b>Total</b>		<b>200</b>	<b>100%</b>

The results show that the motivation of farmers in South Buton Regency is in the high category with a percentage of 63%. The teak farmers in South Buton District have high motivation to develop teak forests, because it has a high economic value compared to other woods in South Buton District. The people of South Buton give a pretty good appreciation to farmers who have developed and maintained teak plants, and environmental sustainability can be guaranteed if the community conserves teak forests.

Study of indicators of farmer motivation variables with the average value of each indicator, namely:

Table 2. Assessment Indicator

<b>Indicator</b>	<b>Mean</b>	<b>Category</b>
Social	3.71	Very low
Economy	4.22	Low
Ecology	3.96	Currently

Based on Table 2 shows that the motivation of farmers in the social aspect is in the high category. This means that farmers are proud to have teak gardens because teak gardens are a concern for the people in Sampolawa and Batauga Districts. They also think that social status increases if they have teak plantations. Indicators of farmer motivation in the economic aspect show a very high category where the community's economy can increase through teak forest management. The older the age of teak, the higher the price, so teak plants are old age savings for teak farmers. Furthermore, the indicator of farmer motivation in the ecological aspect is also high, this means that the community is aware that a fertile teak forest will look beautiful and make the air temperature around the forest cool.

## 2. Correlational Analysis

Based on the results of the analysis, it was found that the influence of motivation on farmer behavior in maintaining the environment was 0.224. These results indicate that motivation influences farmer behavior in managing teak forests, especially teak plantations. The most basic thing that encourages the birth of environmental behavior is the motivation of farmers in terms of economic value. Farmers believe teak wood is a savings for old age, where the selling price of teak wood is higher than the price of

other wood.

Based on the results of the analysis carried out, it was found that the influence of motivation on farmer behavior in maintaining the environment was 0.224. These results indicate that motivation has an influence on farmer behavior in managing teak forests, especially teak plantations. The most basic thing that encourages the birth of environmental behavior is the motivation of farmers in terms of economic value. Farmers believe teak wood is a savings for old age, where the selling price of teak wood is higher than the price of other wood.

### **Discussion**

The results showed that the motivation of teak farmers on the Likert Scale was in the high category (3.4 – 4.19), 126 respondents or 63%, socially farmers felt proud to have teak gardens, especially since teak gardens received public attention in the village. In addition, teak forests provide a beautiful view when fertile, some farmers try to do animal husbandry in teak forests and the presence of teak forests can improve the soil and maintain water availability. The economic indicator has a very high category value of 4.22. Farmers dare to guarantee their teak plantations to banks or other parties when they really need money. In addition, teak forests generate income other than wood, such as doing chicken farms and teak forests being nests for honey bees.

### **CONCLUSION**

Based on the results of the research, it shows that the motivation of farmers in caring for the environment is in the high category or means that farmers have a high desire to manage teak forests. With high farmer motivation or desire, it can encourage farmer behavior to continue to protect teak gardens and trees so that they stay alive and protect the environment for the survival of farmers in South Botun Regency, Southeast Sulawesi.

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