



# Factors Influencing the Implementation of Forest Development Financing in Tebing Siring Village, Tanah Laut Regency, South Kalimantan

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## **ABSTRACT**

Tebing Siring Village which is located in Tanah Laut Regency set as forest area Community (HKm) through SK.134/ MenLHK / Setjen /PSKL.0/2/2016 Concerning Work Area Determination Forest societal with area of ± 8,860 hectares in Forest Areas Protected and Forest Areas Production Stay in Tanah Laut Regency South Kalimantan Province. Study purpose analyze the influencing factors

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implementation of financing development forest in the Tebing Siring village, Tanah Laut Regency. This research was conducted in Tanah Laut Regency, South Kalimantan Province. Object in study For reach objectives 1, 2 and 3 i.e., member group recipient revolving fund facility (FDB) in the village Tebing Siring, Tanah Laut Regency, which consists of from two groups that is group farmer want to advanced , amounting to 23 people and groups farmer Like forward, totaling 17 people. factors which influences the implementation of financing for forest development in Tebing Siring Village, Tanah Laut Regency, namely the timeliness factor of financing distribution. Appropriate use of the budget has a significant effect on success in financing community forestry businesses in villages Tebing Siring. The budget received shows that the community receiving this revolving fund facility, in terms of budget use and budget revenue, 100% of it is used according to the main function of the original purpose for the maintenance and care of rubber plants. Community action on the results of the Community Forest business financing program in the village Tebing Siring shows that all distribution activities and programs have been carried out properly and smoothly.

*Keywords: Financing; forests; factors; tebing siring; tanah laut.*

## 1. INTRODUCTION

Tebing Siring Village which is located in Tanah Laut Regency set as forest area Community (HKm) through SK.134/ MenLHK / Setjen /PSKL.0/2/2016 Concerning Work Area Determination Forest societal with area  $\pm$  8,860 (Eight Thousand Eight Hundred Sixty) hectares in Forest Areas Protected and Forest Areas Production Stay in Tanah Laut Regency South Kalimantan Province. HKm Village Tebing Siring is managed by two Forest Farmers Groups (KTH), namely KTH Want Forward and KTH Like forward. Based on SK IUPHkm Tebing Siring Village Number: SK.2271/ Menlhk - PSKL/PKPS/PSL.0/4/2017, KTH Wants Proceed own managed area an area of  $\pm$  200 Ha with amount member group farmer as many as 42 people. Tebing Siring Village was made as place study with see rules and laws related sustainability forest through scheme in the forestry program social. Policy development Forest Community (HKm) has issued since 2008 thru gift Utilization Business Permit Forest Community (IUPHKm). According to Nurrochmat et al. [1], policy this based on consideration that No its effective management Among them are the forests in Indonesia caused by loss function social and economic for public around forest Because mastery area forest tend given to company large [2].

Engagement public to management forest Already Lots practiced in tropical countries as something approach conservation and management strategies enough forest successful [3] as well can increase eye livelihood public locally [4]. Problems related funding is one reason low performance development Forestry Social one of them HKm [4]. Gondo [5] states

besides related support with infrastructure and strengthening the domestic market, support is also needed provision access to funding For management forest sustainable based public For increase participation public local in management forest, provision eye livelihood public from sector forestry, and alleviation poverty (Poverty Alleviation). The results of the study by Usman et al. [6] in East Nusa Tenggara shows that formal banking institutions difficult accessible to the poor because institution banking part big oriented commercial . Typical financial institution accessible to farmers is institution non - bank and non-bank finance normal cooperative called as institution finance micro that is not body law [7].

According to Ojiako and Ogbukwa [8], limitations access farmer small to system formal banking finance can seen from two sides in the credit scheme, ie supply side (creditor) and demand side (debtor). One objective from implementation policy the is Forest Community (HKm). For operationalize policy above, the Head of P2H Center has emit Perkapus P2H No. 01/2012 about Guidelines Application Loan for Forest Development without Intermediaries. Inside Percapus the there is a number of type possible financing accessible to farmers forest that is financing making or HR enrichment, HKm, HD and others; financing maintenance; financing agroforestry (agroforestry); financing cancel cut HR; plant refinancing financing forestry; financing non- forestry commodities; financing harvesting plant forestry; financing collection of NTFPs. Financing No only use One choice Because need farmers are very diverse [9]. one type financing facilitated by the Forest Development Financing Center to KTHKm in the Tebing Siring Village that is plant refinancing financing forestry.

Loan refinancing is type service loan from the P2H Center to recipient loan For support effort maintenance plant to plant can grow with well and produce , so later obtained mark economy from optimal plants with obligation return tree loan along interest and liabilities other after period time certain. HKm refinancing loans this divided over two classes based on the harvest cycle, that is class under age eight years and above eight year. With thereby distribution revolving fund loans Forest Development Financing Plant expected can prosper public area forest in a manner fair and equitable, and truly about target. However in implementation beside there is supporting factors, usually Still there is various inhibiting factor distribution revolving fund loans financing development forest plant. So that need exists something study special For study role this, especially in groups Forestry Social Service (PS) in the Tebing Siring Village which has obtain revolving fund facility. So with exists revolving fund facility This expected Forest Farmers Group Community (KTHKm) in the Tebing Siring Village can develop business forestry social , yes increase well-being KTH members and improve productivity as well as sustainability forest with add cover land . Study purpose For analyze factors influencing implementation financing development forest in the Tebing Siring village, Tanah Laut Regency.

## 2. RESEARCH METHODS

This research was conducted in Tanah Laut Regency, South Kalimantan Province. Object in study For reach objectives 1, 2 and 3 ie member group recipient revolving fund facility (FDB) in the village Tebing Siring, Tanah Laut Regency, which consists of from two groups that is group farmer want to advanced , amounting to 23 people and groups farmer Like forward , totaling 17 people. Whereas Other supported objects study This that is Head Unity Management Forest (KPH) in Tanah Laut District and extension workers or companion KTHKm from Unity Management Forest (KPH) in Tanah Laut District. Analyze influencing factors implementation financing development forest namely: Success rate (Y).

Influencing factors implementation financing development forest in the form of:

- a. Accuracy time distribution (X1).
- b. suitability use budget (X2)
- c. Received budget (X3)
- d. Action or results from the program (X4)



Fig. 1. Research Locations

### 2.1 Data Analysis Techniques

F what are the factors that lead to the success of implementing forest development financing in the Tebing Siring Village, Tanah Laut Regency analysis of the data using measurement variable that is the equation multiple linear regression, where this equation is an equation model that describes whether or not there is a functional relationship between the variables X and Y on the determining factors for the success of implementing the distribution of revolving fund facilities to finance plantation forest businesses . For more details, the following is a Table 1 of operational definitions of the variables in this study.

Data analysis using multiple linear regression analysis test. Multiple linear regression analysis is used to determine whether there is an effect of timeliness ( $X_1$ ), the appropriateness of budget use ( $X_2$ ), the money received ( $X_3$ ), and action or the results of the program ( $X_4$ ) has a significant effect on the success rate (Y) in Tebing Siring Village , Tanah Laut District, South Kalimantan Province. The model for the relationship between the value of the independent variable and the dependent variable can be arranged in a function or equation as follows:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + e$$

Description:

- 1) Y = success rate
- 2) a = constant
- 3)  $b_1$  = Regression coefficient variable  $X_1$  (timeliness)
- 4)  $b_2$  = Regression coefficient variable  $X_2$  (appropriate use of the budget)
- 5)  $b_3$  = Regression coefficient variable  $X_3$  (accepted budget )
- 6)  $b_4$  = Regression coefficient variable  $X_4$  (

- measures or results of the program)
- 7) timekeeping (X1)
  - 8) suitability of budget use (X2)
  - 9) money received (X3)
  - 10) action or the results of the program (X4)
  - 11) e = error or confounding variable

### 3. RESULTS AND DISCUSSION

This study uses multiple linear regression analysis techniques with consideration of the independent variable (X) of more than 1 (one) variable, the data scale is ordinal, there is a causality relationship between the independent variable (X) and the dependent variable (Y). This analysis is used to determine the direction of the relationship between the independent variables and the dependent variable (whether the independent variables are positively or negatively related).

The influence of each variable on the success rate of forest development financing was analyzed using the t test. It is known that from the results of this analysis the significant value for the effect of  $X_1$  (timeliness of distribution) on Y is  $0.001 < 0.05$  and the t value is  $3.572 > 2.030$ , so it can be concluded that the hypothesis (H1) is accepted, which means that there is an effect of  $X_1$  (timeliness of distribution) on Y. The significance value for the effect of  $X_2$  (appropriate use of the budget) on Y is  $0.013 < 0.05$  and the value of t count is  $2.629 > 2.030$ , so it can be concluded that the hypothesis (H2) is accepted, which means that there is an effect of  $X_2$  (appropriate use of the budget) on Y.

The significance value for the effect of  $X_3$  (money or budget received) on Y is  $0.022 < 0.05$  and the t value is  $-2.403 < 2.030$ , so it can be concluded that the hypothesis (H3) is rejected, there is no effect for  $X_3$  (money or budget received) against Y.

The significance value for the effect of  $X_4$  (action or program results) on Y is  $0.049 < 0.05$  and the t-value is  $-2.044 < 2.030$  so it can be concluded that the hypothesis (H4) is rejected, there is no effect for  $X_4$  (action or program results) against Y.

Influence variable in a manner together to success financing development analyzed forest with the F test obtained mark significance For influence of  $X_1, X_2, X_3$  and  $X_4$  in a manner simultaneous against Y is of  $0.000 < 0.05$  and the calculated F value of  $6.604 > F$  Table 2.63, so can concluded that hypothesis This accepted

means there is influence of  $X_1, X_2, X_3$  and  $X_4$  in a manner simultaneous against Y.

Based on output above is known R Square value of 0.430, p This implies that influence variables  $X_1, X_2, X_3$  and  $X_4$  respectively simultaneous to variable Y is by 43.0%. Based on the output above is known that R square value of 0.430 things This means that influence variables  $X_1, X_2, X_3$  and  $X_4$  respectively simultaneous to variable Y is by 43.0%. Based on results study influencing factors Distribution financing forest development in the village Tebing Siring, Tanah Laut Regency, namely the timeliness factor for financing distribution. suitability use the budget has a significant effect on success in financing community forestry businesses in villages Tebing Siring. On the accepted budget shows that 100% of the people who receive this revolving fund facility in terms of budget use and budget revenue are used according to the main function of the original purpose for the maintenance and care of rubber plants. Community action to results from the financing program business Forest Community in the Tebing Siring Village show that whole activity distribution nor the program has done with good and smooth [10].

Influencing factors implementation financing development forest, some possible variables analyzed including that is variable dependent: Execution financing development forest. Variable independent: Various possible factor influence implementation financing, eg policy government, availability source Power finance, sustainability finances, roles party related management risk, and transparency and accountability.

Through analysis regression, research can test connection between variable dependent and independent, as well to what extent factors the influence implementation financing development forest. Statistical test like t-test and F test can used for test significance statistics from variable independent in explain variation in implementation financing [11]. Besides it, analysis multivariate like analysis factor or analysis track can used for evaluate interaction between influencing factors implementation financing development forests [12].

Financing development forest is the process of collecting and using funds for promote and support effort construction, maintenance and rehabilitation forest. There are several possible factor influence implementation financing development forest. Following is a number of significant factors:

**Table 1. Variable Operational Definition**

Variable	Measuring instrument	Score	Indicator	Scale
Success rate (Y)	-	-	success rate : a. Timeliness of Distribution (X <sub>1</sub> ) b. Appropriate Use of the Budget (X <sub>2</sub> ) c. Accepted budget (X <sub>3</sub> ) d. The action or result of the program (X <sub>4</sub> )	-
Timeliness of Distribution (X <sub>1</sub> )	Questionnaires, questionnaires and interviews	1) STS=1 2) TS=2 3) KS=3 4) S=4 5) SS=5	Timeliness is . STS = 12 months . TS = 6 months . KS = 5 months . S = 3 months . SS = 1.5 months	Nominal
Appropriate Use of the Budget (X <sub>2</sub> )	Questionnaires, questionnaires and interviews	1) STS=1 2) TS=2 3) KS=3 4) S=4 5) SS=5	Appropriate use of the budget is . STS = For household needs . TS = Purchase of a car . KS = Purchase of goat livestock . S = Purchase of cattle . SS = Maintenance of rubber plants (herbicides, fertilizers)	Nominal
Accepted budget (X <sub>3</sub> )	Questionnaires, questionnaires and interviews	1) STS=1 2) TS=2 3) KS=3 4) S=4 5) SS=5	Money received: 1. STS = 0% usage and less than 100% acceptance 2. TS = 100% not used and acceptance not 100% 3. KS = usage less than 100% and acceptance less than 100% 4. S = 100% usage and 80% acceptance 5. SS = 100% usage and 100% acceptance	Nominal
The action or result of the program (X <sub>4</sub> )	Questionnaires, questionnaires and interviews	1) STS=1 2) TS=2 3) KS=3 4) S=4 5) SS=5	Actions or results of the program : 1. STS = Distribution is not smooth and plant maintenance activities are not carried out properly 2. TS = Distribution and plant maintenance activities are not running smoothly 3. KS = Distribution is smooth but the management of activities is less than optimal 4. S = activities run effectively 5. SS = Distribution and program running smoothly	Nominal

**Table 2. The Influence of Each Variable on the Success Rate of Forest Development Financing Analyzed by the t test**

Model		Coefficients <sup>a</sup>					Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
		B	Std. Error	Beta				
1	(Constant)	9,585	6,179		1,551	,130		
	Ketepatan Waktu Penyaluran	,762	,213	,475	3,572	,001	,921	1,086
	Kesesuaian Penggunaan Anggaran	,274	,104	,355	2,629	,013	,891	1,123
	Uang yang diterima	-,325	,135	-,317	-2,403	,022	,935	1,070
	Tindakan atau hasil dari program	-,291	,142	-,281	-2,044	,049	,861	1,161

a. Dependent Variable: Tingkat Keberhasilan

**Table 3. Testing of simultaneous variables on the success of forest development financing analyzed by the F Test**

Model		ANOVA <sup>a</sup>				
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	48,593	4	12,148	6,604	,000 <sup>b</sup>
	Residual	64,382	35	1,839		
	Total	112,975	39			

a. Dependent Variable: Tingkat Keberhasilan

b. Predictors: (Constant), Tindakan atau hasil dari program, Uang yang diterima, Ketepatan Waktu Penyaluran, Kesesuaian Penggunaan Anggaran

**Table 4. Coefficient Termination**

<b>Model Summary<sup>b</sup></b>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,656 <sup>a</sup>	,430	,365	1,35628	1,722

a. Predictors: (Constant), Tindakan atau hasil dari program, Uang yang diterima, Ketepatan Waktu Penyaluran, Kesesuaian Penggunaan Anggaran

b. Dependent Variable: Tingkat Keberhasilan

Policy supportive government development forest and give priority on protection environment as well as management source Power natural will influence availability of funds for financing development forest. Clear and consistent policies can create climate good investment and encouraging participation sector private in financing [13].

Availability Financial Resources: Availability of funds or source Power adequate finances is factor important in implementation financing development forest. Source Power This can originate from budget government, aid international, sector private, or instrument finance like bond green or carbon market mechanisms [14].

Continuity finance refers to ability for maintain and obtain funds on an ongoing basis sustainable in period long. In context financing development forests, sustainability finance can covers such strategies development source income alternative, management asset forest with wise, and empowering public local For contribute to financing [15].

Role and Engagement Party Related: Strong engagement and cooperation between various stakeholders interests, incl government, sector private, organization public civil , and society local, very important in implementation financing development forest. Collaboration This can strengthen financing, share risk, and ensure that funds are allocated with effective and efficient [16].

Forest development often involve risk environmental, social, and financial. Important For manage risk This with good for financing development forest still sustainable. Management risk involve identification risk potential, evaluation impact, and take action appropriate mitigation.

Transparency and accountability in management and use of financing funds important for build trust and improve effectiveness financing development forest. Retrieval process transparent decisions, accurate reporting, and mechanisms effective supervision will ensure that funds are used with appropriate target and deliver expected result [17-19].

#### 4. CONCLUSION

Factors which affects the implementation of financing for forest development in Tebing Siring

Village, Tanah Laut Regency, namely the timeliness factor of financing distribution. Appropriate use of the budget has a significant effect on success in financing community forestry businesses in villages Tebing Siring. The budget received shows that the community receiving this revolving fund facility, in terms of budget use and budget revenue, 100% is used according to the main function of the original purpose for the maintenance and care of rubber plants. Community action on the results of the Community Forest business financing program in the village Tebing Siring shows that all distribution activities and programs have been carried out properly and smoothly.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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