

**COMMUNITY EMPOWERMENT STRATEGIES AROUND FOREST THROUGH
COMMUNITY COLLABORATIVE FOREST MANAGEMENT (PHBM) SYSTEM
IN PRINGAPUS SUB-DISTRICT, SEMARANG REGENCY****Meswari Dwi Hadiyanto, Sriroso Satmoko, and Mukson**Agribusiness Master Program, Faculty of Animal and Agricultural Sciences, Diponegoro University,
Semarang, IndonesiaCorrespondence Email: meswaridwi@gmail.com

Submitted 21 May 2020; Accepted 25 November 2020

ABSTRAK

Pengelolaan Hutan di Pulau Jawa dilaksanakan oleh Perum Perhutani, dimana dalam pelaksanaannya telah menerapkan sistem Pengelolaan Hutan Bersama Masyarakat (PHBM). Kecamatan Pringapus memiliki Hutan Negara yang cukup luas namun demikian sebagian besar penduduk yang berada di sekitar hutan masih berada dalam kondisi miskin. Kondisi masyarakat di sekitar hutan di Kecamatan Pringapus digambarkan dengan masyarakat yang tidak memiliki kemandirian, tidak memiliki akses untuk memanfaatkan hutan, tingkat pendidikan dan ketrampilan yang masih rendah. Dalam upaya mengatasi semua itu Perum Perhutani melakukan pemberdayaan masyarakat di Kecamatan Pringapus melalui Sistem Pengelolaan Hutan Bersama Masyarakat. Sistem ini dinilai cukup strategis karena sangat akomodatif terhadap kepentingan berbagai pihak termasuk masyarakat sebagai pelaku pembangunan. Penelitian ini bertujuan untuk Evaluasi pelaksanaan sistem Pengelolaan Hutan Bersama Masyarakat (PHBM) dari aspek Kelembagaan, aspek Pemberdayaan, aspek Agribisnis dan aspek Peran LMDH serta merumuskan strategi pemberdayaan masyarakat melalui PHBM. Analisis data yang digunakan untuk menjawab tujuan yaitu Analisis deskriptif, Analisis regresi linear berganda dan Analisis SWOT. Hasil penelitian PHBM di kecamatan Pringapus menunjukkan kelembagaan yang sedang yang digambarkan dengan kurang terealisasinya program kerja serta tingkat partisipasi LMDH yang kurang optimal.

Kata kunci: pemberdayaan, LMDH, PHBM, SWOT**ABSTRACT**

Forest Management in Java is carried out by Perum Perhutani, which has implemented a Community-Based Forest Management (PHBM) system. Pringapus Kecamatan has a State Forest which is quite extensive, however, most of the population around the forest is still in poor condition. The condition of the community around the forest in Pringapus District is illustrated by the people who do not have independence, do not have access to use the forest, the level of education and skills are still low. In an effort to overcome all this, Perum Perhutani is empowering the community in Pringapus District through the Community Forest Management System. This system is considered quite strategic because it is very accommodating to the interests of various parties including the community as the agents of development. This study aims to evaluate the implementation of the Collaborative Forest Management System (PHBM) from the Institutional aspect, the Empowerment aspect, the Agribusiness aspect and the LMDH Role aspect and formulating a community empowerment strategy through the PHBM. Analysis of the data used to answer the objectives is descriptive analysis, multiple linear regression analysis and SWOT analysis. The results of PHBM research in Pringapus sub-district indicate that the institution is being illustrated by the lack of realization of work programs as well as sub-optimal level of LMDH participation

Keywords: empowerment, LMDH, PHBM, SWOT

INTRODUCTION

Forest is a vast collection of resources in the form of flora, fauna, and other environmental services (clean water, natural beauty, absorber of CO₂ greenhouse gases). The diversity of forest wealth should be able to provide a place for the surrounding community to fulfill their daily needs. However, the reality is that poverty exists in the areas where there are abundant resources.

This is certainly becoming a big problem that must receive great attention from various parties and must find a solution immediately. There will be a bigger disaster that can happen if the problem is not resolved immediately. Poverty can trigger other unexpected actions and can disrupt forest sustainability. Actions that may occur and can be done by communities around the forest, for example, is forest encroachment and illegal logging.

Communities around the forest have a dilemma in relation to forests. On one hand, they are the people who play the most important role in the context of forest conservation. On the other hand, most of them are poor and really need support in fulfilling their various needs. Forests are an abundant economic resource to fulfill the needs of communities around the forest. This condition has become a blessing for the community to utilize the existing forest resources to meet their daily needs.

Rahmina (2011) emphasizes that Community Collaborative Forest Management (PHBM) is a term for various forest management concepts. Development of Community Collaborative Forest Management (PHBM) is based on local conditions and traditions while maintaining the prevailing laws and regulations. This has led to the emergence of various schemes of PHBM such as Village Forests, Community Forests, Customary Forests, and others. However, these various schemes have the same important characteristics that is PHBM must be based on legal and certain access for the community to forest resources in order to

realize sustainable forest management based on social structures and local conditions.

Based on the concept that has been explained above, the condition of the village community around the Forest in Pringapus Sub-district can be classified as poor. This is indicated by the condition that the majority of the population does not have their own production factors and does not have the possibility to acquire production assets by themselves.

In order to improve the quality of human resources in forest management, empowerment activities are not only focused on empowering human resources, but also institutional empowerment and increasing productive business. It is expected that through sustainable empowerment carried out from various aspects, the community will become more dignified and prosperous individuals.

Empowerment in the Community Collaborative Forest Management (PHBM) System is a gradual and continuous activity so that it takes a long time to achieve the desired results. Therefore, to maintain the quality of empowerment and assess the extent to which empowerment has been successfully done in Forest Village Community Institution (LMDH), evaluation and assessment of Forest Village Community Institution performance are conducted once a year.

The condition of the community around the forest in Pringapus sub-district is described as people who do not have independence, do not have access to use the forest, and have low levels of education and skills. In an effort to overcome those problems, Perum Perhutani conducts community empowerment in Pringapus Sub-district through the Community Collaborative Forest Management System.

A study on Community Empowerment Strategies Around the Forest through the Community Collaborative Forest Management System was conducted in Pringapus Sub-district, Semarang Regency in order to evaluate the implementation of Community Collaborative Forest

Management in Pringapus Sub-district, Semarang Regency and in order to determine the effect of community empowerment on the implementation of Community Collaborative Forest Management and formulate community empowerment strategies through the Community Collaborative Forest Management system.

RESEARCH METHODS

This study was conducted from June - December 2018 in Pringapus Sub-district, Semarang Regency. This study used a survey method by conducting direct interviews with the members of Forest Village Community Institution (LMDH) of Pringapus Sub-district using questionnaires. The number of samples was selected using the Slovin formula from 869 members of Forest Village Community Institutions who live in forest villages in Pringapus Sub-district, and 90 people who have land and use the forest to meet their daily needs.

$$n = \frac{N}{1 + N d^2}$$

$$= \frac{869}{1 + (869 \times 0,1^2)}$$

$$= \frac{869}{9,69}$$

$$= 89,68$$

$$\approx 90$$

Keterangan

N = Population

n = Sample

d = Precision (10 % = 0,1)

The research data were collected using primary and secondary data through interviews, observation, and documentation. Primary data were obtained from interviews with the members of Forest Village Community Institution (LMDH) of Pringapus Sub-district based on the questionnaires that had been prepared to obtain information related to the implementation of the Collaborative Forest Management system. The measurement uses the 5-Point Likert Scale which has 5 alternative answers, namely: (1) very good, (2) good, (3) fair, (4)

poor, and (5) very poor. Secondary data were obtained from related journals, books, and agencies or parties related to the implementation of Community Collaborative Forest Management in Pringapus Sub-district, Semarang Regency. The data were then analyzed using multiple linear regression models using the multiple linear regression equation below (Ghozali, 2011)

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

Information:

Y : PHBM implementation (score)

a : Constant

b : Regression coefficient

e : Error

X1 : Institutional (score)

X2 : Community empowerment (score)

X3 : Agribusiness activities (score)

X4 : LMDH role (skor)

SWOT analysis to determine the Community Empowerment Strategy through the PHBM System

The method of analysis used to identify the Community Empowerment Strategies through the PHBM system is to use a SWOT analysis. SWOT analysis is a common and easy-to-use method to determine the advantages as supporting factors and disadvantages as limiting factors. SWOT analysis is needed to formulate the appropriate strategy in the context of Community Empowerment through the Community Collaborative Forest Management (PHBM) system in Pringapus Sub-district, Semarang Regency.

RESULTS AND DISCUSSION

The Social Forestry program in this case is conducted by Perhutani (state-owned Forest Enterprise), namely the implementation of partnership and empowerment programs and implemented in the form of Community Collaborative Forest Management (PHBM). The Community

Collaborative Forest Management System initiated by Perum Perhutani in 2001 opened the opportunities for forest village communities to be actively involved in forest management. PHBM is a form of synergy between Perhutani and forest village communities for the purpose of optimizing the use of forest resources in a progressive and proportional manner. Furthermore, PHBM serves to maintain the conservation of the forest environment and maintain the socio-economic existence of forest village communities (Herawaty, 2013). The partnership that is carried out with the community in the Community Collaborative Forest Management system is implemented with the formation of the Forest Village Community Institution (LMDH) which is used as the official forum for the community to cooperate and communicate with Perum Perhutani.

Characteristics of Respondents

The characteristics of respondents in table 1 is based on gender totaled 77% male and 23%, female. The number of members of the LMDH is predominantly male. The majority of respondents are of productive age (aged 25-55 years) and 11% of respondents are above productive age (aged 55 years or over). According to Samun et al. (2011) Farmers aged 30-59 years have the physical potential to support farming activities. They are dynamic, creative, and ready in accepting new technological innovations.

Farmers aged 59 years or over have advantages in terms of experience, judgment, work ethics, and commitment to quality. The disadvantage of farmers aged 59 years or over is that they are often considered less flexible and reject new technology (Sunar, 2012).

Like other groups of farmers, 84% of forest farmers have a low level of education (Primary school). Forest farmers do not have formal education. They only have experience in farming that has been practiced since a young age. However, the low level of formal education does not prevent forest farmers from gaining knowledge for their

development, especially in cultivating the land of Perhutani. Low levels of education have an impact on the level of knowledge of forest farmers. According to the research results of Winata and Yuliana (2011), the level of knowledge of the farmer/fishermen community is related to their role in an activity program. The low level of education of the farmers participating in PHBM in the research site was caused by various factors, including the economic condition of the farmers who generally had low income.

The average residence distance of the farmers participating in PHBM to the location of their cultivated land is 5 > km. This distance is in accordance with the conceptual distance of the PHBM location that has been determined by Perum Perhutani, which is between 0-5 km. Therefore, it is expected that the productivity level of the participants of the PHBM program can be maintained properly.

The majority of the people living around the forest in Pringapus Sub-district depend on their livelihoods as farmers (91%). Respondents who have farming experience under 21-40 years are 63 people or 71% (Table 1). The high and low productivity of an agricultural commodity is influenced by various things, including the area of land, the number of seeds, the amount of organic fertilizer, the number of workers, the farmers' age, the length of education of the farmers, and the length of experience in farming (Muttakin et al., 2014; Suharyanto et al., 2015).

The average cultivated land area of 0,1 – 0,3 Ha is 61 people (68%). The land area affects the farmers' income. The larger the land area, the bigger the income is because the amount of production is higher. The type of plant cultivated by farmers is predominantly corn.

Farmers' household income can reflect the economic situation of their household. The level of household income can be used as an indicator of the level of well-being of a household (Khususiyah et al, 2010). The low level of income of forest farmers is because

they have not been able to reap the yields of staple crops (Winata, 2011). Although the income of the people living around the forest is uncertain, they still survive. This is due to

the existence of social security from the family and neighbors in the form of helping each other and living together.

Table 1. Identity Data of LMDH Member (N=90)

No.	Characteristics	Jumlah -person-	Percentage ---%---	
1.	Sex	Male	69	77
		Female	21	23
2.	Family dependents	0	3	3
		1-3 person	81	90
		> 3 person	6	7
3.	Age	25 – 40 year	31	34
		40 – 55 year	49	55
		> 55 year	10	11
4.	Length of stay	<5 year	5	5
		5 – 10 year	6	7
		10 – 15 year	9	10
		> 15 year	70	78
5.	Education	SD	41	53
		SMP	31	39
		SMA	18	8
6.	House distance to arable land	<0,5 Km	75	84
		0,5 – 1,0 Km	6	7
		1,0 - 1,5 Km	3	3
		1,5 – 2,0 Km	3	3
		> 2,0 Km	3	3
7.	Job	Farmers	85	91
		Entrepreneur	2	2
		Others	3	7
8.	Farming experiences	< 10 year	5	5
		11 - 20 year	13	14
		21 - 30 year	32	36
		31 - 40 year	31	35
		> 40 year	9	10
9.	Arable land area	0,1 – 0,3 Ha	61	68
		0,3 – 0,5 Ha	21	23
		'> 0,5 Ha	8	9
10.	The age of the main plant on arable land	< 2 year	52	58
		> 2 year	38	42
11.	Types of intercropping / seasonal plants	Corn	84	94
		Paddy	3	3
		Others	3	3
12.	Net income from intercropping	<500.000	18	20
		500 - 750.000	22	25
		750 – 1.000.000	39	43
		> 1.000.000	11	12

Source: Primary Data, 2018

The level of the farmer's income is influenced by several dominant factors such as the distance between the forest and the settlement and the average residence distance of the farmers participating in PHBM to the location of their cultivated land, which is 1 km.

Institutional Influence (X1) on the Implementation of PHBM

Based on table 2, it is shown that the answers of respondents to institutional variables in the implementation of PHBM are categorized as moderate and the average answer score is 60,6. This means that the institutional variables which include organizational governance, organizational management, regular organizational meetings, and organizational work programs are still considered moderate. According to Nur and Sigit (2015) in addition to institutional strengthening, community empowerment around forests will provide benefits if each

activity is based on the socio-cultural conditions of the community and the potential that exists in the community around the forest. The institutional strengthening and community empowerment programs around the forest are intended to develop the socio-cultural and economic life of forest communities with a focus on strengthening institutions to develop local socio-cultural life that can act as a dynamist for development in forest areas.

Community Empowerment (X2)

Based on table 3, it is shown that the answers of respondents to the Community Empowerment variables in the implementation of PHBM are categorized as moderate and the average answer score is 60,1. This means that the Community Empowerment variables which include an understanding of PHBM, community awareness, and community participation are still considered moderate.

Table 2. Number and Percentage of Respondents in Institutional Variables

No	Category	Value	Total ----Person----	Percentage --- % ---
1.	Very good	81-100	7	7,8
2.	Good	61-80	19	21,1
3.	Moderate	41-60	38	42,2
4.	Not good	21-40	21	23,3
5.	Very Poor	0-20	5	5,6
Total			90	

Source: Primary Data, 2018

Table 3. Number and Percentage of Respondents in the Community Empowerment Variable

No	Category	Value	Total ----Person----	Percentage --- % ---
1.	Very good	81-100	4	4,4
2.	Good	61-80	18	20,0
3.	Moderate	41-60	47	52,2
4.	Not good	21-40	16	17,8
5.	Very Poor	0-20	5	5,6
Total			90	

Source: Primary Data, 2018

The essence of community development is to educate, to make community members able to do something by providing the strength or means needed and empowering them (Zubaedi, 2014).

Community Empowerment is an effort to build community capacity by encouraging, motivating, and raising awareness of the potential they have and trying to develop this potential into real action. Alfitri (2011) in his book explains Community Empowerment is a concept of economic development that summarizes social values. Development is people-centered (community-centered), participatory (participation), empowering (empowerment), and sustainable (sustainability).

Community empowerment is an effort to encourage people to resolve problems and increase their ability to make joint decisions that can affect and improve the quality of life (Sopyan, 2014). Therefore, it is necessary to carry out farmers' empowerment in order to improve the position of farmers to resolve problems through their own potential and abilities.

Agribusiness Activities (X3)

Based on table 4, it is shown that the answers of respondents to agribusiness activities variables in the implementation of PHBM are categorized as moderate and the average answer score is 60,8. This means that the agribusiness activities variables which include the use of vacant land, yields from

seasonal crops, and net income are still considered moderate. According to (Mangowal, 2013) the Empowerment of Farmers needs to be done with the importance of agribusiness which includes on-farm, downstream industries, and product marketing.

Agricultural activities in forest villages are a form of their investment in ensuring household well-being. This means that the cultivation activities they carry out are an investment system for a certain period of time which the results will then be enjoyed. The value carried out by the surrounding community in treating forests is actually not only a form of economic activity, but through this agroforestry system, they maintain the ecological balance of forest function and therefore through this activity the community invests economically and ecologically that maintains the sustainability of the forest itself (Sutmoko et al, 2019).

Role of LMDH (X4)

Based on table 5, it is shown that the answers of respondents to the LMDH role variable in the implementation of PHBM are categorized as moderate and the average answer score is 60,3. This means that the role of the LMDH variable which includes the role in improving human resources, the role in holding regular meetings, and the role in establishing cooperation are still considered moderate.

Table 4. Number and Percentage of Respondents in the Variable of Agribusiness Activities on the Implementation of PHBM

No	Category	Value	Total ----Person----	Percentage --- % ---
1.	Very good	81-100	4	4,4
2.	Good	61-80	20	22,2
3.	Moderate	41-60	44	48,9
4.	Not good	21-40	19	21,1
5.	Very Poor	0-20	3	3,3
		Total	90	

Source: Primary Data, 2018

Table 5. Number and Percentage of Respondents in the Role of LMDH on the Implementation of PHBM

No	Category	Value	Total ----Person----	Percentage --- % ---
1.	Very good	81-100	5	5,6
2.	Good	61-80	17	18,9
3.	Moderate	41-60	45	50
4.	Not good	21-40	19	21,1
5.	Very Poor	0-20	4	4,4
		Total	90	

Source: Primary Data Processed, 2018

Efforts for the empowerment of farmers to increase productivity, income, and well-being can be carried out by agricultural institutions such as the farmer groups. The research results of Mario (2017) states that one of the goals that the farmer community wants to achieve by joining an institution is to improve their well being so that they can become independent and competitive farmers as well as able to raise the status of their family.

LMDH was established to carry out forest management in the Community Collaborative Forest Resource Management (PHBM) system which includes the following aspects: a) strengthening and developing institutions, b) participatory planning of swaths of forest village region (HPD), c) criteria and indicators for the sustainability of forest resources, and d) monitoring and evaluation (Wartiningsih and Nunuk Nuswardani, 2015)

The role of the Aspakusa Makmur Boyolali Association in empowering its members and achieving member independence plays a great role and is categorized as high. The role of the Aspakusa Makmur Boyolali Association in empowering its members through farmers' empowerment strategies simultaneously plays a role in achieving member independence (Muna et al, 2020).

The Implementation of PHBM (Y)

Based on table 6, according to LMDH members, the implementation of PHBM in Pringapus Sub-district, Semarang Regency is in a good category and the average answer score is 61,8. LMDH members feel that community empowerment activities through the PHBM system can improve the LMDH members' well-being so that LMDH members can take responsibility for forest security and they can further support forest sustainability.

Table 6. LMDH Members' Perceptions of the Implementation of PHBM

No	Category	Value	Total ----Person----	Percentage --- % ---
1.	Very good	81-100	5	5,6
2.	Good	61-80	21	23,3
3.	Moderate	41-60	48	53,3
4.	Not good	21-40	19	21,1
5.	Very Poor	0-20	2	2,2
		Jumlah	90	

Source: Primary Data, 2018

Forest village communities consider the forest as an important source of livelihood for the community. Thus, forest village communities interpret the forest as a symbol of sustainable investment. This sustainability does not only mean social, economic, and ecological sustainability, but also sustainability for the life of the future generation (Sutmoko, et al, 2019).

Community Collaborative Forest Management (PHBM) is a forest resource management system that is carried out together with the spirit of sharing between Perhutani, forest village communities through LMDH (Forest Village Community Institutions) so that the common interest to achieve sustainable functions and benefits of forest resources can be realized in optimal and proportional manner.

Results of Analysis Test of Community Empowerment and the Community Collaborative Forest Management system

Based on the results of the F test using SPSS 16.0, obtained the significant value of F count which is 0,0370, meaning less than 5%. This shows that there is a significant relationship between community empowerment and the success of the PHBM system and there is a strong influence either partially or jointly between LMDH Institutions, Community Empowerment, Agribusiness Activities, and the Role of LMDH on the Implementation of PHBM.

Based on the results of the t-test using SPSS 16.00 (Table 7), obtained the significant

value of t count of the institutional variable (X1) is 0,009; Community Empowerment (X2) is 0,002; Agribusiness Activities (X3) is 0,017; Role of LMDH (X4) is 0,039. This means that all variables, including Institutions, Community Empowerment, Agribusiness Activities, and the Role of LMDH have an effect on the implementation of PHBM.

Based on the results of the SPSS 16.0 test, the multiple linear regression equation is obtained as follows:

$$Y = 40,974 + 0,002 X_1 + 0,199 X_2 + 0,011 X_3 + 0,139 X_4$$

This means if there is no institutional score (X1); community empowerment (X2); agribusiness activities (X3), and the role of LMDH (X4), then the successful implementation of PHBM will be equal to 40,974.

The role of the institutional variable (X₁) has a significant effect on the success of PHBM implementation with the regression equation for each additional one institutional score (X1), the success score for PHBM implementation increases by and changes by 0,002.

The role of the empowerment variable (X₂) has a significant effect on the success of PHBM implementation with the regression equation for each additional one empowerment score (X2), the success score of PHBM implementation increases by and changes by 0,199.

Table 7. t-Test Result

Model	Unstandardized Coefficients		T	Sig
	B	Std. Error		
(Constant)	40,974	14,564	2,813	0,006
Institution	0,002	0,113	2,014	0,009
Community Empowerment	0,199	0,155	1,287	0,002
Agribusiness Activities	0,011	0,108	1,104	0,017
LMDH Role	0,139	0,145	1,962	0,039

Source: Primary Data, 2018

The role of the agribusiness activity variable (X_3) has a significant effect on the success of PHBM implementation with the regression equation for each additional one agribusiness activity score (X_3), the success score of PHBM implementation increases by and changes by 0,011.

The role of the LMDH variable (X_4) has a significant effect on the success of PHBM implementation with the regression equation for each additional one LMDH role score (X_4), the success score of PHBM implementation increases by and changes by 0,139.

Table 8. IFAS Matrix

No	Description	Weight	Rating	Score
STRENGTHS (Strength Factor)				
1.	The existence of LMDH role as an equal partner to Perhutani in PHBM	0,068	3,5	0,24
2.	The existence of a work program/activity from the LMDH	0,070	2,5	0,18
3.	The existence of cooperation/assistance with other institutions/agencies	0,071	2,6	0,19
4.	The existence of community involvement in planting forests (staple crops)	0,073	3,2	0,23
5.	The existence of community roles and community capacity in forest management (planning, planting, maintenance, etc.)	0,070	2,7	0,19
6.	The existence of community training in forest management	0,058	2,5	0,15
7.	The existence carrying capacity of Forest Resources in the management of LMDH for PHBM activities	0,065	3	0,19
8.	Actors of forest security and sustainability	0,065	2,3	0,
9.	The existence of the cropping pattern and the success of the staple crop	0,065	2,7	0,18
10.	There are benefits of the PHBM program for people who are involved in intercropping	0,066	3,5	0,24
11.	Community participation in the PHBM program (as farming laborers/workers, maintenance of staple crops, logging, and others)	0,066	3,1	0,21
12.	There is an income/profit-sharing fund for the community members of the LMDH	0,063	3,6	0,23
Sub Total Strength		0,8		2,37
WEAKNESSES (Weakness Factor)				
1.	Organizational management governance of LMDH is still weak	0,065	2,5	0,15
2.	The understanding of LMDH members and community awareness of PHBM is low	0,070	2,3	0,15
3.	The capacity of LMDH members to organize	0,065	3,5	0,21
Sub Total Weakness		0,2		0,55
Total		1,00		

Source: Results of Data Analysis of IFAS

Analysis of Community Empowerment Strategies through the PHBM system

The analysis to determine the Community Empowerment Strategy through the PHBM system in Pringapus Sub-district uses a SWOT analysis. SWOT analysis will be used to determine the internal and external influences (strengths, weaknesses, opportunities, and threats) on the implementation of PHBM, as well as the formulation of community empowerment strategies based on the potential owned by LMDH in Pringapus Sub-district, Semarang Regency.

Based on the results of the assessment of the Internal Factors, table 8 shows the total score on strength is 2,37 and the total score on weakness is 0,55. This indicates that PHBM has greater strengths than weaknesses with a difference of 1,81. The key strength is the Forest Village Community Institution with a score of 0,24 is supported by forest resources with a score of 0,19. Then the main weakness is organizational management with a score of 0,15 and the capacity of LMDH members which is still low with a score of 0,21.

Table 9. External Factors Matrix

No	Description	Weight	Rating	Score
OPPORTUNITIES (Opportunity factor)				
1.	The existence of government policy on forestry	0,066	3,2	0,21
2.	The existence of government support for forestry	0,066	3,1	0,20
3.	The existence of the support of Perhutani in the development of a large PHBM	0,066	3,5	0,23
4.	The role of Perhutani in increasing population income	0,061	3,2	0,19
5.	The potential for large non-timber forest products (corn, nutmeg, etc.)	0,057	3,3	0,19
6.	Forest as land that can accommodate workforce	0,063	3,6	0,23
7.	Support from the surrounding community for PHBM program	0,056	2,6	0,15
8.	Support for transportation facilities and infrastructure	0,068	2,8	0,19
9.	The existence of the role of Perhutani in LMDH	0,065	3,4	0,22
10.	The existence of the role of village government officers	0,063	3,0	0,19
11.	The existence of the role of the Environmental and Forestry Service, the Agricultural Service, and others	0,065	3,2	0,21
12.	The existence of the role of other LMDH	0,065	2,9	0,19
Sub Total Opportunities		0,761		2,4
THREATS (Threat Factors)				
1.	The low level of education of the village community around the forest	0,059	2,5	0,15
2.	The high level of community need for forests	0,065	2,4	0,15
3.	There is a disturbance to the forest area.	0,059	2,2	0,13
4.	The number of forest villagers is increasing	0,056	2,4	0,13
Sub Total Threats		0,239		0,57
Total		1,00		

Source: Results of Data Analysis of EFAS

Based on the results of the IFAS assessment, the total score on strength is 2,37 and the total score on weakness is 0,55. This indicates that the PHBM system has greater strengths than weaknesses with a difference of 1,82. Therefore, the PHBM system can utilize its strengths in increasing community empowerment.

The results of the assessment of external factors show a total score of 2,97 on opportunities and threats which indicates that the development of PHBM is in an external position that is taking advantage of opportunities to overcome the threats faced. The biggest opportunity for the development of PHBM is the support of Perum Perhutani with a score of 0,23 and community support with a score of 0,15. The main threat is the low level of public education with a score of 0,15 and the high level of community need with a score of 0,13.

The results of the EFAS assessment show that the total score on opportunities is 2,4 and the total score on challenges/threats is 0,57, thus it shows that the opportunities for the PHBM system are greater than the challenges/threats. This indicates that the existing opportunities in the PHBM system can overcome the existing threats.

Based on the results of the SWOT analysis, it can be seen that the PHBM system factor is in quadrant I (Figure 1). This shows

that the PHBM system is in a very favorable situation because it has the strengths and opportunities that can be utilized as well as possible. Thus, the strategy that should be used is a strategy that supports aggressive growth by utilizing its strengths to achieve and take advantage of existing opportunities (Rangkuti, 2011). The figure of PHBM system cell position based on SWOT analysis can be seen below.

Development Strategy of PHBM System

Huraerah (2011) explains the strategies that must be done to overcome poverty are 1) multidimensional strategies, 2) increasing the basic abilities of the poor through education, health, business skills, technology, network expansion, and market information; 3) involvement of the poor in the entire poverty reduction process starting from planning, implementation, monitoring, evaluation, as well as in the decision-making process, and 4) empowerment. Several alternatives to the PHBM system development strategy are as follows:

1. SO Strategy

SO strategy is a strategy that uses the internal strengths of PHBM to use existing external opportunities in order to gain benefits for PHBM. Several strategies that can be done in the SO strategy are:

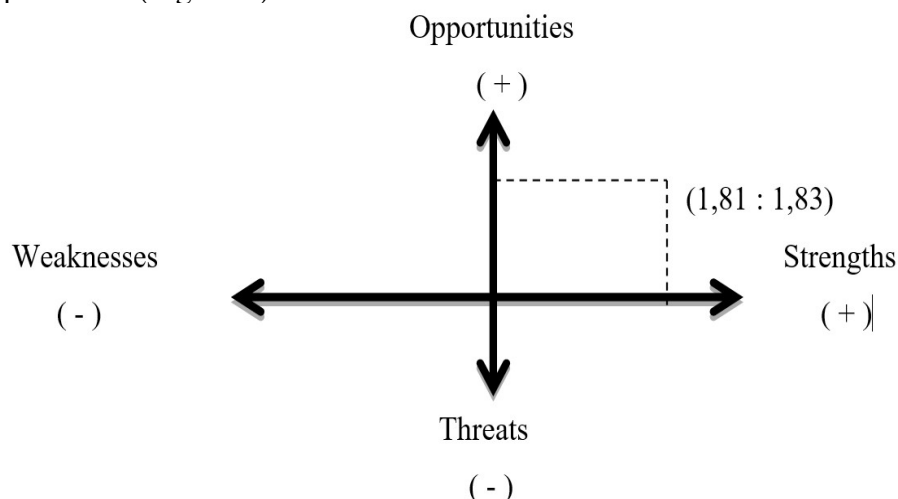


Figure 1. PHBM position based on SWOT analysis

Source: Primary Data, 2018

- a. Institutional Development includes: Using government policies and support as well as Perhutani support in developing PHBM and positioning it as equal partner with Perum Perhutani (state-owned Forest Enterprise). Maximizing LMDH work programs/activities, cooperation/assistance from institutions/agencies for the development of LMDH by actively taking opportunities through relationships with Perhutani, the Village Government, the Environmental and Forestry Service, the Agricultural Service, security forces, other LMDH/institutions, and others.
 - b. Community Empowerment Development includes: Using community involvement in planting forests and communities can involve in intercropping, community participation, and community capacity in forest management/PHBM programs (as farming laborers/workers, maintenance of staple crops, logging, and others) because the forest can accommodate workforce. Maximizing community training in forest management using appropriate technology and infrastructure so that cropping patterns and the success of staple crops can be achieved according to the target.
 - c. Development of Agribusiness Activities includes: Maximizing the PHBM program for the community in intercropping with potential types of plants other than seasonal crops such as corn and nutmeg in order to provide greater benefits and affect the income of the population.
2. WO Strategy
- WO strategy is a strategy that aims to overcome internal weaknesses by using the external opportunities owned by the PHBM system. The strategy that can be used is to expect assistance from the Government to help to increase the human resource capacity in LMDH, especially in organizational management.

3. ST Strategy
- ST strategy is a strategy that uses the strength of the company to avoid the various existing threats. The strategy used is to utilize the LMDH organizational forum to reduce the disturbance that occurs in the forest.
4. WT Strategy
- WT strategy is a strategy that minimizes weaknesses to avoid various existing threats. Strategies that can be used, including increasing human resources and its management with special training to increase the independence of LMDH members.

CONCLUSIONS

1. The implementation of Community Collaborative Forest Management (PHBM) System in Pringapus Sub-district, Semarang Regency is in a good category.
2. The success of the implementation of the Community Collaborative Forest Management System (PHBM) in Pringapus Sub-district, Semarang Regency is influenced by institutional factors, community empowerment, agribusiness activities, and the Role of LMDH.
3. Community Empowerment Factors are closely related and have the highest impact on the implementation of the Community Collaborative Forest Management System (PHBM) in Pringapus Sub-district, Semarang Regency.
4. Community Collaborative Forest Management (PHBM) development strategies that can be carried out in Pringapus Sub-district, Semarang Regency, are:
 - a. Strengthening institutional/organizational management governance by completing organizational structure, membership, dissemination of information about the institutions, and LMDH work programs/activities.

- b. Increasing human resources at the LMDH of Pringapus Sub-district through training.
- c. Establish partnerships or collaborations with other parties.
- d. Assistance of LMDH management by related agencies.

Based on this problem we suggest that:

1. The need for assistance by related agencies both to the Management of LMDH or the members of LMDH in preparing work programs and when implementing work programs.
2. Immediately planning cooperation with other parties, especially in the marketing of agribusiness products from PHBM activities.

REFERENCES

- Ahmad, R. 2014. Hukum Sumber Daya Alam dalam Sektor Kehutanan. Jakarta. Sinar Grafika.
- Alfitri. 2011. Community Development, Teori dan Aplikasi. Yogyakarta. Pustaka Pelajar.
- Ghozali, I. 2011. Aplikasi analisis multivariate dengan program SPSS. Universita.
- Huraerah, A. 2011. Kompetensi pekerjaan sosial dalam penanganan kemiskinan. Humanitas: Jurnal Ilmu Kesejahteraan Sosial 4(1): 206-216.
- Huraerah, A. 2011. Pengorganisasian dan Pengembangan Masyarakat (Model dan Strategi Pembangunan Berbasis Kerakyatan. Bandung. Humaniora.
- Khan, A. 2013. Kembali Kejalan Lurus Kritik Penggunaan Ilmu dan Praktek Kehutanan Indonesia. Yogyakarta. Forci Development.
- Khususiyah, N., R. Y. Buana and S. W. Suyanto. 2010. Hutan Kemasyarakatan (HKm): upaya meningkatkan kesejahteraan dan pemerataan pendapatan petani miskin di sekitar hutan. Konsepsi World Agroforestry Centre, Brief No 06: 1-4.
- Mangowal, J. 2013. Pemberdayaan masyarakat petani dalam meningkatkan pengembangan ekonomi pedesaan di Desa Tumani Kecamatan Maesaan Kabupaten Minahasa Selatan. Jurnal Governance 5(1): 90-97.
- Mario, S. 2017. Pemberdayaan masyarakat tani melalui gabungan kelompok tani di Desa Patanyamang Kacamatan Camba Kabupaten Maros. Predestinas 10(1): 33-49.
- Muna, W., S. Gayatri and S. Satmoko. 2020. Peran Asosiasi Aspakusa Makmur Boyolali dalam pemberdayaan petani. Jurnal Social Ekonomi Pertanian SOCA 14(1): 14-27.
- Muttakin D., U. P. Ismail and S. A. Kurniati. 2014. Faktor-faktor sosial ekonomi yang mempengaruhi pendapatan usahatani kelapa sawit pola swadaya di Desa Kepau Jaya Kabupaten Kampar. Jurnal RATV3(1): 369-378.
- Purwanto. 2012. Marketing Strategi: Meningkatkan Pangsa Pasar dan Daya Saing. Yogyakarta. Oryza.
- Rahmina. 2011. Pilihan skema pengelolaan hutan berbasis masyarakat dalam mitigasi perubahan iklim. Jakarta: Forclime berkerja sama dengan Kementerian Kehutanan, Indonesia.
- Rosyadi, I. 2017. Identifikasi faktor penyebab kemiskinan di pedesaan dalam perspektif sturutural. **Prosiding**. Proceeding The 6th University Research Colloqium Universitas Muhammadiyah Magelang: 499-512.
- Samun S., D. Rukmana and S. Syam. 2011. Partisipasi petani dalam penerapan teknologi pertanian organik pada tanaman stroberi di Kabupaten Bantaeng. Jurnal Analisis Kebijakan Pertanian 4(2): 1-12.

- Satmoko, S., A. S. Prasetyo, and Y. I. Pertiwi. 2019. Strategi kehidupan masyarakat desa hutan di Desa Kucur, Kecamatan Dau, Kabupaten Malang. *Jurnal Social Ekonomi dan Kebijakan Pertanian Agrisocionomics* 3(2): 174-182.
- Setyowati, N. D. and S. S. Nugroho. 2015. Penguatan lembaga masyarakat desa hutan dalam rangka peningkatan efektivitas pengelolaan sumber daya hutan di lereng Gunung Pandan. *Jurnal Sosial* 16(2): 42-58.
- Sopyan, Y. 2014. Corporate social responsibility (CSR) sebagai implementasi fikih sosial untuk pemberdayaan masyarakat. *Ahkam* 14(1): 53-62.
- Suharyanto, J. H. Mulyo, D. H. Darwanto and S. Widodo. 2015. Analisis produksi dan efisiensi pengelolaan tanaman terpadu padi sawah di Provinsi Bali. *Penelitian Pertanian Tanaman Pangan* 34(2): 131-144.
- Sunar. 2012. Pengaruh faktor biografis (usia, masa kerja, dan gender) terhadap produktivitas karyawan (Studi kasus PT Bank X). *Forum Ilmiah* 9(1): 167-177.
- Wartiningsih and N. Nuswardani. 2015. Pembentukan LMDH upaya mencegah konflik antara Perum Perhutani dan masyarakat sekitar hutan. *Arena Hukum* 8(3): 300-463.
- Winata and Yuliana. 2010. Peran masyarakat pesisir dalam penerapan strategi konservasi sumber daya laut (Kasus di Kelurahan Palabuhanratu, Kecamatan Palabuhanratu, Kabupaten Sukabumi). *Jurnal Matematika, Sains, dan Teknologi* 11(2): 122-132.
- Winata, A. and E. Yuliana. 2011. Tingkat partisipasi petani hutan dalam program pengelolaan hutan bersama masyarakat (PHBM) Perhutani (Kasus di Desa Buniwangi, Kecamatan Palabuhanratu, Kabupaten Sukabumi). **Prosiding**. *Proceeding Seminar Nasional FMIPA Universitas Terbuka*: 1-10.
- Yusuf, M. A. and Makarawo, T. M. 2011. *Hukum Kehutanan di Indonesia*. Jakarta. Rineka Cipta.
- Zubaedi. 2014. *Pengembangan Masyarakat: Wacana dan Praktik*. Jakarta. Kencana.