



The Relationship of the Role of Forest Farmer Group with the Successful Level of Community Forest Management (Hkm) in the Merejebonga Area

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Abstract

The purpose of this research is to: (1) find out the level of performance of the role and success of farming groups in the management of Community Forests; (2) Knowing the contribution of community forest income to the total income of members of forest farming groups; (3) Analyze the magnitude of the relationship between indicators of group role and indicators of the success of agricultural groups in the management of Community Forests. This study uses descriptive methods. This research was conducted in The Merejebonga Forest Area, West Lombok Regency. The determination of the Merejebonga Forest Area as a place of research was conducted on a "Purposive Sampling" basis with the consideration that the Kemsyarakatan Forest in the Merejebonga Forest Area is still relatively new. In general, the role of teaching and learning in the management of Community Forests Merejebonga falls into the category of quite a role, cooperation is included in the category of role, and production units are included in the category of quite instrumental. Success in the management of Community Forest Merejebonga falls into the category of success, the contribution of Community Forest income in the category is quite successful and empowerment is included in the category of quite successful. The contribution of Community Forest income is slightly below the poverty line in 2021, but community forest income can help in the fulfillment of per capita quality every month. The role between the teaching and learning indicator with the success of the group on the indicator of group power is related and the role between the indicator of the production unit and the success of the farmer group on the indicator of group power related.

Keywords: *Social Forestry; Community Forest; Group Role; Group Success*

Introduction

In a study by Leimena et al., (2014) it was written that people living in forests are one of the largest poor groups in Indonesia with details around 48.8 million people live on state forest lands and about 10.2 million of them are considered poor, there are also 20 million. people living in villages near the forest and 6 million of whom derive most of their livelihood from the forest. Poverty in forest areas can be due to limited community access to forests or forest lands that are starting to enter a critical phase. Forest area in Law No. 41 of 1999 on forestry in article 3 reads: "*Forest area is a certain area designated*

and or determined by the government to maintain its existence as permanent forest". This makes the community limited to be able to manage forest areas.

Social forestry can be a solution to legalize community access to forest management. The management scheme is in the form of Village Forest Management (HD), Community Forest Business Permit (HKm), Community Plantation Forest (HTR) and Forestry Partnership. P. 83 / MENLHK / SETJEN / KUM. 1 / 10 / 2016 on Social Forestry.

One of the social forestry implemented on the island of Lombok is the Community Forest Business Permit. Community forests are regulated by the issuance of the Minister of Forestry Regulation (PERMENHUT) Number: P.37/MENHUT-II/2007 concerning Community Forests. In PERMENHUT No. 37 it is explained that Community forest is a State forest whose main use is intended to empower local communities. An area can be made a priority for a Community Forest if it is an area that is under pressure from the population, as a result of the pressing need for land and forest products, as well as critical land in protected forests and/or former production forests that need to be rehabilitated. Community forest areas are managed with an agroforestry system, namely by combining various types of plants in one land,

The formation of forest farmer groups has the aim of strengthening farmers in managing Community Forest areas, so that it is easier for the government and stakeholders to facilitate each program budgeted by each group. The formation of farmer groups is also expected to be a way for sustainable community forest management with an agroforestry system.

When farmer groups are considered to play a role, success in managing the area can be said to be successful. However, this needs to be reviewed because there are several things that need to be considered to see whether the area is managed successfully, which are reviewed, among others: Forest Protection, Community Forest Income Contribution and Empowerment of the group.

At the level of community forest income contribution, this group is expected to increase because it is easier to find a market for the products they will sell. Based on Yakin et al, 2019 Community Forests have been able to improve the welfare of communities around forests because the existence of the Community Forest program has been able to increase the per capita income of the community by 22.18 percent and has been able to alleviate poverty in communities around forests. However, the effort to form farmer groups in the management of the Merejebonga Community Forest, which is still relatively new, needs to be investigated on "The Relationship of the Role of Farmer Groups with the Success Rate in Community Forest Management in the Merejebonga Forest Area" with the intention of being able to guide what are the roles of the community in the group and have the farmer groups succeeded in managing the Community Forest (HKm).

Research Methods

1. Research Method

This study uses a descriptive method, which is a method to explore, clarify and describe the state of the object or research subject (a person, community institution and others) in a systematic, factual and accurate manner regarding a phenomenon or reality, facts, characteristics, and the relationship between the phenomena investigated by describing a number of variables related to the problem and unit being studied (Sudjarwo and Basrowi, 2009). The technique used in data collection is the questionnaire method with the instrument in the form of a questionnaire.

2. Sampling

The population in this study were all farmer groups managing the Community Forest in the Merejebonga Forest Area, West Lombok Regency. The determination of the sample in this study was carried out intentionally (perposive sampling) with details of 6 people in 8 farmer groups, 3 administrators and 3 active members, totaling 48 people.

3. Measurement Variable

Variables and measurement methods used. To answer the formulation of the problem, it is broken down simply as follows:

a) Learn how to teach

In the Teaching and Learning Role of Farmer Groups, there are several measurement parameters, including: Level of Training, Program Demonstration, Level of Consultation between Members, Submission of Problems, Formulation of Agreements and Availability of Learning Facilities.

b) Cooperation

In the Role of Farmer Group Cooperation, there are several measurement parameters, including: Group Capital, Implementation of Group Activity Plans, Openness Between Members, Division of Tasks, and Discipline and Sense of Responsibility Between Members.

c) Production Unit

In the Role of Farmer Group Production Units, there are several measurement parameters, including: Preparation of Group Needs, Facilitating the Application of Technology and Group Production.

d) Forest Protection

In the success of farmer groups in forest protection, there are several parameters, including: the level of forest fires, the types of plants planted, the level of illegal logging, the number of water reservoirs/dams, and soil fertilization.

e) Community Forest Revenue Contribution

In the Group's Success in Contribution to Community Forest Revenue, there are measurement parameters, namely by calculating Community Forest Income and outside Community Forests. The calculation formula is as follows:

$$\text{Contribution} = \frac{\text{Revenue Community forest (HKm)}}{\text{Revenue community forest + Non Revenue community forest}} \times 100\%$$

f) Group Empowerment

In the success of groups in empowerment, there are several measurement parameters, including: Management Structure, Administrative Records, Group Approval, Form of Work Plans, Increasing Value Added NTFPs for Community Forest Forests, and Reporting.

4. Data Analysis

The measurement uses a scoring and categorization on the Linkert scale with the value on the indicator using the Likert scale with the following calculations:

a. Score interpretation is done by first calculating the highest score (X) and the lowest score (Y) for the next assessment item, $X = \text{highest score likert} \times \text{number of respondents} \times \text{many parameters}$, $Y = \text{lowest score likert} \times \text{number of respondents} \times \text{many parameters}$,

b. Interval Formula

so we get the category, interval = $\frac{\text{Highest Score Likert} - \text{Lowest Score Likert}}{\text{Many Classes}}$

The relationship between the role of farmer groups and the success of farmer groups used Rank Spearman regression analysis using the SPSS application, then the following formula can be used:

$$r_{YX} = \frac{\sum x_i y_i (\sum x_i) (\sum y_i)}{\sqrt{[n \sum x_i^2 - (\sum x_i)^2] [n \sum y_i^2 - (\sum y_i)^2]}}$$

The following is the interpretation of the R value

R	Interpretation
0	No correlation
0.01-0.20	Very weak
0.21-0.40	Weak
0.41-0.70	Strong
0.71-0.90	Very strong
0.91-0.99	Strongest correlation
1	Perfect correlation

Source: Algifari, 1997

Results and Discussion

1. Research Area Description

The research is located in the management and supervision area of the Pelangan Tastura Forest Management Unit (KPH), the managed and supervised areas are located in 2 districts, namely West Lombok and Central Lombok. The research location is specifically located in the management location of the West Lombok Regency, namely the East Pelangan Resort. The following is a map of the research location in the Pelangan Tastura Forest Management Unit (KPH).

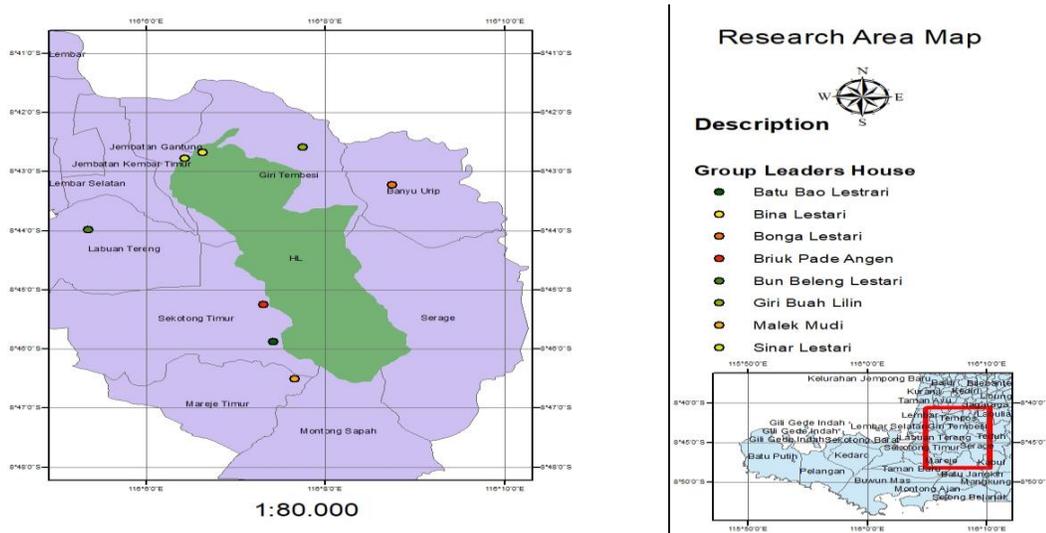


Figure 1. Research Area Map

2. Respondent's Description

Respondents in this study were forest farmer groups located in the Merejebonga forest area, divided into 5 villages in 2 sub-districts in West Lombok Regency. The number of members from each group includes: KTH. Bina Lestari 90 people, KTH Sinar Lestari 153 people, KTH. Buana Giri Buah Lilin 103 people, KTH. Bonga Lestari 260 people, KTH. Bun Beleng Lestari 154 people, KTH. Beriyuk Pade Angen 219 people, KTH. Malek Mudi 77 people and KTH. Batu Bao Lestari 144 people. If we add up, 1,200 people manage Community Forests in the Merejebonga Forest Area, each taking 6 respondents in each KTH located in Merejebonga, bringing the total to 48 respondents.

3. Role of Teaching and Learning

In the teaching and learning role there are six parameters that will be assessed. The results of the assessment of the six parameters are presented in Table 1. The Role of Teaching and Learning in Farmer Groups in Community Forest Management is as follows:

Table 1. The Role of Teaching and Learning Farmer Groups in Community Forest Management

Indicator	Parameter	Score	Parameter Category
Learn how to teach	Training Level	84	Very Less Role
	Program Demonstration	84	Very Less Role
	Level of Consultation Between Members	78	Very Less Role
	Submission of Problems	234	Very Playful
	Submission of the Formulation of Agreement	186	role
	Availability of Learning Facilities	120	Less Role
Amount		786	
CategoriesIndicators		Enough Role	

The results of the study can be seen that the role indicators in terms of teaching and learning are still in the category of playing a role, this can happen because the indicator parameters are still in the category of very less role, namely: the level of training, program demonstrations and the level of consultation between members. The availability of learning facilities should also be paid more attention to each group because it is still in the category of less role. As for the two parameters, namely the delivery of the problem and the delivery of the formulation of the agreement, it is included in the category of having a very important role and role. In terms of being able to improve this indicator, it can be done with the group leader being active in conducting meetings with its members besides that members can play a role with other groups in terms of teaching and learning to manage groups. Prasetia et al, 2015 wrote that in order to increase the role of teaching and learning, farmer groups should always make long and short-term plans, motivate group members to each other and prepare for the needs of group activities.

4. Cooperation Role

The role of cooperation in Community Forest management has five measurement parameters with details of the assessment results presented in Table 2. The role of Group Cooperation in Community Forest Management is as follows:

Table 2. The Role of Farmer Groups in Community Forest Management

Indicator	Parameter	Score	Parameter Category
Cooperation	Group capital	102	Less Role
	Implementation of group activity plans	180	role
	Openness between members	198	role
	Division of tasks	180	role
	Discipline and sense of responsibility among members	174	role
Amount		834	
Indicator Category		role	

The level of role of forest farmer groups in cooperation can be because the leaders of forest farmer groups are active in communicating with members or people outside the group, so that the group becomes actively involved in developing or managing forest areas. In this study, in particular, what is seen is the inward cooperation of the group. According to Ramadoan et al, (2013) the function of farmer groups as a vehicle for cooperation has a very real relationship in the planning, implementation, utilization and evaluation stages, besides that in activities on the land, farmers can work together, help each other, learn, and share information. between group members in the stages of planning, implementation, utilization and evaluation of activities.

5.Role of Production Unit

In the role of the production unit, there are three assessment parameters. Parameters and results of the assessment can be seen in Table 3. The role of the Production Unit of Farmer Groups in Community Forest Management is as follows:

Table 3. The Role of Farmer Group Production Units in Community Forest Management

Indicator	Parameter	Score	Parameter Category
Production Unit	Preparation of group needs	162	Enough Role
	Facilitating the application of technology	144	Enough Role
	Group Production	150	Enough Role
Amount		456	
Indicator Category		Enough Role	

6.Successful Forest Protection

On indicators of the success of forest protection in management. There are five assessment parameters for Community Forests, the details and results of which can be seen in Table 4. The Success of Group Forest Protection in Community Forest Management.

Table 4. Success of Group Forest Protection in Community Forest Management

Indicator	Parameter	Score	Parameter Category
Forest Protection	Forest fires	239	Very Successful
	Types of plants grown	189	Succeed
	Illegal logging rate	239	Very Successful
	Water source distance	186	Succeed
	Soil fertilization	95	Less successful
Amount		948	
Indicator Category		Succeed	

The results of forest protection indicators for Forest Farmers Groups in the Mejobonga forest area show that their forest farmer groups have succeeded in protecting the forest with a score that is supported by forest fire parameters and the level of illegal logging is categorized as very successful in terms of minimizing it, as well as the types of plants planted with *Jatropha*. and water sources are categorized as successful. However, it is necessary to pay attention to the lack of land fertilization by members of forest farmer groups. In order to further improve this indicator of forest protection, it is better for each group to make its own rules for managing it, with the aim that the area remains sustainable and provides long-term results, according to Magdalena, (2013) who studied the role of customary law in the Sesaot Forest Area wrote that customary law has the potential to manage and protect forests naturally. Forest fires that occur in forest areas can be said to have never occurred during the time of the study. If a forest fire occurs, it will have an impact on the economy, social culture and health as well as environmental damage.

7.Success of Community Forest Revenue Contribution

In the results of the study, the value of Community Forest Income Contribution is obtained from the percentage of contributions by dividing Community Forest income in the last year by the total amount of income, the following for details of the data collection of the mejobonga forest farmer group during the last year at the time of the research in 2021 is presented in Table 5. Last Year's Income.

Table 5. Income in the Last Year.

Income			
Average	Community Forest (Rp)	Non-Community Forest (Rp)	Total (Rp)
year 2021	5,518,085	7,144,681	12,662,766
Per month	459,840	595,390	1,055,230

The average community forest income obtained in the last year of the study was Rp. 459,840 per month, this income is still below the poverty line based on figures from the Central Statistics Agency, namely West Lombok has a poverty line of Rp. 466,495 (BPS, 2021), in other words, if the group members only rely on the results from the Community Forest, then that member can be categorized as poor. This makes members look for other jobs in order to increase their income.

When viewed from the results of the table which shows the total monthly income, it is Rp. 1,055,230, the amount of income for this month is almost close to meeting West Lombok's per capita needs in 2021, which is Rp. 1,086,976 (BPS, 2021). Based on the explanation, it can be said that Community Forest income helps or contributes to meeting the per capita needs of farmer groups in the Merejebonga Forest Area.

The results of the study on the percentage of Community Forest income found that the indicator of the contribution of Community Forest Farmers' Group Income in the Merejebonga Forest Area was in the fairly successful category with a score of 132. This could be because the land cultivated by group members is far from water sources and there is disturbance of wildlife, namely long-tailed monkeys that eat their crops. However, the group's land which is processed by planting rice during the rainy season, has a higher contribution compared to land that is taken for NTFPs at a certain time in the Merejebonga forest area.

In the research of Nihad et al, (2018), they wrote that strategies that can be done to improve farming are by increasing human resources (HR) by utilizing existing technology, strengthening institutions and conducting intensive non-timber forest products (NTFP) maintenance by utilizing the area. existing ones, the formation of institutional governance strengthening that can be done through counseling and training activities, as well as implementing regional governance by implementing the agroforestry system. The KTH in the Community Forest in the Merejebonga Area should make a superior NTFP product from the managed Community Forest in the hope that it can increase the contribution obtained from Community Forest products.

8. Success of Group Empowerment in Community Forest Management

There are five parameters that will be assessed in the indicators of the success of group empowerment in community forest management. The results and values can be seen in Table 8. The success of the group's empowerment in community forest management is as follows:

Table 8. Success of Group Empowerment in Community Forest Management

Indicator	Parameter	Score	Parameter Category
Group Empowerment	Board of Management	192	Succeed
	Administration notes	132	Quite Successful
	Work plan form	156	Quite Successful
	NTFP added value increase	144	Quite Successful
	Report submission	60	Very Less Successful
Amount		684	
Indicator Category		Quite Successful	

The level of group empowerment is included in the moderately successful category. This can happen because there are three parameters that are included in the moderately successful category,

namely: administrative records, form of work plans and increasing the added value of NTFPs. One parameter that is included in the successful category is the composition of the management, in this case each group already has a clear management structure, but there are groups who remain by the management due to death or abroad as workers. Asmoro et al (2021) wrote that the existence of internal factors in the group can affect the empowerment of the group, such as: 1) tend to be high dynamics of the group, 2) tend to be low in group functioning, 3) tend to be low in group ability. In Diah et al,

The success of farmer groups has several inhibiting factors. Setiawan, (2008) wrote, among others: 1) Narrow arable land, 2) Soil fertility level, 3) Lack of capital, 4) Decreased production of intercropping, 5) Government commitment that is considered half-hearted, 6) Socio-Economic (Poverty and Unemployment), 7) Lack of cooperation between field officers and farmer groups, 8) Lack of guidance, 9) Determination of profit-sharing rules that have not been agreed upon, 10) Ability of management, 11) The role of parties who still think sectorally. Overall, the success of farmer groups in the Merejebonga Forest Area is categorized as quite successful.

9. Analysis of the Relationship between the Role Indicators of Farmer Groups and the Success Indicators of Farmer Groups

The results of Spearman's Rank analysis show that there is a relationship between indicators on group role variables and group success with different levels and directions of relationship. These results can be seen as follows:

Table 9. The Relationship between the Role Indicators of Farmer Groups and the Group's Success Indicators farmer.

No	Role	Correlation Coefficient	Sig (2-tailed)	Success
1	Learn how to teach	0.581	0.131	Forest Protection
2	Learn how to teach	0.625	0.097	Community Forest Revenue Contribution
3	Learn how to teach	.928**	0.001	Group Empowerment
4	Cooperation	0.236	0.574	Forest Protection
5	Cooperation	0.174	0.680	Community Forest Revenue Contribution
6	Cooperation	0.647	0.083	Group Empowerment
7	Production Unit	0.271	0.516	Forest Protection
8	Production Unit	0.146	0.730	Community Forest Revenue Contribution
9	Production Unit	.718*	0.045	Group Empowerment

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

The Spearman Rank test results in table 9 show that the significance value between teaching and learning indicators with empowerment is less than 0.01, so the relationship between indicators is correlated, the correlation coefficient value is 0.928 with the interpretation category strongest correlation, the correlation coefficient value is positive, meaning that these two indicators has a unidirectional relationship, in other words, if the indicators of teaching and learning in the group role are high, the indicators of empowerment in group success will be high and vice versa.

The Rank Spearman test value on the role indicator, namely the production unit, shows a significance value smaller than 0.05, which is 0.045 for the success indicator, namely group empowerment. This value shows that the indicator of the production unit in the group role is correlated with the indicator of empowerment in group success with a positive correlation coefficient of 0.718. Such a correlation coefficient interprets that the two indicators are very strong with a unidirectional relationship, so that if the indicator of the production unit in the role of the group is high, it will also be followed by the indicator of group empowerment in the high group success.

In the description above, it has been explained that the correlation value of each indicator has been explained, so there are two indicators of the role of the group, namely teaching and learning and production units that can influence the indicators of group success in terms of group empowerment. This can be a benchmark for Forest Farmer Groups in the Merejebonga Forest Area to make and realize work plans for their groups, discuss with relevant stakeholders, because basically all Forest Farmer Groups in the Merejebonga Forest Area have the potential to become Forest Farmers Groups successful when viewed from the level of the group's role directed by the relevant stakeholders in its development.

Conclusion

In this study, it was concluded that: (1) A. The level of performance of teaching and learning roles is included in the category of moderate role, the role of cooperation is included in the category of playing a role and the role of the production unit is included in the category of having quite a role; (2) B. The level of performance of the success of forest protection is in the successful category, the success of the contribution of Community Forest income is in the moderately successful category, the success of empowerment is in the moderately successful category; (3) Community forest income in the Merejebonga area is still below the poverty line, but contributes to meeting per capita needs for a month; (4) The role of Forest Farmer Groups on teaching and learning indicators on group success on group empowerment indicators is correlated with the correlation coefficient is 0.928 and the interpretation category is very strong. The role of farmer groups in the production unit indicator on the success of farmer groups on the group empowerment indicator is correlated with a correlation coefficient of 0.718 and the interpretation category is very strong.

Reference

- Algifari. 1997. *Regression Analysis, Theory, Cases and Solutions*, First Edition. Yogyakarta: BPFE Gajah Mada University.
- Asmoro. Hendro, Sumardjo, Susanto. Djoko, and Tjitropranoto. Prabowo. 2021. Improving the Quality of Empowerment of Forest Farmer Groups in Non-Timber Forest Product Management. *Journal of Social and Economic Forestry Research* Vol. 18, April 2021: 15-25. p-ISSN 1979-6013. e-ISSN 2502-4221. Number 200/M/KPT/2020.
- Central Bureau of Statistics (BPS). 2021. *Statistics of the People's Welfare of West Lombok Regency*. No. Catalog: 4101002.5201. West Lombok. West Nusa Tenggara.
- Central Bureau of Statistics (BPS). 2021. *Poverty Line by Regency/City (Rupiah/capita/month)*. <http://www.bps.go.id/indicator/23/624/1/line-poverty-by-district-city.html>.
- Diah Y. Suradiredja, Andi Pramira, Markum, Wiji Johar Santoso, Muhammad Ridha Hakim. 2018. *Looking at the Long Road of Community Forests*. First Printing. CV. Bee Media Nusantara. Mataram.

- Magdelan. 2013. The Role of Customary Law in Forest Management and Protection in Sesaot Village, West Nusa Tenggara and Setulung Village, East Kalimantan. Center for Climate Change and Policy Research and Development. *Journal of Social and Economic Forestry* Vol. 10 No. June 2, 2013, pp. 110-121.
- Nihad Kartila, Andy Chairil Ichsan, and Markum. 2018. Contribution of non-timber forest products from candlenut (*Aleurites mollucana*) to the income of Tangga Community Forest Farmers, Selegen Village, Kayangan District, North Lombok Regency. Forestry Studies Program. Mataram University. *Jurnal Belantara [JBL]* Vol. 1, No. 2, August 2018 (899-100). E-ISSN 2614-3453. P-ISSN 2614-7238.
- Regulation of the Minister of Forestry Number: P.37/MENHUT-II/2007 concerning Community Forests.
- Prestigious. Rinaldi, Hasanuddin. Tubagus, Viantimala. Begem. 2015. The Role of Farmer Groups in Increasing Coffee Income in Tugusari Village, Sumberjaya District, West Lampung Regency. Department of Agribusiness. Faculty of Agriculture. Lampung University. JII, Volume 3 No. 3, June 2015.
- Ramadan. Sri, Muljono. Pudji, and Pulungan. Ishmael. 2013. The Role of PKSM in Improving the Functions of Farmer Groups and Community Participation in Bima District, NTB. *Journal of Social and Economic Forestry Research* Vol. 10 No. September 3, 2013, pp. 199-210.
- Setiawan. Wawan. 2008. Evaluation of the Success of the Community Forest Program in Gunungkidul Regency in Achieving Forest Sustainability and Welfare of Communities Around the Forest.
- Sudjarwo and Basrowi. 2009. *Social Research Management*. CV. Forward Mandar. Bandung. ISBN : 978-979-538-333-8.
- Law No. 41 of 1999 concerning Forestry.
- Yakin. Addinul, L. Sukardi, M. Yusuf, Husni. Sharif. 2019. The Impact of Community Forests on Poverty Alleviation of Households Around Forests in North Batukliang District, Central Lombok Regency. ISSN: 1411 – 8262. Vol. 20 No. 1: April 2019. Agribusiness Study Program, Faculty of Agriculture, UNRAM. NTB.

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