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Perspective in community forest management in Central Lombok Regency

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Abstract. The gender perspective in community forest management in Central Lombok Regency is focused on analyzing gender equality in domestic and productive activities, particularly access and control of forest resources. This research is conducted by using Framework Harvard Analysis through interviews with respondents, in-depth interviews and focus group discussions with certain informants. The unit of this research's analysis is women whose household has the right to manage community forest. This study shows that there is a gender equality bias which is indicated by the low participation of women in controlling forest resources (planning, regulation, evaluation) due to the stereotypical view of gender roles in decision making which is dominated by men. However, the high participation of women is more involved in terms of access to forest resources (implementation, crop productivity, utilization) to improve household food security. Forest farmer households with a high level of gender equality through the active involvement of women in controlling forest resources will improve social and economic adaptation strategies with a high level of diversity.

1. Introduction

Participation is a form of active community involvement starting from the stage of the decision-making process about the planned activity, the stage of implementing activities, the stage of enjoying the results and the stage of evaluating the implementation of activities [1]. Several studies confirm the importance of women's participation in agricultural activities, food production and household food security [2,3]. Women also contribute to the sustainability of *biodiversity* and native plant resources, which are now considered by the world essential for food security [4].

As a result, it is envisioned that men and women would participate equally in all aspects of community forest management. This supports the achievement of the objectives of implementing gender mainstreaming programs in forestry development, increasing the position, role and quality of women and creating conditions of gender equality and justice in society, nation and state life. Optimal and fair use of forest resources can improve the welfare of local communities [5,6].

People who live in or near forest areas depend heavily on forests as a source of income and household food [7]. Especially for women, people responsible for carrying out domestic work, including the fulfillment and provision of household food, can utilize forest resources to meet their household food needs. Thus, women really need safe access and use rights to these forest resources [8,9].

However, several studies have found that women's opportunities to participate actively in community forest management are still low. Community forest projects are not designed based on



gender analysis, so they cannot recognize differences in knowledge, roles and responsibilities in households, needs and use of forest resources between men and women [10,11]. The use of gender analysis will be able to highlight the access, control and benefits felt by men and women. What benefits can women access and control. How far has the implementation of gender mainstreaming in community forest management been able to achieve gender equity and gender equality.

There is a separation of responsibilities between men and women in community forest management. Women are responsible for community forest management activities, such as planting, weeding, thinning, pruning and harvesting. Meanwhile, men are responsible for institutional development activities, such as attending community and general assembly meetings. The presence of men in meetings is related to decision-making. Thus, the low attendance of women at the meetings led to the low participation of women in decision-making. Women are important actors in managing forest resources [12].

Increasing women's participation in decision making can increase the forest benefits women receive for their household needs, improve forest conditions, and have economic implications for group members, namely increasing income from wood and non-timber products for group members [13].

Central Lombok Regency is one of the locations for community forest development in West Nusa Tenggara, which is spread over 5 locations, namely community forest areas in Lantan, Aik Berik, Karang Sidemen, Setiling, and Kopang. The implementation of community forestry in Central Lombok Regency has received a permit since 2010. The results of previous research in Central Lombok Regency, among others, provide an overview of gender involvement in the implementation and management of good community forestry [14]. However, it has not yet described a gender perspective in community forest management which is focused on women's participation at all stages of participation.

Therefore, this study answers the question: "How is women's participation in community forest management at the planning, implementation, evaluation and utilization stages of the results and how is women's access and control over resources?" Based on the formulation of the problem, this study aims to analyze the level of women's participation in community forest management and to analyze women's access and control over resources in community forest management in Central Lombok Regency.

2. Methods

This study used an explanatory and descriptive research design with a survey method. The research has been carried out in Central Lombok Regency, namely in North Batukliang District and Kopang District. Furthermore, two areas of community forest implementation were taken: Aik Berik representing North Batukliang District and Aik Bual representing Kopang District. The determination of this location was carried out by *purposive sampling* with the consideration that the location is a community forest with the largest number of members of forest farmer groups.

The unit of analysis of this research is women whose household has the right to manage community forest. The research sample was determined by Quota Sampling as many as 60 women as wives or heads of families consisting of 30 respondents for each community forest area. Data was collected by interviewing respondents using closed questionnaires and open questions. were also conducted with certain respondents and informants, namely groups of forest farmers, forestry officers and community leaders. Data analysis was carried out using a scoring system and descriptive statistics. Analysis using the Harvard Analysis Framework was also carried out to describe women's access and control over forest resources, group institutions, and the benefits women and their families received.

3. Results and discussion

The results show that women's participation in community forest management in Central Lombok Regency is classified as medium and high is 53.33%, while the remaining 46.67% is classified as low. However, table 1 illustrates that if it is broken down according to the stages of participation, the low participation of women is at the planning stage and then the evaluation stage. Meanwhile, women's participation in the implementation and utilization stages is classified as high and moderate.

Table 1. Distribution of women by stages of participation in community forest management.

	Category					
	Low		Medium		High	
	Number of people	(%)	Number of people	(%)	Number of people	(%)
Planning	52	86.67	8	13.33	0	0
Implementation	0	0	31	51.67	29	48.33
Utilization of results	3	5	40	66.67	17	28.33
Evaluation	45	75	4	6.67	11	18.33

Source: Primary data primer processed, 2020

3.1. Women's participation in the planning stage

Table 2 illustrates that the low participation of women in the planning stage is characterized by the low participation of women in program socialization activities, group formation and group norm formulation. No women are involved in determining group administrators and preparing group work plans.

Table 2. Distribution of women based on participation at the planning stage in community forest management.

	Category					
	Low		Medium		High	
	Number of people	(%)	Number of people	(%)	Number of people	(%)
Program socialization						
• Attendance	36	60.00	7	11.67	17	28.33
• Activeness of opinion	50	83.33	1	1.67	9	15.00
Group formation						
• Attendance	45	75.00	0	0	15	25.00
• Activeness of opinion	57	93.33	0	0	4	3.67
• Determining the management	60	100	0	0	0	0
Preparation of group roles						
• Attendance	49	81.67	0	0	11	18.33
• Activeness of opinion	56	93.33	4	6.67	0	0
Preparation of work plans						
• Attendance	60	100.00	0	0	0	0
• Activeness of opinion	60	100.00	0	0	0	0
• Activeness in tasks	60	100.00	0	0	0	0

Source: Primary data processed, 2020

This shows that women have low access and control over social resources, namely information and institutional forest farmer groups in their neighborhoods. The gender role stereotype prevailing in the community is that women only deserve to do domestic work, inappropriate and unable to be involved in the management of community forest groups. This causes women to be excluded from being involved in the planning stage. The woman whose house is close to the planning activity and the woman who represents her husband cannot attend due to illness or are abroad, who work as migrant workers. Even

though there are women who attend the activities at the planning stage because the woman is the wife of the group leader and her house is the place where the planning activities are carried out. Because they lack the rights and abilities to participate in the decision-making process, these women's presence is also not accompanied by their participation in expressing their opinions or views.

This is in line with the opinion that the existence of laws and socio-cultural norms that apply in society can limit women's participation in the decision-making process [15]. In addition, policies regarding increasing women's leadership in formal positions and decision-making in community forest management can contribute to the program's sustainability [13]. Therefore, it is necessary to involve women in community forest management groups and then provide opportunities for women in group leadership training and increase their role in decision-making in community forest management groups.

3.2. Women's participation in the implementation phase

Most women are not recognized as members of community forest farmer groups, but they nevertheless have a lot of access to the forest's resources for arable land. Women participate highly and actively in the implementation of cultivation activities in the forest. Due to the fact that farming in the fields and forests provides 78.33 percent of the income for women's families, women participate in cultivation activities at a high rate. Women have experience managing forests long before community forest management business permits issuance. Women use non-timber forest products to meet household needs. The ability of women to manage community forestry is increasing along with the issuance of business permits for community forest management. Women in Aik Berik Village have been maintaining community forests for 10 years, ever since a business permit for their use was issued, while women in Aik Bual Village have been doing so for 4 (four) years since a business permit for their use of forests was issued. This is in line with the opinion that states that there is a high community dependence on forest resources as a source of energy for men and women as well as the main source of livelihood for people living close to forest areas [7].

The study results show that the level of women's participation in community forest management in implementation activities is in the medium and high categories. Table 3 shows that in cultivation activities, women participated in all activities, namely land preparation, planting, weeding, clearing of stands and harvesting. This shows that women do important jobs in cultivating non-timber crops in the forest. This finding is in line with the opinion that although women's attendance at group meetings is lower than men's, women are important actors in forest resource management [12].

In some activities, women work with their husbands and view their work as helping their husbands. This is because the rights to land management are given to men. Gender role stereotypes that men are the main breadwinners and women who work are seen as additional breadwinners even though the time and energy spent is relatively high. Meanwhile, women who are widows or husbands living abroad who work as migrant workers also have the right to manage community forest land, women work with family members or farm laborers.

In land clearing activities, women carry out activities such as burning garbage to loosen the land with men. In planting activities, women carry out planting holes and plant fruit seeds such as jackfruit, durian, mangosteen, avocado, and banana. The clearing of the stands is weed control where women carry out weeding activities as well as an effort to meet their animal feed needs. In harvesting activities, women are involved in activities ranging from picking, and collecting to cleaning the harvest. The types of plants that are harvested are mostly fruits so harvesting is carried out according to the harvest season.

Women in the forest can also get vegetable food by planting bamboo for the tubers, planting taro for the tubers and leaves, taking ferns, and planting chilies and empon empon which can be used as spices and sold. Women carry out these activities to provide food, maintain sources of vegetable food for their households, and have additional sources of income. This is in line with the opinion that women have an important role in maintaining the continuity of biodiversity and plant resources to maintain family food security [4]. Thus, the different roles between men and women in forest management should not ignore the knowledge, access and control, and use of forest resources by women [10]. Giving women the right to manage forests will reduce poverty and provide equitable and sustainable socio-economic benefits to forest management programs [8].

Table 3. Distribution of women based on participation at the implementation stage in community forest management.

	Category					
	Low		Medium		High	
	Number of people	(%)	Number of people	(%)	Number of people	(%)
Cultivation						
• Land preparation	1	1.67	8	13.33	51	85
• Planting	5	8.33	6	10	49	81.67
• Stand clearing	0	0	5	8.33	55	91.67
• Harvesting	2	3.33	2	3.33	56	93.33
Marketing	2	3.33	0	0	58	96.67
Business Goup Training						
• Attend training activities	39	65.00	3	5.00	18	30.00
• Activity during training	42	70.00	5	8.33	13	21.67

Source: Primary data processed, 2020

Women also have high participation in marketing activities. Women and their husbands are involved starting from determining the number of products to be sold, making bargains, and determining to whom the forest products are sold, whether to collectors or to be sold to the market. However, the difficulty of transportation and the distance of the market location causes women's access to the market to be classified as low. Forest products are usually sold to a collector, and only a small proportion sell them directly to the market. This causes less revenue to be obtained because the selling price to collectors is lower than when selling directly to the market.

In addition to carrying out plant cultivation activities, women are also involved in non-timber forest product-based business group activities, such as training on coffee processing and the manufacture of palm sugar. However, only a few women participated in the business group training, so women's access to information, counseling and training was low. Women's ability does not support changing their behavior to improve their welfare. The involvement of women in training is still determined by the social status of women and their husbands. In line with opinion [1], increasing support for counseling, information, and socio-economic conditions for women can increase women's participation in the implementation of development programs.

3.3. Women's participation in the output utilization stage

Women have high access and control over the use of non-timber forest products. It can be shown in Table 4 that women's participation in the use of community forest products is in the high category (100%). Women and their husbands use community forests as a source of household income, a source of fulfilling household food needs, and as a source of investment or household assets. Women utilize non-timber forest products related to the implementation of their domestic roles, namely to 1) sell the proceeds of which are used to meet household food needs, education costs, children's pocket money, and the rest is saved to buy household needs; 2) consumed directly such as fruits, 3) processed into food for consumption by family members, such as vegetables.

Table 4. Distribution of women based on participation at the stage of product utilization in community forest management.

	Category					
	Low		Medium		High	
	Number of people	(%)	Number of people	(%)	Number of people	(%)
Utilization of community forest						
• Forests as a source of household income	0	0	6	10	54	90
• Fulfilling household food needs	0	0	0	0	60	100
• Investment	9	15	9	15	42	70

Source: Primary data processed, 2020

Women have high access and control over the sales of forest products used to meet food and education needs, if the respondent's household only manages land in the forest that is not too large. On the other hand, if the respondent's household manages a large area of land, be it community forest land or rice fields, women have high access but low control over sales proceeds used for investment by buying paddy fields, motorbikes and livestock. Culturally, women in rural Lombok Island have low control over household assets such as paddy fields, livestock, houses and motorized vehicles. It appears that there is a separation of ownership of household assets based on gender, where ownership of these high-value assets belongs to men, while ownership of household furniture assets belongs to women. Consequently, in the event of a divorce, women only get a share of property in the form of household furniture, while men get property, namely the high-value household assets.

3.4. Women's participation in the evaluation stage

Table 5 shows that women's participation in the evaluation is in a low category. This is because the community views the involvement of women in program evaluation activities as unimportant. Thus, the involvement of women in identifying planned needs or problems in community forests as consideration for subsequent activities and program evaluations with groups and the government is low. This situation is related to the membership and management of community forest farmer groups that only involve men. The presence of women in the evaluation of the implementation of the community forest program because, coincidentally, the woman is the wife of the forest farmer group administrator or the woman's house is close to the location of the activity.

The low access and control of women in agricultural or forestry extension, training and information activities causes the low participation of women who are members of women's business groups. Women's participation is low in the development of sustainability from the results of the training as well as in the dissemination of information on the results of regular meetings and training information. This is because women who are members of the group are very limited and they are the wives of the local village elite and their close relatives. Women whose households have high-value household assets have the opportunity to increase their household income through the development of group businesses managed by their groups and obtain benefits. On the other hand, women whose households only rely on forests as a source of livelihood and do not have access, control and benefits to women's economic empowerment programs will continue to depend on the sustainability of their household lives on the forest. This reinforces that forest management must provide women with access and control in the use of forest resources. Women should be given the right to manage forests [8,10].

Table 5. Distribution of women based on participation in the evaluation stage of community forest management.

	Category					
	Low		Medium		High	
	Number of people	(%)	Number of people	(%)	Number of people	(%)
Identify planned needs or problems in HKm management as material for consideration for the next activity	47	78.33	1	1.67	12	20.00
Conduct evaluations with groups or government agencies	50	83.33	0	0	10	16.67
Development of training sustainability	47	78.33	1	1.67	12	20.00
Dissemination of meeting results	43	71.67	4	6.67	13	21.67
Dissemination of information on training results	47	78.33	0	0	13	21.67

Source: Primary data processed, 2020

4. Conclusion and recommendation

4.1. Conclusion

Women's participation in planning that plays a role in the formation, preparation of group rules and the preparation of group work plans is still very low. Similarly, women's involvement in program evaluation helps identify needs and problems at both the group and governmental levels. Meanwhile, women participate very highly in the implementation and utilization of the results because they are related to domestic work which is their responsibility, namely meeting household food needs. The division of labor based on gender makes women have: 1) high access and low control over land resources and household assets, 2) women have high access, control and benefits to non-timber tree plantation forest products, 3) women have access and control low on social resources, namely information, institutional groups of forest farmers and business groups in their neighborhood, agricultural/forestry extension, training and information.

4.2. Recommendation

Increasing women's participation in community forest management is very much needed to maintain the sustainability of community forest management, ensure household food needs, and increase women's economic capacity. Women's participation in decision-making can be increased through increasing women's access and control over social resources. The involvement of women in groeu management and as members of forest farmer groups will be able to accommodate the knowledge, experience and problems faced by women in interacting with the forest. Then they can plan program activities according to their needs.

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