GENDER ANALYSIS OF AGROFORESTRY MANAGEMENT IN WETLANDS: A CASE STUDY IN MEKARSARI SUB-DISTRICT, BARITO KUALA

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ABSTRACT

Mekarsari sub-district of Barito Kuala Regency is a pineapple producer whose cultivation in addition to monoculture planting patterns also applies agroforestry patterns. The existence of agroforestry in Mekarsari sub-district is inseparable from the role of the Mekarsari sub-district community, both the role of men and the role of women. The involvement of women in agroforestry management is an effort to improve gender equality. The research method approach used is a quantitative descriptive approach. Data collection techniques through observation, interviews and filling out questionnaires by respondents. The results of agroforestry in the wetlands of Mekarsari District contributed to household income by 10.92% of total household income.

KEY WORDS

Agroforestry, gender, wetlands, peat swamps.

Lundgren and Raintree define agroforestry as a collective term for land use systems and technologies, which are planned to be implemented on one unit of land by combining woody plants (trees, shrubs, palms, bamboo etc.) with agricultural crops and / or animals (livestock) and / or fish, which are carried out at the same time or in rotation so that ecological and economic interactions between the various components are formed (Hafizianor et al, 2022).

The existence of agroforestry in Mekarsari Sub-district is inseparable from the role of the Mekarsari Sub-district community, both the role of men and the role of women. The involvement of women in agroforestry management is an effort to improve gender equality. The role of managing agroforestry, which was once considered heavy work that only men could do, has now shifted, women are also able to manage agroforestry. The involvement of women is evidence that women are as important a factor as men in agroforestry management in peat swamp wetlands. The people involved are not only men, in this era of emancipation, women can also be involved in agroforestry management activities to achieve gender equality.

Gender distinctions occur and change due to a variety of factors, including education and knowledge systems, religion, beliefs, political systems and institutions, and family. Changes in these five factors result in gender distinctions that often result in injustice between men and women. Gender distinctions often occur in forest resource management, for example in terms of an unbalanced division of labor. Gender injustice can take many forms, namely: economic marginalization, subordination, excessive workload, violence. Usually the impact of gender injustice is felt by women, because women are still considered weak and still dependent on men. iki wetland rural communities, they are also able to develop the agroforestry pattern. What kind of agroforestry patterns in wetlands developed by the community with all its wisdom will be studied through this research.

METHODS OF RESEARCH

The research method approach used to achieve the research objectives is a quantitative descriptive approach. The research location is in Mekasari Village, Mekarsarsi Sub-district, Barito Kuala Regency. Data collection techniques through observation, interviews and filling out questionnaires by respondents. Village sampling was carried out

using purposive sampling method and Mekarsari Village was determined as a sample research location and for respondent retrieval was carried out using purposive sampling method. Data analysis techniques using the Harvard analytical framework for gender aspects and mathematical approaches to measure the contribution of income from agroforestry.

RESULTS AND DISCUSSION

Based on age characteristics, respondents ranged from less than 30 years to more than 61 years. Male respondents or husbands and female respondents or wives have the most common age level, which is the age level of 41 years to 50 years. The percentage of each age level is 52.5% for men and 50% for women. The livelihood of the Mekarsari Village community is generally as farmers. Respondents based on occupation or livelihood can be seen in Table 1.

Agroforestry management requires communication and coordination between men and women to understand the division of roles in agroforestry work. The division of roles between men and women can be known through the outpouring of work time. The intended work time is the length of time spent by respondents to do a job in a certain unit of time. The recorded work time starts from the time the respondent does the work until the work is completed. Work time can be calculated based on person-days worked (HOK).

Reproductive activities are generally carried out by wives or women, because these reproductive activities are usually activities carried out by housewives. An explanation of how much the role of women in reproductive activities can be presented through the outlay of work time in units of hours/day.

Income from agroforestry is obtained from the management of staple crops such as rubber and lower plants such as oranges and pineapples. Income from agroforestry products is obtained from the harvest in a year.

Income earned in activities outside agroforestry include employees, handyman services and trading. Not all households get income from activities outside agroforestry because this activity is a side job only.

The contribution of peatland agroforestry to total community income contributed 10.92% per household with an average income of Rp.6,912,500/year/kk from agroforestry and Rp.56,400,000/year/kk income from outside agroforestry. The contribution of peatland agroforestry, Lu and Inu values can be seen in Table 11.

Table 1 – Respondents' main and secondary occupations

Jobs	Husband				Wife			
	Main		Side		Main		Side	
	N	%	N	%	N	%	N	%
Farmers	32	80	8	20	22	55	3	7,5
Merchant	0	0	0	0	0	0	4	10
Employees	8	20	0	0	0	0	0	0
Builder	0	0	2	5	0	0	0	0
Private	0	0	0	0	0	0	0	0
IRT	0	0	0	0	18	45	0	0
None	0	0	30	75	0	0	33	82,5
Total	40	100	40	100	40	100	40	100

Source: Primary data processing, 2023.

Table 2 – Labor time (HOK/month) outside agroforestry activities

Activities Outside Agroforestry	Labor Hours (HOK/Month)	
	Husband	Wife
Merchant	0,00	4,84
Employees	4,84	0,00
Builder	0,94	0,00
Total	5,78	4,84
Average	1,93	1,61

Source: Primary data processing, 2023.

Table 3 – Work time devoted to reproductive activities

Reproductive Activities	Gender	Working Time	
		Average HOK/Day	HOK/Month
Cooking	L	0,00	0,00
	P	0,08	1,99
Washing Clothes	L	0,00	0,00
	P	0,09	2,15
Raising Children	L	0,00	0,00
	P	0,78	19,53
House Cleaning	L	0,00	0,00
	P	0,08	2,11

Source: Primary data processing, 2023.

Table 4 – Work time (HOK/month) in reproductive activities

Reproductive Activities	Labor Hours (HOK/Month)	
	Husband	Wife
Cooking	0	1,99
Washing Clothes	0	2,15
Babysitting	0	19,53
House Cleaning	0	2,11
Total	0	25,78
Average	0	6,45

Source: Primary data processing, 2023.

Table 5 – Gender roles in productive and reproductive activities

No.	Respondents	Gender roles			
		Productive (%)			Reproductive (%)
		Agroforestry	Non Agroforestry	Total	Total
1	Husband/Male	59	54	113	0
2	Wife/Woman	41	46	87	100

Source: Primary data processing, 2023.

Table 6 – Decision-making in agroforestry production and post-production

No.	Statement	Decision Making						Total	
		Husband		Husband & Wife		Wife			
		N	%	N	%	N	%	N	%
Agroforestry Management Production Activities									
1	Land Preparation								
	Land clearing	30	75	10	25	0	0	40	100
	Area clearance	32	80	8	20	0	0	40	100
	Making surjan, guludan, disk	40	100	0	0	0	0	40	100
2	Nutrient Processing								
	Fertilization	35	87,5	5	12,5	0	0	40	100
	Lime application	35	87,5	5	12,5	0	0	40	100
	Combustion	38	95	2	5	0	0	40	100
3	Water Management								
	Trenching	40	100	0	0	0	0	40	100
4	Crop Management								
	Seedling sowing	0	0	40	100	0	0	40	100
	Penugalan/planting	8	20	32	80	0	0	40	100
	Weeding/cleaning	8	20	32	80	0	0	40	100
	Maintenance	38	95	2	5	0	0	40	100
	Determination of crop types other than staple crops	36	90	4	10	0	0	40	100
5	Harvesting & Marketing								
	Harvesting	2	5	38	95	0	0	40	100
	Marketing of agroforestry products	5	12,5	35	87,5	0	0	40	100
	Investment in equipment for farming	40	100	0	0	0	0	40	100
Agroforestry Management Post-Production Activities									
1	Determination of crop utilization	6	15	23	57,5	11	27,5	40	100
2	Determination of harvest sales actors	9	22,5	19	47,5	12	30	40	100
Average (%)		59,12		37,50		3,38		100	

Source: Primary data processing, 2023.

Table 7 – Decision-making in agroforestry and family financial matters

| No. | Statement | Decision Making | | | | | | Total | |
| | | Husband | | Husband & Wife | | Wife | | | |
		N	%	N	%	N	%	N	%
	Agroforestry Management Finance								
1	Planning business costs in agroforestry management	0	0	40	100	0	0	40	100
2	Managing money for agroforestry management businesses	5	12,5	20	50	15	37,5	40	100
3	Borrowing money/credit for business	40	100	0	0	0	0	40	100
	Family Finance								
1	Planning for family money	0	0	25	62,5	15	37,5	40	100
2	Managing family money	0	0	14	35	26	65	40	100
3	Spending family money	0	0	30	75	10	25	40	100
4	Borrowing money for family needs	18	45	21	52,5	1	2,5	40	100
5	Finding ways to solve financial problems	30	75	10	25	0	0	40	100
	Average (%)	29,06		50,00		20,94		100	

Source: Primary data processing, 2023.

Table 8 – Decision-making in family social and domestic activities

| No. | Statement | Decision Making | | | | | | Total | |
| | | Husband | | Husband & Wife | | Wife | | | |
		N	%	N	%	N	%	N	%
	Social Activities								
1	Responsible for social activities	40	100	0	0	0	0	40	100
2	Attend village meetings	40	100	0	0	0	0	40	100
	Family Domestic Affairs								
1	Determination of the number of children	7	17,5	28	70	5	12,5	40	100
2	Determining children's education in the family	0	0	40	100	0	0	40	100
3	Determination and purchase of food menu	0	0	0	0	40	100	40	100
4	Purchase of household appliances	0	0	10	25	30	75	40	100
5	Health maintenance	0	0	0	0	40	100	40	100
	Average (%)	31,07		27,86		41,07		100	

Source: Primary data processing, 2023.

Table 9 – Agroforestry sector income

Agroforestry Income	Total Revenue	Average Income /KK
Rubber	74.400.000	2.400.000
Oranges	14.400.000	1.200.000
Pineapple	80.700.000	2.017.500
Rice	51.800.000	1.295.000
Total	221.300.000	6.912.500

Source: Primary data processing, 2023.

Table 10 – Income outside agroforestry

Non Agroforestry Income	Total Revenue	Average Income /KK
Traders (IDR/year	102.000.000	20.400.000
Employee (Rp/year)	240.000.000	30.000.000
Handyman (Rp/year)	12.000.000	6.000.000
Total (Rp/year)	354.000.000	56.400.000

Source: Primary data processing, 2023.

Table 11 – Income contribution from agroforestry

| | Income Type | | | *Peatland agroforestry* contribution (K)(%) |
	Income from agroforestry (Lu)(Rp/year)	Income from outside agroforestry (Inu) (Rp/year)	Total income (Rp)/year	
Total	221.300.000	354.000.000	575.300.000	
Average (Rp/KK)	6.912.500	56.400.000	63.312.500	10,92

Source: Primary data processing, 2023.

The contribution of *peatland agroforestry* to household income is still small at 10.92% so that agroforestry management needs to be further managed so that the income from agroforestry can add more income to the needs and needs of each family head.

CONCLUSION

Based on the results of the research that has been carried out, the following conclusions can be drawn that productive activities in agroforestry management of women's work time in one month amounted to 41% and men by 59%, outside the peatland agroforestry women play a role of 46% and men 54%.Reproductive activities of women's work time in one month played a role of 100% and men did not have reproductive work time because all reproductive activities were carried out by women. Decision making on agroforestry management activities by husbands and wives amounted to 38%, wives by 3% and husbands by 59%. Decision making in agroforestry management finances such as planning business costs in agroforestry management and managing money for agroforestry management businesses is mostly decided together by husbands and wives by 50%. Decision-making on social and domestic family activities 41% % decided by the wife, 31% decided by the husband and 28% decided by the wife and husband. Agroforestry in wetlands contributes to household income of 10.92% of total household income.

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