



Gender Analysis of Vegetable Farmers During Pandemic in Cimande, Bogor Regency

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Abstract. The COVID-19 pandemic had an impact on vegetable farmers. The study focused on determining the gender equality of vegetable farmers' households during the pandemic. The research involved 31 respondents from Cimande, Bogor Regency. The qualitative method was used to analyze gender equality using the Harvard model. The study measures gender equality through activities: 1) division of domestic sector, 2) division of productive work, and (3) division of social work. Furthermore, the access and control to resources and benefits are identified from 1) access to resources, 2) access to benefits, 3) control of resources, and 4) control of benefits. The study result shows that women dominate in the domestic sector, while men mostly do productive and social work. Moreover, access and control to resources are dominated by a man while women only concentrate on the domestic sector.

Keywords: Access · Gender · Control · Vegetable farmers

1 Introduction

The COVID-19 pandemic has caused the gender gap between men and women to widen. This condition arises due to the decline in production activities in various sectors so that efforts to reduce gender that have been carried out have stopped. Indonesia has not experienced significant changes in terms of gender inequality in the last two years. The report of the Global Gender Gap Index 2020 puts Indonesia in 85th place out of 153 countries with a score of 0.70. Compared to neighboring countries, Indonesia is still far behind the Philippines at number 16, Laos at number 43, Singapore at number 54 and Thailand at number 75.

Gender is a concept of social relations, distinguishing functions and roles between men and women, which occurs through the process of socialization, strengthening and social, cultural and religious construction, even though state power [1]. The division of gender roles in farmer households shows that there are different roles between men and women. In traditional societies, women generally play a role in household activities (domestic) and men have the productive task of earning a living. In the current development, women do not only carry out multiple roles (reproductive and productive) but also

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extends to social roles. Women do not only have a dual role, but women have a triple role, namely reproductive roles, namely roles related to traditional roles in the domestic sector; productive roles, namely economic roles in the public sector; and social roles, namely roles in the social community [2].

In farming communities, the role of women is very necessary, especially for farmers with limited land ownership. The dual role of women in the domestic and production sectors is expected to improve the welfare of farming households. The income obtained from the involvement of women in farming will help solve the economic problems of the farming family. So as to support the realization of the welfare of farmers. The involvement of women in farming is quite large. That the role of women in lowland rice farming is more dominant than that of men [3]. Women are involved in all processes of lowland rice production, except for cultivating the land (plowing the fields). The women are involved in productive work in tobacco farming [4]. The opportunity for women's involvement in farming is quite large, because farming has various business characteristics that can be done by women.

The manifestation of gender equality and gender equity in the family can be assessed from the following indications [5] (1) **Access**: the capacity to use resources to fully participate actively and productively (socially, economically and politically) in society including access to resources, services, labor and employment, information and benefits). Example: Providing equal opportunities for girls and boys to continue their education according to their interests and abilities, assuming sufficient family resources; (2) **Participation** is defined as who does what. Husband and wife participate equally in the decision-making process on use of family resources and if necessary involve children, both boys and girls; (3) **Control** is defined as who has what. Women and men have equal control over the use of family resources. A husband and wife can own property in the name of the family; (4) **Benefits**, all family activities should have the same benefits for all family members. Manifestations of gender inequality are marginalization, subordination, stereotypes, violence and workload. Gender inequality is caused by unequal access, participation and control for women in achieving resources [2].

Cimande Village, Caringin District, is one of the centers for horticulture agriculture in Bogor Regency, especially vegetables. The geographical of the village is located between Mount Pangrango and Mount Salak and is traversed by several rivers, namely the Cisadane, Cinagara and Cimande rivers are very suitable for vegetable farming. The number of people involved in agriculture as farmers and farm laborers is quite high, reaching 70.24% [6]. The high potential of agriculture in Cimande village makes research on gender in vegetable farming interesting to do. This study aims to analyze gender equality in vegetable farming in Cimande Village, Caringin District, Bogor Regency.

2 Methods

The research was conducted in Cimande Village, Caringin District, Bogor Regency in March 2021. The study of gender problems in the household in vegetable farmer was carried out using a case study approach. The research respondents were households of vegetable farmers, totaling 31 households. The data collected consists of primary data and secondary data. Primary data obtained from respondents related to the division

of male and female workers in the aspects of domestic/reproductive, productive and social work. In addition, data on access and control over resources and benefits are also collected. The description of the work of men and women is identified by recording the work of husband and wife in one day from getting up in the morning until going to bed at night. Secondary data were obtained from reports and books related to the research objectives. Data analysis uses the Harvard gender equality approach. Harvard analysis is a matrix that collects data at the micro-level (community and household), covering components namely a) activity profile, b) access and control profile c) analysis of factors affecting activities, access, and control. In this study, the profile of activities, access and control of resources, and benefits will be analyzed.

3 Results and Discussion

3.1 RESpondent's Profile

Respondents are farmers with an age range of 25 to 70 years. Based on the age distribution, vegetable farmers in the study area are of productive age (83.8%). This condition shows that farming households have sufficient resources to earn a living.

Farmer has a low level of education. The majority of respondents have primary school education (58.1%). Only 12.9% and 9.7% of farmers continued their education to junior and senior high school levels. Even some farmers did not graduate from elementary school, which is 6.4%. The low level of education causes farmers to have a low ability to access formal sector jobs.

The majority of respondents work as farmers. In addition to growing vegetables, some farmers raise livestock which is used as additional income. Some respondents have a variety of occupations, 9.7% being traders.

3.2 Division of Labor in Productive Work (Agricultural Land)

Productive roles include all tasks which contribute to the income and economic welfare of the household and community. These include the production of goods and services for income or subsistence. Both women and men perform a range of productive roles. For example, in agriculture, productive activities include planting/cultivation and livestock rearing.

The types of vegetables planted by the respondents were long beans, cucumbers, and red chilies. This work can be done by both men and women. However, productive work related to activities in farming is generally done by men. The division of labor in vegetable farming can be seen in Table 1.

Table 1 shows that vegetable farming activities are dominated by men. Only a few jobs were assisted by women, namely planting, cleaning the grass, maintaining the garden, and managing the money from selling the produce. Almost all vegetable farming business activities are done by men, except for managing money from the sale of crops. Women play a role in managing the money from the sale of crops (69.2%). In addition, there is also a tendency that men to do more work that requires strength, such as cultivating land and fertilizing.

Table 1. Distribution of Household Productive Work for Vegetable Farmers

Type of work	Work done by		
	Own Man (%)	Own Woman (%)	Man and Woman together (%)
Preparing land	100s	0	0
Preparing seed	84,6	0	15,4
Planting	53,8	30,8	15,4
Fertilizing	84,6	0	15,4
Weed clearing	69,2	15,4	15,4
Maintaining farm	84,6	7,7	7,7
Harvesting	46,2	0	53,8
Processing crops	69,2	0	30,8
Selling crops	100	0	0
Managing money from crops selling	0	69,2	30,8
Average	69,2	12,3	18,5

There are at least eight activities that are mostly done by men and women, namely preparing seeds, planting, fertilizing, clearing weeds, maintaining farms, harvesting, processing crops and managing money. This shows that women can be involved in many productive jobs in vegetable farming, but there are still few farming households that are willing to invlve women in these productive jobs. The results of this study are in line with the findings on lowland rice farmers [7]. The previous study showed that farming activities are productive activities that involve men and women with varied roles [8].

3.3 Division of Labor in Domestic Sector

Reproductive activities or thedomestic sector are those activities carried out to reproduce and care for the household. Activities such as childbearing, cooking, washing, cleaning, nursing, and taking care of the sick in a household are reproductive roles. The general view considers domestic work as the duties and responsibilities of the wife. The division of the domestic sector in this study is presented in Table 2.

Women dominate the work in the domestic sector. Almost all works in the domestic sector are done by women. It shows the high role of women in the domestic sector. Meanwhile, domestic sector carried out jointly between men and women is smaller, namely 8,5%. In general, almost all domestic sector has been done together, but in small number. This means that only a few men help their wives in domestic work. This finding is in line with lowland rice farmers [8]. This condition confirms the stigma that says household work is the responsibility of women. Women are synonymous with domestic work, even though women and men actually have the same opportunity to live in the household [8]. By comparing the roles of men and women in the production sector and

Table 2. Labor division in domestic sector

Activities	Man (%)	Women (%)	Man and women (%)
House cleaning	3,2	96,8	0
Looking for firewood	18,7	62,6	18,7
Water fetching	0	93,7	6,3
Dishes washing	3,2	93,6	3,2
Clothes washing	0	96,7	3,3
Cooking	0	96,8	3,2
Taking care of children	0	80,0	20,0
Shopping	0	87,1	12,9
Average	3,1	88,4	8,5

the domestic sector, it can be seen that women play more roles in work in the domestic sector, while men dominate works in the production sector. This pattern is common in Indonesia, especially in rural communities.

3.4 The Labor Division in Social Activities

In terms of the division of labor between men and women in community activities, there is a pattern similar to activities in the production sector, namely that the role of men is more prominent than the role of women. More men are involved in community activities than women. Women are more involved in activities that are stereotypically attached to women, namely PKK activities and religious activities.

Social work is related to community activities that exist in the farmer's environment. This social work activity is a manifestation of the role of humans as social beings, where the life of a human being cannot be separated from the presence of other humans around him. The division of social work of vegetable farmers can be seen in Table 3.

Table 3 shows that social activities are carried out more predominantly by men. The social work includes activities at the RT, village, farmer organizations and worship levels. Women only participate in PKK social activities and a few other social activities in small numbers. The limited involvement of women in social work is supported by the findings presented in Table 1, that women are more involved in the domestic sector. Women have the potential to be involved in social work, this can be seen from some of the social work that women participate in, whether they are done alone or done together.

3.5 The Time Allocation in Last 24 Hours

The roles of men and women can be seen from the involvement of men and women in various activities in the production sector, the domestic sector, and in activities in the community. In addition, the roles of women and men can also be seen from the time spent by men and women in various activities. Table 4 shows that women spent more time for doing various works compared to men.

Table 3. Labor division in the social activities

Activities	Work done by		
	Man (%)	Woman (%)	Man and women (%)
RT Meeting	95,6	4,4	0
Hamlet/village meeting	88,9	7,4	3,7
Farmer/breeder organization meeting	96,1	0	3,9
Cooperative meeting	0	0	0
PKK/women organization meeting	0	100	0
Extension for farmer/breeder	96,3	3,7	0
Training for farmer/breeder	96,0	4,0	0
Religious activities	45,0	0	55,0
Average	74,0	17,1	8,9

Table 4. Time allocation in last 24 h

Activities	Bogor Community (Hour)	
	Men	Women
In agricultural land working	2,3	2,2
Cattle breeding	0,4	–
In outside agricultural land working	0,4	–
Crop selling	–	–
Livestock products selling	–	–
Total of time allocation in the productive sector	3,1	2,2
House cleaning	–	1,2
Cooking	–	1,8
Taking care of children	–	0,7
Dishes washing	–	0,4
Clothes washing	–	–
Looking for firewood	–	–
Water fetching	–	–
Shopping	–	–
Total of time allocation in the domestic sector	–	4,1
Social activities		0,3
Total of time allocation in all activities	3,1	6,6

Table 5. Access to and control over resources and benefits

Resources and Benefits	Who Have Access to?		Who decides (control over)?	
	Men	Women	Men	Women
Resources				
Agricultural land	67,4	32,6	77,4	22,6
Seed and fertilizer	79,0	21,0	87,1	12,9
Livestock	85,7	14,3	100	0,0
Training/extension	100	0	95,8	4,2
Labor	87	12,5	100	0
Credit	66	33,3	66,7	33,3
Cooperative	0	0	0	0
Crops	67,5	32,5	71,4	28,6
Income from crops selling	43,2	56,7	44,2	55,8
Income from livestock selling	16,7	83,3	15,4	84,6
Market	57,1	42,9	56,0	44,0
Benefits				
Income from crops and livestock selling	43,4	56,6	42,0	58,0
Credit	33,3	66,7	37,5	62,5
Extension/training	92,6	7,4	77,8	22,2
Cooperative	0	0	0	0
Agricultural land	73,3	26,7	100	0

The divisions of labor or gender roles are categorized into three groups, namely reproductive roles, productive roles, and social roles. This study shows that reproductive work is mostly done by women. The productive and social works are mostly done by men. Based on the time spent on work, men have a low level of reproductive work time, with an average of reproductive work is less than one hour per day.

3.6 Access to and Control over Resources and Benefits

Access to and control of resources describes the opportunity to use resources and decision-making authority in the use of resources. Access profile refers to who can use the resource. Control profile refers to who makes decisions in resource management.

Access and control over resources can be seen in Table 5. Based on Table 5, women's access to resources is very low compared to men. Regarding access to resources, women have high access to money from livestock selling (83.3%) and money from crops selling (56.7%). Women have access to markets (42.9%), credit (33.3%) and to agricultural crops (32.5%) but with a smaller percentage.

In terms of control over resources, women's roles are not much different. Women have high control over money from livestock products selling (84.6%) and money from crops selling (55.8%). Women have control over the market (44.0%) and credit (33.3%) but with a smaller percentage. In this study, women have no access to training/extension and have no control over the labor. The training/extension is dominated by men and the decision making regarding labor is carried out entirely by men.

In terms of benefits, women have access to and control over credit and income from crops and livestock selling. Women's access to and control over the benefits of extension/training and land is very low. Even women have absolutely no control over land use. Decision making on land use is entirely in the hands of men.

The condition of access and control over resources and benefits by women and men is in line with the division of labor between men and women at the household level, where women are more involved in activities in the domestic sector, while men are more involved in activities in the productive sector. For this reason, women have low access to and control over resources and benefits related to activities in the productive sector. Although women's access to and control over crops and livestock are low, women's access to and control over income from selling crops/livestock are high. Although women don't have access to and control over credit, they do have access and control over the benefits of credit. It happens because the management of household finances is in the hands of women. Household financial management is part of work in the domestic sector which is the domain of women.

The equality is a condition of equality for men and women in obtaining opportunities and rights as human beings. Referring to this concept, it can be said that there is no gender equality in access and benefits of resources to vegetable farmers [9].

4 Conclusion

The division of labor between men and women at the household level shows that women play a role in various activities in the productive sector, in the domestic sector and in social activities. Women still tend to dominate activities in the domestic sector. Regarding the time allocation of men and women in various work, women tend to spend more time than men. Although overall women tended to allocate more time than men, women spent more time working in the domestic sector. Meanwhile, men spent more time working in the productive sector.

Women have access to and control over two components of the resources, namely income from crops selling and income from livestock selling. Women have access to and control over the two components of benefits i.e., income from crops/livestock selling and credits. Women's low access to and control over resources and benefits related to extension/training and land.

The level of access and control of women over resources and benefits cannot be separated from the role of women in the productive sector. Women still tend to dominate activities in the domestic sector.

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