

Farmers Motivation in Dairy Goats Exertion at the Slope Area of Merapi Volcano

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ABSTRACT: The objective of the study was to analyze farmers motivation including some motives that encouraged the farmers to raise dairy goats in the slope area of Merapi Volcano. Sixty dairy goat farmers at Turgo Sub-village were randomly selected as respondents. Data were collected by interviewing directly to the respondents using a good prepared questionnaire that was tested its validity and reliability. Descriptive analysis was used to describe the motives of the farmers. The results showed that there were a high level of motives including use of land motives (81.6%), economics motives (76.7%), and use of family labor motives (83.4%). But, most of the farmers (56.6%) were in medium level for safety motives.

Keywords: Dairy Goats Farmers, Motives, Merapi Volcano

INTRODUCTION

The slope area of Merapi mountain was the place where there were potentially developed for dairy farming. Most of farmers in this area kept their dairy cows as the main of their animal farming activities. But, on the other hand, the slope area of Merapi Mountain is also a hazard prone area caused of the activity of the Merapi volcano, especially when the eruption happened. The experience of the big eruption in 2010, the farmers got the high loss income, especially in dairy cow farming caused of the death cows and the decrease of milk production. In response to the effect of the eruption and to avoid the possibilities of higher loss in one of the main income source from dairy farming, some farmers have changed part or all of their commodities in dairy farm by rearing dairy goats. And the decision to change into dairy goats based on some considerations and particularly motives of the farmers to sustain their livelihood. This paper explained some motives which encouraged the farmers to keep dairy goat although they lived in the place, where was the disaster prone area of Merapi volcano.

MATERIALS AND METHODS

The research was a case study at Turgo Sub-village in the slope area of Merapi volcano. The respondents were 60 dairy goat farmers who were selected randomly. Data including safety, land use, economics, and family labor use motives were collected by interviewing using a good prepared questionnaire which had been tested its validity and reliability. The level of motive was measured using 5-point Likert Scales from strongly agree to strongly disagree. Descriptive quantitative was used to analyze the data.

RESULTS AND DISCUSSION

Most of farmers had high category levels for land use motives (81.6%), as well as family labor use (83.4%) and motives of economics (76.7%) in dairy goats farming (Table 1.). But, most of farmers (56.6%) were in the middle category level for safety motives.

Table 1. Percentage of farmers' distribution based on motives categories levels

Kinds of Motives	High	Middle	Low
Safety Motives	40.0	56.6	3.4
Land Use Motives	81.6	15.0	3.4
Economics Motives	76.7	23.4	-
Family Labor Use Motives	83.4	16.6	-

Safety motive was not the strong reasons to encourage farmers to raise dairy goats at the slope area of Merapi volcano that was a disaster prone area. Table 2 showed that although most of farmers (>50%) were agree and even strongly agree with the items of safety motives, but some of farmers gave the uncertain response for some items. Some farmers (30%) were uncertain that dairy goats were easier to be evacuated than other big ruminants when the eruption happened, as well as the response that it could be relied on facing farming safety problems. Moreover, some farmers (26.7%) was disagree that the others ruminant were difficult to be evacuated comparing with dairy goats when disaster happened. The decision to evacuate livestock was in the hands of individual farmers and dependent on their financial means (Wilson, *et al.*, 2012).

Table 2. Percentage distribution of the farmers' response to the items of safety motives

Items	SA	A	U	DA	SDA
Dairy goats are relatively easier to be evacuated than other big ruminants when disaster happened	8.3	46.7	30.0	15.0	-
The others ruminant except dairy goat is relatively difficult to be evacuated when disaster happened	5.0	50.0	16.7	26.7	1.7
By raising on dairy goat farming at the slope area of Merapi make me more comfortable than other dairy animals farming when the evacuation should be done	5.0	51.7	30.0	13.3	-
By rearing dairy goat, It could be relied on facing farming safety problems when the eruption happened	6.7	53.3	30.0	8.3	1.7
By rearing dairy goat, It is a long term purpose for my old age	11.7	58.3	18.3	11.7	-
By rearing of dairy goat. It could be a saving for my children education purpose	15.0	60.0	10	11.7	3.3

SA: Strongly Agree, A: Agree, U: Uncertain, DA: Disagree, SDA: Strongly Disagree.

Table 3 showed that land use motives were a highly reason encouraging farmers to raise dairy goats at the slope area of Merapi volcano. Although the area was a hazard prone, but there was a pull factor, regarding the land, for farmers to live and to do some activities at this area. According Sagala, *et al.* (2012), while a disaster normally brings negative impacts, there are positive impacts from disaster that can be used for economic development such as livestock farming. Soil of the land fed by volcanic ash is highly fertile and become an arable land. This condition indicated that it was a potential as a source of animal feeding.

Table 3. Percentage distribution of the farmers' response to the items of land use motives

Items	SA	A	U	DA	SDA
I keep dairy goats for making use of my own land	25.0	65.0	3.3	6.7	-
I keep dairy goats because of I don't want to let my land be unused	21.7	65.0	6.7	5.0	1.7
I become more enthusiasm in rearing dairy goats by using my land resources	21.7	68.3	8.3	1.7	-
I use my land resources to plant feeding crops for my dairy goats	26.7	51.7	13.3	8.3	-
Wider my land area, more chance to increase my scale of dairy goats	21.7	60.0	11.7	6.7	-

SA: Strongly Agree, A: Agree, U: Uncertain, DA: Disagree, SDA: Strongly Disagree.

Table 4 indicated that most of farmers had a high economics motives in raising dairy goats. Nofrita and Krol (2014) found that economic value is higher than the risk and the people who lived at slope area of Merapi volcano focused on the most beneficial livelihood resource. Based on the experience from the big eruption in 2010, farmers had to lose their previous jobs as dairy cow owners since many cows dead. To maintain livestock farming, as one of the main family income generating source (Nofrita and Krol, 2014), the farmers tried to find an alternative dairy animals, that was dairy goats. And this decision also could be a form of risk management related to avoid high loss in dairy farming exertion.

Table 4. Percentage distribution of the farmers' response to the items of economics motives

Items	SA	A	U	DA	SDA
By rearing dairy goat, It will be an additional income generating for my family	31.7	58.3	6.7	3.3	-
By rearing dairy goat, It will increase my family welfare	25.0	53.3	16.7	5.0	-
By rearing dairy goat, It could be a saving purpose	13.3	53.3	21.7	11.7	-
By rearing dairy goat, It could earn the income every month	13.3	66.7	13.3	6.7	-
It needs small investment for carrying on dairy goat farming	11.7	61.7	23.3	3.3	-
By rearing dairy goat, It will be avoided from poverty	8.3	78.3	10.0	3.3	-
By rearing dairy goat is better than unemployed which could not give an income	40.0	56.7	1.7	1.7	-
The income earned from dairy goat farming could be use to meet my family needs	16.7	63.3	13.3	6.7	-

SA: Strongly Agree, A: Agree, U: Uncertain, DA: Disagree, SDA: Strongly Disagree.

The use of family labor was the other high motive of farmers to raise dairy goats at the slope area of Merapi volcano. The size of family related to potency and availability of labor (Nofrita and Krol, 2014). Haryadi, *et al.* (2008) found that most of family labor time allocation in integrated farming was allocated to dairy goats farming exertion. Table 5 also indicated that some farmers (30%) responded uncertain to the item related the entrepreneurship by involving family members in dairy goat farming. It had just been needed in easing the work of farming activities as an effort for gaining a better life, and reducing cost.

Table 5. Percentage distribution of the farmers' response to the items of family labor use

Items	SA	A	U	DA	SDA
By rearing dairy goat, my family labor could be involved for useful activities	21.7	61.7	15.0	1.7	-
By using family labor, It could minimize the input cost in dairy goat farming exertion	21.7	68.3	10.0	-	-
I would be more enthusiasm when more of my family labors were used for carrying on dairy goat farming	26.7	65.0	8.3	-	-
By using family labor for dairy goat farming, It means that my family is responsible for my livelihood	18.3	71.7	10.0	-	-
By using family labor for dairy goat farming, I could spend my quality time with my family	13.3	75.0	11.7	-	-
The leisure time of my family labor is better to be used for dairy goat farming	18.3	63.4	13.3	5.0	-
By involving my family labor to dairy goat farming, I could teach my family to be entrepreneurship	13.3	46.7	30.0	10.0	-
By involving my family labor to dairy goat farming, I could transfer my knowledge relating with dairy goat exertion to my family members	15	73.3	11.7	-	-

SA: Strongly Agree, A: Agree, U: Uncertain, DA: Disagree, SDA: Strongly Disagree

CONCLUSIONS

The farmers had the high category motives level of land use, economics, and family labor use in raising dairy goat at the slope area of Merapi volcano. But, it was a medium category level for safety motives. The highest motives for most farmers raising dairy goats at the slope area, the hazzard prone area, in Merapi volcano was family labor use, followed by land use and economis motives respectively.

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