DECREASING TREND OF SAMOSIR PANORUSAN GOAT POPULATION IN PANGURURAN SUB DISTRICT: CAUSING FACTORS

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Abstract. This research was conducted at the people's farm in Pangururan sub-district, Samosir district. This study aims to determine the factors that affect the reduction rate of Panorusan goat population. The method used was multiple linier regression analysis with variabel limitations, i.e. animal feed quality, quantity of field grass, and goat sales to other areas. This research was conducted by asking directly to the breeder and giving a randomly selected questionnaire. The total of 55 goat breeders are divided into 2-3 breeders/village. From the research it was known that the dominant factor that causes the rate of reduction in goat Panorusan Samosir population was goat sales to other areas.

1.Introduction

Business in the field of animal husbandry are engaged in large livestock such as cattle, buffaloes and horses, for small livestock such as goats and sheep, for poultry, namely ducks, broilers and laying hens which are in great demand. The potential that can be developed in the field of animal husbandry is the goat because it provides the need for meat whose demand continues to increase. A problem in developing countries, especially in Indonesia, is the lack of attention in the field of goat farming. Indonesia has limitations in terms of maintenance efficiency, maintenance management, procuring information about feed in goat breeding so that this makes maintenance less efficient or difficult to achieve. Efficiency in maintenance can occur if the cost of feed can be reduced so that the costs of maintenance can be controlled by the community, such as the use of local grass, agricultural waste as feed for goats.

Pangururan District is one of the areas in Samosir Regency which has an important role in the economy of the community towards its agricultural sector. Where this area has the potential of areas with grazing areas that are quite extensive so that it is quite potential for the development of goats. But the management of livestock cultivation is still very simple, besides that the farms are very small and also the maintenance system applied is still traditional. If productivity is not developed commercially and on a large scale, it will have an impact on the decline of the goat population. Where one of the most goat populations is Pangururan District. In Samosir District the Goat livestock population

declined from year to year. The aim of this research was to know the cause of declining trend of Panorusan goat populastion.

The picture of Samosir Panorusan Goat population in Pangururan District, Samosir Regency can be seen in Table 1.

Table 1. Population of Samosir Panorusan Goat livestock.

No	Sub district	Year					
		2013	2014	2015	2016	2017	2018
1	Pangururan	3.702	3.665	3.585	2.962	2.453	2.431
2	Ronggornihuta	1.174	1.168	1.112	970	854	856
3	Simanindo	1.656	1.651	1.612	1.135	661	660
4	Harian	132	151	175	276	203	201
5	Sianjur Mulamula	407	413	428	117	94	96
6	Palipi	1.217	514	515	990	921	924
7	Sitiotio	330	727	726	321	316	319
8	Nainggolan	501	1.217	1.220	286	242	240
9	Onan Runggu	701	366	357	489	395	393
	Total	9.821	9.872	9.699	7.546	6.139	6.120

Source: Samosir Regency Agriculture Service, 2018.

From Table 1, it was known that frrom 2013 until 2018, there were more that three thousands heads of Panorusan goat decreased.

2. Material Dan Methods

This research was carried out in Pangururan District, Samosir Regency. This research was conducted from April to May 2018. This type of research is an explanatory quantitative research where this study describes the influence of the relationship between variables of limited feed, farmer experience, livestock disease, customs of the surrounding environment, and the rate of marketing of productive females. Against the decline of Samosir Panorusan Goat population in Pangururan District. The population of this study were all goat breeders in Pangururan Subdistrict, Samosir Regency, totaling 120 farmers and the determination of the sample was done using the Slovin formula as follows:

$$\text{n} = \frac{N}{1 + (e2)}$$

Where:
n: number of sampel
N : total population
E: the level of eror in sampling (10%)

$$\text{n} = \frac{120}{1 + 120 - (0,1)}\,2$$

$$\text{n} = \frac{120}{1 + 120(0,01)}$$

$$\text{n} = \frac{120}{1 + 1,2}$$

$$\text{n} = \frac{120}{2,2}$$

n= 55 responden

In general, the percentage of errors that can be tolerated in social studies is 5% -20% because in the results of the study it is difficult to ascertain the accuracy of the data as in exact science research. In this study, the error tolerance of 10% is used, which is between 5% -20%. The results of these calculations show that the sample obtained as many as 55 people taken from the total population of farmers in the study area. A total of 120 farmers. The method used in sampling is simple random sampling method where all elements of the population have the same opportunity to be selected as sample members. Sampling is done randomly without paying attention to strata in the population.

3. Result And Discussion

Feed Quality

Ruminants feed are generally grouped into 2 (two), namely forage and concentrate feed and additional vitamins and minerals as supplement (supplement) feed. Forage feed is the main food of ruminants from grasses and legumes. In Indonesia, forage can be obtained in almost every place, from grasslands to slum markets in big cities. For dry areas, forage sources are grasslands, food crops, horticulture, plantation land and forestry land. Whereas in the area of irrigated land, the source of forage can come from the embankment and the edge of the irrigation canal. In swamp and tidal areas, forage is also easy to find, because for such habitats there are types of grass that can grow well. In addition, forage can also be obtained on the side of the road and in the yard. The yard and fence of the house is an important place as a source of forage because it is not too far from the cage. The types of forage that are usually in the yard are food crops and feed crops such as grass, cassava, bananas, lamtoro, jackfruit, petai, randu, sengon, gamal, kelor and so on.

Table 2. Quality of Animal Feed

No	Parameter	Number of Farmers	Percentage (%)
1	Good	18	33 %
2	Not good	37	67 %
	Total	55	100 %

Source: Primary data after processing, 2018.

Table 2. shows that the results of the research that has been done can be seen that the goats in Pangururan sub-district have not been fulfilled the need for feed in the body, it is known that there are parameters given that are good and not good. The sample stated that the feed provided was good quality of feed given as many as 18 people with a percentage of 33% and a sample that stated not good as many as 37 people with a percentage of 67%. The feeding system used by farmers in Pangururan Sub-district is the grazing system. By providing field grass with low protein quality. This is not in accordance with Agus's statement (2010) which states that the policy of providing ruminant feed is carried out on two things, namely: (1) providing forage feed and (2) providing concentrated feed. For the provision of forage feed, the policy includes the supply of TPT seeds / seeds, TPT business units, land use, and shepherd areas. As for the supply of concentrated feed, the policy includes the feed processing plant / plant and the feed ingredients business unit

Feed Quantity

Table 3. Feed Quantity

No.	Parameter	Number of breeders (people)	Percentage (%)
1	Not enough	42	76 %
2	Enough	3	24 %
	Total	55	100 %

Source: Primary data that has been processed, 2018.

Table 3. Shows that the results of research conducted in the district of Samosir Pangururan district can be seen from the results of observations and interviews it is known that panorusan goat livestock only consume field grass which is only available in nature and there is no good forage and additional feed that supports the growth of the goat. From the sample of respondents who stated that there were 76% stated that panorusan goat consumed pumice grass as a food to meet the living needs of the turtle and there were 24% stating that the livestock consumed the available forage.

3. Cattle sales to other areas

Livestock expenditure is the number of livestock that has died, cut and sold. The death of livestock is the number of livestock that die without being cut in the past year. Cutting is the number of livestock cut by both male and female farmers within one year.

Table 4. Sales of livestock to other regions

Parameter	Number of Farmers (People)	Percentage (%)
Often	38	69 %
Sometimes	13	24 %
Never	4	7 %
Total	55	100 %

Source: Primary data after processing, 2018.

Table 4. Shows that the results of the research conducted in Pangururan District, Samosir District, can be seen from the results of observations and interviews that there are 3 parameters that have been provided, often, sometimes, and never. Respondents who stated that samosir goats are often sold outside the region as much as 38 people with a percentage of 69%, parameters sometimes as many as 13 people with a percentage of 24%, and parameters never as much as 4 people with a percentage of 7%. So that it can be seen that one of the factors that influence the decline of samosir panoramic goat population is the sale of livestock in other areas. This is consistent with the statement of Pasaribu (2010) who said that the high level of livestock traded in the animal market because it is sold by the community out of the local area, can reduce the productive livestock population.

Table 5. SPSS results factors that influence the decrease in Panorusan Goat population.

Variabel	Koefisien regresi	Std. eror	T hit	Sig
Constant	3.745	1.360	2.753	0.008
Animal feed quality X_1	0.512	0,124	0.512	0.611
Animal feed quantity x_2	0.831	0,116	0.831	0.410
Sales of live stock in	-0.759	0,301	-0.759	0.452

other areas .X_3	
R^2: 0,855 F hit: 57.794	

Source: Data processed from appendix 3

4.Conclusion

Based on the results of the study, it can be concluded that the factors that influence the decline in Panorusan Goat population in Pangururan Sub-District, Samosir Regency are environmental factors <0.05 which is 0,000 which causes a decrease of 5 birds / month, a significant effect on the decline in Panorusan Goat population was sales of goat to other areas. Panorusan goat was used fromany occasion by people out side Samosir, even to Java Island. People used Panorusan Goat for sacrificing due to ancient believe/Permalim/Kejawen.

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