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The Pattern of People's Livestock and the Sustainability Status of the Livestock Area (*Peruweren*) of Blang Paku and Uber-Uber in Bener Meriah Regency

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Abstract

This paper aims to discuss the pattern of smallholder livestock farming and the status of the sustainability of the Blang Paku and Uber-uber livestock areas (peruweren) in Bener Meriah Regency. The data collection method used in this paper is through participant observation, in-depth interviews, surveys, document studies, and literature studies. Data analysis used an ethnographic approach and the RAP-BANGKAPET approach. The results showed that the general pattern of animal husbandry practiced in the Blang Paku and Uber-Uber areas was to make fences on the shepherd's land, although there was also a model of freelance rearing in the morning and evening to be put in the cage. The overall calculation results show that the achievement of the area management sustainability index is 29.01. Such an index value is included in the Poor category and is closer to bad. The status of this area as a whole is less sustainable.

Keywords: Livestock Pattern, Sustainability Status, Peruweren, **DOI :** 10.29103/icospolhum.v3i.139

1. INTRODUCTION

One of the problems that has plagued human civilization nowadays is food security (Barrington, 2010). Food safety is not only seen as a matter of whether food elements are safe or not, but also related to the accessibility of food ingredients. This accessibility problem lies in the food regulation itself. The case in Indonesia, for example, is that the demand for food often leads to import solutions (read Uly, 2021) without significantly improving the upstream food supply sector. This case can also be seen in the governance of meat needs over the past decade. In increasing domestic meat production, the government has given birth to various programs, one of the most recent is the Mainstay of the Country Commodity Cattle and Buffalo Program (SIKOMANDAN) campaign.

This program aims to increase the national population of cattle and buffalo which in turn can meet the national demand for meat. However, in reality, the practice of traditional cattle/buffalo farming is starting to be marginalized for various reasons. This fact is very contradictory to conditions in the past when traditional cattle/buffalo farming practices were proven to be able to meet the meat needs of each community. However, when it is integrated into national food management, local sources of animal protein food seem marginalized. This condition is also indicated in the Gayo community's traditional livestock systems, one of which is in Bener Meriah Regency.

The Bener Meriah Regency Government in 2011 has established special grazing areas in Uber-uber and Blang Paku, Mesidah District. The determination of the special area is stated in Qanun/Perda No. 05 of 2011. The area of the special livestock area is 4,166 ha. One of the objectives of the Qanun is to increase the enthusiasm for traditional farming in the community (mainly buffalo) through the tradition of breeding or called peruweren.

Peruweren is a livestock pattern that relies on extensive grazing land (blang uwer) and stables (uwer) as its central point (Hurgronje, 1996; Nasution, 2019; Nasution. et al, 2020). Previously, in the peruweren tradition, the wild escape pattern was a common pattern practiced by the community. But now, this pattern has begun to be abandoned, so it is predicted to result in the loss of local community values and wisdom related to traditional farming practices.

In the context of special grazing areas, there are several patterns of animal husbandry practices carried out by breeders in these special areas. This shows that the qanun issued by the government of Bener Meriah Regency has not been implemented properly. This condition is caused because there are several structural and cultural obstacles from optimizing the use of this special livestock land (Nasution, 2021). According to Sari, et All.(2020) the fundamental thing that has contributed to hindering the development of people's buffalo livestock in the Gayo Highlands is inadequate governance.

Another effort that needs to be explored is whether the various existing livestock patterns contribute to the achievement of the index and the sustainability status of the area. For this reason, it is necessary to calculate the index and status of special livestock areas in Blang Paku and Uber-uber. The urgency of calculating the sustainability index is due to the existing optimizing the use of areas that have not yet been implemented, also because there are still frequent conflicts over land use in special livestock areas (See Polres Public Relations, 2019).

This paper attempts to look at the variations in husbandry patterns practiced by breeders in the special livestock area (Peruweren) and how the index and status of the sustainability of livestock areas (Peruweren) exist in Blang Paku and Uber-Uber, Mesidah District, Bener Meriah Regency. Therefore, this paper focuses on livestock farming patterns in the Blang Paku and Uber-Uber areas and measures the livestock area sustainability index from five dimensions.

Studies on the sustainability status of area-based livestock systems are carried out in various fields of study with the aim of determining how sustainable livestock areas are. This study was conducted by Igirisa, et al (2020) regarding the stages of implementing livestock system development, related to the sustainability status of livestock areas and areas in Bondowoso (Ramadhan et. al 2014), as well as a study of area development conducted by Mayulu, (2019) in East Kalimantan.

In the context of Aceh, studies related to regional livestock systems have not received much attention. This happens because community livestock systems that rely on local knowledge do not have competitiveness in market circulation in Indonesia in general.

Apart from the study from Nasution A.A. (2019, 2020) regarding Uwer and Peruweren is the starting point in the implementation of this paper. This is because in the Gayo community, the existence of local knowledge related to the livestock system is an important capital in the management of area-based livestock (zoning) and has a dimension of sustainability (Mulyadi, et. al: 2015). The results of research in 2021 concerning obstacles to the implementation of Qanun Number 05 of 2011 concerning the Establishment of special livestock areas in Bener Meriah show several findings. Structurally, the implementation of this regulation is hampered due to a lack of socialization and an area management system that has not been patterned in a standard way. Meanwhile, culturally, the pattern of management of existing special livestock areas also does not fully adopt the principles and values of peruweren practices as they are. (See Nasution, Iromi and Rizky; 2021).

2. METHOD

This research was conducted in the Blang Paku and Uber-Uber areas, Mesidah District, Bener Meriah Regency. This area is the only area with a Gayo identity that has established a policy for determining a special location for livestock (peruweren) which was decided through the district qanun. Thus the government realizes that animal husbandry is an important occupation of the Gayo people's livelihood and has become part of their cultural identity.

The data collection technique was carried out in 5 (five) stages, first, participant observation was carried out by going directly to the location and participating in livestock activities to see the condition of the special livestock area (peruweren) and around the area. Second, in-depth interviews were conducted with selected key informants from breeders and area managers. Third, the survey was conducted as a census effort of all livestock business actors involved in the utilization of special livestock areas in Uber-Uber and Blang Paku. Fourth, a document study was conducted to obtain secondary data as a support, and fifth, a literature study was conducted by other researchers on issues related to this research.

The data analysis used in this study is divided into two, namely; first, descriptive analysis according to the field of social sciences analyzes variations in livestock patterns in special livestock areas through the ethnographic approach of Spradley's version (1979), and second, the RAP-BANGKAPET approach with the Multi-Dimensional Scaling (MDS) method to assess the index and status of sustainability as well as identify sensitive attributes that influence the sustainability index in each dimension through leverage analysis.

3. RESULT AND DISCUSSION

3.1. Determination of Livestock Areas in Bener Meriah Regency

Bener Meriah Regency was established through Law Number 41 of 2003 concerning the Establishment of Bener Meriah Regency in Nanggroe Aceh Darussalam Province, which is a division of Central Aceh Regency. Location of the Peruweren Farm is a location in Bener Meriah Regency which was previously used as a buffalo grazing area. In 1969, the district government of Central Aceh determined cattle grazing locations, one of which was Uber-Uber and Blang Paku.

The location of livestock (peruweren) has been practiced by the community for generations and has become an area of customary land based on customary law. Over time, the exploitation of plantation land has penetrated to the location of livestock in Uber-Uber and Blang Paku. This resulted in frequent problems between farmers and breeders which resulted in losses for breeders.

Besides advancing the business world in the livestock sector, efforts to preserve tradition for sustainability have moved the Regional Government in an effort to establish regulations on livestock areas through Qanun 05/2011 as livestock areas (peruweren) located in Uber-Uber and Blang Paku, Mesidah District. This area is the location of traditional livestock farming and has been carried out communally by the local indigenous people for generations whose existence is still recognized today. The main reason for the area being defined in the ganun was because the breeders fought for this replacement land due to the conflict between breeders and farmers. The farmers have divided the peruweren land to be used as plantation land. Meanwhile, breeders are fighting for the Uber-Uber and Blang Paku breeding areas (peruweren) so that they remain as stable areas.

In Qanun 05 of 2011 it is stated that in the Peruweren area, natural resources can be utilized on the basis of the regent's approval and regulated by the Bener Meriah Regent's Regulation. At present, the Peruweren area also utilizes natural wealth in the form of wood and forest products by PT. Tusam Hutani Lestari (THL).

This is because in ancient times the company watered amboina pitch tree and pine seedlings using a helicopter, causing the peruweren area to become a resin and pine forest Until now, in the livestock area, PT. THL is still logging and transporting wood using transport trucks which can always be seen going in and out of the Uber-Uber and Blang Paku Peruweren Areas.

Based on this condition, there are problems in the implementation of Qanun 05 of 2011, including: (1) The dissemination of the qanun is still very limited; (2) Overlapping occupation of land in livestock areas between breeders and planters; and (3) There is no security guarantee for the internal released in the livestock area.

3.2 Variants of Livestock Patterns in the Peruweren Region

There are two variants of the livestock pattern carried out by breeders in the Uber-Uber and Blang Paku Areas, including:

a. System (Semi) Release Wild (pouring out)

The livestock pattern with the semi-wild release system model is the livestock pattern with the release of livestock (cattle/buffalo) illegally, but the release area is already limited. The release point is marked with the uwer building (drum/hut) in the peruweren area. The release process uses certain rituals that have been believed by the community for generations. But in this process, not many breeders practice it. This means that only a handful of breeders apply this semiwild release system in the Uber-Uber and Blang Paku switching areas.

b. Intensive System Cage

The livestock pattern with an intensive system cage model is a livestock pattern that is carried out by means of livestock that are kept in intensive pens. This aims to fatten the livestock and make the livestock easy to control. In this intensive system cage model, usually the farmers will deliver food (grass) every day to the livestock that are kept in the fenced-in enclosure area.

3.3 Livestock Patterns in the Peruweren Region

In looking at livestock patterns in the Peruweren Region, there are several points that form the flow of livestock patterns that can be seen in this Peruweren Region. First, starting from the breeder. Breeders are a person or group of people who carry out livestock activities. Second, uwer master or can be called regional leaders. In this area there are 2 uwer master who are fully responsible for the livestock area (peruweren).

Third, individuals and groups of breeders. Uwer master is also responsible for taking care of the breeders, either individuals or groups of breeders. The number of private/individual breeders in this area is around 40 people, while the number of farmer groups in this area reaches 126 people which are divided into 9 farmer groups. Fourth, Uwer or known as kendang. Usually uwer is owned by an individual or a combination of one person and another. Fifth, in the mechanism of the uwer function, there are three models used by breeders, including; (1) The fence is closed, (2) In the morning and in the evening they are kept in a cage, and (3) Free prison (semi-release wild). The following is a flowchart of the five patterns of livestock farming in the Peruweren area.

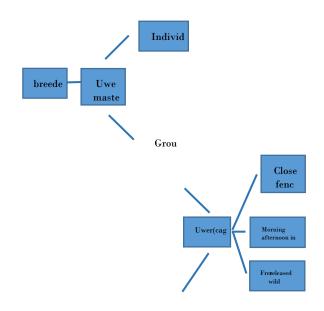


Chart 1. Livestock Pattern in *Peruweren* Area

3.4. Sustainability Index of the Special Livestock Area (Peruweren) Blang Paku and Uber-Uber

There are 5 (five) dimensions that are seen in measuring the sustainability index of the Blang Paku and Uber-Uber livestock special areas, namely; Legal and Institutional Dimensions (HK), Economic Dimensions (EKO), Technology and Infrastructure Dimensions (IT), Socio-Cultural Dimensions (SB), and Ecological Dimensions (ECG). Meanwhile. The total indicators or attributes that characterize all dimensions are 32 items. The 32 attributes arranged according to their dimensions are as follows:

a Legal and Institutional Dimensions

The legal and institutional dimensions are aspects whose indicators are measured to estimate the relationship between the existence of livestock areas in Blang Paku and Uber-Uber to the laws and institutions adopted by the community. Based on the results of the analysis of the data obtained, of the 10 attributes compiled to measure legal and institutional dimensions related to the sustainability index of the Blang Paku and Uber-uber livestock areas, so that it is known that none of the attributes received the maximum value.

b. Economic Dimension

The economic dimension is an aspect whose characteristics and indicators are measured to estimate the relationship between the existence of livestock areas in Blang Paku and Uber-Uber to the community's economy. In this dimension there are at least 9 attributes that are seen. Based on the existing data, it is known that the values achieved for each attribute based on the real conditions vary widely. It's just that not all attributes get the maximum value.

c. Technology and Infrastructure Dimensions

Not much different from the achievement of the attributes in the previous dimension, the attributes in the Technology and Infrastructure Dimension studied in this study also show the same symptoms. If on the economic attribute there are still attributes that get the maximum score, but none of the achievements of the Technology and Infrastructure (IT) dimension attributes get the maximum score.

d. Social and Cultural Dimensions

The Social and Cultural Dimensions are measured using eight attributes which include; Socialization of Occupation (Individual or Group), Number of Livestock Worker Households, Growth of Livestock Workers (Last 5 Years), Frequency of Conflicts Related to Livestock Businesses, Business Alternatives Apart from Livestock Agribusiness Businesses, Time Allocation for Livestock Businesses, Population Growth and Community Role in Livestock Management Business. Based on the available data from the eight attributes, none of the attributes received the maximum score.

e. Ecological Dimension

The ecological dimension was carried out in the Blang Paku and Uber-uber breeding areas in Bener Meriah Regency, which was measured using 10 attributes. Based on the existing data, it is known that the value achieved for each attribute is still not optimal.

- 3.5. Sustainability Index and Status of Balng Paku and Uber-Uber Livestock Special Areas
- a. Stress Value and Squared Correlation (RSQ)

In order to ascertain whether the equations used in discussing the formulation of the problem with the Multi-Dimensional Scaling Method are in good condition, the Stress and Squared Correlation (RSQ) levels are measured. The stress value is 0.1312916 with an RSQ value of 0.9447724. In accordance with the reference that a calculation model will be considered good if the S-Stress value shows a value of <0.25 and the RSQ is close to 1. If we look at the results of the stress and RSQ values above, it can be said that the MDS results in this study can be considered a good model. and can represent the problem being discussed. This is because the Stress value is 0.9447724 which is close to 1.

b. Sustainability Index and Status

Regarding index and status conditions, two dimensions are in the bad category with unsustainable status while the other three dimensions are in the Less category with less sustainable status. With the achievement of the sustainability index, none of which is in optimal condition, this shows that in order to

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make special livestock areas used for the long term, it requires joint efforts. With the sustainability index of each dimension which is only in the range of 20.2 to 41.7, this indicates that greater effort is needed to increase the sustainability index for the management of this specific livestock area. The overall calculation results show that the achievement of the area management sustainability index is 29.01. In accordance with the criteria, the index value is thus included in the Poor category and is closer to bad. The status of this area as a whole is less sustainable. See table below:

	-	Farmin	g Areas	Ū.	
Fisheries	Sustainability Index				
	Law	Ecology	Economic	Technology	Social
Special Area For Livestock in Blang Paku and Uber-uber	41,7	20,2	29,5	23,6	30,1
Category	Less	Bad	Less	Bad	Less
State	Less Sustainable	Not Sustainable	Less Sustainable	Not Sustainable	Less Sustainable
ource: Research	Analysis, 2022				

Indexes Table, Categories and Sustainable status of the Blang Paku and Uber-uber

4. CONCLUSION

The determination of livestock areas in Uber-Uber and Blang Paku through qanun 05 of 2011 carried out by the Bener Meriah Regency government is a form of effort to advance the livestock sector and efforts to preserve customs. It's just that in the management of the area there are many deficiencies so that optimization of the utilization of the special livestock area does not run optimally.

The general pattern of animal husbandry practiced in the Blang Paku and Uber-Uber areas is to make fences in the shepherd's fields, although there is also a morning and evening free-range rearing model that is put in cages. The overall calculation results show that the achievement of the area management sustainability index is 29.01 Such an index value is included in the Poor category and is closer to bad. The status of this area as a whole is less sustainable.

Based on this, it is necessary to structuring the area management model by adopting the local wisdom of Peruweren who lives in the Gayo community and must also be encouraged by relevant stakeholders. Then there must be law enforcement for the implementation of Qanun No. 5 of 2011 by starting through more intensive socialization.

The first author is the leader who organizes research activities from proposal preparation to writing the research report. The second to last author is responsible for assisting data collection by field work, analysis and report writing.

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