



Development of Dairy Cattle Commodities in Supporting the Regional Economy

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Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 22 Nov 2023	<p><i>The development of dairy cattle in Enrekang Regency is very rapid and is used as a commodity in the region. Therefore, this study aims to determine and analyze the development of dairy cattle commodities as a support for community and regional income. This research is carried out with a qualitative approach through literature/literature studies where data collection is carried out through observation and document review, while data sources come from government documents, journals, books, news, and websites. The results showed that dairy cows have a great influence in supporting the economy of the community and the region, almost all sub-districts in the Enrekang Regency area develop dairy cattle commodities, and people's income relatively increased and makes housewives productive in raising dairy cattle. In addition, the development of dairy cows is also carried out through the milk produced, the community utilizes and makes use of dairy cows.</i></p> <p>Keywords: Dairy Cow; Commodity Cattle; Economic Support; Regional Economy.</p>
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1. Introduction

Milk is a nutritious food that is rich in animal protein. The need for animal protein from the people of South Sulawesi continues to increase from year to year in line with the increase in population, economic improvements, and the level of awareness of people's nutritional needs, knowledge, and technology. Milk consumption by the people of South Sulawesi has only reached 16.4 kg or 15.97 liters per capita every year (Mutmainnah et al., 2019; Amam et al., 2021). The development of dairy cows has a significant positive impact, not only in meeting the milk needs of society but also in improving the household economy. Dairy cows produce high-quality milk which is an important source of nutrition for humans, both for direct consumption and processing into other dairy products such as yogurt, and cheese, and local regional preparations such as dangke (Antara & Sumarniasih, 2020). Apart from that, the dairy industry also provides large economic benefits in creating jobs for livestock breeders, animal feed farmers, as well as dairy and food industry players. During the milk production process, various related businesses such as processing, distribution, and sales also develop, creating additional economic opportunities. In addition, increasing dairy cattle productivity through genetic selection, good care, and efficient management can significantly increase farmers' income (Alviawati et al., 2016). Dairy cattle have been developed in many areas to support the supply of milk and an additional source of the community's economy.

Dairy cattle have become a significant commodity in various regions, where their development plays an important role in supporting the community's economy (Kurniawati et al., 2016). With the production of high-quality milk and business opportunities resulting from dairy farming, this sector has provided employment, additional income, and business opportunities that have a positive impact on society, which in turn can increase local and regional economic growth, one of the regions being a center Dairy cattle as a commodity, namely South Sulawesi, which has developed dairy cattle, in several districts within South Sulawesi Province, many dairy cattle have been cultivated, one of which is Enrekang District. The development of dairy cattle in Enrekang Regency has great potential to revive the household economy. By paying attention to aspects such as selecting quality cattle breeds, good care, and efficient management, dairy farming can become a stable source of income for local communities.

Quality milk production can be processed into milk products such as dangke and milk chips, which can then be sold locally and in wider markets (Sirajuddin et al., 2013).

Reviving the production of processed milk from dangke in Enrekang Regency is a great opportunity to develop the regional economy and preserve local cultural traditions. Dangke is one of the traditional dairy products typical of the region which is made from fermented cow's milk. To increase the production and quality of dangke, several steps can be taken. Apart from Dangke, Enrekang Regency also has a variety of dairy products from dairy cows which have the potential to develop the local economy. One of the superior products is fresh milk, which can be sold directly to consumers or used as raw material for other dairy products such as chips and other preparations (Abidin, 2018). Apart from that, Enrekang Regency has the potential for rich natural and cultural resources as additional ingredients in making dangke, such as local spices or the addition of traditional spices. By utilizing this, the development of dairy products can play an important role in improving the regional economy of Enrekang Regency and also become one of the commodities for culinary tourism with the characteristics of the region.

In previous research on the topic of dairy cattle in supporting the regional economy, dairy cattle commodities greatly influence the economic conditions of the community. This is because processed milk is used by the Enrekang people to make dangke and other chips (Nurhaedah et al., 2019; Muh. Ridwan, 2017). Based on the problems above and various previous studies that relate to the topic of dairy cattle commodities, it can be categorized that currently, there are still very few studies or research results that are more specific and simultaneous in discussing the development of dairy cattle commodities to support the regional economy, especially taking case studies in Enrokang Regency. So this is the novelty of this research, apart from that there is still very little research found that elaborates the study of superior commodities with an analysis of economic support approaches. The research questions to answer the problem include (1) How is the development of the dairy cattle commodity? (2) Does the dairy cattle commodity contribute to the economy of the community and the region of Enrekang Regency? These two questions make it possible to answer the research objective, namely knowing and analyzing dairy cattle commodities in supporting the economy of the community and region of Enrekang Regency. The answers to these two research questions will be used as evaluation material for the Enrekang Regency government in the future to pay more attention to dairy cattle commodities in the region.

2. Materials And Methods

This research method uses a qualitative approach and a literature study. The data collection stage is observation and document review. Research observations were carried out by directly observing dairy cattle commodities in the Enrekang Regency area. The document review was carried out by conducting an in-depth study and examination of the literature available on the Enrekang Regency government website and documents. Apart from that, document review was also carried out by collecting other relevant documents from journals, books, and online news. The data processing and analysis stage is carried out by presenting data, reducing data, and drawing conclusions. The research data that has been processed is then validated in the form of descriptive sentences which are visualized in the form of paragraphs. The research results that have been processed are then analyzed to answer research questions.

3. Results and Discussion

Development of Dairy Cattle as a Commodity

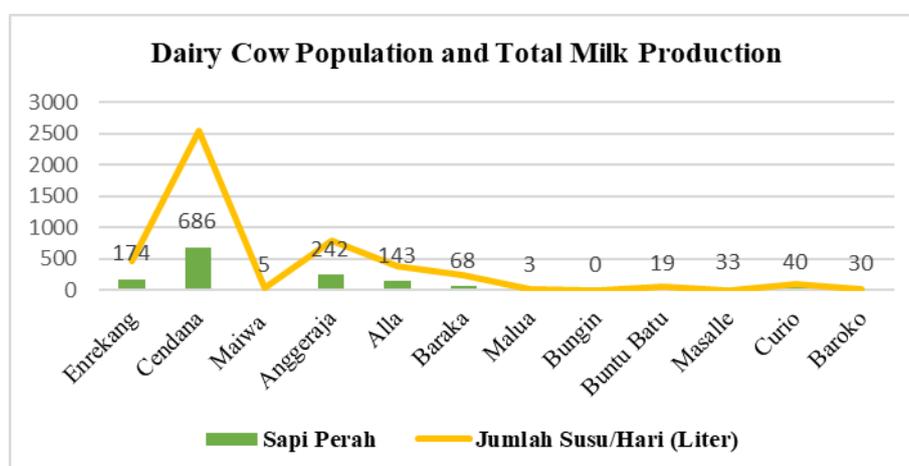
Dairy cattle have become a valuable commodity because of their significant contribution to improving the community's economy. The presence of dairy cows not only provides a food source in the form of nutrient-rich milk but also opens up profitable business opportunities. Dairy farming allows farmers and livestock breeders to earn a stable income through the sale of milk, meat, dangke milk derivative products, and other processed chips in Enrekang Regency. The dairy farming sector also creates local jobs, helps reduce unemployment rates, and improves the standard of living of people in rural areas. In addition, dairy cows also contribute to sustainable agriculture, because they can be used to cultivate agricultural land using cow power, which in turn can reduce dependence on more expensive agricultural machinery. In addition, milk and milk products are an important part of the daily diet, helping to improve people's health and nutrition (Aisyah et al., 2021). As in the picture below, the condition of dairy cows in Enrekang Regency



Figure 1. Dairy Cattle as a Commodity in Enrekang Regency, 2023

Figure 1 shows that dairy cattle in Enrekang Regency are kept exclusively because dairy cattle are used as a community commodity for their livelihood. Through processing cow's milk which is then processed with various forms of food and other processed chips. Apart from that, dairy cow's milk can also be bought and sold by local people and become additional income for the community. Dairy cows have various benefits both in terms of the milk produced and in terms of community use as a commodity. With the presence of dairy cows that are raised by the community, it is also possible to open up employment opportunities for the community. Dairy cow milk will increase in quality and quantity if wholesalers/KUD guide farmers, in addition to providing *cooling units* in villages that are far away so that sales do not go to collecting traders and shorten the time for milk to arrive-*cooling units* (Setiyowati, 2020). Apart from that, the distribution of the dairy cattle population in Enrekang Regency is very growing, as can be seen in the table below.

Graph 1. Dairy Cattle Population and Milk Income by Sub-District in Enrekang Regency



Source: Nurhaedah et al., 2019

Graph 1 shows that of the 12 sub-districts in Enrekang Regency. The sub-districts that have the largest dairy cow populations are Cendana and Anggeraja Districts, while the smallest dairy cow populations are in Bungin and Malua Districts. Meanwhile, the highest daily quantity of dairy milk produced in liters is in Cendana and Anggeraja Districts. There is also a sub-district that has a dairy farm but does not produce milk, namely the Masalle sub-district. Livestock development in each region also requires further study by paying attention to the characteristics of livestock areas, including having to adapt to natural conditions, having superior livestock or strategic livestock, spatial allocation of areas developed by the community around the area, and the majority of community income coming from livestock businesses. Suitability of land, availability of green fodder, waste from agricultural products, and skilled human resources as well as considering sustainability based on a fundamental understanding of nature, natural characteristics of land, and livestock behavior are strategic steps in utilizing resources optimally in placing livestock in an area (Rusdiana & Soeharsono, 2019; Islami et al., 2022). To see the segmentation of dairy cattle as supporting the community and regional economy.

Dairy Cattle Commodity Supports Community and Regional Economy

Revenue from dairy cows is obtained from the sale of production results which include the sale of milk and calves. Meanwhile, all product components that are not sold must be valued based on market prices. Thus, the total revenue from sales of livestock value during the year plus sales of production results. Farmers' income in Enrekang Regency consists of calf sales, milk sales, and dangke sales. The average income per farmer is based on the livestock severity scale in dairy farming businesses in Enrekang Regency. The average income from dairy farming businesses in Enrekang Regency consists of sales of calves, milk, and dangke in 2 months. On a scale of 1-5 birds, the average receipt is IDR 11,160,000, - on a scale of 6-10 birds the average receipt is IDR 21,240,000, - on a scale of 11-15 birds, the average receipt is IDR 26,094,000, - on a scale of 16-20 animals, the average receipt is IDR 25,613,000. The largest income received by farmers is from the sale of dangke, then the sale of calves, and the sale of milk. Revenue is obtained from sales of production output (Islam & Alauddin, 2018).

The profits of a dairy farming business in Enrekang Regency can be calculated from revenues minus the average expenditure. Revenue consists of milk sales, calf sales, and dangke sales over two months. Meanwhile, expenses consisting of fixed costs for the dairy farming business in Enrekang Regency can be said to be profitable, because on a scale of 1-5 heads the average profit is IDR. 10,073,175 /2 months, with an R/C ratio of 10,268 on a scale of 6-10, with an average profit of Rp. 19,701,058/2 months, with an R/C ratio of 13,801 on a scale of 11-15 animals, the average profit is Rp. 24,001,702/year, with an R/C ratio of 12.471 on a 64 scale 16-20 tail, the average profit is Rp. 22,282,000 / year, with an R/C ratio of 7.689. The greater the R/C ratio, the more efficient the business will be. Factors that influence the ownership scale of 6-10 heads with a higher R/C are that the number of breeders is around 6 people and the amount of income and expenditure costs are only small compared to other ownership scales, factors that influence the scale of 11-15 head of high R/C ratio namely the amount of revenue is greater than with the ownership scale of 1-5 and 6-10 birds, the factors that influence the ownership scale of 1-5 birds have a moderate R/C ratio, namely the number of owners is around 5 people, whereas, at the ownership scale of 16-20 birds, there is only 1 person has the amount of ownership, but the amount of income obtained is higher compared to other ownership scales, as well as the amount of expenditure is also high (Tansil, 2022).

4. Conclusion

This study found that one of the people's income and regional income of Enrekang Regency came from dairy cattle. The use of dairy cows in Enrekang Regency has a major impact on the economy of the local community. Dairy cows raised by the community generally produce milk that is traded directly. In addition, dairy milk is also processed by the community into dangke, and chips are then traded locally and regionally. The development of dairy cattle in Enrekang Regency is generally very helpful for the community in economic problems so the community is very serious about raising dairy cattle. The limitation of this study lies in the access to data collection that dominates the trail of documents in the form of journals and books.

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