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Community Empowerment Practices Based on Mawah Local Wisdom in the Cattle Fattening System at the PT PHE NSO Assisted Breeder Group

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Abstract

Background The consumption of meat in Aceh Province is among the highest in Indonesia. However, this condition is not supported by cows farming practices, which are still managed traditionally. The cow fattening and breeding programs are strategic efforts to improve the economic welfare of rural communities, including in Aceh Province. Additionally, the Acehnese community possesses local knowledge and practices known as 'MAWAH,' which can be utilized as a system to enhance economic welfare in the livestock sector. Mawah is a traditional practice that involves cooperation between capital owners and local farmers, allowing for the fair and sustainable distribution of profits. PT Pertamina Hulu Energi (PHE) - NSO has integrated these elements into its Corporate Social Responsibility (CSR) program named SAPIKU. This study aims to analyze the sustainability and conditions of the SAPIKU Program.

Methods The approach used in this research is a qualitative approach with methods of observation and literature review. The qualitative data analysis involves identifying patterns and factors that influence the success of the program.

Results The results show that the active participation of the community, village government, and the company are key factors in the program's success.

Conclusions The SAPIKU program should apply sustainable and innovative approaches, such as livestock technology and efficient management, to improve economic and environmental impacts. This strategy will support farmers' welfare and meet long-term beef demand.

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Keywords

Cows; Local Wisdom; Mawah; CSR; SAPIKU Program

Introduction

In 2021, the World Food Organization (FAO) ranked Indonesia as one of the countries with the lowest red meat consumption among countries in Southeast Asia (FAO, 2021). This condition needs government intervention to increase meat consumption in various regions. Based on BPS data attached to the National Socio-Economic Survey conducted in 2022, there are several regions with massive red meat consumption even though it is not carried out for massive daily consumption (BPS, 2023). Aceh Province is one of the regions with high red meat consumption in certain periods, especially when approaching Muslim holidays or months of celebrating Islamic holidays such as Maulid Month. Red meat consumption in Aceh for any given period can reach 49.80 kcal in rural areas, and 57.76 kcal per individual, or around 270-350gr of red meat. Compared to other regions in Indonesia, Acehnese red meat consumption is in the middle tier.

The main source of red meat consumption in Aceh Province comes from traditional farms scattered in various suburban to rural areas in Aceh. It is not uncommon for these traditional farms to also practice the local knowledge of mawah in cattle asset management activities. Mawah is a traditional financing and investment mechanism that has been practiced by rural communities in Aceh for generations (Mukhtasar, 2020). The mechanism that occurs in this transaction is that the owner of the capital or assets authorizes the head of the household/other individuals to manage the capital or assets, where the capital/assets can be in the form of land for agriculture, or oxen/cattle for animal husbandry. Then after the entrusted assets produce, profit sharing is done with a certain percentage.

In the modern context, several large companies have begun to adopt and develop the mawah system as part of their cattle fattening and breeding programs. These companies not only see the economic potential of this program, but also seek to combine it with local wisdom to create a sustainable and community empowerment-oriented business model. The program is considered capable of increasing livestock productivity and expanding market access for livestock products, while still respecting local cultural values, and PT Pertamina Hulu Energi (PHE) - NSO (hereafter PT PHE NSO) is no exception with its SAPIKU program, an acronym for Productive and Superior Aceh Cattle.

Seeing the complexity faced in running the cattle fattening and breeding program, PT PHE NSO carried out the program implementation process by collaborating with several stakeholders such as Bina Tani Mandiri Foundation as a Civil Society Organization (CSO), Muara Satu District Government as the local government of the community in the company's ring 1 area, as well as representatives of community groups in Gampong Meunasah Dayah. The selection of Gampong Meunasah Dayah as one of the pilot projects of the cattle fattening and breeding program is also based on an assessment conducted by stakeholders by considering aspects of vulnerability in the community. Since 2021 until mid-2024, a series of programs that have been carried out are the process of fattening and breeding cattle through interventions in cattle feeding patterns. In addition, the management of livestock manure into fertilizer was also developed, which can be used to reduce the cost of fertilizer needs for community-owned agricultural land, as well as public facilities such as village food gardens.

Previous research on the mawah system in Aceh shows that this practice has strong roots in local culture and is able to create a mutually beneficial relationship between livestock owners and managers (Syahwal, et al., 2023). According to Munardi (2021), mawah not only serves

as an economic mechanism but also strengthens social solidarity within the community. However, challenges in mawah-based livestock development include limited access to modern technology and capital, which is often a major barrier to improving productivity (Safarida, 2017). At the national level, fattening and breeding cattle has been a major focus of livestock policy, with the government encouraging private participation to increase the scale and efficiency of production. In this context, companies operating in Aceh face the challenge of integrating traditional practices such as mawah with modern technology and efficient business management. According to Munardi (2021), the development of local wisdom-based programs has the potential to improve the sustainability of livestock enterprises, but requires a holistic and participatory approach.

In an effort to understand and optimize this potential, this study focuses on the analysis of fattening and cattle breeding programs by companies in Aceh that are based on the local wisdom of mawah. It aims to identify the successes and challenges of these programs, and provide recommendations for the development of more effective and sustainable models in the local Acehnese context.

Methods

This study uses a qualitative approach to examine in depth the practice of mawah local knowledge in the context of fattening and breeding cattle in Aceh. This study uses qualitative methods with a descriptive qualitative approach. Creswell (2014) states that the purpose of qualitative research is to describe, explore, and understand the meaning by a number of individuals or a group of people who come from social problems. Taylor and Bogdan in Moleong (2010) suggest that qualitative research is a research procedure that produces descriptive data in the form of written or spoken words from people and observable behavior. The use of qualitative methods in this study includes several reasons, including qualitative research makes it easier for researchers to see the existing reality, by leaving the reality as it is without intervention from the researcher (Berg, 2007). In addition, according to Schwartz and Jacob in Berg (2007) qualitative research can adjust to the elements that appear in the field, and presents directly the relationship between the researcher and the subject / object of research. The qualitative approach was chosen because it allows researchers to understand complex social and cultural phenomena by placing people's experiences and perspectives at the center of the analysis.

Observations were conducted in several villages in Aceh that implement mawah practices in cattle management. This observation aims to directly observe how mawah is implemented, including the relationship between cattle owners and managers, profit-sharing patterns, and social interactions that occur in the process. The participant observation technique is used to obtain richer data, where researchers are involved in the daily activities of the community, such as cattle care, feeding, and decision-making related to fattening and breeding cattle. Data collected through observation was recorded in the form of field notes which were then thematically analyzed.

In addition to field observations, this study also conducted a literature review related to mawah practices and cattle management in Aceh. The literature used includes previous studies, books, journal articles, and local documents that discuss the local wisdom of mawah and its relation to the development of the livestock sector. The literature review aimed to provide theoretical and historical context for the practice of mawah and to understand how

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it has adapted to social, economic and technological changes. The literature review was also used to identify challenges and opportunities in the integration of mawah with modern cattle fattening and breeding programs.

Data obtained from observation and literature review were analyzed qualitatively using a thematic analysis approach. The analysis process included identification of key themes emerging from the data, data coding, and thematic interpretation focusing on an in-depth understanding of mawah practices in the context of Acehnese economic empowerment. The results of this analysis were then synthesized to provide a comprehensive picture of the role of mawah in livestock management and its potential for future development.

In this qualitative research, the main instrument used to collect data related to mawah local knowledge practices is the researcher himself, who acts as a data collector and analyzer through observation and literature review methods. This requires the researcher to be close enough to the words generated by the data, so that it does not require in-depth researcher interpretation (Sandelowski, 2000). The instrument was designed to capture the complexity and depth of mawah practices in the context of cattle fattening and breeding in Aceh.

The observation instrument used in this study involves an observation guide that contains a list of key aspects that will be observed during field research. These aspects include:

- The structure and dynamics of the relationship between livestock owners and managers (mawah).
- Decision-making process related to livestock management, such as profit sharing, animal care, and feed purchase.
- Daily activities in fattening and breeding cattle, including the social interactions that occur between the parties involved.
- The role of local wisdom in maintaining the balance between economic and social in the practice of mawah.

This observation guide is designed to be flexible, allowing researchers to adjust the focus of observation based on the emerging field dynamics. Data collected through observation was recorded in the form of field notes, which were then analyzed thematically.

The literature review instrument included a list of literature sources relevant to mawah practices and livestock management in Aceh. These sources were selected based on criteria of relevance, validity and coverage of contexts that fit the focus of the research. The literature review instrument involved:

- Literature identification and selection: Books, journal articles, research reports, and local documents that address mawah practices and the socio-economic context of Aceh.
- Literature analysis guidelines: The criteria used to analyze the literature included theoretical relevance, contribution to the understanding of mawah, and practical implications in the development of the livestock sector.

The literature review was conducted systematically to ensure that all relevant aspects of mawah and livestock management in Aceh were covered in the analysis. To ensure data validity and reliability, triangulation was conducted by combining field observations and

findings from the literature review. The researcher also double-checked the data collected through discussions with key informants, to ensure that the interpretation of the data matched the reality in the field. This section does not need to include a definition of the design according to theory. Simply summarize the research design used.

Results and Discussion

Local Practices of Mawah and Economic Relationships

Mawah is a traditional practice deeply rooted in Acehnese culture, especially in the context of livestock management. It is a form of cooperation between a livestock owner and a manager, in which both parties share the responsibilities and returns of the livestock. In mawah, livestock owners entrust their animals to the manager for care, fattening or breeding, while the manager takes full responsibility for the welfare of the animals over a period of time (Ibrahim, 2012).

The practice of mawah not only reflects the economic relationship between individuals in the community, but is also a manifestation of social values that emphasize mutual cooperation, trust, and justice. On the other hand, if the mawah system is widely implemented, it can sustain the economy of rural communities at large (Mukhtasar, 2020). The system serves as a mechanism that allows for a more equitable distribution of resources among rural communities, as well as providing opportunities for those without capital to remain involved in the livestock business (Iskandar, 2022).

In addition to being part of local traditions, mawah has also adapted to social and economic changes in Aceh. The system remains relevant and thrives amid the dynamics of modernization, with some communities combining traditional elements of mawah with contemporary farming practices. Traditional elements mixed with Islamic values in mawah have priority in Islamic economic principles, namely sincerity, ukhuwah, work and productivity (Mukhtasar, 2020). This shows the flexibility of mawah as a system that is able to survive and function effectively under various conditions, both in the past and in the present.

In cattle fattening, the practice of mawah usually involves the owner giving young animals to the manager who is responsible for feed and care until the cattle reach optimal weight. For example, in Gandapura sub-district, the cattle owner usually gives one cow to the manager to fatten for six months. Once the cow is sold, the profit is shared between the owner and the manager, usually with a 50:50 or 60:40 split, depending on the initial agreement and each party's contribution (Munardi, 2021).

Flexibility of Mawah Implementation in Some Areas

Gampong Gedung Biara in Aceh Tamiang, and Gampong Geurogok in Bireun District are the two main areas that show different variations in the application of mawah. In Gampong Geurogok, mawah is more structured with a written agreement between the owner and manager, and supervision from a third party such as a community leader or village head. This aims to avoid disputes and ensure a fair share of the proceeds. In this gampong, cattle fattening under mawah has become a major source of income for many families, enabling them to pay for children's education and fulfill other needs (Munardi, 2021). In contrast, in Gampong Gedung Biara mawah is applied in a more flexible way. Agreements are often verbal and based on trust between the parties involved. Profit sharing here tends to be more variable,

with some managers receiving a smaller share as a reward for lower risk or the condition of the livestock. Although simpler, this model is still effective in building strong social relationships and supporting the local economy.

Moreover, in some communities, mawah includes not only cattle but is also applied to other livestock such as goats or buffaloes, depending on the dominant animal species in the region. This variation demonstrates the flexibility and adaptability of mawah to local conditions, allowing the system to remain relevant and function well in various environments.

PT PHE NSO and Community Development

In the midst of the current era of globalization, collaboration between actors in development is becoming increasingly important. The concept of corporate social responsibility and its impact on business has become a hot discussion among many parties. Social responsibility can be interpreted as practices undertaken by companies to create and strengthen relationships with stakeholders and the environment (Carroll, 1979). Social responsibility is one way for companies to run an ethical business and become part of society, this is then evidenced by the commitment to carry out activities and increase the company's social responsibility budget (Kim, 2018). Through inclusive and sustainability-oriented collaboration, companies can make a significant contribution to achieving more equitable and sustainable development goals, and PT PHE NSO is no exception.

Planning for the implementation of the TJSL program by PT PHE NSO has been carried out since 2018. However, in practice, in the early stages the forms of activities carried out by the company were only based on social philanthropy and infrastructure assistance. Over time, in the range of 2020-2021, PT PHE NSO began designing community empowerment programs that responded to the surrounding socio-economic conditions, namely the on-shore area in Muara Satu District, Lhokseumawe City.

Located not far from Lhokseumawe City, Muara Satu Sub-district consists of eleven villages with various topographical contours, from hills to coastal areas, making the company's ring I area has diverse potential, one of which is traditional cattle farming. On the other hand, the community in the company's ring I area has social capital in the form of joint ownership and close kinship but has not been able to maximize it in supporting economic welfare.

Based on the potential problems as well as the potential social capital, PT PHE NSO together with village and sub-district officials, and community representatives held a joint discussion forum to determine community empowerment programs that were suitable for the current conditions. This action shows PT PHE NSO's commitment in carrying out TJSL activities that are oriented towards community welfare.

SAPIKU: The Meeting Point of Local Knowledge and Social Issues

Companies have an important role to play in the preservation of culture and local wisdom. Through TJSL programs, many companies are committed to supporting cultural preservation initiatives, such as the revitalization of local traditions, support for arts and crafts, and promotion of local products with cultural value. By doing so, companies can help maintain the cultural identity of communities while encouraging economic development through the sustainable utilization of local wisdom.

SAPIKU (Superior and Productive Aceh Cattle) Program is a program initiated by PT PHE NSO together with stakeholders and community representatives in 2021. This program

initially focused on fattening the farmers' bulls to then increase the price of the cattle when sold. In the process of fattening the cattle, PT PHE NSO collaborates with non-governmental organizations to monitor and evaluate the implementation of the program. On the other hand, PT PHE NSO also collaborated with various external parties several times to conduct socialization as well as workshops aimed at improving the ability of farmers in cattle fattening efforts.

The intervention strategy through local wisdom carried out by PT PHE NSO in this SAPIKU program is to utilize the practice of mawah which has been carried out for generations by most rural communities in Aceh. Initially, in addition to rebuilding proper cages for livestock, the company provided four cows as a starter or the beginning of this program. Managing the cattle with the mawah system means that the company also monitors the sharing of the proceeds when the cattle are sold or bred. Until now, the number of cows provided and managed by the community assisted by PT PHE NSO has amounted to more than 15 cows with the group assisted increasing by one group in the span of the last three years.

The community's response to the SAPIKU program by PT PHE NSO is quite good. This is evidenced by the community satisfaction index score of 4.21 with a percentage of 84.29% (Harahap, 2023) or in the very good category. Through these results, it can be concluded that the cattle fattening program provided by the company is of high quality, effective in achieving goals, and has the potential to have a positive impact on the company's image to support sustainable development. Nevertheless, there are several factors that need to be considered, such as the development of the program in the future so that it can bring benefits to the community more broadly.

Conclusion

In a cattle fattening program, proper management is very important. The high score on the community satisfaction index survey indicates that the aspects of management, monitoring, program implementation approach, and management are good enough. And to develop this program, a number of suggestions need to be considered. First, it is important to increase active community involvement in the entire program process. Second, the SAPIKU program must be able to adapt to the needs of the community. And Third, in the development of the program, the application of sustainable and innovative approaches should be considered. This could involve the introduction of livestock or agricultural technologies, efficient management methods, and sustainable practices to reduce environmental impacts. By adopting future-oriented strategies, the program will have a positive long-term impact on the local economy, farmers' welfare, and meeting beef demand.

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