

Community Empowerment Through Integrated Cattle Farming in Muara Satu District, Lhokseumawe City, Aceh Province

*Pemberdayaan Masyarakat melalui Peternakan Sapi Terpadu di Kabupaten Muara Satu,
Kota Lhokseumawe, Provinsi Aceh*

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Abstract

Community empowerment is the responsibility of all parties as mandated by the law. The private sector must do some programs that benefit and positively impact all its surroundings. PT Pertamina Hulu Energi (PHE) North Sumatra Offshore (NSO), which operates in Aceh, has done a Corporate Social Responsibility (CSR) program by empowering the community through integrated cattle farming in Muara Satu District, Lhokseumawe City, Aceh Province. This program will be carried out by assisting with as many as twenty-two cattle and assistance to farmers for five months in 2022. Cattle assistance was provided for eleven Gampong (villages) through the Forum Geuchik (village heads) of Muara Satu District, Lhokseumawe City. This program is well implemented, marked by success in fattening and profits between Rp2.500.000 to Rp4.000.000 per head of cattle within five months of rearing. Integrated livestock can develop into a Village Owned Enterprise (BUMDes). This program allows for replication to various areas around the community development area by PT Pertamina Hulu Energi (NSO)

Keywords

breeder skills; corporate social responsibility; empowerment; facilitation; PT Pertamina PHE NSO



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1. INTRODUCTION

Rural development is one of the government's main missions to achieve national empowerment. It is a mandate from the 1945 Constitution and must be the responsibility and focus of attention of all parties, the government, the private sector, and the entire community (Rasyid et al., 2015). Many partnership development models exist, such as triple helix and Penta helix. Pentahelix is a development approach that involves the state, community, mass media, academy, and private sector (Harahap & Listyaningrum, 2022). Company involvement in the development process is realized through Corporate Social Responsibility.

The Corporate Social Responsibility (CSR) program is the obligation of every private sector to the surrounding environment. It has been covered by statutory provisions through law UU No. 40 of 2007, which states that all limited liability companies (PT) must carry out CSR programs and be budgeted for in the company's work program every year. The CSR program is a program to empower the social conditions of the community by business entities, both government and business entities, that carry out business in a work area, where the funds used are from company profit funds. (Rasyid et al., 2015), And corporate social responsibility is an extension of the government to reach the community down to the grassroots (Harahap & Maheswara, 2021).

Various efforts to develop the rural economy through various programs have long been carried out by the government, including agriculture and animal husbandry. The agriculture and livestock sector has a strategic role in achieving self-sufficiency in food, expanding employment opportunities in rural areas, a source of foreign exchange coming from non-oil and gas commodities, and will be able to increase the income of farming/livestock communities. Agricultural development includes the development of food crops, plantations, fisheries, and animal husbandry (Dwiastuti et al., 2008). The company's contribution to the development, especially the livestock sector, has been done by PT Kaltim Prima Coal in the form of utilizing ex-mining land as a location for cattle breeding (Ariayansah, 2016).

PT Pertamina Hulu Energi (PHE) North Sumatra Offshore (NSO) is a State-Owned Enterprise (BUMN) conducting oil and gas exploration activities in the Malacca Straits of Aceh Province, with a working area of 3,633 km². PHE NSO is very committed to what has been determined by the government through laws relating to social concerns for the surrounding environment. Since 2015 PHE NSO's attention to the surrounding environment has carried out various forms of programs or activities such as cultivating cocoa, sweet corn, red onions, and superior durian, developing a tempeh cracker

business, developing schools and workshops, renovating the *meunasah/geuchik* office fence, renovating the *meunasah* and bridges covering the implementation area in the administrative area of North Aceh Regency and Lhokseumawe City (Safina & Trimurni, 2022). PHE NSO's attention through CSR activities will continue until 2022 and replicate the other areas around PT Pertamina Hulu Energi (NSO) in 2023. Since that year, PHE NSO has been concerned for the environment and surrounding communities that will be carried out in several locations such as North Aceh District, East Aceh District, and Lhokseumawe City.

The implementation of the CSR program in Lhokseumawe City is carried out by taking into account the potential around it through social and economic mapping studies. The study conducted an information absorption survey through discussions with community leaders and visiting and seeing conditions directly in the local area or village. From the information and research directly to the field, it was found that problems were of concern to be handled by assisting development, providing capital through grants, and capacity building for managers to stand on their own and develop their businesses to become bigger. Community capacity building is one form of implementing community empowerment (Emawati et al., 2012).

Muara Satu District, Lhokseumawe City, is included in the PHE NSO work area (ring 1) and is part of the CSR program every year. Agriculture is one of the potentials in Muara Satu District. This is supported by the large number of vacant land that can be used for agricultural development. Agricultural waste products in the form of plants that are not fit for sale can be used as a feed source for livestock, such as cattle and goats, so it is easy to find people who carry out cattle fattening activities as part of livestock activities.

The demand for beef in Lhokseumawe City and its surroundings always increases yearly, but local breeders sometimes cannot fulfill it. This is because the people who become breeders do not have sufficient capital to fatten cattle. In addition, cattle breeders still apply traditional cattle management, namely releasing cows on grazing land, on agricultural land, or around their villages and only providing their livestock feed needs by looking for green grass around them. This condition cannot increase the maximum weight gain and size of cattle, so the results are lower, which is not economically profitable (Susilawati et al., 2022). To increase people's income and develop cattle farms, it is necessary to empower and assist them to operate farms to obtain additional income for the family. Empowerment is an activity to teach a person or group to lead themselves and improve their ability to do business (Rohim & Putranto,

2023). The integration of agriculture and animal husbandry has proven effective for the community in Selo District, Boyolali Regency (Emawati et al., 2012).

One of the determining aspects of cattle growth is the availability of sufficient fodder, especially during the dry season. Quality and sustainable feed availability in these conditions are necessary to increase productivity. This is a problem faced by farmers in Muara Satu District. Breeders are still very dependent on the abundance of forage in the rainy season but experience difficulties during the dry season. Breeders do not yet have the ability and skills to process natural resources from nearby plants such as corn leaves, rice straw, and other leaves to become good fodder for their cattle.

From the two problems obtained, PHE NSO tried to alleviate the problems faced by the community, especially cattle breeders, by carrying out a CSR program through fattening cattle in Muara Satu District, Lhokseumawe City. Specifically from the program activities carried out, it is hoped that the results will be obtained in the form of increasing the income of farming communities around the PHE NSO exploration area; skills improvement in cattle breeding; increasing the production of meat per head, increasing the amount of meat supply efficiently without slaughtering more cows, tackling the declining cattle population due to slaughter and being able to avoid slaughtering productive age female cows; support government programs in developing food production and meeting local/national needs. The specific objective of the cattle fattening program is to increase the income and knowledge of farmers/breeders around the PHE NSO exploration and activity areas.

2. METHODS

There are five steps or main activities, including (1) the survey phase; (2) the socialization stage; (3) the implementation program; (4) monitoring and evaluation. The activity was implemented for 5 (five) months from January 2023 to May 2023 in Gampong (Village) Meunasah Dayah, Muara Satu District, Lhokseumawe City, Aceh Province. The implementation of the activities was carried out in partnership with non-governmental organizations and the Forum Geuchik (Village Head) Muara Satu City of Lhokseumawe consisting of Gampong Meunasah Dayah, Gampong Meuria Paloh, Gampong Blang Panyang, Gampong Paloh Punti, Gampong Cot Trieng, Gampong Padang Sakti, Gampong Blang Pulo, East Batuphat Village, West Batuphat Village, Blang Naleung Mameh Village, and Ujong Pacu Village. The management of fattening cattle is carried out directly by the Chairman of the Geuchik Muara Satu Forum, Lhokseumawe City, and assistance from non-governmental organizations. Community empowerment is carried out by providing bulls aged between 18-24 months, providing animal feed needs in the form of concentrates, vitamins, and medicines, cultivating grass

for forage, providing cutting tools and grass choppers, providing tools and materials for fermenting feed and increasing cattle fattening capacity. Implementation of this activity through several stages, including:

1. The survey phase, namely conducting surveys in environmental villages on the potential and detecting problems in the area. The survey results are used to determine the CSR program carried out by PHE NSO.
2. The socialization stage, conducting socialization through Muspika and the Geuchik Forum on the planned implementation of the PHE NSO CSR program in the current year. In this case, a presentation was made regarding the PHE NSO CSR program, the forms of activities carried out, and the parties involved.
3. In the implementation stage of PHE NSO's CSR activities, activities are implemented at predetermined locations.
4. The activity evaluation phase is carried out to measure the level of realization and success of the programs that have been implemented.

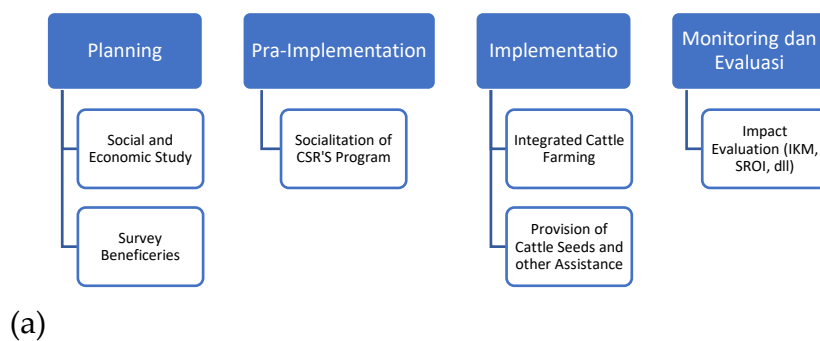


Figure 1. (a) Flow Chart of Implementing the Corporate Social Responsibility Program by PT Pertamina Hulu Energi NSO (PHE NSO).

3. FINDINGS AND DISCUSSION

3.1. *Community Empowerment through Integrated Cattle Farming*

Implementing community empowerment activities through fattening cattle in Muara Satu District, Lhokseumawe City, began with an initial survey to find potential and detect problems in the village where PHE NSO works. This survey was conducted by observing the villages directly and conducting discussions or interviews with the community or village officials, especially the Geuchik (Village Head), who is part of the Geuchik Muara Satu Forum, Lhokseumawe City. The survey was carried out aiming to find out an overview of the condition of the location where the activities were carried out so that the program could be implemented properly and smoothly

(Maidana, 2021), therefore before the implementation of the program, the CSR team of PT Pertamina Hulu Energi NSO has done survey helped by the lecturers and students of Universitas Malikussaleh.

As a result of discussions held both in the village and at the NSO PHE office with the public relations team, an agreement was reached that the program being run was fattening cattle by setting the place for implementation in Gampong Meunasah Dayah, Muara Satu District, Lhokseumawe City. The choice of the location was based on the enormous potential, both in terms of land availability, technical personnel, and the availability of suitable permanent cages. The cattle fattening program is directly handled by the Head of the Forum Geuchik, where the proceeds will be used for 11 Gampongs that are members of the Forum Geuchik, and this program must be implemented (developed) in a sustainable manner so that the goal of community empowerment is achieved in the coming years.

The socialization of the activities was carried out with gampong officials, youth representatives, and geuchik from 11 gampongs. Additionally, socialization was also carried out with the Muspika Muara Satu team in Lhokseumawe City by visiting the Muara Satu District Head, the Muara Satu District Military Commander, and the Muara Satu Sector Police Chief. Socialization is carried out by conveying the activity implementation plan, the form of the activity, the time of implementation, and the people involved in implementing this activity. The socialization participants responded very well to this program when the socialization was carried out. At the muspika level, it is hoped that the CSR cattle fattening assistance from PHE NSO can increase (develop) more than when the assistance was given to the Geuchik Muara Satu Forum.

Crew breeds are provided carefully by looking for cattle breeds suitable for fattening with the criteria of being between 18 months to 24 months old, healthy, well-built, and vigor. This provision is made by buying calves near the rearing village or buying suitable cows at the geulanggang (animal market) in Bireuen and North Aceh districts. The feeder cattle were found in geulanggang in Bireuen Regency with 22 heads. The purchase of these cattle involves the participation of several members of the Geuchik Forum and maintenance technical staff to obtain feeder cattle that meet the criteria for fattening. The purchase of bulls will be carried out in two stages. This is to obtain cows that are truly by predetermined criteria.

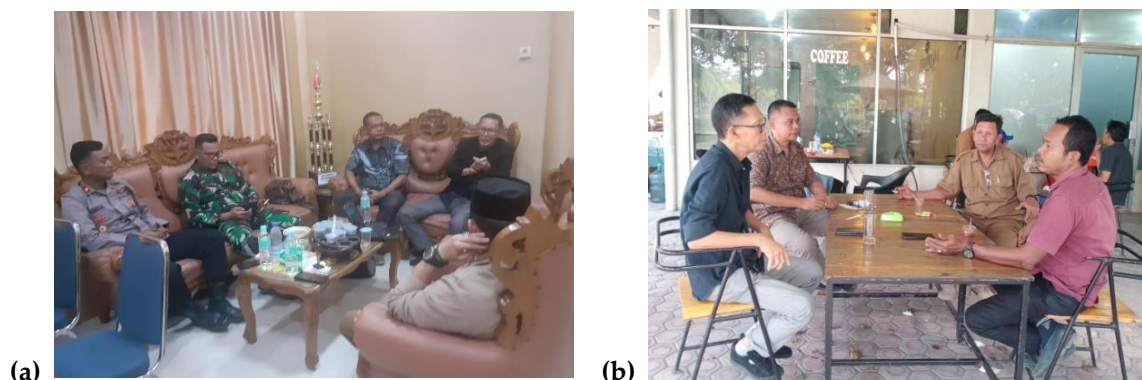


Figure 2. (a) Socialization of PT Pertamina Hulu Energi NSO's CSR Program; (b) Discussion on the Implementation of Activities with the Head of the Muara Satu Geuchik Forum, Lhoksumawe City

Cattle are well cared for at a predetermined location, namely in Gampong Meunasah Dayah, Muara Satu District, Lhokseumawe City, which Mr. Razali leads as Chair of the Muara Satu Forum Geuchik. Mr. Razali was chosen as the program coordinator because he already has good experience in fattening cattle, so that this program will be technically very advantageous. Feeder cows that have been obtained are immediately treated for disease prevention by injecting them with vitamins and medicines. This injection was carried out technically by the Minister of Animal Affairs from the Department of Agriculture and Livestock of the City of Lhokseumawe.

The involvement of veterinary paramedics from related agencies is carried out to get technical guidance in the following years after the PHE NSO CSR program is handed over to the group. This involvement also aims to make the local government, especially the Lhokseumawe City Government, aware of and contribute to community empowerment in their area. The officer/minister of animals from the Agricultural/Animal Husbandry Extension Center, Muara Satu District, Lhokseumawe City, directly gave this active participation. To produce quality, healthy cattle and accelerate cattle weight gain during the fattening period, it is necessary to provide concentrated feed, vitamins, deworming drugs, and other drugs to prevent disease. (Juwita, 2018).

Fulfilling the need for green fodder for cattle can be done by looking for green grass in the surrounding area. This forage is easy to find in abundance during the rainy season when the grass thrives due to the availability of sufficient water and nutrients. However, if it is during the dry season, then this will be an obstacle if you only expect grass that grows naturally around the location or village where the cows are fattening. To overcome the feed shortage, especially during the dry season, providing fermented feed and green grass through grass cultivation is necessary.

The green grass cultivation was carried out on the land owned by Mr. Razali as the fattening coordinator. Land preparation is done with a tractor and planted with grass that grows fast and is suitable as cattle forage. The forage growth went well because it was given nitrogen fertilizer (urea) during planting and maintenance. Cows need forage as the main food, combined with the provision of concentrated feed and vitamins to accelerate the cow's weight gain. Provision of forage as needed to meet protein needs. Vitamins and minerals can increase productivity and gain body weight in cattle (Thaariq, 2017).



Figure 3. (a) Visit of Public Relations Staff of PT Pertamina Hulu Energi NSO; (b) Grass chopping tool (Chopper) used for the provision of cattle feed.

Increased ability to process plant materials available around the site is implemented by teaching managers and technical staff how to make fermented packs from rice straw and dry grass and make mineral blocks to meet the mineral needs of cattle. This capacity building is done by training on the procedures for making fermented feed and mineral blocks. This training is directly supervised by skilled officers who successful breeders from North Aceh District assist. In training on making fermented feed and silage, the material preparation process is carried out using the tools provided before, such as a lawn mower, a grass/plant material chopper, and a fermentation drum.



Figure 4. (a) Cattle Concentrate Feed Manufacturing Training; (b) Cultivation of Grass that has Grown Thriving as Green Fodder for Cows

The material provided is mainly related to using agricultural waste as animal feed. Waste from agriculture after processing will become silage which can increase the quantity and quality of livestock because it contains a high source of nutrients that can increase body weight and growth and development of livestock. Hay from agricultural waste processing can be stored for a long period of up to 3 years. This silage can be used during times of famine for forage. If breeders implement the knowledge they get from training, then the opportunity to improve the welfare of breeders is wide open (Nazaruddin et al., 2022).

The implementation of farmer assistance is carried out for five months from the provision of prospective bulls. During the mentoring, the growth of the cows is going well, which is marked by the expected weight gain. Besides that, with the implementation of training on making fermented feed, concentrate feed, fodder, and mineral blocks, there is an increase in the knowledge of breeders so that the problem of supplying animal feed during the forage grass choke period can be handled with fermented feed and fodder. Concentrated feed and mineral blocks act as supplementary feed to accelerate the cow's body weight gain per day (Yusriani et al., 2015).

The results obtained at the end of this empowerment mentoring period are an increase in breeder knowledge and an income/profit earned in the amount of IDR 27,900,000 (twenty-seven million nine hundred thousand rupiahs) from fattening cattle activities within 3 (three) months from the sale of cattle as many as 8 (eight) tails. This profit is also obtained when selling cattle for qurban on Eid al-Adha 1444 Hijriah. The gross profit per cow is between 2.5 million and 4 million rupiah.

3.2. Participatory Rural Development Program and Local Potency

One important element in development is community participation or involvement. Community participation must be carried out as early as possible, starting from the planning stage of the community empowerment program. Community participation in program formulation can be a determining factor for program suitability with community needs. Community participation in development is an effort to improve the top-down approach in the development process, which often places the community as an object. The community is considered a group with no knowledge. It tends to be weak, so the formulation of programs is carried out

without involving the community, resulting in the incompatibility of programs with community needs.

Programs not meeting the community's needs generally have a short/unsustainable lifespan. This condition is exacerbated by the loss of the function of the empowerment program as an instrument for the welfare of society. Sustainable community empowerment programs should consider several societal capital developments, such as social capital, natural capital, human capital, financial capital, and infrastructure capital. Human Capital is defined as skills, knowledge, labor capacity, and good health; Natural Capital refers to the stocks of natural resources; Social Capital is the social resources on which people draw when they pursue their livelihood goals; Financial Capital refers to the financial resources; and Physical Capital consists of the essential infrastructure and producer good required to sustainable livelihood (Fahad et al., 2022). The Integrated Livestock Program conducted by PHE NSO has been designed taking into account the various potentials that exist in the community as described in the previous chapter so that it can be concluded as follows:

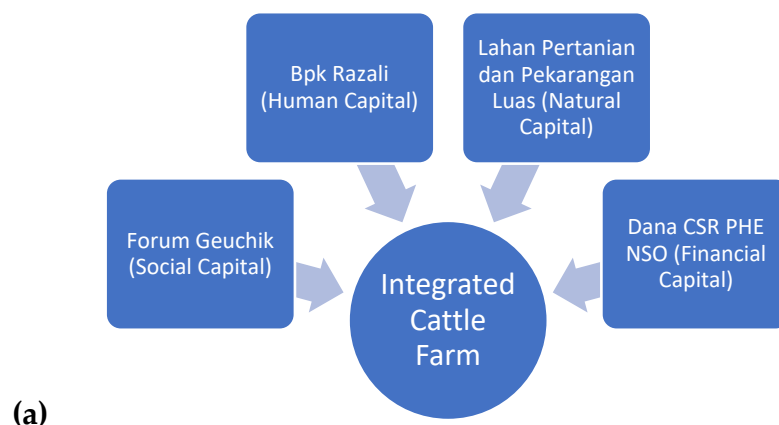


Figure 5. (a) Utilization of Resources for Community Empowerment Programs.

Utilizing resources for community empowerment is considered successful and has a significant impact (Harahap et al., 2023). The Integrated Livestock Program has succeeded in managing and utilizing four resources, namely the Geuchik Forum (social capital), Mr. Razali (HR capital), Agricultural Land and Large Yards (SDA capital), and PHE NSO CSR Fund (financial capital).

The Geuchik Forum is one of the forum mechanisms used to manage integrated livestock programs. Each beneficiary is a member of the Geuchik Forum. Institutionalization ensures that the program is run with and controlled by other members. Good programs have strong social institutions. The Geuchik Forum is a social institution that can help people prosper. The next social capital is Human Capital Social Capital. Mr. Razali is the coordinator

chosen by the other group members. Mr. Razali is considered to have the capacity and knowledge in the field related to cattle cultivation.

Agricultural land and yards are one example of natural resources used by an integrated livestock program. This allows the community to obtain quality fodder and cultivate forage. Even so, for some time, the beneficiaries still experienced food difficulties. The Geuchik Forum, under the leadership of Mr. Rizal, carried out a social innovation in the form of fermented animal feed from forage grass. This initiative helps farmers deal with grass scarcity due to the dry season. The final capital (financial resources) is the PHE NSO CSR Fund. Using PHE NSO's CSR funds has provided opportunities for breeders to obtain good quality calves from calves. Farmers also receive assistance in the form of copper machines used to speed up the forage fermentation stages.

3.3. BUMDes: Opportunities for the Development and Sustainability of the Integrated Livestock Program

Community empowerment can effectively improve the village economy (Harini et al., 2023). Empowerment is carried out to create community independence so that the implementation of empowerment by PHE NSO cannot be carried out in the long term. PHE NSO, as a business institution, has limited CSR funding and has priorities based on issues that develop around the company. In response, the exit strategy must be designed as well as possible to minimize community dependence and maximize the potential for program sustainability. Community empowerment programs fail because they do not have an exit strategy mechanism (Shah & Baporikar, 2010).

The formation of BUMDes by PHE NSO in collaboration with related parties is an example of an exit strategy that can be implemented. BUMDes institutions can be used as an opportunity for integrated livestock development, so livestock activities have better economic value and the potential for environmental management. BUMDes can initiate activities to utilize livestock waste in fertilizer or biogas. BUMDes can also become a functioning institution to ensure that livestock-based community empowerment programs continue long-term. BUMDes have wider opportunities to develop social, economic, and environmental activities than the Geuchik Forum. Therefore, the benefits of the integrated livestock program are no longer felt exclusively by breeders, but with BUMDes, the surrounding community, and the environment have the opportunity to experience the same benefits.

4. CONCLUSION

The 1945 Constitution has mandated community empowerment and is the responsibility of the government, the private sector, and the entire community. The

community empowerment program with integrated livestock farming in Muara Satu District, Lhokseumawe City, is one of the responsibilities of PHE NSO in implementing its Corporate Social Responsibility (CSR) program in its work environment. The results obtained from the implementation of this program are an increase in knowledge for farmers in managing their farms and an increase in income and income earned during the assistance provided. The integrated livestock program has the opportunity to develop institutions into Village Owned Enterprises (BUMDes)

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