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Livelihood Strategies and Adaptation of Sonok Cattle Farmers During the COVID-19 Pandemic

Strategi Nafkah dan Adaptasi Peternak Sapi Sonok dalam Menghadapi Pandemi COVID-19

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ABSTRAK

Madura merupakan wilayah yang terkenal dengan populasi sapinya yang tinggi di Indonesia. Seperti halnya sektor lainnya, usaha ternak sapi di Madura sangat terpukul akibat pandemi COVID-19. Penelitian ini bertujuan untuk mengetahui dampak pandemi terhadap strategi nafkah dan adaptasi peternak sapi Sonok. Penelitian ini dilaksanakan di Desa Dempo Barat, Kecamatan Pasean, Kabupaten Pamekasan. Pemilihan lokasi penelitian berdasarkan bahwa Desa Dempo Barat merupakan sentra ternak sapi Sonok unggul dan asal muasal keberadaannya. Penelitian ini menggunakan analisis deskriptif. Hasil penelitian menunjukkan bahwa pandemi telah menyebabkan penurunan harga sapi Sonok dan menurunkan motivasi peternak untuk membelinya. Akibatnya, petani harus beradaptasi dan mengurangi biaya pemeliharaannya. Akses permodalan yang dimiliki oleh peternak sapi Sonok relatif baik dan dapat digunakan untuk membentuk strategi nafkah. Strategi ini meliputi strategi on-farm, pola mata pencaharian ganda, dan migrasi.

KEYWORDS:
capital
livelihood
madura cattle
pentagonal assets
social

ABSTRACT

Madura is an area in Indonesia that is well-known for its high cattle population. However, like many other industries, the Sonok cattle business in Madura has been greatly impacted by the COVID-19 pandemic. In order to determine the extent of this impact, as well as the adaptation and livelihood strategies of Sonok cattle farmers, a study was conducted in West Dempo Village, Pasean District, Pamekasan Regency. This village is the center of superior Sonok cattle and the origin of their existence. The study used descriptive statistics as its method and found that the pandemic has caused a decline in the prices of Sonok cattle and lowered the motivation of farmers to buy them. As a result, farmers have had to adapt and reduce costs wherever possible. The access to capital owned by Sonok cattle breeders, however, is relatively good and is used to form a livelihood strategy. These strategies include on-farm strategies, multiple livelihood patterns, and migration. In response to the pandemic, some farmers have also added other farm animals, such as fighting chickens, to their livelihood strategies.

1. Introduction

Animal husbandry is a subsector that plays an important role in the Indonesian economy. Nationally, the livestock subsector is the fourth-largest contributor to the GDP (Gross Domestic Product) of the agricultural sector. Based on data from the Indonesia Central Bureau of Statistics (ICBS), in 2020, the contribution of the livestock subsector to the GDP in 2019 reached 257,007.9 billion rupiahs, which accounted for 12.76% of the total GDP of the agricultural sector, amounting to 2,013,626.9 billion rupiahs. The number of livestock business households is 13,561,253, indicating that 21.43% of agricultural business households work in the livestock subsector. Cattle farming remains the primary choice for the people of Indonesia.

Madura is a region with a high cattle population. According to data from the East Java Provincial Livestock Office, in 2020, the cattle population in Madura reached 1,047,783 cattle. Pasean Subdistrict is a development area for Madura pure cattle, which includes three types of cattle: beef cattle, carapan cattle, and Sonok cattle. The population of superior Sonok cattle in Pasean District is located in West Dempo Village (Kutsiyah, 2016; Widyas et al., 2019). Sonok cattle are pure Madura cattle that have undergone a selection process and are beautified to participate in contests (Zali et al., 2019). Sonok cattle farming business requires special care, increases farmers' costs. These costs include feed, herbs, medicines, and accessories. The source of these costs for farmers is part of their income earned from raising Sonok cattle.

As with other agricultural businesses, Sonok cattle farmers are vulnerable to various risks, including limited market access, livestock diseases, government policies, and seasonality. The COVID-19 pandemic has exacerbated these vulnerabilities, impacting all sectors, including livestock (Martinez, Maples, and Benavidez 2021; Rahman et al., 2022). In response to the pandemic, the government implemented broad-scale social restrictions, including cancelling the Sonok cattle contest for the past two years. This condition has made it difficult for farmers to access the market to sell their cattle, as prices typically increase during the contest. Meanwhile, farmers still have to incur costs to treat and maintain their Sonok cattle, putting them in a difficult financial position. To deal with these risks, Sonok cattle farmers must manage their capital effectively to ensure their household livelihood. (Meuwissen et al. 2019; Ding et al. 2018; Kuang et al. 2019; Shinbrot et al. 2019) have suggested that households manage their livelihood structure by

relying on diverse assets, such as natural, human, social, financial, and capital, to reduce risks and ensure survival. Ellis (2000) states that the combination of various resources, including assets, is a form of capital that can be used as a livelihood strategy.

The presented information highlights the significance of conducting a study on the livelihood strategy of Sonok cattle farmers. Such research explores how these farmers respond to various challenges, including vulnerability and pressure, especially in the COVID-19 pandemic. This study will help achieve three main objectives: firstly, to comprehend the impact of the pandemic on Sonok cattle farming and how farmers can adapt to it; secondly, to analyze the capital used in the livelihood strategies of these farmers; and lastly, to understand the livelihood strategies employed by Sonok cattle farmers. Conducting this research to gain insight into the challenges faced by Sonok cattle farmers and to develop strategies to address them effectively is crucial.

2. Material and Methods

This research was conducted in West Dempo Village, Pasean District, Pamekasan Regency. The location of the study was deliberately determined with several considerations: (1) West Dempo Village is the origin of Sonok cattle, and (2) West Dempo Village is a superior Sonok cattle center (Kutsiyah, 2016). This research uses a quantitative approach with a survey form. The data used in this study consists of primary and secondary data. Primary data were collected through questionnaire-based interviews with respondents. In addition, observations were also made related to the conditions and activities of the people living at the research site. Meanwhile, secondary data comes from BPS, village offices, and other agencies that are within the scope of the study. This study included 30 Sonok cattle farmers as respondents. Cohen et al. (2007) stated that, in general, the number of acceptable samples in the study was 30 respondents. The number of Sonok cattle populations at the study site was unknown, so the determination of respondents was carried out using the snowball sampling technique. In determining the sample, one person was first chosen, namely, Mr. Kistoyo, because he has more than twenty years of livestock experience, is a member of KOMPAS (Sonok Cattle Lovers Community), and serves as the head of the hamlet, making it easier to obtain research information. The criteria for respondents in this study were Sonok cattle farmers who had more than two years of experience and had sold Sonok cattle during the pandemic. These

criteria can illustrate the impact of COVID-19 pandemic on Sonok cattle farmers.

Data analysis is carried out using descriptive statistical methods. Tables and diagrams will be used to present data, which is interpreted and spelt out narratively. Descriptive data analysis is used to determine the impact of the pandemic faced by Sonok cattle farmers, their adaptations, and the livelihood strategies they carried out. As for access to capital, measurements are carried out using scoring techniques. Access to capital is reduced to indicators with three options arranged in a ranking based on the conformity score, namely: low: 1, moderate: 2, and high: 3.

The basis for determining the capital category is by calculating the length of the class interval, with the following formula:

$$I = R/K$$

Information:

I stands for interval, R stands for range, and K stands for the number of classes.

Based on the equation above, the following categories are obtained:

$$\begin{aligned} \text{Interval length} &= \text{data range/lot class} \\ &= (3\text{-}1) / 3 \\ &= 2 /3 \\ &= 0.66 \end{aligned}$$

Low : 1.00 to (1.00 + 0.66) = 1.66

Moderate : 1.67 to (1.67 + 0.66) = 2.33

High : 2.34 to (2.34 + 0.66) = 3.00

The average score in each capital is then shown in a table and a pentagonal diagram of the assets (five capitals) to show how accessible and available they are. They are then talked about in more detail to make them clearer.

3. Results and Discussion

Sonok cattle are female Madurese cattle raised specifically to participate in beauty contests (Nugraha et al., 2015). The origin of Sonok cattle can be traced back to the practice of farmers bathing their cattle after plowing the fields, and then displaying them on poles. This activity was initially a form of leisure and entertainment for the farmers, but it later evolved into a competitive event. The Sonok cattle contest is an art form of the

Madurese people that prioritizes the beauty of body shape, fur color and harmony of female cattle. The form of the Sonok cattle contest activity is that cattle are displayed and beautified with accessories then walk in the field accompanied by *saronen* and *sinden*. Cattle should stay within the established barriers as this may reduce the assessment score. This contest serves as an entertaining and enjoyable event for both farmers and fans of Sonok cattle..

The purpose of holding the contest is to maintain the tradition of raising Sonok cattle and to preserve their genetic quality. During the contest, Sonok cattle with good body shapes and behavior have a high selling point. Therefore, the contest also aims to provide benefits to farmers by increasing the price of quality Sonok cattle (Zali et al., 2019). Currently, Sonok cattle farmers are facing problems caused by the pandemic. As we all know, since 2019, the world has been affected by the COVID-19 pandemic, which has also impacted Sonok cattle farmers.

3.1. Pandemic Impact

The COVID-19 pandemic has affected people's lives in urban and rural areas, including Sonok cattle farmers in West Dempo Village. The government has taken various measures to mitigate the impact of the pandemic, including implementing social restrictions. On April 28, 2020, the Governor of East Java implemented the Large-Scale Social Restrictions (PSBB) for the first time in East Java. The implementation of the PSBB policy has had an impact on the Sonok cattle contest at the research site. According to the Regulation of the Minister of Health of the Republic of Indonesia Number 9 of 2020, which concerns guidelines for large-scale social restrictions in order to accelerate the handling of coronavirus disease 2019 (COVID-19), one of the restrictions implemented in the PSBB is the prohibition of socio-cultural activities that gather crowds. This ban is intended to promote social distancing and break the chain of the spread of COVID-19. The Sonok cattle contest, which is among the cultural events drawing crowds, has been listed among the activities prohibited from taking place.

Before the pandemic, the Sonok cattle contest was held 15 times a year, with the timing of the contest determined by a group of Sonok cattle breeders known as KOMPAS. The contests were typically held from August to December, in an open field with a varied location for each contest. These activities were organized and managed by groups of

breeders. In addition to the contests, Sonok cattle farmers frequently participated in festival activities outside their area, such as those held in Jember, Lamongan, and Jakarta. These events provided benefits to farmers by allowing them to introduce their cattle and receive compensation in the form of cash, with a value of millions of rupiah.

Due to the pandemic, the Sonok cattle contest was canceled to prevent crowds from gathering. According to one 60-year-old respondent (K), the absence of the Sonok cattle contest has resulted in a decrease in prices and farmers' motivation to buy Sonok cattle. During the contest, the price and demand for Sonok cattle increase as owning a winning cattle is a symbol of prestige. The owner can display their cattle and social status, in addition to receiving prizes. There is also an economic motive, as a winning cattle can fetch a higher selling price.

3.2. How to Adapt

The decrease in prices and interest in Sonok cattle is a concern for farmers as the cost of maintaining these cattle is relatively high and requires special attention compared to ordinary Madura cattle. The cost of maintaining Sonok cattle includes expenses such as feed, herbal medicine, exercise, hoof-cutting services, and and the costs associated with Sonok cattle horn sculpting. In order to minimize expenses, breeders have had to adapt their maintenance practices by reducing the number of Sonok cattle, reducing forage in the dry season, reducing the frequency and cost of herbal ingredients, reducing the frequency of exercise and bathing, and minimizing other expenses. Despite these adaptations, the cost of maintaining Sonok cattle remains relatively high, and the decrease in demand for these cattle has had a negative impact on farmers.

The adaptation made by farmers is to sell Sonok cattle that are ready for sale, which are cattle that are more than 16 months old. As many as 53.33% of respondents sold Sonok calves and cattle older than 16 months, while 46.67% sold Sonok cattle broodstock. This adaptation provides income to cattle farmers while reducing costs. Similar findings have been reported in the research of Janssens et al. (2021) and Son & Kingsbury (2020), where selling farm animals is identified as a way to survive in times of crisis.

Sonok cattle farmers are facing problems with limited forage feed during the dry season. Therefore, they buy forage outside the village, such as in Waru Village. During the pandemic, they reduced feed costs by decreasing the quantity of forage feed they use,

and by mixing the forage feed they have with dry feed like hay. When the Sonok cattle contest is held, farmers give herbs to their cattle at least four times a week. However, when the contest was cancelled due to the pandemic, the farmers reduced the frequency of giving herbs to their cattle to once a month. This was done to reduce the costs incurred by the breeders. The next adaptation made by breeders was to reduce the composition of herbs that have a high price. One such herb is black acid, which costs Rp. 40,000 per kg. Farmers frequently give black acid to their cattle during contests because it improves the quality of their hair. However, during the pandemic, farmers reduced the composition of black acid to cut costs. They still used other herbal ingredients such as turmeric and brown sugar in their usual quantities.

Before the pandemic, farmers regularly trained their cattle in the afternoon, especially in the lead-up to the contest. The form of exercise involved the farmer taking the cattle out of the pen and parading it in the field or on the highway accompanied by *saronen* music. The cattle were trained to walk gracefully during these sessions. However, during the pandemic, farmers reduced the number of training sessions to cut costs, as some farmers hire jockeys to assist in the training process.

The last adaptation implemented by Sonok cattle farmers is to reduce the frequency of bathing cattle. Before the pandemic, bathing activities were carried out twice a day, namely in the morning and evening using black *Emeron* shampoo. This activity aimed to keep the cattle clean and maintain the quality of the cattle fur. During the pandemic, bathing activities were only carried out 3-4 times a week because the Sonok cattle contest was abolished and to reduce the cost of electricity used.

3.3. Access to Capital

3.3.1. Natural Capital

The natural capital owned by Sonok cattle farmers refers to the natural resources they utilize for their livelihoods. According to Bagstad et al. (2021), this includes things such as land, water, forests, and minerals. The measurement of the natural capital owned by Sonok cattle farmers was given a score of 2.32, which falls under the moderate category.

The average land tenure of the respondents was 1.05 hectares, consisting of moor and rice fields used for crop cultivation and as a source of cattle feed. The crops cultivated by Sonok cattle farmers include corn, rice, tobacco, peanuts, and elephant grass for animal

feed. Regarding water availability, respondents received a score of 2.53, indicating it is in the high category. Most farmers (53.33%) obtain clean water from drilled wells, particularly during the dry season. Meanwhile, the availability of feed owned by respondents received a score of 1.97, indicating it is in the moderate category. The feed provided to cattle includes elephant grass, *mengkudu* leaves, *palembheng* leaves, corn bran, and various weeds.

Table 1. Capital Measurement

Capital	Component	Score	Category
Natural capital	Land tenure	2,47	High
	Water availability	2,53	High
	Feed availability	1,97	Moderate
	Average score	**2,32**	**Moderate**
Human capital	The experience of raising Sonok cattle	2,23	Moderate
	Education	1,37	Low
	Family members involved	1,69	Moderate
	Participation in agriculture extension	1,40	Low
	Average score	**1,67**	**Moderate**
Physical capital	Residential homes	2,97	High
	Livestock facilities and infrastructure	2,33	Moderate
	Accessibility	2,10	Moderate
	Average score	**2,47**	**High**
Financial capital	Income	1,83	Moderate
	Savings	1,53	Low
	Payables receivables	2,67	High
	Access to loans/capital	1,63	Low
	Average score	**1,92**	**Moderate**
Social capital	Trust	3,00	High
	Cooperation	2,82	High
	Social networks	3,00	High
	Average score	**2,94**	**High**

Source: Primary Data Processed, 2022

3.3.2. Human Capital

The human capital with the highest score is the experience of livestock rearing. As many as 70% of Sonok cattle farmers have more than 10 years of livestock rearing experience, which was obtained from generations of the family. Ayaz et al. (2010) and Chandio et al. (2018) found that farmers with a lot of experience are more efficient and productive in running their farming business. In addition to livestock rearing experience, education is also important in influencing the level of innovation carried out by Sonok cattle breeders. According to Makate et al. (2019), farmers with higher education have a

proclivity for innovation, such as being faster in applying technology. The education score among respondents got a score of 1.37 and was included in the low category. Sonok cattle farmers who did not attend school and graduated from elementary school were 76.67%, farmers with educational backgrounds up to junior high school were 10%, and those with high school and college education levels were 13.33%.

The involvement of family members among respondents received a score of 1.69, meaning it belongs to the moderate category. The family's head and wife were heavily involved in the Sonok cattle business, while the rest of the family attended school and could not work due to their age. The participation of family members in the Sonok cattle business provides convenience in running their business, with the wife cleaning the pen, providing feed and drinking, while the husband is looking for grass, bathing, training , and caring for cattle. In addition, utilizing labor in the family can reduce the costs incurred by breeders.

Participation in agriculture extension can lead to innovation and development in the business. Participation in agriculture extension among respondents received a score of 1.40, meaning it was in a low category. Sonok cattle farmers still rarely get counseling, especially about raising cattle. The livestock service has conducted cattle rearing agriculture extension, but implementation has only occurred once until now.

3.3.3. Physical Capital

Physical capital indicates the ownership of physical assets owned by households. Based on the results of the analysis carried out, the physical capital owned by the respondents got a score of 2.47, which means it is in the high category. The residential house owned by the respondent received a score of 2.97, meaning it was in the high category. The occupied house is a privately owned house with livable house conditions. The Sonok cattle farmer's house in West Dempo Village has a tile roof, stone walls, and ceramic grounds; cement or plaster mats are used in only 6.67% of the house conditions.

The livestock facilities and infrastructure owned by the respondents received a score of 2.33, indicating a moderate category. These facilities and infrastructure include cages and livestock equipment. The Sonok cattle farmers' pens are personally owned cages that they collaborate to construct, making the process easier and less expensive. In addition, mutual aid activities benefit the establishment of good relationships between breeders. Accessibility is important in facilitating farmers' daily activities. The modes of

accessibility used by cattle farmers include motorcycles and cars. Farmers use motorcycles to transport cattle feed, making it more efficient and faster.

3.3.4. Financial Capital

Financial capital refers to a household's ability to access finance. The respondents' financial capital received a score of 1.92, indicating a moderate category. The income of the respondents scored 1.83, which means it is also in the moderate category. The income is generated from farming activities, livestock raising, and side jobs. The savings owned by the respondents scored 1.53, placing them in a low category.

The savings are in the form of cash and gold, used for emergencies. Sonok cattle farmers with high income have savings. The accounts receivable owned by the respondents received a score of 2.67, indicating a high category. Farmers feel uneasy with debts exceeding Rp. 5,000,000 and usually borrow from their neighbors when they need small amounts of money. Accounts receivable are linked to loan availability, which scored 1.63, indicating a low category. Cattle farmers find it difficult to access loans from financial institutions or banks because they are afraid. This finding is similar to what was presented by Pham et al. (2019) that some households expressed a fear of borrowing from banks. The low access to borrowing from banks or cooperatives is also due to the very small number of farmers who are members of the cooperative's membership (6.67%).

3.3.5. Social Capital

The social capital owned by the respondents received a score of 2.94, indicating a high category. The trust in neighbors and village officials is very high, and this trust has been built through the existence of KOMPAS, with the head of the group being the Head of West Dempo Village, Mr. Joko Handoko. This high level of trust makes it easier for farmers to cooperate with each other in urgent situations.

The cooperation owned by the respondents received a score of 2.82, also indicating a high category. The community cooperation is well-maintained because farmers are aware of their mutual needs. For example, when making cages, breeders work together to minimize costs. Additionally, farmers share information about feed, medicine, and herbal remedies for cattle.

The social network owned by the respondents received a score of 3.00, indicating it is in the high category. This social network was established through building good

relationships with the surrounding community, and the social group in which all Sonok cattle farmers participate is KOMPAS. The farmers benefit from this group by exchanging information, facilitating the dissemination of information related to Sonok cattle, and building strong relationships between Sonok cattle farmers. Consistent with Mohammed, Egyir, and Amegashie (2013), membership in social networks generates social capital that can be utilized to access other resources.

3.4. Livelihood Strategies of Sonok Cattle Farmers

Sun et al., (2019); Sharaunga & Mudhara, (2021), state that livelihood strategies are a way used by households to survive or make life better. Livelihood strategies are very important in maintaining survival by meeting the needs of each household, therefore each household has its own strategy to carry out its life. The use of a livelihood strategy is adjusted to the assets owned. This study showed that Sonok cattle farmers in the study area implemented different livelihood strategies.

3.4.1. On Farm

The on-farm livelihood strategies is divided into two groups: farming and diversifying livestock. These strategies utilize assets such as land, livestock experience, and social networks. As many as 18% of cattle farmers implement this strategy. Commodities cultivated in farming are those that have been proven to be profitable and not difficult to cultivate. Sonok cattle farmers tend to avoid commodities that require intensive maintenance. Although many farmers in Batumarmar cultivate chili, according to respondents, they avoid it due to the complicated cultivation process. This is supported by research by Vecchio et al. (2020), which suggests that the complexity of cultivation affects farmers' decisions in adopting innovations. Additionally, chili commodities are also considered to have high risks related to selling prices.

Raising livestock is a strategy implemented by Sonok cattle breeders, as they believe it would be a loss if they only focused on farming or raising a single type of livestock. According to respondents, farming and raising livestock are inseparable units. Waste from animal husbandry can be used as fertilizer, and agricultural products such as corn, both leaves and fruits can be used as feed for cattle. Diversification of livestock is carried out by keeping several types of farm animals, which is seen as an alternative by

respondents when facing urgent conditions. These findings are in line with Mulwa & Visser, (2020), which suggest that diversification of farm animals can help reduce food insecurity and vulnerability to climate shocks. The livestock raised by respondents before the pandemic included Sonok cattle, local Madura cattle, native chickens, and goats. The on-farm strategy has been implemented for a long time and has been passed down through generations in the family.

3.4.2. Double Income Strategy

The double income strategy is a combination of several sources of income, including on-farm, off-farm, and non-farm sources. About 32% of the respondents in the study area adopted this strategy. On-farm livelihood sources include agricultural products such as corn, rice, peanuts, tobacco, and raising livestock. Off-farm income is generated from activities such as sewing, providing services (e.g. woodcutting, cleaning cattle hooves and horns), and trading. For some respondents (16.67%), trading cattle has become a mainstay job because it provides access to information related to Sonok cattle activities and prices in addition to generating income. Non-farm income is derived from positions such as the head of the hamlet and penghulu. However, the pandemic has caused a decrease in income from the off-farm sector due to the declining demand for services provided.

The double income strategy is important in diversifying household income to meet daily needs. It provides a reliable source of income for respondents to meet their short-term needs. The findings of Su et al. (2022) support this, stating that the double income strategy is a common strategy adopted by farmer households to support their families financially

3.4.3. Migration

Migration is motivated by various factors, including economic hardship and insufficient resources in their hometowns. However, our field observations suggest that migration is not widely adopted by the respondents (only 13% of them). Instead, their children tend to migrate to destination countries such as Saudi Arabia and Malaysia, where they work as domestic helpers, factory workers, or construction workers. This migration strategy contributes to improving the household's quality of life by sending

money to their family members regularly. This practice has been going on even before the pandemic.

3.4.4. Livelihood Strategies During the COVID-19 Pandemic

COVID-19 pandemic has prompted Sonok cattle farmers in West Dempo Village to adopt new livelihood strategies to meet their living needs. About 16.67% of the respondents added a new strategy during the pandemic, which is raising different types of livestock such as cendet birds, turtledoves, ducks, and fighting chickens. These animals are kept as a hobby and provide additional income during the pandemic. Diversifying farm animals can help to supplement the livelihood of Sonok cattle farmers. Moreover, some farmers have sold some of their Sonok cattle and invested the proceeds to raise other livestock such as beef cattle, which do not require high maintenance costs. This shows that farmers are adapting to the changing situation and finding alternative ways to sustain their livelihoods during the pandemic.

4. Conclusion

The impact of the COVID-19 pandemic has led to a decline in the prices of Sonok cattle and has affected the motivation of farmers to purchase them. Therefore, respondents have made adaptations to minimize the cost of caring for Sonok cattle. The adaptations include reducing the number of Sonok cattle, reducing forage during the dry season, reducing the frequency of giving expensive herbs and herbal ingredients, reducing the frequency of exercise in Sonok cattle, and reducing the frequency of bathing cattle. The availability of assets owned by respondents is in good condition, and none of the assets are in the low category. These assets are then used by Sonok cattle farmers to form a livelihood strategy consisting of on-farm strategies, double income patterns, and migration. While these three strategies have long been implemented by Sonok cattle farmers, the new livelihood strategy during the pandemic is to add pets such as birds, turtledoves, ducks, and fighting chickens to their farms. Improving technical skills related to agriculture and animal husbandry can increase human capital. Agriculture extension and community empowerment activities from related parties are expected to support the development and improvement of various existing livelihood strategies.

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