

## **Assessing the Potential of Livestock and Plantation Businesses in Several Lampung Regions**

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### **Abstract**

Farms and plantations have the potential to thrive in various Lampung locations, including Pesawaran, Pringsewu, South Lampung, Tulang Bawang, and Bandar Lampung city. Lampung Province has a reasonably significant and abundant potential for agricultural natural resources, including the potential for agricultural business development, as shown in the development of banana, corn, cassava, and oyster mushroom production. One of the manufacturers is Lampung Province. Poultry farming is one of the most popular enterprises in the livestock sector, because it can be started on a small size and scaled up to a large scale. Laiding hens, quail cultivation, ducks, and catfish farming are some of the livestock sub-key sector's commodities in Lampung Province. The goal of this research is to identify the potential of livestock and plantation businesses in various locations of Lampung, revenue and income, features of business feasibility, and whether or not business developments in these areas are practicable. This research method employs a quantitative description method. This survey activity employs a direct approach with observation and interview techniques as a data gathering instrument. The information gathered is both primary and secondary. Based on the findings of the identification of business opportunities in the livestock and plantation sectors conducted in various locations throughout Lampung, it can be concluded that all of the businesses studied in this study are viable to pursue in terms of BEP, ROI, R/C Ratio, and Payback Periods.

### **Keywords:**

business feasibility study; financial aspect; business potential; farm; plantation

### **Introduction**

Indonesia's livestock and plantation sectors have rich resources. The community engages in livestock and plantation activities to provide food, industry, and energy sources. Strengthening the national economy through the growth of the plantation sector, particularly the food crops and horticulture sub-sectors, is a crucial step since it relates to the agricultural potential of Indonesia. In terms of national income, the plantation industry is one sector that can contribute to the country's economy. Numerous plantation goods, including as food

crops, horticulture, plantations, forestry, animal husbandry, and fisheries, are cultivated. With this chance, farmers may meet the daily food demands of the community, thereby contributing to the achievement of national food security. Food needs can be met through food crop farming since food crops are the primary source of needs for national life, particularly for supplies of food and also for life support for over 60% of agricultural business actors (Direktorat Jendral Tanaman Pangan 2017).

Agriculture is one of the most essential areas for enhancing the Indonesian economy (Andriyani & Lingga, 2019). The livestock subsector of agriculture plays a significant role in the development of the Indonesian economy (Andriyani & Lingga, 2019). According to Achmanu and Muharlien (2011) in Murti et al. (2021), there are three types of husbandry: small livestock businesses, large livestock businesses, and poultry farming businesses. Small livestock business is a cultivation business that raises rabbits, sheep, goats, and other small livestock. A business that maintains huge livestock such as cows, buffaloes, horses, and others is a large livestock business. Poultry industry involves the breeding of chickens, ducks, quails, and other birds. Plantation is an integral aspect of the agricultural sector, a subsector that plays a crucial and vital role in the national development (Hidayat, 2013).

Every year, the number of local food sources in Lampung province grows. With key commodities including as coffee, pepper, rubber, and sugar cane, the agricultural and plantation sectors have contributed more than 30% to the Lampung economy. Meanwhile, in the fisheries sector, commodities with aquaculture potential include shrimp, milkfish, snapper, and grouper. Lampung Province, in addition to marine and brackish water fish farming, has the potential for freshwater fish cultivation, one of which is in South Lampung Regency, which produces 275,000 tons per year. The distribution of the percentage of gross regional domestic product (GRDP) has dropped, according to (Badan Pusat Statistik Lampung, 2020). It received a percentage of 23.75 percent to 22.57 percent in 2020. Meanwhile, from 5.74 percent to 5.67 percent in the fisheries industry. According to the Regional Economic and Financial Studies of Lampung Province in the second quarter of 2015, there are 520 Joint Business Groups (KUB) for catch fisheries in Lampung Province, and this number is increasing when compared to prior years. According to the Lampung BI Report, there were 144 groups of fish farmers with a total of 1,728 members in 2014. This figure continues to rise as compared to 2013, when there were 40 groups with 573 members (Kominfortik Provinsi

Lampung, 2022). Tanggamus Regency had the most groups, with 23 groups totaling 276 individuals, followed by West Coast, which had 21 groups totaling 252 members. Lampung Province is Indonesia's greatest shrimp-producing region. The Lampung region accounts for up to 45 percent of the total national shrimp production of 348,100 tons. The shrimp commodity is one of the top five non-oil and gas exports from Indonesia (Kominfortik Provinsi Lampung, 2022).

Lampung Province has a great and plentiful potential for agricultural natural resources, including rice (ranked seventh nationally), corn (ranked third nationally), cassava (ranked first nationally), sugarcane (ranked second nationally), and a variety of other commodities (coffee, pepper, cocoa, oil palm, rubber, beef cattle, and goats). According to BPS production forecast statistics, the national rice balance as of June had a surplus of 6.4 million tons. The excess includes the 3.45 million tons of stock available at the end of March. The May-April-June crop yields 10.56 million tons, but the national rice consumption requirement is 7.61 million tons (Kementrian Pertanian Republik Indonesia, 2021).

## **Methods**

This survey method employs a quantitative description technique. Quantitative description method is a survey approach that lowers numerous data calculations into numerical values, such as fixed costs and variable costs utilized by businesses to carry out projects. As a tool for data collecting, this survey makes use of direct observation and interview approaches. There are both primary and secondary data collected. Researchers collect primary data directly from business actors (Aridho et al., 2021). Primary data contains respondent and staff information, production pricing, production types and expenses, and other information pertinent to this survey activity. While data acquired from relevant agencies is secondary information (Aridho et al., 2021). Lampung Province's Central Statistics Agency (BPS) provided the secondary data utilized in this study. This investigation was conducted in numerous areas, including:

- 1) Quail Farm in Purworejo Village, Negeri Katon District, Pesawaran Regency.
- 2) Cultivation of laying hens of CV Mulawarman in Tegal Sari Village, Gading Rejo District, Pringsewu Regency.

- 3) Maju Jaya Mandiri Duck Farm in Jatimulyo Village, Jati Agung District, South Lampung Regency.
- 4) Catfish Cultivation in Lugu Sari Village, Pagelaran District, Pringsewu Regency.
- 5) Corn Plantation in Talang Jawa Village, Merbau District, Mataram, South Lampung Regency.
- 6) Oyster Mushroom Cultivation in Kedaung Village, Kemiling District, Bandar Lampung City.
- 7) Cassava Plantation in Central Menggala Village, Menggala District, Tulang Bawang Regency.
- 8) Banana Plantation in Mincang Village, Talang Padang District, Tanggamus Regency.

## **Result and Discussion**

### **A. The Banana Planting Enterprise**

Tani Pisang Mas, owned by Mr. Deni Saputra, is one of Tanggamus' banana mas farmer entrepreneurs. Mincang Village, Talang Padang, Kab. Tanggamus is the location of the banana plantation. Mr. Deni has 4 hectares of land. The owner's own capital of Rp. 17,500,000 was used to start his firm. For a one-year repayment period with three harvests totaling around Rp. 48,000,000. Based on the income analysis (R/C Ratio), this firm can be judged to be profitable and practical to run. This may be observed by comparing total income to total manufacturing costs, which is more than one, resulting in a ratio of  $2.74 > 1$ .

### **B. Corn Farming Enterprise**

Mr. Y is a participant in the corn farming business in Talang Jawa village, Merbau Mataram district, South Lampung regency. The acreage utilized to produce maize is 8 hectares and is rented; the hybrid varieties used are Pioneer and NK. Because the revenue and income for one year are Rp. 734.400.000 and Rp. 447,400,000, respectively, and the R/C Ratio value of corn farming is 2.55, it can be stated that Mr. Y's corn farming is financially beneficial and viable to develop. Meanwhile, the amount of production  $>$  BEP in units, indicating that this corn farming business is profitable and feasible to build, and the amount of income  $>$  BEP in price, indicating that this corn farming business is profitable and feasible to develop.

### **C. Cassava Agricultural Enterprise**

This cassava business, which began in 2019, is owned by an individual, farmer Mr Candara Ripaie. This business is located in Central Menggala Village, Menggala District, Tulang Bawang Regency. Land is an investment expense and supporting equipment in the cassava company. The cassava business requires a total investment of Rp. 130,000,000. The value of land investment is the most valuable investment in this cassava industry. Meanwhile, the operational expenses totaled Rp. 6,262,000. Based on this calculation, the selling price has been established at Rp. 1,250,00, which is more than the BEP of the calculated price, and the BEP of production reached is 30,000,00 Kg, which is higher than the calculated BEP of production. As a result, these farmers' cassava company will benefit. As a result, the R/C Ratio value is produced, and it is feasible with an R/C value of  $3.33 > 1$ .

#### **D. Oyster Mushroom Cultivation Enterprise.**

Anugerah Jamur Tiram Lampung is a business that cultivates white oyster mushrooms in Kedaung, Kemiling District, Bandar Lampung City. This mushroom cultivation business has an 896 m<sup>2</sup> land area with 8 oyster mushroom kumbung. Each kumbung can hold up to 20,000 baglogs (media) of oyster mushrooms, with 11 racks capable of producing 6-8 kw/day of white oyster mushrooms. For one year of production, the entire cost of this firm is Rp. 977,769,200.

Total revenue is Rp 2,592,000,000.00, and total income is Rp 977,769,200.00. Then the Return Cost Ratio (R/C Ratio) acquired is Rp. 2.65, which means that for every Rp. 1, you will earn an income of Rp. 2.65 and the income to be received is Rp. 1.65, indicating that it is feasible to run. Meanwhile, the Net Benefit Ratio (B/C ratio) achieved is 1.65, indicating that the net income earned by the Anugerah Jamur Tiram Lampung is 1.65 more than the whole cost, indicating that this business is feasible.

#### **E. Catfish Farming Enterprise**

Catfish cultivation research is conducted in Lugu Sari Village, Pagelaran District, Pringsewu Regency. The resource person now supervises six catfish ponds as the manager of catfish cultivation in Lugasari Village. Two of them are privately owned, while the other four are owned by others. The size of managed pools varies. Large pools measuring 30 x 60 m<sup>2</sup> and small pools measuring 6 x 12 m<sup>2</sup> and 10 x 15 m<sup>2</sup>. Fixed costs in one cycle of Rp. 245,000 and variable costs of Rp. 218,729,000 result in a total cost of Rp. 875,892,000 for a catfish farming business with four cycles in one year.

The R/C value is 1.12 based on the computation of revenue (TR) for a year of Rp. 112,108,000 and total cost (TC) of Rp. 875,892,000. Therefore, the catfish farming company in Lugusari Village, Pagelaran District, Pringsewu Regency is viable because the R/C ratio produced is more than 1, allowing it to be accepted. According to the BEP Production calculation, the break-even point of catfish farming in a year is at least 54,743 kg, indicating that the existing business is feasible and acceptable because the yields of fish farming studied reach 64,000 per year. The results of the computation of the BEP Price at the selling price of catfish at least Rp. 13,685/Kg, so that the current business is possible and acceptable because the fish farming harvests analyzed have a selling price that is larger than the BEP Price, which is Rp. 16,000/Kg.

#### **F. Laying Chicken Enterprise**

CV Mulawarman Farm is a firm that specializes in laying hens. CV Mulawarman Farm is a privately held business that raises laying hens. This enterprise is located in Tegal Sari Village, Gadingrejo District, Pringsewu Regency. With 54 traditional cages and 10 semi-traditional (mild steel) cages, this enterprise breeds 60,000 laying hens. The company's overall investment cost is Rp. 9,567,520,000, while the operational cost is Rp. 17,467,680,000. The analysis of the price BEP and production BEP at CV Mulawarman Farm company showed Rp. 24,194 and Rp. 24,194.97 kg. Based on these calculations, the company's selling price is Rp. 25,800.00, which is more than the calculated BEP of pricing, and the BEP of production accomplished is 727,920.00 kg, which is higher than the calculated BEP of production. As a result, CV Mulawarman, a laying hens enterprise, will profit.

#### **G. Duck Farming Enterprise**

"Maju Jaya Mandiri" duck business in Jati Mulyo Village, Jati Agung District, South Lampung Regency. This farm was established in 2013 and has a land area of roughly 400 m<sup>2</sup>. The "Maju Jaya Mandiri" duck business has roughly 250-270 laying ducks that can produce approximately 115-150 eggs each day. Meanwhile, the owner's total cost for managing a duck farm in one year is Rp. 80,490,000, with a total revenue of Rp. 470,500,000.

The R/C Ratio calculation result at the "Maju Jaya Mandiri" duck farming firm is 584, indicating that the result is more than one. Therefore, it may be stated that the "Maju Jaya Mandiri" duck farming enterprise is economically feasible. Meanwhile, the annual production of "Maju Jaya Mandiri" duck eggs is 54,750 eggs. As a result, the volume of production > BEP

in units indicates that this business is profitable and developable. BEP in the price of eggs obtained can reach Rp. 6,690,265 while the financial income of "Maju Jaya Mandiri" eggs can reach Rp. 109.500.000 in a year. It may be stated that the amount of revenue exceeds the price of BEP, making this business profitable and feasible to develop.

#### **H. Quail farming enterprise**

A quail farming enterprise run by the local BUMDes in Purworejo Village, Negeri Katon District, Pesawaran Regency, which was founded in January 2022 with a total of 2,800 quails placed in 10 production cages able to produce approximately 1,150 eggs each day. The entire cost begins with a fixed charge of Rp. 1,500,000 and variable expenditures of Rp. 4,114,000, for a total cost of Rp. 5,614,000 for one month of running a quail farming business. The R/C Ratio recorded for one month on this farm is 2.3, indicating that the quail farming business is profitable because the R/C Ratio is greater than one. The BEP price in quail farm is Rp. 2,205,882. Meanwhile, the earnings from quail farming in Purworejo Village reached Rp. 12,774,000. As a result, the revenue is larger than the BEP price, indicating that the quail farming company in Purworejo Village is profitable and feasible to develop. The capital from the quail farming business in Purworejo Village will be returned in 4 years, 5 months, and 19 days.

### **Conclusion**

The livestock and plantation sectors are two of the most important sectors in the Indonesian economy. The livestock sub-sector and sub-sector in Lampung Province have high development potential. Based on the results of the identification of business opportunities in the livestock and plantation sectors conducted in various places of business in Lampung such as bananas, corn, cassava, oyster mushrooms, catfish, laying hens, ducks, and quails, it can be concluded that all of the businesses studied in this study are feasible to try all of them when viewed from the perspective of BEP, ROI, R/C Ratio, and Payback Period.

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