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MORALITY BEFORE KNOWLEDGE

Perceptions of coffee farmers on coffee processing and production in Rana Mese village, Sambi Rampas sub-districy, East Manggarai district to improve family welfare

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ABSTRACT
Background: Rana Mese Village is one of the villages with coffee agricultural commodity crops located in Sambi Rampas Sub-district, East Manggarai Regency. **Findings:** As much as 21% of the coffee plantation land in Sambi Rampas Sub-district is in Rana Mese Village, while the remaining 79.5% comes from 6 other villages. So that in its role, how coffee farmers' perceptions of how to manage and produce coffee in Rana Mese Village can improve family welfare. This study aims to determine the perceptions of coffee farmers about the management and production of coffee in Rana Mese Village, Samba Rampas District, East Manggarai Regency to improve family welfare. **Methods:** This research used a qualitative approach with a descriptive type of research. Primary data in this study were obtained by observation and interviews. **Conclusion:** Perceptions of coffee farmers about the way coffee processing and production is the processing and production of coffee in Rana Mese Village is quite easy and has been done optimally so that coffee yields always increase every year, this greatly helps coffee farmers in meeting family needs even though there are still constraints on the resources of coffee farmers.

KEYWORDS: coffee farmers, management; perception; production, welfare.

1. Introduction

Coffee as a plantation commodity in its role has very supportive market opportunities, both from within the country and abroad. Coffee is also one of Indonesia's export commodities that is quite important as a foreign exchange earner besides oil and gas. In addition to increasingly open export opportunities, the domestic coffee market is still quite large (Directorate General of Plantations, 2016). The role of coffee commodities for the Indonesian economy is quite important, both as a source of income for coffee farmers, a source of foreign exchange, a producer of industrial raw materials, and a provider of employment through processing, marketing, and trade activities (exports and imports).

Indonesia has five largest coffee producing provinces, namely South Sumatra, Lampung, Aceh, North Sumatra and East Java. Coffee plantations in Indonesia can be divided into Large Plantations (PB) and People's Plantations (PR). Large plantations consist of Large State Plantations (PBN), and Large Private Plantations (PBS). In 2017, the land area of PBN

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coffee reached 23,634 hectares with a production of 14,500 tons, while the land area of PBS reached 23,186 hectares with a production of 15,790 tons. The area of smallholder coffee plantations in Indonesia in 2017 reached 1,204,883 hectares, with production reaching 636,702 tons. The total coffee land area in Indonesia reached 1,251,703 hectares with a total production of 666,992 tons (Directorate General of Plantations, 2017).

One of the Regencies outside the five Provinces as the largest coffee producer, one of the regions in Eastern Indonesia, namely Manggarai District, NTT, also conducts a People's Plantation (PR) business with coffee commodities. East Manggarai Regency is one of the regencies in East Nusa Tenggara Province. The area of East Manggarai Regency is 251,855 ha, with 6 sub-districts, namely Borong sub-district, Kota Komba sub-district, Elar sub-district, Sambi Rampas sub-district, Poco Ranaka sub-district, and Lembata sub-district (BPS Kab. East Manggarai, 2015).

Manggarai District Timur has potential natural resources for the development of the agricultural sector, especially supported by the culture of an agrarian society that is still maintained. The agricultural sector still plays an important role in the economy of East Manggarai Regency as the amount of its contribution reaches 48.4% of GRDP and accommodates 82.28% of the population to work as farmers. The agricultural activities developed also vary based on the characteristics of the region (Damianus et al., 2018).

Coffee plantations in the Rana Mese Village area, Sambi Rampas Sub-district, are coffee plantations that are cultivated by individuals or included in the People's Plantation (PR). The meaning of being cultivated by individuals is that the plantation is on land owned by the community itself, manages the coffee plantation independently and sells the harvest directly to the market without processing. Although there are many types of plants that are cultivated, coffee plants dominate and become the main attraction for Rana Mese villagers to make coffee plants the main commodity planted.

East Manggarai Regency has a lithosol soil type which is only located in 3 sub-districts, namely Elar, Sambi Rampas, and Lambaleda. The area of lithosol soil in Manggarai District Timur reaches 97,811 ha (38.82%). Lithosol soil is rocky soil formed from hard rock that has not been weathered completely. Crops that can grow on lithosol soils are fodder crops, perennials, and secondary crops. The types of crops grown by the residents of Rana Mese Village are cloves, candlenuts and coffee. The coffee commodities cultivated by farmers are robusta and arabica coffee types.

One of the coffee-producing districts in East Nusa Tenggara is East Manggarai Regency. East Manggarai Regency has a coffee land area of 18,393.89 ha. Coffee production in East Manggarai reached 3,708.54 tons, (East Manggarai Agriculture Office, 2018), this is a good potential for developing coffee commodities in East Manggarai Regency. Coffee commodity is one of the leading commodities in the plantation sub-sector in East Manggarai, in addition to Coconut, Cocoa, Cashew, Candlenut, Vanilla and Nutmeg. Recently, Robusta coffee has become a favorite commodity for farmers in some parts of East Manggarai.

Sambi Rampas Sub-district is one of the coffee producing centers in East Manggarai Regency. Sambi Rampas sub-district has a coffee land area of 665.63 ha with a production of 247.76 tons per year with a productivity of 487.96 kg/ha (East Manggarai Agriculture Office, 2018). This is a good potential for coffee to grow well in this sub-district, although Sambi Rampas Sub-district has good agronomic potential for coffee plants, but farmers have not depended on this commodity, there are several factors that influence farmers including farmers still adhere to intercropping agriculture, meaning that farmers do not focus on one commodity, but plant various commodities on their land in the hope of increasing their income, besides that the quality of coffee is still low causing the selling price of coffee at the farmer level is still low, this causes existing coffee plants, not yet optimally utilized to increase farmers' income. Farmers still consider the coffee commodity not a strategic commodity in their farming business, the coffee produced by farmers in this sub-district is coffee that still adheres to the conventional system, this affects coffee in this sub-district to be able to compete later in the domestic market and the international market.

The new coffee market, namely specialty coffee, is an opportunity that must be seized by Indonesia, one of which is organic coffee products, organic coffee is coffee produced by

adhering to the understanding of sustainable agriculture. In the management of coffee plants, aspects of natural resource conservation, environmental safety from polluting compounds, safety of crops for human health and nutritional value are very concerned. In addition, coffee cultivation has an impact on the socio-economic aspects of farmers because the sale of both robusta and arabica coffee is expected to increase farmers' income. Currently, many consumers are aware of the importance of food safety and health of a product. For this reason, it is necessary for farmers to be aware of market opportunities in coffee plants, one of which is by producing quality coffee products. As a form of maintaining the welfare of coffee farmers and keeping coffee products in Indonesia can still compete in the world coffee market. Based on the description above, it is necessary to conduct research to find out the perceptions of coffee farmers about how to manage and produce coffee in Rana Mese Village, Samba Rampas Subdistrict, East Manggarai Regency to improve family welfare.

2. Methods

This research uses a qualitative approach with a descriptive type of research. Primary data in this study was obtained by observation and interviews. Interviews were conducted with coffee farmers and the general public of Rana Mese village, as well as one of the Rana Mese village officials. Secondary data sources used in this research, namely journal sources, previous theses, and documents on the perceptions of coffee farmers on how to manage and produce coffee. Secondary data in this study was obtained by documenting research activities. Recording data sources through interviews or observations is a combination of seeing, hearing, and asking (Moleong, 2011).

The data obtained tends to be qualitative data, data analysis is inductive / qualitative, and qualitative research results are to understand meaning, understand uniqueness, construct phenomena, and find hypotheses (Sugiyono, 2017). Qualitative researchers as human instruments, function to determine the focus of research, select informants as data sources, conduct data collection, assess data quality, analyze data, interpret data and make conclusions on their findings (Sugiyono, 2017).

3. Result and Discussion

3.1 Coffee Processing and Production in Rana Mese Village

21% of the coffee plantation land in Sambi Rampas Sub-district is located in Rana Mese Village, while the remaining 79.5% comes from 6 other villages. Coffee processing in Rana Mese village is done in two ways, namely wet processing and dry processing. The following is an explanation of the two processing processes:

3.1.1 Wet Processing

The wet process is often used to process arabica coffee. The reason is because this type of coffee is valued quite high. So that the processing costs incurred are still comparable to the price to be received. Here are the steps to process coffee with a wet process. Peel the skin of the coffee fruit, preferably with the help of a peeling machine. There are two types of peeling machines, manually rotated and engine-powered. During peeling, flow water continuously into the peeling machine. The function of the water flow is to soften the fruit skin tissue so that it is easily separated from the seeds.

The result of the fruit skin peeling process is seeds that still have horn skin. Ferment the seeds that have been peeled. There are two ways, first by soaking the seeds in clean water, second by stacking the wet seeds in a cement tub or wooden tub, then covered with a burlap sack that must always be moistened. The length of the fermentation process in

tropical environments ranges from 12-36 hours. The fermentation process can also be observed from the layer of mucus that covers the seeds. If the layer has disappeared, the fermentation process can dikatakan selesai. Setelah difermentasi cuci kembali biji dengan air. Bersihkan sisa-sisa lendir dan kulit buah yang masih menempel pada biji. langkah selanjutnya biji kopi HS hasil fermentasi dikeringkan.

The drying process can be done by sun drying or by machine drying. For drying, spread the HS coffee beans on the drying floor evenly. The thickness of the bean pile should be no more than 4 cm. Turn the beans regularly especially when they are still wet. The drying time is about 2-3 weeks and will produce coffee beans with a moisture content of around 16-17%. The desired moisture content in this process is 12%. This moisture content is the equilibrium moisture content so that the coffee beans produced are stable, not easily changing taste and resistant to mold attack. After the HS coffee beans reach 12% moisture content, peel off the horn skin that covers the beans. Peeling can be pounded or with the help of a peeling machine (huller). It is recommended to use a machine to reduce the risk of damage to the coffee beans. The results of stripping at this stage are called green beans.

After the coffee fruit is harvested, sort it immediately. Separate the fruit from dirt, diseased fruit and deformed fruit. Separate red fruits from yellow or green fruits. The separation of smooth and red-colored fruit (superior fruit) from inferior fruit is useful for distinguishing the quality of the coffee beans produced. After the rice coffee beans are produced, do the final sorting. The purpose is to separate impurities and broken beans. Next, the coffee beans are packed and stored before distribution.

3.1.2 Dry Processing

Separate superior fruit from inferior fruit as a quality marker. Dry the sorted coffee cherries on the drying floor evenly. The thickness of the dried coffee should be no more than 4 cm. Turn them over at least twice a day. The drying process usually takes about 2 weeks and will produce dried coffee cherries with a moisture content of 15%. If the moisture content is still high, do the drying again until it reaches the desired moisture content. The dried coffee cherries are ready to be peeled off the skin and horns.

Try to keep the moisture content of the coffee fruit in the range of 15%. Because, if more will be difficult to peel, while if less is the risk of breaking the beans. Peeling can be done by pounding or using a huller machine. The disadvantage of the pounded method is that the percentage of broken beans is high, with the machine the risk is lower. After the coffee fruit is peeled, do sorting to separate the desired product from the rest of the fruit skin, horn skin, broken seeds and other impurities. Coffee beans will be stable when the moisture content is 12%. If it has not reached 12%, do further drying. It can be by drying or with the help of a drying machine.

If the moisture content is more than this, the beans will be susceptible to mold. If less, the beans easily absorb water from the air which can change the aroma and flavor of the coffee. After reaching the equilibrium moisture content, the coffee beans can be packaged and stored. The level of coffee processing in Rana Mese Village is very good, and the production of coffee produced every year is increasing, so that the income of coffee farmers is getting bigger and can meet the needs of their families.

Supporting factors in the process of managing coffee farming are good weather conditions, land area, high soil fertility levels and good weather factors as needed in supporting coffee growth. while the inhibiting factors are that there is no support from the government and it is difficult to get access to medicines to support coffee growth, low quality and quantity of human resources, slope, no support from the government and it is difficult to get access to medicines to support coffee growth. Coffee business development in Rana Mese Village can still be improved. Development at the farm level can be improved through the application of several cultivation technologies such as land rejuvenation to suppress pests in the soil and increase nutrient levels in the soil.

3.2 Coffee Farmers' Perceptions of Coffee Management and Production Methods to Improve Family Welfare

Coffee not only plays an important role as a source of foreign exchange but is also a source of income for no less than one and a half million coffee farmers in Indonesia (Rahardjo, 2012). Coffee plantations in the area of Rana Mese Village, Sambi Rampas Subdistrict, East Manggarai Regency, NTT province, are coffee plantations cultivated by individuals. The meaning of individual is that the plantation is located on their own land, managing the coffee plantation themselves and selling the harvest themselves. The number of dependents of a family head can determine the fulfillment of their basic needs. The more family members a coffee farmer has, the more the burden must be borne, and this is related to the size of his income. If the income earned is sufficient, there is no problem, but on the contrary, if the income is insufficient, it will have an impact on other aspects such as education.

Perception is a process of organizing, interpreting the stimulus received by the organism or individual so that it becomes something meaningful, and is an integrated activity within the individual (Walgito, in Irsa 2017). According to Yudhi (2016) farmers in receiving stimulus in the form of information will certainly cause diverse perceptions and opinions, farmers will not immediately respond whether it is positive or negative, but will go through a process within themselves to interpret whether the information provides a good meaning for themselves and whether the innovation is related to their activities and their profession. Based on the results of interviews with informants, it can be concluded that the perception of coffee farmers in coffee management and production is as an effort to fulfill family economic needs. The results of coffee farming that are cultivated can meet the needs of their families. In the management of coffee farming, there are many factors that influence the management of coffee farming, namely there are inhibiting factors and there are supporting factors. Some of these factors are as follows: Supporting factors are: (1) land area, the more extensive the agricultural land owned by coffee farmers, the more income they have. (2) the level of soil fertility can affect the coffee income of farmers, if the level of soil fertility is high then the farmer's coffee income is also high, and the maintenance process is not too difficult, (3) Good weather can increase coffee yields from farmers, but if the weather is not good, coffee income will also decrease.

The high or low production of coffee produced by farmers is something that affects the income of farmers. Thus pan coffee farmers are very dependent on the coffee farming sector in supporting all their needs. And of course there are various perceptions that arise related to the extent of income in supporting family needs or family welfare. Based on the results of research conducted in the field, the perception of coffee farmers in improving family welfare is that the coffee products owned by farmers have fulfilled all family needs, and have improved family welfare.

4. Conclusion

The process of a processing and producing coffee in rana mese village is quite easy so that coffee yields always increase every year, this greatly helps coffee farmers in meeting family needs. the process of processing and producing coffee in rana mese village is quite easy so that coffee yields always increase every year, this greatly helps coffee farmers in meeting family needs. The processing and production of coffee carried out in rana mese village, sambi rampas sub-district, east manggarai district is very good so that every year it always increases, the coffee processing process in rana mese village, takes 3 months. In addition, there are supporting and inhibiting factors in managing coffee farming, namely: (1) supporting factors are land area, high soil fertility level, good weather, (2) inhibiting factors: low human resources, no support from the government in managing coffee farming.

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