

Palm Sugar as a Household Economic Source in Krajan, Medono Village, Boja Subdistrict, Kendal District

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Abstract—Each rural area in Indonesia has different commodities in order to meet their daily needs, such as in Krajan, Medono Village, Kendal which has palm sugar as their main commodity. Palm sugar is a local commodity derived from the use of palm tree sap that grows wild or cultivated on community-owned plantations and is one of the economic sources of the Krajan community. This study aims to find out how far palm sugar is a commodity that plays a role in the household economy of the community in Krajan. The method used in this study is descriptive qualitative with data collection techniques in the form of in-depth interviews with several parties, literature studies, and documentation. The results of this study indicate that palm sugar is the main commodity in Krajan, Medono Village, which is used as a household economic resource by the surrounding community in meeting their daily needs. For the community around the Krajan, utilizing palm tree sap is a profitable thing because without a lot of capital they can harvest in large enough quantities.

Keywords—*commodities; economic source; Krajan; palm sugar*

I. INTRODUCTION

Agriculture is one of the supporting sectors for the economic growth in Indonesia. This is one of the mainstays of the household income for rural residents because it is based on the processing power of natural products [1]. The agricultural sector plays an important role for the economics of the developing countries, in order to improve economic growth, reduce poverty, preserve natural environment, provide food stuffs, work forces, and foreign exchange [2][3].

Indonesia has various kinds of agricultural potential; one of them is *aren* (Indonesia) or palm tree (*Arenga pinnata Merr*). This plant that belongs to the family of *Palma* or *Aracaceae* is an Indonesian native flora. The palm tree produces agricultural products such as sugar palm fruit (called *kolang-kaling*), sugar water (*nira*), and flour that is taken from its stem. The palm trees in Indonesia are cultivated in small-scale agricultural production starting from few tree trunks [4]. All parts of a palm tree can be utilized and have a high economic value. Meanwhile, one product of the palm tree that is widely

processed by the community is *nira* (palm tree extract). *Nira* is produced from the flowers that grow on the stem. Usually, this water extract is processed to be made into palm sugar. Although the method of the production process of palm sugar is difficult, it remains an economic resource for many local people [5]. The palm sugar has a very broad market to the foreign countries. Some countries that import the palm sugar from Indonesia are Saudi Arabia, United States, Australia, New Zealand, Japan and Canada [6].

Based on data from Central Bureau of Statistics (BPS) in 2013, the production rate of palm sugar in Indonesia is high, nearly 303,760 liters/year. This figure is obtained from the accumulation of the calculation of 14 provinces in Indonesia which regularly produce the palm sugar. From the fourteen provinces, one of the biggest contributors is Central Java. The Central Java places the seventh position with the palm sap (*nira*) production as much as 28,090 liters/year [7]. This is significantly influenced by the existence of many palm sugar production houses in the Central Java, one of which is in Kendal regency.

Kendal is one of the suppliers of palm sugar to meet the needs of the community. The topography of Kendal regency with mountainous and hilly areas are resulted in many types of plants which are able to grow fertile, including the palm trees. This is indicated from the entire land area in Kendal regency, 26% is used for the rice fields, 20% for dried fields, 8% for plantation, and the rest 46% is used for other activities [8]. There are many production houses of the palm sugar in Kendal, such as in Boja sub-district, especially in Peron Village, Limbangan Village, and Medono Village.

In Medono village, the production of palm sugar is concentrated in Krajan. In Krajan, it is not only palm trees that are intensively planted, but there are also others such as clove, avocados, and coffee. However, the most commercial commodity is the palm sugar itself. Most of the people in Krajan, Medono village, Boja sub-district work as sugar palm farmers. The palm sugar has been the daily production of the Krajan people. The development of palm sugar production in Krajan is very prospective. From this agricultural product, they can fulfil their daily needs, such as clothing and food. The processing method

that still uses traditional tools simply improves the selling value of the palm sugar in the market, because it is known as the genuine palm sugar.

Based on some reviews above, this article tries to examine (1) the processing and production of the palm sugar in the Krajan, (2) the work divisions in the management and production of the palm sugar, and (3) the roles of palm sugar as a household economic source in the Krajan. Based on the agricultural production, the palm sugar can be a source of economic income for the community done by both individuals and households through direct subsistence production or services that they produce themselves which are intended on basic human needs that are useful for sustaining the life [9]. The research is conducted to find out more about the roles of palm sugar in meeting the household needs of the people of Krajan, Medono village, Kendal regency.

II. RESEARCH METHODS

This study used descriptive method with the qualitative approach, which was carried out to find, to develop, and a certain theories so that in turn it could be used to understand, to solve, and to anticipate other problems [10]. The focus of this research was to find out the roles of palm sugar as a source of household economic income. The location of the research in this study was Krajan, Medono village, Boja sub-district, Kendal regency. This research was conducted on the 19 - 23 July 2018. The primary data was obtained directly by the researcher using the data collection techniques through observation in Krajan, interviews with some palm tree farmers, Krajan people, community leaders, and documentation in form of pictures and archives [11].

III. RESULTS AND DISCUSSION

A. Processing and Production of the Palm Sugar in Krajan

Palm tree is one type of agricultural crops found in Krajan, Medono Village, Boja sub-district, Semarang Regency. This palm tree will flower after 7-10 years [4][12][13]. So far, the palm sugar farmers in Medono village use palm water extract (*nira*) to be processed into the palm sugar. The production of palm sugar in Krajan greatly supports the economic aspect of the community. Almost every day, the people work to take *nira* water in the garden. *Nira* is water produced from the palm sugar by cutting or beating on the flower, so that the water will come out [14]. Then, usually the water is collected using gallons or bamboo.

Season is very influential on the quality of palm sugar produced from the palm trees. During the rainy season, the production of palm sugar tends to be low with poor quality. This is because *nira* is mixed with dirty rainwater, so that when *nira* will be processed, then it is necessary to leave it for a few hours to filter it from the rainwater [15]. Therefore, the sugar produced also tends to have a low quality. In contrast with rainy season, *nira* will have a very good quality during the dry season. This is because

the water produced is pure and not mixed with any substances.

The palm trees planted by the Krajan people are not in the context of agricultural cultivation. It is merely an inheritance from their parents and even their ancestors. The people only inherit the works of their parents as the palm sugar tappers. The Krajan community only understands their surrounding environment (not familiar with cultivation techniques), so that the development and growth are not so fast. Lack of technology in the cultivation process is not a barrier to them to keep producing the palm sugar. In fact, this has become an advantage because it adds to the selling value of the palm sugar that results in major contribution to the economic income of their families [13].

The palm tree planted in the garden of each group of family can be directly utilized and harvested every day for its water (*nira*). One of the informants said,

A palm flower stalk can be taken for its *nira* up to three months, some can even be longer.

Analyzed using basic economic theory, the economic activities of the people of Krajan is classified into the non-based sector. Non-based activities are the activities whose results are goods and services for the community itself in its area of economic life. The concept of self-sufficiency from the palm sugar non-based activities is able to meet the local people's daily needs [16].

The Krajan people take *nira* (or in the local term, this activity is called "*nitis*") twice a day. The palm sugar farmers usually go *nderes* at 6 am and 4 pm. In a day, a palm tree can usually produce the palm sugar from 3-7 kg, depending on *nira* obtained. Usually, they start boiling *nira* at 9 am for about 6 hours [14]. The boiled *nira* in the morning is the result of *nderes* in the yesterday afternoon and in the morning. While boiling, *nira* must be stirred continuously, so that it will be cooked well. After *nira* starts to be thick, it is then molded using coconut shells. Usually, one coconut shell has been set for ¼ kg palm sugar.

The palm sugar produced by the Krajan community has a very good quality. This is because the palm sugar is produced originally from *nira* without being added with other ingredients. Therefore, it has a good quality and is a highly sought-after market. The sugar is processed using stoves made of piles of stone/furnace or known as *tungku*. The fuel used is firewood. It is believed that the wood can create a different flavor compared to use the gas stove. This might be that by using the furnace, the fire spread evenly on each side of the pan. The firewood used for the fuel is harvested from the local gardens. Usually they use coffee tree, cloves tree, and *sengon* wood, and so on, which are easily found in their surrounding environment. *Nira* is boiled to become very thick. After that, the thick sugar liquid is poured into the mold and is waited until it is cold. Making palm sugar is also easy and can be conducted using simple equipment. The price of palm sugar sold from farmers directly ranges

from Rp. 17,000 / kg. However, if it has been carried by the middleman and sold to the market, the price can reach Rp. 20,000 / kg. There are even sellers who are willing to come to Krajan to buy the palm sugar directly from the farmers, on the grounds that they will get cheaper prices, rather than buying through the middlemen. Usually, the palm sugar buyers come to the sugar palm farmers' houses every once a week. The palm sugar is usually stored well until the buyers come.

B. Work division of Palm Sugar Farmers in Krajan

The work of processing palm sugar is grouped between male and female. *Nderes* is usually only done by men, whereas the women will later work boiling *nira* to be frozen into the palm sugar. The Krajan people who do not become the sugar palm farmers usually have other farms or become the workers in other farmers' places. The palm tree management system also has different characteristics. There are two parties in Krajan community, i.e. the owners of the gardens and the cultivating farmers. The cultivating farmers are a group of farmers who only have lease status, where the land they cultivate is owned by someone else. Meanwhile, the group of farmers who own the garden are those who own their own land as the farmland [17].

The garden owners and cultivators have different time in processing and taking the sap (*nira*) from the palm trees. The garden owners have a two-day harvest period for their palm trees. Likewise, the cultivators also have only two days to take *nira*. During the harvesting time of the owners of the garden, usually the cultivators will take the sap to then be handed over to the owners. In the next two days, the sap will have just been handed over again to the cultivators. This is done repeatedly. Sometimes, the owners of the garden do not process the sap to be the palm sugar themselves. They usually ask for help from their neighbors or relatives whose houses are close to them or let the cultivators do it. Thus, they receive net income in the form of money. Like the interviewer (2018) who said that in processing the palm sugar, she is assisted by a relative whose house is nearby. The neighbors help to process the palm sugar and also grill the coffee seeds in her home.

C. Roles of Palm Sugar as a Household Economy of Krajan People

The palm sugar produced by the Krajan community, if analyzed using informal economic theory by Castells and Portes (1989) in [9], is functionally as a source of household economics in order to live the life which can be done either individually or within households. Through direct subsistence production of the palm sugar or the services, they generate themselves to fulfil the human basic needs that are useful for sustaining the life. The income from the palm sugar production is very helpful in fulfilling the daily needs, such as buying kitchen utensils and food stuffs. The barter system using palm sugar is also still applied in the Krajan. Usually, they bring the products of palm sugar to a stall near home to be exchanged for rice, vegetables, sugar, oil, and other

necessities. It is also often that the palm sugar is exchanged with some money, or usually when someone lends money to a stall, the palm sugar is given to pay off his debt.

From the descriptions above, it has been shown that the palm sugar can greatly contribute to be a source of the family's income in the community. The palm sugar farming business can be said to have a good contribution and is able to support the fulfillment of the needs of farmers' families, such as clothing, food, and shelter. The community does not only take jobs as the farmers for business matters (commercial) only, but also as a way of fulfilling their needs of life [13]. A theory states that the higher the outflow of work time in a particular field, the higher the income that can be provided. However, based on the results of this study, it is shown that the outflow of the work time on the palm sugar farming is on fair level [17].

The palm sugar farming is a supporting livelihood for the Krajan community. Besides the palm trees, they also have other fields such as rice, coffee, cloves and avocados. The seasonal harvest time for other commodities causes them to make the palm sugar as their daily work. According to Winardi (2005) in [17], the additional livelihood for increasing the household income is very common. This sign the diversity in household income sources. The farmers' household income can also come from seasonal crops. Besides, it also depends on the workforce market and leisure time of each day owned by the farmers.

In fulfilling the economic needs of the farmers' household, it cannot be separated from the decision-making strategies undertaken by the farmers in allocating energy and time toward the economic resources or livelihoods as well as regulating their household income. The palm sugar is a product that has the potential to generate higher income. This is because it has special taste, aroma, and typical color. Moreover, the palm sugar has been widely known by Indonesian people as one of the food and beverage sweeteners [18].

IV. CONCLUSION

Palm sugar is the product of the Krajan community, Medono Village, Boja District, Kendal Regency. By utilizing the juice of sap that is produced every day, is able to produce palm sugar in sufficient quantities. The process of producing palm sugar in Krajan is still done simply by using a stove in the kitchen. Printing is also done with coconut shells to get the same size. There are two parties in palm processing, namely: there are farmers, and there are farmers who own the land. They use the land alternately every two days. The income from palm sugar production is very helpful in fulfilling the daily needs, such as buying kitchen utensils and food stuffs.

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