



## The Regional Partnership Program in Jumantono Sub-District, Karanganyar Regency

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### Abstract

Jumantono Subdistrict, Karanganyar Regency is an area that has been developed as a center for livestock and agriculture in Karanganyar Regency. The most dominant agricultural and plantation products from Jumantono sub-district are cassava and durian. The Regional Partnership Program (PKW) activities in Jumantono sub-district are focused on two fields, namely First, agriculture and animal husbandry, handling the environment due to animal odor and feces, through the application of clean livestock by utilizing biogas installations which can also be used for cheap household energy sources, and production of organic fertilizers that can be utilized in agricultural and plantation activities. Second, for fields based on economic aspects, it is directed to elevate the potential of local Jumantono plants, namely cassava and durian. Potential of cassava will be developed starting from the aspect of cultivation with the selection of good cassava seeds and the development of grafting cassava which can provide an average yield of 30-70 kg / tree. This paper reports on the PKW activities in Jumantono that were carried out in March d November 2018, specifically about skills in production and development of business based on cassava processing and other products by SMEs in Jumantono. Partners of PKK groups in Ngunut and Kebak villages, after being taught how to cultivate and maintain cassava, were then trained on the manufacture of various processed cassava. The mentoring process carried out on partners starts from the way of making Mocaf flour, various processed cassava and about the packaging design of cassava processed products. The expected output of this PKW activity is the realization of more productive agriculture or cassava cultivation and diversification of various cassava-based processed products. Improvements in the appearance of labels and packaging, as well as the development of marketing products from Ngunut and Kebak villages have also been carried out in this PKW activity.

**Keywords:** Clean Livestock, Cassava Cultivation, Diversification of Cassava Processed Products, Cassava Processed Packaging Design

## 1. Introduction

Karanganyar Regency is one of the regencies in Central Java Province which borders the regency regency in the north, East Java Province in the east, Wonogiri and Sukoharjo regencies in the south and Surakarta City and Boyolali Regency in the west. When viewed from longitude and latitude, the Karanganyar district is located between 110° 40 " - 110° 70" East Longitude and 7° 28 " - 7° 46" South Latitude. The average height is 511 meters above sea level and has a tropical climate with temperatures of 22 - 31 °C. The average height of the area in Karanganyar Regency is above sea level which is equal to 511 m, while the lowest region in Karanganyar district is in Jaten sub-district which is only 90 m and the highest area is in the tawangmangu sub-district which reaches 2000 m above sea level. The area of Karanganyar Regency is 77,378.64 Ha, which consists of paddy field area of 22,130.32 Ha and dry land area of 55,248.32 Ha. Rice field consists of technical irrigation 14,361.57 hectares, non technical 6,229.28 ha, and non-irrigated 1,542.52 hectares.

The Regional Development of Karanganyar Regency is essentially a process by which the Regional Government together with all components of the community and competent parties manage various resources owned and form partnerships to realize people's welfare. Indicators of the level of welfare of the community can be seen from the development targets, among others: increasing economic growth rates, increasing per capita income, decreasing the number of poverty, decreasing the number of unemployed and economic inequality both among communities and between regions.

The biggest contribution of the economy of Karanganyar Regency which supports the GRDP as a whole comes from the industry, trade, agriculture, livestock and tourism sectors, because most of the Karanganyar residents make a living in agriculture, trade and livestock. Whereas in Karanganyar which has great potential in economic development are agriculture, animal husbandry, trade and tourism. Regional-based community development is an approach that must be carried out in synergy between the Government, the community, universities and other stakeholders, so that it can deliver Indonesian people who are socially, culturally and economically strong. This is due to the different potential of natural resources, human resources, social and cultural areas between Indonesia. Problems in society are very diverse, so it requires the participation of all parties to parse the problem and find the best solution.

Successful regional-based economic development depends on seriousness and cooperation between the government, universities, business people, community associations, and non-governmental organizations. Synergy is needed to achieve the goal of creating self-reliance and community welfare. Higher education requires local governments as stakeholders of the region and regulators of the implementation of development as contained in the Regional Medium-Term Development Plan (RPJMD) to apply the expertise they have in accordance with the problems and needs of the community.

The election of Karanganyar Regency as a PKW area that will focus on regional issues in the fields of livestock, agriculture and the economy of agricultural products is because of Karanganyar Regency:

1. Placing the agricultural sector including livestock as the leading sector, as the second largest contributor to Gross Regional Domestic Product (GRDP), namely 23.81%, and

the manufacturing industry sector being the biggest contributor with a value of 43.75%.

2. Has natural potential that is very supportive for tourism development. Among other things there are waterfalls, temples, mountains with cool and very beautiful natural scenery, besides being strategically located on the tourist route, Sarangan, Pacitan, Wonogiri and Solo.

## 2. Methods of Implementation

The Regional Science and Technology Program uses the RRA (Rapid Rural Appresial) / PRA (Participatory Rural Appresial) approach / RRA and PRA are philosophies, a method approach known as understanding villages quickly. The principles of the RRAS and PRA approach used in this activity are:

1. Fast and Progressive Learning, through planned exploration, the use of flexible, improvised, repetitive methods and adjusting to the learning process or understanding.
2. Exchange Optimization, linking the cost of understanding with information that is truly useful for the community in Ngunut village and Kebak village, Jumantono Subdistrict, Karanganyar, with exchanges between quantity, intimacy, accuracy and timeliness.
3. Provision of facilities, which means providing facilities for investigation, analysis, presentation and understanding by the community in the Ngunut village area and Kebak village, Jumantono District, so that they can present and have the results, and also learn about them.
4. Critical self-awareness and responsibility, meaning that the facilitator continually tests their behavior and tries to do it better.
5. Share information and ideas among the people in Ngunut village and Kebak village, Jumantono sub-district with facilitators, and between different facilitators, and share activities, training and experiences among different organizations.

The above activities are planned to be carried out with Focus Group Discussion (FGD), training, mentoring and ending with evaluation and monitoring.


## 3. Results and Discussion

Referring to the Karanganyar Regency RPJPM which stipulates that Jumantono Subdistrict, including Kebak and Ngunut villages as livestock and agropolitan development areas, taking into account land suitability and labor potential, in this paper, PKW activities will be reported specifically on:

- a) Development of Kingkong cassava cultivation
- b) Development of various processed products based on local ingredients, such as cassava.
- c) Assisting label design and packaging of processed products.
- d) Mentoring the development of processed product marketing.

### a) Development of Cassava Cassava cultivation in Jumantono sub-district

Jumantono Subdistrict, including Ngunut and Kebak villages has local agricultural potential and is a center for cassava and durian production. Cassava plants in Ngunut and Kebak villages are often found in almost every yard of the house and garden of the population. However, cassava plants cultivated by the community / farmers in the two villages are local cassava with a production capacity of 2-3 kg. There is no planting of cassava with high-yielding varieties and high productivity. In this PKW activity Kingkong cassava varieties have been introduced and their cultivation methods. In each village, the provision of Kingkong cassava seedlings has been provided to be planted on demonstration grounds and yards of residents who want to develop it. The introduction and development of Kingkong cassava cultivation is expected to increase the production capacity of cassava crops, because the productivity of kingkong cassava can reach 30-50 kg / tree.

	
<b>Figure 1.</b> Condition of cassava local plants	<b>Figure 2.</b> Kingkong cassava is introduced to the community
	
<b>Figure 3.</b> Training on how to connect or grafting	<b>Figure 4.</b> Condition of Kingkong cassava plants

Partners in the villages of Ngunut and Kebak have gained experience, skills and concrete evidence of Kingkong cassava cultivation, which is expected to increase cassava production. Kingkong cassava at the age of 4-5 months has an average height of 2-2.5 meters, with large and sturdy stems.

### b) Development of various cassava preparations

PKK groups in Ngunut and Kebak villages, Jumantono sub-district have been trained and assisted in making processed products from cassava, including rengginang, bread

and biscuits. The production and development of various processed cassava products aims to increase the economic value and added value of raw cassava which has been produced so far



**Figure 5.** Practice of making processed cassava products



**Figure 6.** Practice of making processed bread and rengginang from cassava flour

From this activity PKK groups in the villages of Kebak and Ngunut, Jumantono sub-district have been given training and practice in making rengginan, bread and biscuits to develop and increase the added value of cassava. Assistance for packaging design, product promotion and marketing still needs to be done, because PKK groups and community groups that are fostered do not have entrepreneurial skills.

Constraints that still exist during the implementation of the Regional Partnership Program (PKW) activities in Jumantono sub-district, most of the groups involved were PKK groups, wives of village officials and housewives who had not yet engaged in productive business. Opportunities for developing various cassava-processed businesses have not been followed up, because there is no ability to produce and market, do not yet know how to make attractive product packaging, and do not yet know about the P-IRT permit.

c) Assistance and introduction of production technology to strengthen MSMEs in partner locations

In connection with the second year of mentoring activities, namely in May until November 2018, in the partner locations there has not yet been fruit and durian harvest, so the development of processed product activities is more focused on the development of existing MSME products in partner locations. In the village of Ngunut there have been efforts and the production of rambak cow skin crackers which are managed independently by 4 (four) families, which were previously only occupied by one family namely the Sumardi and Marsiyem families. Along with the many requests from sales and consumer partners, it has developed into 4 (four) families that manage and develop the skin cracker cracker business. In this community service activity (PKW) assistance has been made to improve the production process to be more hygienic and the provision of production equipment to improve product quality, in the form of spinner machines.



	
<p><b>Figure 7.</b> The process of boiling cow skin</p>	<p><b>Figure 8.</b> Drying of cow skin</p>
	
<p><b>Figure 9.</b> The process of crafting cow skin before drying it again until it's dry</p>	

Other business groups that have also been accompanied in the village of Ngunut, namely sago tempeh chips and impling cassava crackers. The production of sago tempeh chips and impling cassava crackers had already been carried out with the simple and conventional conditions of the production process. Through this PKW activity, production technology has been introduced in the form of slicing machines, cassava grated machines and oil draining machines. The technology that has been given and used in the production process, has proven to improve the quality of processed products from UMKM partners. Packaging design and labels of processed products have also been provided assistance and repairs. With a better display of packaging and labels, it is expected to increase consumer confidence, and also increase MSME income.



**Figure 10.** The frying process and packaging of cow skin rambak products



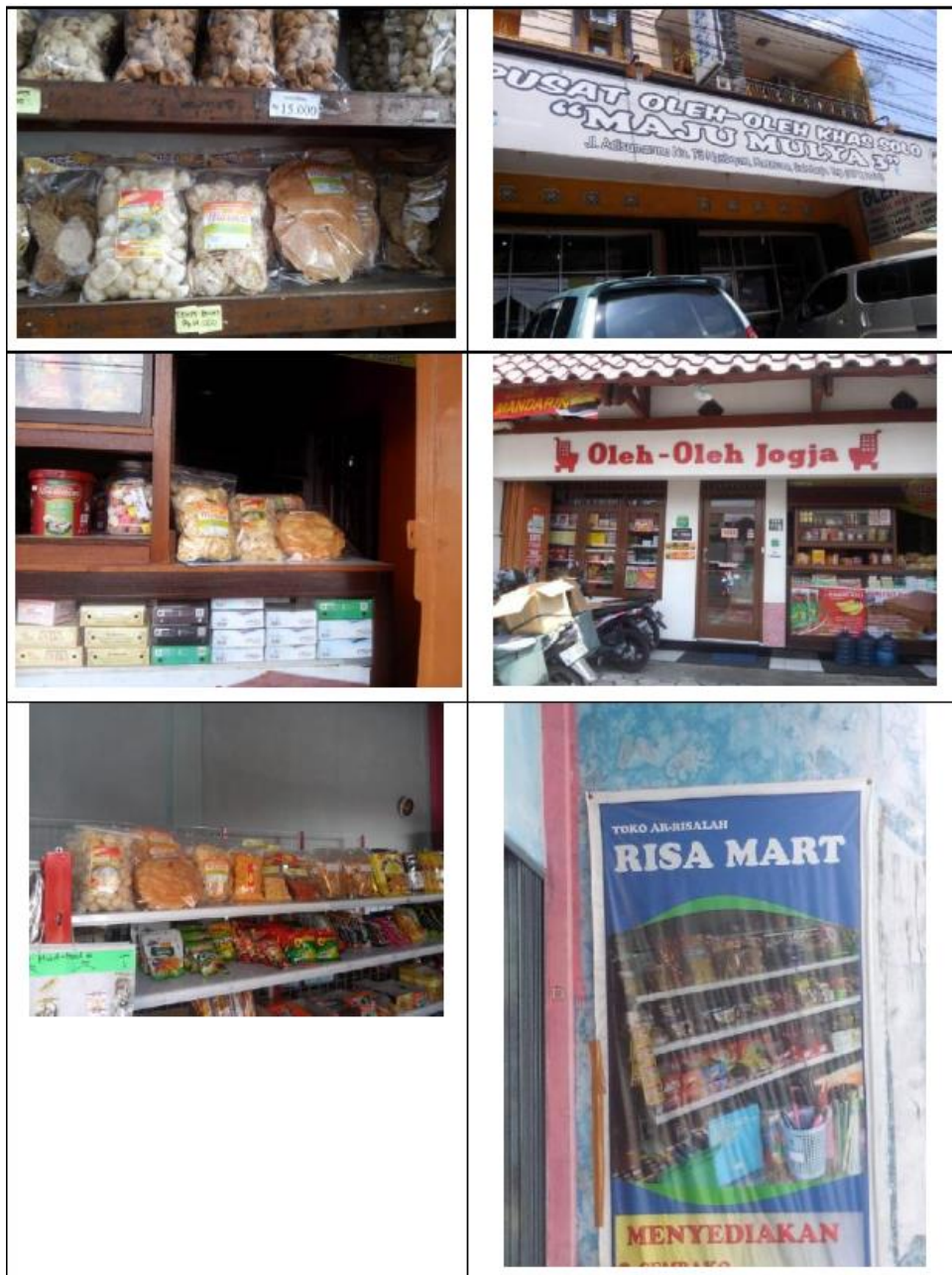
**Figure11.** Display of partner products,  
BEFORE mentoring PKW

**Figure 12.** Display of partner products,  
AFTER mentoring PKW



#### d) Assistance in developing marketing of processed MSME products

Processed products that already exist in Ngunut and Kebak, such as cassava/impling crackers, sago tempeh chips, and cow skin rambak crackers which have become sources of income for some residents in the village, have been marketed in a very conventional and partly without packaging or bulk sale. This very conventional way of selling is very influential on the business development of the products sold. In this PKW service activity, assistance has also been made on the development of processed product marketing as well as the design and packaging of products. Processed products from the UMKM in Ngunut and Kebak villages have been helped to be marketed in stores in the Karanganyar, Solo and Sukoharjo areas.



**Figure 13.** Photos of partner products that have been marketed and displayed at souvenir shops in Solo raya



In the next stage, monitoring of the development of the market response is being carried out for processed and labeled new packaging products for MSMEs. Positive results and responses by consumers and stakeholders of souvenir shops will be taken into consideration for increasing production capacity of MSME partners.

#### **4. Conclusions and Suggestion**

##### **Conclusion**

1. The introduction of Kingkong cassava cultivation has provided partners with the understanding and skills to be able to develop cassava plants with far greater production capacity.
2. Various cassava processing training, providing understanding and skills to PKK groups to increase added value and economic value of cassava that has been produced.
3. Assistance to label design and packaging of processed products from MSMEs in the villages of Ngunut and Kebak, to improve the appearance and increase the attractiveness of consumers and to produce good results.
4. Assistance for the development of marketing various processed products from MSMEs has been marketed in stores in the Karanganyar, Solo and Sukoharjo regions.

##### **Suggestion**

Mentoring for the packaging design of cassava processed products, promotion and marketing still needs to be done and trained because PKK mothers and community groups who are nurtured as partners do not have entrepreneurial skills.

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