

## "Health and Care" Regional Main Product Development Based on Diversification of Virgin Coconut Oil Products, Trenggalek District

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### Summary

Along with efforts to accelerate economic growth by the Trenggalek Regency Government through the Trenggalek GEMILANG (Bright Industry Quality Movement) Year 2015-2020 program in strengthening regional autonomy, one of the superior products that has the potential to be developed as regional superior products is Virgin Coconut Oil. This VCO product besides does not require high technology in its manufacturing, but has very diverse benefits. In addition, the lauric acid content in this VCO product can also be developed in various anecings of herbal and natural "Health and Care" products, and also does not require high technology. So it is very easy if transformed to the community, as a medium for product development to empower the community economy.

The Trenggalek Regency regional government program, which launched One Village One Product, can make this VCO as a pilot project base for the development of various economic products that can increase income generation for the local community, so that the realization of regional superior products can trigger economic growth in the local community. Likewise with the efforts of regional governments in order to increase economic growth and Regional Original Revenue (PAD). This is very relevant because in general, VCO production in the area is generally a home industry, the main production input comes from coconuts which are widely available in the Trenggalek Regency.

The purpose of this program is to improve the quality and quantity of VCO production and diversification, in order to meet market needs as raw materials in the field of "health and care" products, with certified product quality so that they can be sold to the free market and able to compete in the global market, as a product Regional superior of Trenggalek Regency.

The method implemented in the Regional Superior Product Development Program (PPPUD), which is conducted a variety of trials of the most efficient and economical VCO production models, and can produce VCO products that have guaranteed quality standards, so that standardized production processes that are certified and licensed legal distribution from the government and can be widely marketed in the free market both inside and outside the country. Also in this first year also developed advanced products made from VCO, namely in the form of VCO soap, which are herbal and useful for health care, especially for facial care with acne.

The results showed that there were various ways of VCO production, ranging from fast spinning or centrifuge, osmotic vertilation, heating or evaporation and the latter being considered the most efficient and could be produced with better quality and quantity standards, namely by means of an enzyme system in stable temperatures, in purifying VCO with coconut water enzymes. And also produced herbal VCO soap, and various other Health and Care products.

**Keywords:** Standards, Quality, Products, VCO, Trenggalek

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### I. Background

Trenggalek Regency, is one of the regions in East Java that has a Local Revenue that is still low compared to other regions in the East Java Province. In such a situation, it is necessary to have breakthroughs and creative innovations to trigger economic growth in the Trenggalek Regency.

On the other hand, the efforts of the Trenggalek Regency government to accelerate economic growth with the Trengginas Galang Ekonomi program in 2013 (Bappeda Trenggalek, 2013), are more emphasized on efforts to empower SMEs, because in theory it shows that SMEs are more friendly to employment, so with the empowerment of SMEs can absorb more labor more. According to a survey conducted by BPS East Java province, the number of MSMEs in Trenggalek in 2011 for all sectors of the business as much as 143 455, which is divided into 140 595 Micro, Small Business and 551 2,309 Medium Enterprises. Based on the Public Policy Budget document (KUA) In 2014, the development of MSMEs is one of the strategic issues that should

work in Trenggalek district government in 2014 (Bappeda, 2014). Based on the description above, it is necessary to study in an effort to develop an economic enterprise of micro, small and medium-based products featured in Trenggalek areas, as follows:

1. The Regional Core Competence: Mocaf (Modified Cassava Flour)
2. One Village One Product: Tile
3. Creative Industries: Batik
4. Agro Industries: Chips Tempe. Coconut and so on, (Mahmudi, 2016)

Trenggalek Regency is one of the coconut plantations, which is mostly owned by the community. The Trenggalek Regency is located in the southern area and far from the Port and trade center as in the North East Java region. So it is very good if this area if developed as an industrial production area based on relevant natural resources, namely the results of coconut plantations. This is because Trenggalek Regency is one of the potential coconut plantations in East Java, which is generally owned by the community. Thus the government and the people of Trenggalek Regency need to get help in processing technology that is good and appropriate, in order to provide added value to the results of local people's plantations. So that in general, later it can increase community income, and be able to empower the economic role of the people of Trenggalek Regency through the processing industry of diversified processed VCO products produced by community plantations in the Trenggalek Regency environment.

## **II. Research Methods**

Research Methods, as for the method used in this research is action research or action research, which is carried out by the team in collaboration with research partners namely UKM UKM. Parawidya as a VCO producer in Sumberingin village, Karangany District, Trenggalek Regency. The object of research is the VCO production process through efficiency and standardization of production to improve the quality of the following products by making VCO soaps, which are herbal and good for skin care and health.

The research subject is the owner of UD. Parawidya, in this case as a partner in the development of quality VCO production and the development of VCO Soap products, which are herbs for skin care and health.

In this study, also developed the economic value of VCO products and VCO soap through the development of a product brand image, ranging from packaging, labeling to marketing.

Whereas the diversification product developed is VCO Soap, which is a soap formula made by warm mix, with a chemical mixture in limited quantities to produce herbal soap products. This is done so that the various products produced in this study, belong to the category of herbal or natural products.

To get the most efficient production process results, researchers conducted a survey to various community groups in the Trenggalek Regency environment, about the various ways of making VCO production, then a comparative analysis of production systems was carried out which was the most efficient and had the best product quality, and then determined accordingly. the base material for making diversified VCO products in the "Health and Care" product category. With the aim that all products made with VCO raw materials, efficient products can be produced but are still products that have high quality standards and are still within the standard quality of Herbal / natural products.

## **III. Research Result**

Trenggalek is a regency area that has a southern coast. This coastal area has coconut plants which are very potential for community efforts to utilize the natural wealth of the palm fruit. Based on data from the East Java provincial disbun ([http://www.disbun.jatimprov.go.id/komoditi\\_kelapa.php](http://www.disbun.jatimprov.go.id/komoditi_kelapa.php)), coconut plantations on community plantation, coconut plantation area in Trenggalek Regency is 15,812 Ha. This shows that the people of Trenggalek Regency have good economic potential based on the utilization of the fruit from the coconut.

Coconut fruit can be used and processed into various types of products, such as raw materials for oil, virgin coconut oil (VCO), soap, cosmetics, food and beverages, medicines, while the tree can be used as building materials, furniture, furniture households and even coconut fruit waste can be used for various purposes, for example: Coconut coir is processed into ropes and mats, fiber and coconut coir (cocodust) is processed into soundproofing walls, wood particles, growing media, mattresses, car seats, and coatings a spring bed. (Sustainable, 2017)

While the results of coconuts which have high economic value and full of miracle benefits for human life and health are Virgin Coconut Oil (VCO). This VCO is the best product from coconut which has good content and benefits for health, namely, among others: 1. lauric acid, 2. antimicrobial, 3. immune system, 4. good cholesterol, 5. super antibiotics, etc. (Arif, 2006)

Sumberingin Village is one of the villages in the Karangany Subdistrict of Trenggalek Regency, Sumberingin Village has the following brick boundaries:

North side: Salam Rejo Village and Sumber Village

East side: Jati Prah Village

Southern Side: Sukowetan Village  
West side: Kedungsigit Village



**Figure 1:** Map of Sumberingin Village

A. Existing Various VCO Manufacturing Processes in the Trenggalek District Environment

**1. Manufacture with centrifuge process**

Making with this centrifuge process, done with a rotating machine by relying on gravity. The manufacturing process is carried out in the following ways:

- a. Grated coconut meat
- b. The grated coconut is taken by squeezing coconut milk
- c. Coconut milk is blended to break down cannans, coconut milk and water
- d. Kanil, coconut milk and water that have the potential to burst, then rotated in a centrifuge machine to produce oil separated from the cannil and water, so that the VCO is produced

The process of making a VCO like this, besides requiring a long procedural also cannot be done at once in large quantities, because of the capacity of the turning machine that cannot be made in large quantities. This is because the turning machine requires high electrical energy, making it less efficient in the process of making VCO with the application of this centrifuge technology.

**2. Making with the Osmosis Fertilation process.**

The making of VCO by osmotic fertility process, this can be described as follows:

- a. After obtaining coconut milk, as mentioned above, coconut milk in a blender to break the cannil, coconut milk and water
- b. Furthermore, the coconut milk is filtered in a 4-level strainer
- c. At this fourth level filter, it is believed to have obtained the expected VCO.

Analysis that can be put forward in the process of making VCO like this, actually does not require high energy because it does not use machines that require energy, only the filtering process is high, requires a very long time and continuous and continuous supervision, so it does not efficient for the VCO maker itself. Because during the screening process that requires a long time and many filtering tools are needed, to produce more VCO. So it becomes inefficient if needed a lot of VCO.

**3. Making with the process of evaporation / heating.**

- a. After obtaining coconut milk, as mentioned above, coconut milk does not need to be blended.
- b. Then coconut milk is put in a cooker to be heated so that the water in the coconut milk evaporates.
- c. In making VCO with this evaporation process, in principle for the separation of water and oil is done by heating to the boiling point of water around 100 ° C, so that when the water evaporates, then what remains is oil and canil (the remaining coconut residue carried by coconut milk).

In this way the principle is more practical and fast manufacturing, however it requires a heating machine that has proper heating control and also requires a lot of energy for heating the coconut milk. The results obtained from the manufacture of VCO with this heating system, are VCOs that are still mixed with the burning oil, so the color becomes less clear, because the heating results that can cause partially burned VCO. Even the heating energy needed, becomes more for making VCO in this way.

**4. Manufacture by the process of enzyme separation of VCO.**

The making of VCO by this enzymation process is the making of VCO which is carried out by giving enzymes to the coconut milk that has been obtained. The process can be conveyed as follows:

- a. After the process of making coconut milk is completed, then put the coconut milk in a stable temperature chamber and leave it for about 12 hours.
- b. After being left for 12 there will be a separation of water and oil (VCO) and kanil.
- c. The position of the oil is at the bottom and some canil becomes dirt.
- d. The position of the water is above, along with some floating dirt.
- e. VCO oil is in the middle and then taken using a hose, carefully.

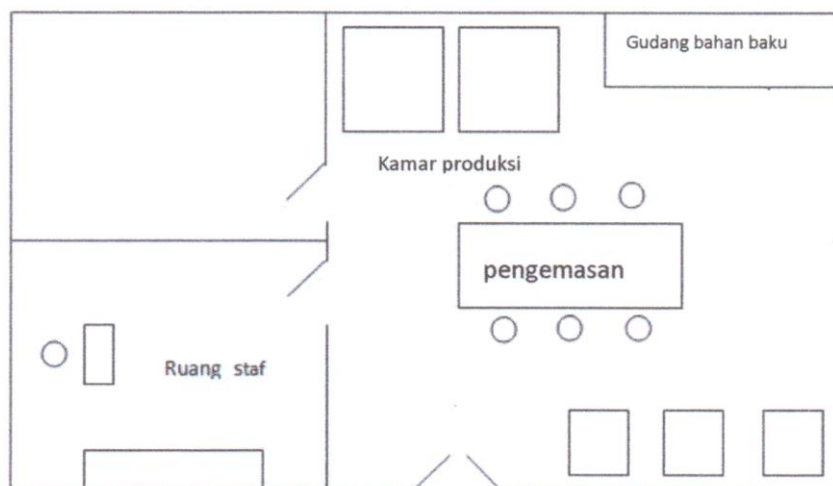
The process of making VCO by means of this enzyme, is more practical and more efficient and can be done in large quantities, so as to enable the production of VCO in larger quantities, in a short time, so that the results are economically more profitable and more time-consuming.

The application of Coconut Water Enzyme Technology in making VCO was carried out on a 150 square meter building land provided by the Pariwidya Business Group in Sumberingin Village, Karangany District, Trenggalek Regency, accompanied by training of VCO makers in the specified industrial environment. In the first year there was also a program of socialization and dissemination, as well as training for the community of craftsmen or VCO makers, in the environment of the object.

The application of appropriate technology using coconut water enzymes, accompanied by the process of separating VCO through stable temperatures, enables higher quality results for VCO products. Besides being cheaper because it does not need to use greater electricity in the VCO separation process like other technological applications: Both centrifuge technology that requires greater electrical energy, as well as the application of separation with membrane technology for those that require a long time. This enzyme application system besides being cheap, is also fast and can be done at once in a large capacity.

## **B. Standard Operating Procedures for Making VCO Products**

In an effort to obtain a production permit from BPOM. The effort to develop a production system to obtain certification from BPOM is still an effort that is felt indeed heavy by the Team and also by the Regional Government. This is considering the initial conditions that still need serious handling and need a lot of funding. So that in this first year, the collaborative effort with the Regional Government is still in the context of preparing everything to meet various requirements in the production of VCO Diversification that receives production legality from BPOM. With the intention of officially being able to sell freely in the market, and not just PIRT as has been obtained so far. The production plan to obtain a permit from the BPOM, which has been prepared, is as follows:



**Figure 2.** Lay Out of Production in the framework of BPOM Certificate Management

In the context of the preparation of BPOM's affairs, a collaboration with the relevant regional government is carried out, so that it is expected that a permit from BPOM can be realized for mass production and based on the efforts of the surrounding community in the VCO Diversification production chain. This still requires in-depth discussion considering the efforts to increase the amount of production will be strongly related to the buyer or the buyer, as well as the amount to be purchased including regarding the capital that must be prepared.

### **C. Development of Diversified Products**

In this research program, the process of making VCO by means of enzymation is used to produce VCO as an ingredient for advanced products, or diversification of VCO products for a variety of "Health and Care" products as potential products developed as raw materials.

The potential that can be developed from processed VCO products from research partners determined by the Regional Government of Trenggalek Regency has considerable potential, because the VCO products can be used not only for herbal medicinal purposes, but can also be developed diversified processed products in the form of soap, telon oil, massage oil and lip blam if produced according to standards and quality is maintained and the packaging is attractive both in terms of appearance and shape as well as various scent variances, then this potential can be developed by being introduced outside the Trenggalek area to foreign countries. This VCO processed diversification product will be made by Brand Image that illustrates the cultural characteristics of Trenggalek culture, namely Sop Sop Culture by the Research Implementation Team in the regional superior product development program carried out by the Bhayangkara University Research Team in Surabaya with funding from the Ministry of Research and Technology Republic of Indonesia.



**Figure 3.** VCO Diversification Product Making Practices

In an effort to improve the quality of the following products with production standards that become the reference for the next production standards, the PPPUD service team tried to test the Widcoo Diversification VCO product laboratory to the UNAIR Faculty of Pharmacy Testing Service Unit.

As a regional superior product, in the implementation of this PPPUD, brand image development will also be carried out, which prioritizes local local culture as the name of the product in various packages to be developed. Utilization of the application of local wisdom-based packaging design design technology to increase sales of VCO processed diversified products, is expected to have a very wide impact in the community of VCO processed diversified product makers, as the basis of packaging design design with a supernatural culture that will be the hallmark of VCO processed diversified products from Trenggalek .

Packaging with a touch of Menak Sopal Culture is what will be able to distinguish or can be a characteristic that is not owned by similar products from other regions. It is hoped that with the increasingly well-known diversification of VCO processed products that have these characteristics, it will be better known nationally and internationally which has an impact on rising sales of soap, telon oil, oil massage and lip balm products.



**Figure 4:** VCO Diversified Product Results

In the context of developing entrepreneurship in the manufacture of VCO Diversification products, to introduce VCO Diversification products to the market, collaboration is being developed with various parties, which while there are still many sales done by utilizing sellers freely and also developing institutional sales with various parties. :

#### **D. Institutional Development.**

To be able to make regional superior products, the results of VCO production at partners are also developed in terms of business management institutions, so that sales and production processes can be developed in a sustainable manner. The product development process is verified several alternatives to the community groups around VCO makers freely, for the manufacture of VCO Soap, VCO Telo Oil, VCO Lip balm, VCO Massage Oil, and various other diversified products in an herbal manner. Diversification Product Development is carried out not only on the type of product but also business development, among others, as follows:

- a) Soap products, Massage Oil products, Telaon Oil products, Lipbalm products, etc., as well as institutional development through the formation of cooperatives and mentoring for licensing assistance to related agencies authorized to grant permits.
- b) Trade Business, the second alternative that can be chosen in the group that has been fostered is the management of Trade Business (UD), the Implementation Team from UBHARA will provide assistance in managing Trade Business for community groups that make diversified VCO products so that their businesses get official permits including their production results .
- c) The third option will be offered to the VCO business group, if the choice is to establish a CV for the institution so that the Implementation Team from UBHARA will also provide guidance and assistance in the establishment of the CV if it becomes their choice.
- d) Limited Liability Company (PT), also given alternatives as possible options for the development of their business institutions.
- e) Training in making VCO with coconut water enzymes in the surrounding groups of producers / craftsmen called farmers' groups. The training will be carried out by grouping the makers / craftsmen / craftsmen who live around the village of Karangany into community groups with five people in each group and the implementation team limits to 3 groups so that all VCO craftsmen or makers are 15 people.

#### **E. Product Brand Image and Marketing Development**

The making of VCO Diversification previously did not use trademarks, and was only made to order of buyers from known cities. The sale is also done in a modest way. Furthermore, it is up to the buyer to be given any trademark. The quality and quantity of VCO Diversified products are adjusted to the desires of the customer, so that they cannot produce regularly and only produce periodically according to orders from interested buyers.

In accordance with the agreement between the team from UBHARA Surabaya and partners, it was agreed that the brand used was the MENAK SOPAL Brand, because we thought that the VCO Diversification that we made was more quality compared to other existing products and also carried the original culture of the city of Trenggalek namely Menak Sopal . So we consider the term Menak Sopal to be the most suitable trademark for the next VCO Diversification that we produce. Apart from quality, hygiene is also guaranteed, because the manufacturing process is optimized by using appropriate machines.

The brand name comes from the original culture of the city of Trenggalek which needs to be preserved and socialized through the VCO Diversification product. The name of Menak Sopal is the founder figure of the Trenggalek district which is famous for its success in prospering the city of Trenggalek, to become a stand-alone Regency, which was formerly the area of Pacitan Regency and Tulungagung Regency. The trademark has become a label in the packaging of VCO Diversification products which are sold to various distributors and marketers who have been developing so far. The use of these trademarks has been cooperated with the CV. Budi Lestari as one of the sales partners for the Surabaya region and surrounding areas. In addition, later this trademark will be used for a variety of diversified products that will be made for various cosmetic needs and treatments made from VCO.



**Figure 4:** Various Products Variants resulting from diversification of VCO Products, with Menak Sopal Brands

#### **F. Marketing Development**

The process of organizing the P-IRT Surabaya TEAM Surabaya team only provided input for the benefit of marketing collateral. The management is done by the Partners themselves as one of the contributions that can be given by the Partners, in this case Mr. Widono as the head of the UKM group that makes VCO Diversification, in Sumberingin village, Karanganyar District, Trenggalek Regency. Ubhara provided management assistance and assisted with the management of the Trenggalek District Government Health Service. The results obtained from the management of the production permit, is obtained by the National P-IRT permit from the Trenggalek District Government Health Service.

In addition to using new technology, from the results of joint use research with the PPPUD Team, as well as the manufacturing process changes were made to make it more efficient and effective to produce VCO Diversification in a larger capacity and higher quality, with product quality standards that are maintained. Making with maintained product quality standards is intended so that consumer confidence is not disrupted and market absorption can be developed in a sustainable manner. In addition, in order to develop the market further, it must be accompanied by greater product capacity improvement. On the other hand, for further development, product diversification and development of production houses which are oriented to the development of production systems that are standardized towards certification from BPOM are also sought to be widely sold in the free market and can compete in modern markets / malls.

In this marketing training, it is the most difficult challenge but also a very important opportunity in an effort to run better the business of making this VCO Diversified Product. This is important considering that the business of making VCO Diversified Products is based on production inputs, and is far from market areas other than far-reaching markets, as well as marketing information and distribution of goods far from consumers. Marketing training also requires facilities that are relevant to the developed marketing system, especially online marketing or the use of ICT, so that marketing training on computer use still requires a long stage in its development and challenges going forward.

The implementation of cooperation with the Bina Sejahtera Desa Foundation is in the form of providing human resources who need work, where in various programs carried out specifically in empowering the surrounding community both in processing VCO waste that can still be used economically, various diversification products are also developed others that are of interest to the community groups under the auspices of the Foundation.

The various training activities can be seen in the picture below:



**Figure 5:** Coordination of Marketing Network Development with Partners

Marketing cooperation with the Bina Sejahtera Desa Foundation is also carried out in order to expand the market network for VCO Diversified Products. The marketing development, carried out for marketing at the local level in the South East Java region, includes Trenggalek, Tulungagung, Blitar, Kediri, Nganjuk, Ponorogo, Madiun and surrounding areas. This marketing cooperation, makes the development of this business wider and can become the intended market segments.

Bina Sejahtera Desa Foundation, has a strong commitment in community empowerment in the Trenggalek Regency area, various community groups who get help in community empowerment efforts, the Bina Sejahtera Desa Foundation usually provides a place for training and the provision of participants in accordance with the needs associated with community empowerment efforts . As for this training the Bina Sejahtera Desa Foundation volunteered to help provide a training venue and involve the people in its formation to be invited to participate in marketing training activities and capital provided for those interested in participating directly in marketing the VCO Diversified Products produced. in areas that can be reached by the trainees. So this direct marketing training is part of the collaboration between the Ubhara Surabaya Team and the Bina Sejahtera Desa Foundation which has access to local residents and has a letterhead and a letter officially inviting the community to be trained and providing a training venue for the training to take place.



**Figure 6:** VCO Diversification Product Exhibition with the Koperindag Office, Trenggalek

To guarantee the implementation of a sustainable VCO Diversification Product business, with optimal production and marketing development, the Ubhara PPPUD TEAM Team will provide assistance in the business management and marketing assistance process. The process of managing a company is given various materials concerning an efficient business management system with a company administration system that can be controlled properly. Likewise, the marketing of their products is carried out with guidance and assistance to be able to work closely with various companies in the marketing network or retail marketing network that can be accessed in the marketing of VCO Diversified Products. In addition, on-line marketing is also given theoretically to use computer information technology (ICT) in order to reach a wider market in a short time. This marketing assistance and coaching is carried out continuously until practice in the field in the second year following.





**Gambar 6:** Survei Pemasaran pada Agent

### **Conclusion**

1. The results of the research show that VCO is a product that has uses to be developed in various derivative products, in various diversifications in the Health and Care product group, which are herbal.
2. Various Health and Care products made from VCO, including VCO itself, VCO Soap, VCO Telon Oil, VCO Massage Oil, Lips Blam, etc.
3. In an effort to empower the economy of VCO-making community groups, institutional development is needed starting from the organization, product certification in order to obtain a marketing authorization, to the development of packaging and brand image development of the various product diversification results.
4. Marketing development can be done on-line by placing advertisements on the web, and can also be marketed by developing various agents on-line through cooperation with various sellers both directly to consumers and with the distribution of certain regions.
5. Various derivative products from VCO for the Health and Care product group, can be developed with the Warm Mix system, in the Herbal or natural product group, although they still require chemical mixtures within the limits of herbal / natural products.

### **References**

- [1]. Arif, L., 2006, Minyak VCO bersifat antibakteri, antivirus, dan antiprotozoa, <http://www.minyak-kelapa.com/artikel/sifat.php>
- [2]. Bappeda Trenggalek, 2013, Trenggalek Dalam Angka, BPS, Trenggalek
- [3]. Mahmudi, Agus, 2016, Implementation of Policies To Support Msmes In The Program "Trengginas Galan Economy" In Trenggalek volume : 5 | Issue : 11 | November 2016 • Issn No 2277 - 8179 | If : 3.508 | Ic Value : 69.48,
- [4]. Laporan Akhir Kajian Program "Trenggalek" (Trengginas Galang Ekonomi) Tahun 2013 Pemerintah Kabupaten Trenggalek Badan Perencanaan Pembangunan Daerah Jl. K.H. Wachid Hasyim No. 5 Tlp. (0355) 7911121, Trenggalek
- [5]. Lestari, L. Tri, 2017, Technology Application Membran In Empowerment Business Of Home Industri Of Virgin Coconut Oil Industry (VCO) Through The Use Of Centrifugal Separator Machinein Trenggalek Regency, *IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 19, Issue 8. Ver. III. (August 2017), PP 79-83* [www.iosrjournals.org](http://www.iosrjournals.org), DOI: 10.9790/487X-1908037983 [www.iosrjournals.org](http://www.iosrjournals.org) 79 | Page
- [6]. [http://www.disbun.jatimprov.go.id/komoditi\\_kelapa.php](http://www.disbun.jatimprov.go.id/komoditi_kelapa.php)

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