

# EMPOWERMENT OF RURAL COMMUNITY BASED ON THE AGROINDUSTRY OF LOCAL FOOD (A Study of Agroindustry on Granulated Coconut Palm Sugar in Kokap Subdistrict Kulon Progo District Yogyakarta Special Region Province)

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## ABSTRACT

*The Agroindustry of local food in rural areas is an activity that can improve indigenous resources. All of local potencies done in rural area, not only to get benefit, but also to increase the role of agroindustry. The development of agroindustry is able to increase local food added value, income and opportunities for employment, and so far to get higher regional economic growth. One of the agroindustry in Kokap District, Kulon Progo is "Sumber Rejeki", a group of farmers that produce granulated coconut palm sugar. This group is the pioneer on producing granulated coconut palm sugar. The objective of this paper are to identify indigenous resources based on granulated coconut palm sugar industry; to analyze the role of agroindustry in improving farmers income and job opportunities, and to elaborate the role of farmers group as the centre of institutional improvement. Survey method was used to collect data with qualitative and quantitative data in this area. The result shows that "Sumber Rejeki" farmers group has empowered the rural community by increasing the added value, income and employment opportunities through agroindustry of granulated coconut palm sugar.*

*Key words: Agroindustry, Added Value, Income, Opportunities for Employment, Farmer Group*

## INTRODUCTION

The recent strategic issue broaden in national development was how to increase the scale of trading, industry, and agriculture economic activity, in order to support the community prosperity. One of the concepts used were improving the potency of local resource through agroindustry, therefore the relation among the upper, middle and low sectors will be sustainable.

The community empowerment especially in the rural area, which based on local potency, is the proper strategy for stimulating the regional economic with the resources they have. Kulon Progo District, Kokap Subdistrict, has plenty coconut trees. Each house has around 10 – 20 trees, some even have 50 trees. Coconut tree that derived coconut palm sugar used as raw ingredients in coconut palm sugar agroindustry. As an agroindustry of local food, the coconut palm sugar has given an important role,

especially in its existence and function. It cannot be replaced with other kind of sugar, since coconut palm sugar contains special characteristics in minerals, taste, odor, and color. The coconut palm sugar, or in traditional trading known as gula Jawa (Javanese sugar) or gula merah (red sugar), usually sold in a shape of half of a bowl or half of ellipse. This kind of shape is caused by using half of coconut shell (Javanese: bathok) as the mold, nad others use bamboo, so the shapes is cylinder. The nutrient of coconut palm sugar consists lots of carbohydrate, protein and also other mineral substances. The composition of 100 grams of coconut palm sugar is 76 grams of carbohydrate, 10 grams of fat, 3 grams of protein, 76 milligrams of calcium, and 37 milligrams of phosphor (Santosa, 2003).

Coconut palm sugar is one of the nine staple supplies, and recently, it has become one of the export commodity alternative

that succeed to enter the UEA, Australia, Singapore, Malaysia, and Hongkong. The quality and the use of coconut palm sugar can be improved by refining it into granulated form. The agroindustry on granulated coconut palm sugar become one of the efforts in improving the income and job opportunities beside increasing the quality and added value. In trading, granulated coconut palm sugar is also known as gula semut (ant sugar). The development of this agroindustry was done by combining the indigenous resources, which is consist of coconut palm trees and local workers or farmers of granulated coconut palm sugar, as a specific location product.

villages is an activity which empower the indigenous resources. All of the local potencies were combined and used to strengthen the agroindustry of local food. The development in this industry can increase the added value, and hopefully it can increase the income and job opportunities. Kokap Subdistrict, Kulon Progo District is an agroindustry center of coconut palm sugar, and by developing it into granulated coconut palm sugar, it can create the added value of the product, increase the income and job opportunity in the rural society. The workers make a group as their organization, so there are many groups exists, and as the group leader of those groups is "Sumber Rejeki".

The agroindustry of local food in the

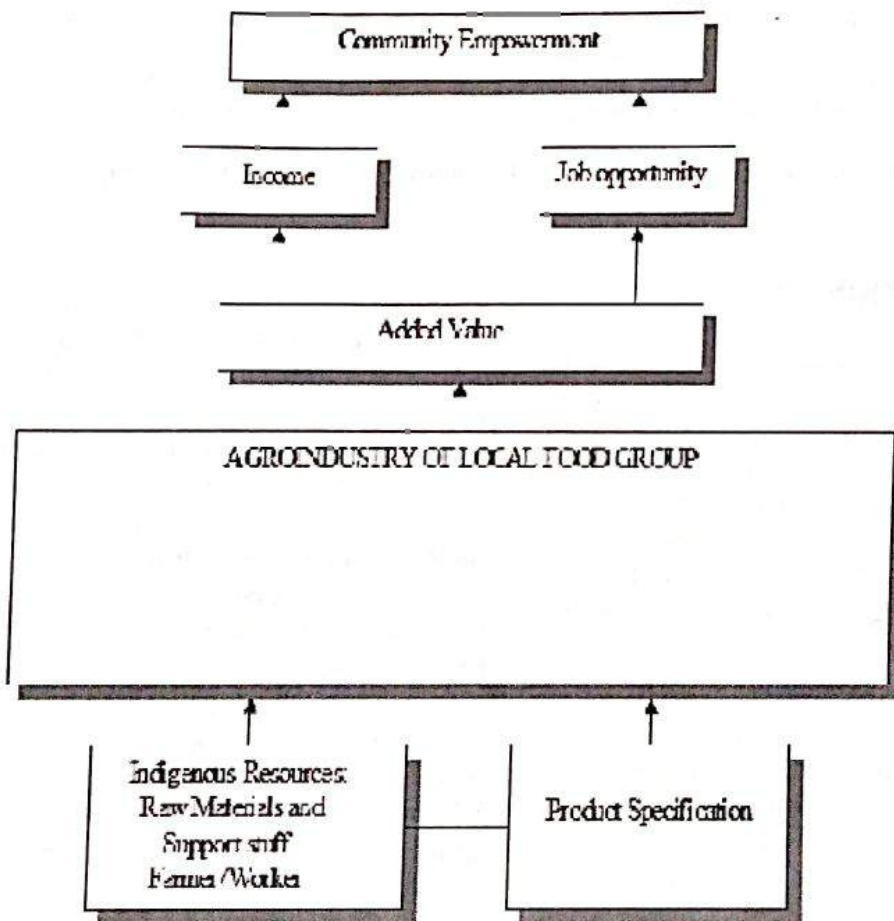


Figure 1. Outline of The Agroindustry of Local Food Generates Added Value, Increases Income, and Expands Job Opportunity Based on Indigenous Resources and Product Specification

## OBJECTIVES

The objectives of this study were 1) To identify the effect of agroindustry on granulated coconut palm sugar and the role of institution to the rural economic activity, 2) to identify gender, entrepreneurship and empowerment on agroindustry, 3) To identify the indigenous resources as the basic of local food agroindustry on granulated coconut palm sugar, 4) To analyze the ability of the local food agroindustry on granulated coconut palm sugar in increasing the income and job opportunities, 5) To elaborate the role of group as an institutional place for farmers/worker of granulated coconut palm sugar.

## THEORITICAL REVIEW

### A. The Effect of Agroindustry and The Role of Institution to The Rural Economic Activity

Most of Indonesian people (70%) live in rural area, and 46% of them are works and attach in agricultural sector as the backbone (BPS, 2007). Agroindustry development as continuing subsector from agricultural subsector will increase the added value and in turn will increase the farmers' income, broaden the job opportunities and improve the rural development in general. Therefore, the agroindustry development is one of the effort to empower rural economic in Indonesia (Sumodiningrat, 2001). In rural agroindustry development, every region should have priority that suit to natural resources and local finest commodity, so it can guarantee the continuity of raw material, shorten the procedure of post-harvest institution, transportation distance and occurring positive multiplier impact for labor or better income for farmers. In this point, the most important is the link among the sectors, such as agriculture, industry, trade and other sectors in rural economy.

The approach of economic science used in this research is the theory of development economic, i.e.:

### 1. Economic Based Theory

Richardson (1977) stated that the main factor that determines the economic growth in a region is the industrial growth and the increase of demand out of the region externally. The industrial growth using local resources for export will gain regional wealth and create job opportunity in long term.

This model explains the economy structure of a region that divides into two setors, superior and not superior. Superior sector is an economy activity that serves both domestic and foreign market. Its mean this region has ability to export material and service produced to other regions. Non-superior sector is an economy activity that only serves the local market.

Next, this theory states that superior sector produce material and service that can be sold to outside the region and it will increase the consumption continuously and ending with investment increasing, that it means creating new job opportunity. Based on this theory, superior sector needs to be developed to stimulate regional economic growth, in order to make higher regional income and job opportunity.

Based on this theory the regional strategy is underlining the important meaning of assistantship to agroindustry based on local resources with the market outside of the region, by regional, national or international.

### 2. Growth Pole Theory

Perroux (1964) in Sukirno (1992), an economy expert from France with his pole de croisanne theory, had opinion that the growth is not occurred at many regions in the same time, but it is happened at several growing centre places with different intensity.

In the development process of the region, it will arise a superior industry as main motivator industry. If this superior industry developed, then the increasing production is to not only the industry but also other sector that related with that superior industry.

### 3. Organization Theory

According Robinsons (2002): A system is a set of interrelated and interdependent parts arranged in a manner that produces a unified whole. It's a concept taken from the physical sciences and applied to organization, we call organization systems. Organization takes in inputs (resources) from the environment and transforms of processes these resources into outputs that are distributed into the environment.

#### The Approach of Agroindustry Organization as a System

In a system, agroindustry is understood as an activity that need input and change it as output to reach a certain goal, as shown in Figure 2.

Agroindustry system is consisted of agricultural raw material, processing, product, marketing and entrepreneur that related to each other. If one component was disturbed, it will affect to the whole system. Therefore, feed back is needed as an evaluation to make the system work well. This agroindustry is persisting in an environment, so the influence from environment to the growth of agroindustry is remarkable.

### 4. Resource Based Theory

According to Mahoney and Pandian (1992) with resource based theory, in order to reach sustainable profit, a company should take superior internal capability as priority. Growth and develop of a company are depend on strategic management applied

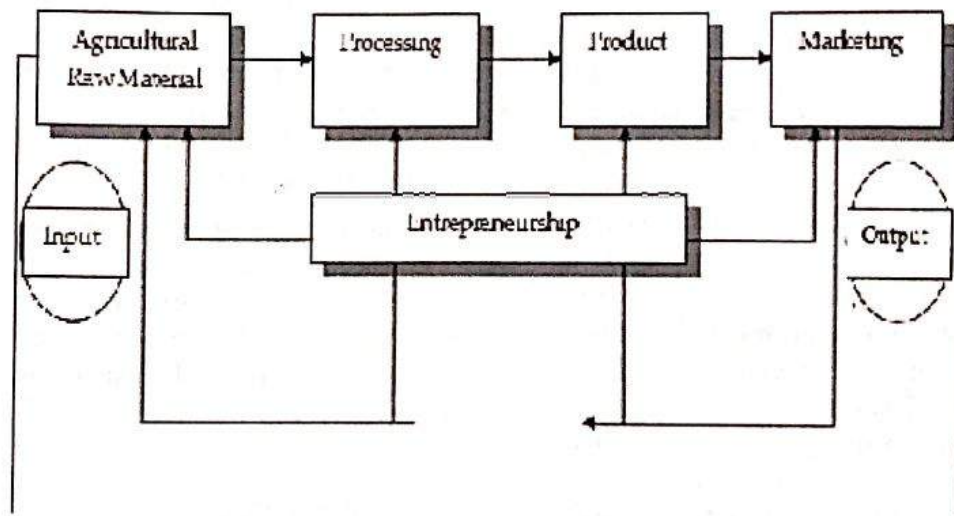


Figure 2. Agroindustry System

in developing its internal resource perfectly. This is showing that entrepreneur's role is an important internal resource. This theory is considerably potential to achieve the success for small company in recent economic crisis.

## **B. Gender, Entrepreneurship and Empowerment**

In some research, gender is an important factor to be studied in depth related to how woman and man play their roles in the activity. Recently, economic activities that tends to create big profit mostly indicate a woman exclusiveness which is predicted not have enough ability to contribute in process continuity of the activity. The limited chance for woman, especially in the rural, need to be studied in depth on the role of woman and man in economic activity.

Entrepreneurship is an effort to create added value by combining resources through new and different methods in order to win the competition (Drucker, 1993).

Entrepreneurship is a process to apply the creativity and innovation in solving the problem and finding opportunity to improve the business existence (Zimmerer, 1996).

Empowerment as a concept gives a pressure in autonomy of decision making from a group of community, that based on individual or group resources, directly through participation, democracy, and social learning by doing. As a focus point is locality, that make civil society feels ready to be empowered trough local issues (Sumodiningrat, 2001). Empowerment concept brings context of supporting the grass roots. In Indonesia that most of its potency are from agriculture, therefore the activity that keeps the interrelation between agriculture and industry sectors is agroindustry. Agroindustry in rural region can increase the added value, income, quality of agricultural product and job opportunity. However, the development of agroindustry still faces some obstacles and limitations such as experts who can serve the agroindustry

activity, management limitation and market access. Beside that, face the unique risks that follow from using raw material of agricultural product in like season, disease and unpredictable market.

## **RESEARCH METHOD**

The research method used for this study was descriptive by survey activity. The purposive method was used for choosing the sampling area than can describe the aim of the research. Two villages were chosen, first was Hargorejo village, Kokap Subdistrict, where the "Sumber Rejeki" group was settled, and the only group that deal with the granulated coconut palm sugar in Kokap Subdistrict. It has members about 60 people. The second one was Hargowilis Village, Kokap Subdistrict, where the "Ngudi Lestari" group was settled. It was a traditional coconut palm sugar farmer group with 40 members.

The analysis was done by the qualitative and quantitative data approach, using descriptive analysis. The research was held by the end of September up to the middle of October 2008.

## **RESULT AND DISCUSSION**

### **A. The Effect of Agroindustry and The Role of Institution to The Rural Economic Activity**

The collaboration between university of Pembangunan Nasional "Veteran" Yogyakarta and the Regional Government of Yogyakarta Special Territory has affected to the agroindustry and the role of institution to the rural economic activity at Hargorejo village, Kokap subdistrict, Kulonprogo District. It will describe with general view that exist in Indonesian village.

In this research, the agroindustry on granulated coconut sugar at Hargorejo village, Kokap subdistric, Kulonprogo District is a superior agroindustry with local resource raw material, that is abundance coconut trees, and has broaden market

outside the region, even foreign country such as Arabian, Singapore, and Malaysia.

In small agroindustry, resource is very important, the raw material supply, skilled labor, skill, and entrepreneurship that produce unique product are very important to get the market.

"Sumber Rejeki" agroindustry at Hargorejo Village is the only one small industry that does the processing on traditional coconut sugar to granulated coconut sugar in Kulonprogo District. The leader, Mr. Sugiyo, has entrepreneurship talent doing the innovation since 1997, that is to process the traditional coconut sugar into granulated coconut sugar. He saw that there was market opportunity, because more develop a region, more busy the community, they look for product that more practical and easier in use. This granulated coconut sugar meets those criteria, only stir several times it dissolve quickly in the water.

Though this agroindustry is growing recently, it has limited and obstacles among product store capabilities, market access, and group management. UPN "Veteran" Yogyakarta as an academic institution is responsible to assist in solving those problems.

The roles of the University to "Sumber Rejeki" Agroindustry are:

1. Training on processing to improve the product quality of granulated coconut sugar, especially on drying in order to increase the storage time from only 6 months to 12 months. In this occasion the university subsidies the dryer.
2. Create a website for "Sumber Rejeki" agroindustry to broaden the access to the market. The internet address is: [www.gulasemutjogja.com](http://www.gulasemutjogja.com)
3. Training on group management to strengthen the institutional group in order to improve the performance of "Sumber Rejeki" agroindustry. This group has

60 members of coconut sugar worker, consists of 49 women and 11 men.

Those three programs was held by UPN after preliminary research conclude that the agroindustry had limitation factors on the product, market access and group management.

UPN made coordination with Regional Government c.q. Plantation Bureau and Trade Bureau of Yogyakarta Province, work together to cover the limitations. Dryer is needed to increase the quality of granulated coconut sugar and it will have competitiveness. The institution or organization of farmer/worker group should be strengthen to improve group management and broaden the market access by creating a website. This is a real action from UPN academic to make engagement for solving the problems in community.

In the future, UPN will support the innovation for problem solving in this agroindustry with proper technology for granulating the coconut sugar. Before, the process has been done manually that took times to granulated the coconut sugar.

## **B. Gender, Entrepreneurship and Empowerment**

In agroindustry activity on granulated coconut sugar, the number of woman worker is greater than man, 49 women and 11 men. The activity begins with planning, decision-making, job description to marketing, all are involved in balance suit to its duty and function.

Entrepreneurship in agroindustry on granulated coconut sugar can be observed with some entries such as creativity and innovation on product flavor that become very along with market demands. Starts from natural flavor, now it's vary to some flavors such as ginger, turmeric, etc. Those additional variations of flavor are done by using herbal products like medicinal plants that increase product value and health to

the consumer. Innovation also apply in packaging process, previously 1 kg product of granulated coconut sugar was packed with plastic, now it is packed with variation product package for 100 gram, 250 gram, 500 gram and 1 kg with attractive thick paper pack so the consumer can choose as they like.

For agroindustry on granulated coconut sugar as local food industry has those limitations, therefore the UPN academic are feels responsible to make real action to cover those limitations by collaboration with Regional Government of Yogyakarta Province through Bureau of Plantation and Forestry, and Bureau of Industry and Trade.

### **C. The Indigenous Resources as The Basic of Local Food Agroindustry on Granulated Coconut Palm Sugar**

The result of the study showed that the number of coconut tree producing sugar was 79.685 trees, and the number of farmer as much was 5.300 people (Kokap Subdistrict Monography, 2007). Every farmer had 15 coconut trees as the raw materials, and produced 2 Kgs of coconut palm sugar daily in average. The price of the coconut palm sugar in the farmer level during the research was Rp 7.000/Kg. This industry was a home agroindustry, so it was called as small scale industry. But if these small scale industries joined in a group, then it will have the capability to become a big scale industry.

### **D. The Ability of The Local Food Agroindustry on Granulated Coconut Palm Sugar in Increasing The Income and Job Opportunities**

The study showed that "Ngudi Lestari" group had 40 member of farmers, all of them were men. From the interview with the member of the group showed that each member can get better benefit of being the member of "Ngudi Lestari" group rather

than they do alone, the benefits were 1) easy to have capital aid in a low rate interest (6%/annual); 2) get trainings in processing or its management; 3) get better marketing of the product. During the research, the member of the "Ngudi Lestari" group were being trained on the granulated coconut palm sugar production by Mr. Sugiyo as the chief of the "Sumber Rejeki" group with the local government as facilitator.

The only agroindustry that has produced granulated coconut palm sugar as specific location product in Kokap Subdistrict was the "Ngudi Rejeki" group. This group had the largest number of member which consists of 60 farmers, with 49 women (49 people), and 11 men. The "Sumber Rejeki" has produced granulated coconut palm sugar since 1997, with the prior members were 19 farmers. Under the leadership of Mr Sugiyo, this group grows up to as they are now. Recently they can produce 120 Kgs granulated coconut palm sugar per day with the price of Rp. 36.000/Kg. In order to fulfill the market demand, beside the natural taste of the sugar, they also produce it in other tastes, such as, herbal taste, ginger taste, turmeric taste, white turmeric taste, galingale, and also temulawak taste. The granulated coconut palm sugar is the extended process of the traditional coconut palm sugar into coconut palm sugar which formed as crystal granule, so it is easy to bring and practical in use. The production analysis showed the cost addition to produce the granulated coconut palm sugar, such as, fuel, addition ingredients, such as ginger, turmeric, and others, also addition of workers. It spent Rp. 12.000/Kg of granulated coconut palm sugar. So, the added value of the granulated coconut palm sugar product compared with the traditional coconut palm sugar was Rp.17.000/Kg. It needed 2 workers and 3 work hours more.

The quality of the granulated coconut palm sugar was better than the traditional one. As a comparison, the water level contain in the granulated coconut palm sugar is around 2% – 3% from the total weight of the ingredients and can be kept for a year, but the traditional coconut palm sugar contains water level

around 9% – 11% from the ingredients and can be kept only for 2 months.

The markets of the granulated coconut palm were the big cities such as Jakarta, Surabaya, Semarang, Bali, Balikpapan, and also to foreign cities, such as Saudi Arabia, Singapore, and Malaysia. The "Sumber Rejeki" group has already own a website, so it can market its product through [www.gulasemut.com](http://www.gulasemut.com).

#### **E. The Role of Group as an Institutional Place for Farmers/Worker of Granulated Coconut Palm Sugar**

The result of the study showed that the granulated coconut palm sugar can generate the added value, increase the income and job opportunity, and beside that, the "Sumber Rejeki" Granulated Coconut Palm Sugar group can draw the other group to develop. The role of the local government in facilitating the group's work is needed, therefore it will arise the bottom-up and top-down synergy. In turn, the local food agroindustry of granulated coconut palm sugar can give the empowerment especially in Kokap Subdistrict community, furthermore it can be developed in other district that has similar indigenous resources.

#### **CLOSING**

##### **Conclusion**

1. Though this agroindustry is growing recently, it has limited and obstacles among product store capabilities, market access, and group management. UPN "Veteran" Yogyakarta as an academic institution is responsible to assist in solving those problems by collaboration with Regional Government of Yogyakarta Province through Bureau of Plantation and Forestry, and Bureau of Industry and Trade.
2. Indigenous resources identification shows that coconut tree as the basic ingredients of coconut palm sugar in Kokap Subdistrict is quite good as a base

for local food agroindustry of granulated coconut palm sugar.

3. The local food agroindustry of granulated coconut palm sugar can improve the added value, income, and job opportunity in Kokap Subdistrict.
4. The role of the group as an organization of the coconut sugar farmers is strong enough in dealing with capital access, trainings, and markets. "Sumber Rejeki" group as the motivator of the other groups has role on producing granulated coconut palm sugar in Kokap Subdistrict.

#### **Recommendation**

The role of the Local Government in facilitating the work group is needed, hence it can rise the bottom-up and top-down synergy. In turn the local food agroindustry of granulated coconut palm sugar can empower the community especially in Kokap Subdistrict, and may develop the agroindustry in other districts that has similar indigenous resources.

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