

## DEVELOPMENT OF TRADITIONAL SAGO PROCESSOR IN MALUKU: OPPORTUNITIES AND CHALLENGES FOR SUPPORTING FOOD DIVERSIFICATION

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### Abstract

Sago is one of the local food Maluku society that has the potential to be developed in support of diversification in Maluku in particular and Indonesia in general. Associated with the potential of existing sago, the role of traditional sago processing is becoming increasingly important in processing sago into products that are more varied to support the diversification of food. This study aims to uncover the opportunities and challenges associated with the development of traditional sago processing in Maluku in relation to the diversification of food by taking in some sites of traditional sago-processing centers in Central Maluku regency. The results showed that there are some opportunities that are open to developing the traditional sago processing, but these opportunities will be used if accompanied by efforts to address the challenges faced by the traditional sago processing in producing processed products sago.

Keywords; *traditional sago processing, food diversification, Maluku*

### Introduction

Development of sago in Maluku aims to re-strengthen the contribution of sago as a local food that decreases over time due to the tendency of people to switch local food including sago with rice and flour [1]. Declining of sago consumption in Maluku reflected by source of carbohydrates that people consumed. At this time approximately 80 kgs from 135 kgs total consumption carbohydrate per individu per year in Maluku is fulfilled by rice and flour, only 55 kgs from sago. It means that rice demand in Maluku is about 120,000 tons every year, while the supply of rice production centers in Maluku only about 70,000 tons. There are 50,000 tons rice that must be imported from South Sulawesi and East Java [2]. On the other hand, increased consumption of rice in Maluku will increase the national rice demand, while increasing demand for rice becomes more difficult to fulfill because the rice field is reduced due to land reclamation for other uses.

Efforts to increase rice production is facing serious constraints due to the pace of land conversion to non-agricultural fields large enough, which is about 110 thousand hectare/year, while that for 10 years does not occur a significant increase in harvested area

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[3]. This situation will be more complicated because, many people who previously consuming tubers as a staple food, tend to consume rice so dependence of rice getting higher. Considering this, diversification of food is the right choice [4].

Contribution of sago as a food is getting lower in contrary with rice because cooked rice is easy, especially with the rice cooker electric appliance; still good to eat even though it was cold; more easily provide the appropriate side dishes, and easily purchased everywhere [1]. Besides that, sago product is still dominant by traditional product so it hard to meet consumer tastes, especially young people.

Associated with the potential of sago, the role of traditional sago processor is becoming increasingly important to produce more varied of sago product to meet consumer tastes. In other words, the potential of sago will be meaningless if not accompanied with the ability to process sago into economically valuable products, either as **corn** starch as well as various processed products that could reduce the dependence on rice and wheat.

In this regard, this paper tried to reveal the opportunities and challenges of developing the traditional sago processor in Maluku to support food diversification by looking at the characteristics of socio-economic and business of traditional sago processor.

## **Research Method**

The research was conducted in the District of Central Maluku as a center of traditional sago processing in Maluku. The research population was all traditional sago processors in Central Maluku District who actively producing traditional products of sago and trading of around 500 people. The number of samples was determined by Slovin formulation by selecting the degree of error of 5% so that the research sample consists of 222 people. The data collected subsequently edited, and processed by using Excel and then categorized and analyzed quantitatively and qualitatively. Supporting data were collected from the various relevant agencies.

## **Result**

### **Characteristics of The Traditional Sago Processor**

Socio-economic characteristics of traditional sago processing which includes age, formal education, non formal education, length of sago business, sago business income, and number of dependents is reflected in the following table.

Table 1. Socio-Economic Characteristics Of Traditional Sago Processor

Characteristics of Traditional Sago Processors	Classification	Number	
		People	Percentage
1. Age (years)	a. Young (26-40)	50	22.52
	b. Adult (41-55)	98	44.14
	c. Elderly (> 55)	74	33.33
2. Formal Education	a. Low (Primary Scholl)	130	58.56
	b. Medium (Junior High Scholl)	70	31.53
	c. High (Senior High Scholl and up)	22	9.91
3. Non-Formal Education (Score)	a. Low	176	79.28
	b. Medium	28	12.61
	c. Height	18	8.11
4. Length of Business (years)	a. <10	49	22.07
	b. 10-20	79	35.59
	c. > 20	94	42.34
5. Number of Dependents (people)	a. Small (<3)	25	11.26
	b. Medium (3-5)	112	50.45
	c. Large (> 5)	85	38.29
6. Income of Sago Business (Rp/month)	a. Low (<1.5 million)	78	35.14
	b. Medium (1.5 to 3 million)	107	48.20
	c. High (> 3 million)	37	16.66

Sources: Primary Data (Processed)

Socio-economic characteristics of traditional sago processors in Central Maluku showed that the majority of them were in the age 41-55 years with the level of education was primary school, but they had long experience of processing sago (> 20 years). This illustrates that traditional sago-processors already had a good level of maturity in processing sago, but requires many efforts to enhance their capacity through non-formal education that is still relatively very less so that the lack of formal education of them can overcome to change their behavior. Number of dependents that are categorized as medium (3-5 people) as well as income in the range of Rp1, 5 - Rp.3 million per month is also a favorable condition for the development of traditional sago processors.

Characteristics of traditional sago processing (Table 2), indicated that most of the traditional sago processing business in Central Maluku have not been quality oriented for customer satisfaction. Sources of capital, sources and amount of labor, type of products,

and marketing level have not support the traditional sago processing yet to produce products that can compete with other food products. With this kind of business characteristics, the traditional sago processors tends to be monotonous and business acceptance. This situation is more complicated when they cannot work in teams, they tend to work individually so that very difficult for the groups to develop there .

Table 2. Business Characteristics of Traditional Sago Processors

Characteristics of Business	Classification	Number	
		People	Percentage
1. Sources of Capital	a. Personal	196	88.29
	b. Loans	0	0.00
	c. Personal and Loans	26	11.71
2. Sources of Labor	a. Family	124	55.86
	b. Outside Family	39	17.57
	c. Family and Out of Family	59	26.57
3. Number of Workers (People)	a. 1	188	84.69
	b. 2	28	12.61
	c. > 2	6	2.70
4. Types of Products	a. 1	146	65.77
	b. 2	65	29.28
	c. > 2	11	4.95
5. Marketing Level	a. Village market	92	41.44
	b. Village and District Market	90	40.54
	c. Village, District, Province and Out of Province	40	18.02

Sources: Primary Data (Processed)

### The Opportunities of Traditional Sago Processors Development

Development of traditional sago processors is absolutely necessary to restore the important role of sago as a food source, particularly in support of food diversification while increasing the income of sago processors. There are several opportunities factors in the development of traditional sago processors, namely:

- (1) Availability of raw materials; Data from Badan Sagu Maluku and Dinas Pertanian Provinsi Maluku (2007) showed that sago forest in Maluku about 25,739 ha spread across the Maluku region with the largest area contained in the District of West Seram (10,158 ha), East Seram (6,570 ha) , Central Maluku (5,282 ha), Buru (1,312 ha), South Buru (1,287 ha), and the Aru Islands (1,130 ha). Wet starch production is 46668.6 tons/year. Availability of raw materials is also very supportive of the

traditional sago processors in meeting their business needs. Most of the processors sago (87.84%) had never difficulty in obtaining sago starch to be processed and only 12.16 percent of which sometimes have trouble getting the sago starch in their village because there is no sago forest so it must rely on supplies from other villages, but so far the availability of sago starch can still be overcome.

- (2) Culture support; Sago is not a new commodity for the people in Maluku. Some sources mention that the sago plants originated from Maluku and is a source of food for the community. Thus, the presence of sago in this community life is very important. This situation is reflected by ways of processing sago that inheritance from parents to their children as recognized by 82.43 percent of respondents. This caused almost all the products are traditional products that are already known from the first. According to [3], the limitations of technology resulting limited innovation in products of sago. Most of the traditional sago processors still maintain ways of producing and kinds of snack produced that inheritance from their parents.
- (3) Labor availability; availability of labor is good enough and become one of the traditional sago processors development opportunities. Almost all respondents (94.59%) had no trouble getting workers if necessary. Type of work performed is not too difficult because of processing sago has been the norm for society, but this situation will not be the same if products of sago no longer only traditional products that will require another skill.
- (4) Open market; Increasing efforts to reduce rice consumption caused an increasing in demand for non-rice food as long as in line with consumer tastes. During this time, the market for the products of traditional sago processing is still limited in Maluku region only and penetration out of Maluku is still be limited. Still difficult to get products of typical sago of Maluku out of Maluku, especially in Java, Bali, and Sumatera. Sago processors are still facing difficulties to sell their products out of Maluku, only 18.02% of them had a marketing channel out of Maluku, such as Papua.
- (5) Supporting of Government Programs; Food diversification program is a government program that applies nationally. Government pays great attention and efforts to increase contribution of local food to support the diversification program, including development of sago in Maluku.

### **The Challenges of Traditional Sago Processors Development**

Besides the opportunities that exist, the development of traditional sago processors is also facing numerous challenges, both derived from the processors of sago, or from the surrounding environment. Various challenges to developing traditional sago processors are:

- (1) The behavior of traditional sago processors is still low, not only in the technical of sago processing, but also in the business management, including easy to feel satisfied; In fact, the processors of traditional sago have not been able to provide the appropriate response on the stimulation about the sago products that should be processed. There are many obstacles still facing the traditional sago processors in developing their business, including to produce sago products that meet to consumer taste. Consumers should become the starting point of a process that has four elements, called the marketing mix [6] [7], namely product, price, place and promotion. The elements of the marketing mix has not received the attention of sago processors. The fact showed that 82.43 percent of traditional sago processors doing their business as a routine activity without performing development efforts, especially in terms of product quality. Lack of capital, lack of skills, and attitudes toward the income satisfaction has been the various reasons why this happens.
- (2) Consumer tastes are likely to quickly leave the sago and switch to another food; Along with the increasingly of non sago food types that exist in society now and the consumer demands of sago products that more innovative means that demand for products of traditional sago more decrease. It is caused by consumers, especially the relatively young age, prefer the new product of sago, good taste and good looking. Reference [8] found that marketing level of some types of traditional sago products (kue kering bagea dan serut) declined about 40 percent every year because consumers started to get bored with these products. This situation is in line with the opinion of [9] which states that all food products that use local food materials known to be very conventional and traditional. Besides the appearance of product that less attractive, a guarantee of quality and safety are also often questionable. On the other hand, demand always decline due to boredom or the dynamics of the consumer, in that regard, the development of new products need to be carried out continuously. The new product does not necessarily mean processed product that is completely new (innovative) that has never existed before, but can also be improved traditional processed products

(product modification) or mimic other products that already exist but replacing raw materials with local food (imitative products).

- (3) The view of sago as inferior food; declining role of sago as a local food is also due to a growing view in society that sago is an inferior food. In many villages in Central Maluku, people have started to feel ashamed to consume sago continuously and more proud when consuming rice. It can be seen from level of rice consumption that always increase, especially for the consumer in < 40 years old.
- (4) Willingness to work cross-sector in related parties is too low; Development of sago in Maluku through the development of traditional sago processors is not the responsibility of specific agencies, but cross-sector responsibilities of relevant agencies. Development of traditional sago processors is complete, nor with emphasis on the purely physical aspects such as technical aids/equipment and capital, but non-physical aspects such as sago processors aspects of behavior change should be noted that the changes are not temporary. Accordingly, cross-sector cooperation needs to pay attention to elements of community empowerment.

### **Conclusion**

- (1) The development of traditional sago processors is absolutely necessary in order to increase the role of sago in a local food diversification because at this time they are dominant in producing sago products in Maluku.
- (2) Social and economic and business characteristics of traditional sago processors is characteristics that reflects the real conditions of traditional sago processors and should be considered in designing development programs.
- (3) Cross-sector collaboration can take existing opportunities in the development of traditional sago processing as a power to tackle the challenges so that the desire to revitalization sago as a local food which is the ancestral cultural heritage of the people in Maluku can be realized

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