

## EMPOWERMENT OF TEGAL MANGGAH VILLAGE NON-PRODUCTIVE COMMUNITIES THROUGH THE TRAINING OF PRODUCTION AND PACKAGING OF BOGOR PEANUT MILK

Triastinurmiatiningsih<sup>a)</sup>, Ade Heri Mulyati<sup>a\*)</sup>, Wahyu Prihatini<sup>a)</sup>, Tri Saptari Haryani<sup>a)</sup>,  
Ismanto<sup>a)</sup>

<sup>a)</sup>Universitas Pakuan, Bogor, Indonesia

<sup>\*)</sup>Corresponding Author: adeherimulyati@gmail.com

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### Abstract

Tegallega Village in Bogor City has a mission, one of which is Community Production Empowerment. Tegalmanggah Village, which is located in Tegallega Village, is one of the most densely populated villages, but is less productive in the welfare of its people, with a low level of education and generally works as a motorcycle taxi driver, domestic work worker (ART), self-employed with irregular income. The purpose of this activity is to improve the skills of the people of Tegalmanggah Village in making milk made from Bogor peanuts which is varied with various ingredients to add flavor and taste, to provide added value for the Tegalmanggah village community, to overcome the problem of fulfilling the nutrition of the Tegalmanggah village community, overcome the problem of residents whose income is not certain to become nutritious drink entrepreneurs. Activities in the implementation of this program are 1) Socialization of activity programs to the community of Tegalmanggah Village, 2) Providing training on skills for making and packaging milk made from Bogor beans, 3) Monitoring and evaluating the program through the implementation of skill competitions to make milk drinks varied with various flavors. The activity program "Empowerment of Tegalmanggah Village Non-Productive Communities through the Skills of Making Bogor Peanut-Based Milk" can increase the knowledge and skills of residents in making Bogor bean-based milk. This knowledge and skills can be the basis for increasing business opportunities.

**Keywords:** community empowerment; Tegal Manggah; skills; dairy products; bogor beans.

## I. INTRODUCTION

Kelurahan as the government organization that is closest to and directly related to the community is the spearhead of the success of city development, especially regional autonomy, where the kelurahan will be directly involved in planning and controlling development and services. Kelurahan also plays a role in bridging government programs to be implemented by the community so that they can be understood and supported by the community.

Tegallega Village which is located in Bogor City has a mission, one of which is Community Production Empowerment. Tegalmanggah, which is located in Tegallega Village, is one of the densely populated villages, but is less productive in the welfare of its people. This is reflected in the demographic data of the Tegallega Village community which has an area of  $\pm 160.7$  Ha, consisting of 9 RW and 52 RT with a population of 15,867 people, dominated by female sex, namely 8,637, the average education is elementary and junior high school graduates. (38.54%), high school

(6.17%), and the rest of the children under five. Of the total population, 46.86% are people with a productive age between 20 - 45 years. With this very low level of education, the people of Tegalmanggah village generally work as motorcycle taxi drivers (30%). Domestic work workers (ART) are 42%, self-employed workers are 10%, and the rest do not have regular income. Women generally work as domestic workers with an average income of Rp. 500,000 - Rp. 800,000 per month. Following up on this condition, the Bogor City Government has tried to carry out various programs in order to improve community welfare, through the Non-Productive Community Empowerment Program.

We classify these people with low and uncertain income into non-productive communities, and we will make them partners to be given provisions in the form of skills to make milk made from Bogor beans which is nutritious for nutritional fulfillment, with the hope of being able to elevate the community itself to become a productive society, so as to improve the economic

welfare of the family. We will prioritize partners who will carry out this program for women of productive age and do not have skills or a steady income, besides having children under the age of 3-4 people. Our partners are from the Posbindu group, one of the PKK cadres formed by the Tegallega Urban Village PKK Driving Team.

One of the villages that is included in the Kelurahan Tegallega is the village of Tegalmanggah with the most dense population compared to other villages, the population is dominated by women, toddlers and the elderly. The realization of the people of Tegallega Village who are Faithful, Have Faith and towards a Prosperous and Healthy Community is the vision of the village, while one of the village's Missions is to build cooperation with various parties to explore and empower the potential of the community to improve the welfare and health of the local community. Therefore, it can be said that the people of Tegalmanggah village have a strong desire to improve their welfare in terms of economy and environmental health. In order to improve the welfare of the Tegalmanggah village community, the Pakuan University Research and Community Service Institute, made from red beans.

Bogor beans are good for human consumption and their nutritional value can be compared to soybeans, beans, and some commonly known nuts. The content of Bogor beans per 100 g weight is 390 kcal, 20.8 g protein, 61.9 g carbohydrates, and 6.55 g fat [1]. Methionin found in Bogor beans is higher when compared to other nuts [2]. Bogor bean-based milk is very popular with consumers, because the fat content consists mostly of unsaturated fatty acids (palmitic, oleic, linoleic and caprylic) which are very important for body health [3].

The program to improve community skills in making milk made from Bogor peanuts, with the hope that it can provide added value for the people of Tegalmanggah village from two different sides. First, through processing Bogor beans into a nutritious drink so that it can overcome the problem of fulfilling the nutrition of the Tegalmanggah village community. Second, it can overcome the problem of people whose income is uncertain to become nutritious drink entrepreneurs, because this milk has a high selling value, the basic ingredients of Bogor beans are very easy to get and are very necessary, especially for lactose intolerant people.

## II. METHODS

The stage of the non-productive community empowerment program in Tegalmanggah village, Tegallega village includes 3 (four) stages:

- a) **The socialization of the activity program to the community (Posbindu Lantema cadres)**

Tegalmanggah Village about the importance of health, through improving skills, especially in making milk drinks made from Bogor beans. Participants who took part in the outreach activities were all Posbindu cadres and administrators as well as RW heads. The target of this socialization activity was that participants could understand the importance of healthy living by consuming nutritious drinks made from homemade Bogor beans. This socialization activity was carried out for 3 hours.

- b) **Training in making and packaging made from milk basic Bogor beans**

The manufacture of milk is carried out simply for a home industry scale and is thorough to produce good quality milk products. The training was held at the Biology Laboratory of the Biology Study Program, Faculty of Mathematics and Natural Sciences, Pakuan University. The method of making milk includes the following steps Bogor beans are sorted by choosing based on color (outer skin is brownish), there is no rotting and filling (solid) part, then the washing process is carried out using clean and flowing water, steamed at  $90^{\circ}\text{C} \pm 5^{\circ}\text{C}$  for 50-60 minutes [4], peeled the outer shell of Bogor beans then washed using boiled water and warm at  $\pm 30^{\circ}\text{C}$ . A total of 300 g of water was added to 1500 ml then crushed using a blender, filtered using a 20 mesh filter. This training activity was held for 5 hours involving 15 Posbindu cadres are dominated by housewives in the 30-55 years age group, and Lantema Posbindu administrators. The target of this activity is that each participant can make milk from Bogor beans properly.

Training on packaging and labeling of milk products is carried out to maintain product quality, ensure product quality while in storage, and attract consumers. Packaging and labeling is made in such a way that consumers are attracted to the product. Packaging is a coordinated system to make crops ready to be transported, distributed, stored, sold or used independently. Meanwhile, labeling is intended to provide information on the contents of the packaging of the goods / products and the manufacturer (maker). The existence of a container or wrapper can help prevent or reduce damage, protect the products in it, protect from the dangers of pollution and physical disturbance. Other than that, The packaging also functions to place the products / crops in forms that facilitate storage, transportation and distribution. In terms of promotion, the container or packaging serves as an incentive or attraction for buyers. Therefore, the shape, color and decoration of a package need to be considered in its planning [5].

This training activity involves 15 Posbindu cadres are dominated by housewives in the 30-55 years age group, and Lantema Posbindu administrators. The target of this activity is that each participant can carry

out proper packaging and labeling. Implementation of activities for 5 hours.

**e). Program Evaluation.**

At this stage the partners are divided into 5 groups and each group consists of 3 cadres. This group division is carried out to see the results of the collaboration and creativity of each group. Monitoring is carried out for two days. The first monitoring was carried out in groups 1-3, while the second monitoring was carried out in groups 4 and 5. At the time of monitoring, it was observed that each group's ability to make milk, pack and be creative. The end of this third stage is to assess the creativity of the training participants in making a milk drink made from Bogor beans, which is varied with various flavors in order to add aroma and appeal.

Evaluation is carried out by distributing questionnaires containing statements indicating whether the program is successful or not. The results of the evaluation will be used to improve further activities.

**III. RESULTS AND DISCUSSION**

**Training of Production and Packaging of Bogor peanut milk**

Milk-making skills training was conducted at the Biology Laboratory of FMIPA UNPAK on July 13, 2020. Training activities were attended by cadres The Tegalmangguh Community Integrated Assistance Post (Posbindu Lantema). Prior to the training activities, the team distributed questionnaires to participants as a measurement instrument for understanding and interest in the activity of making Bogor peanut milk. The results of the questionnaire show the percentage level of understanding of partners before the activity was carried out, as in Table 1.

Table 1. Percentage of partners' level of understanding before the program was implemented

No.	Statement	Answer	
		Yes (%)	Not(%)
1	Knowing Bogor beans	100	0
2	Knowing the content of Bogor beans	10	90
3	Knowing the benefits of Bogor beans	30	70
4	Knowing the milk from Bogor peanuts	0	100
5	Know how to make milk from Bogor peanuts	0	100
6	Participation in making milk made from Bogor peanuts	0	100
7	Interest in participating in milk making training	100	0
8	Difficulty in making milk from Bogor beans	40	60
9	Public interest in Bogor bean milk business opportunities	85	15

The results of the questionnaire in Table 1. indicate that all participants are familiar with Bogor beans. However, knowledge about the content and benefits of Bogor beans is still low, around 30%. Partners also don't know and have never attended training on making milk from Bogor beans. According to partners, what is known is soy milk.

The training begins with an extensive explanation of Bogor beans, which aims to provide basic knowledge of the activities to be carried out. Based on the results of the discussion, the residents had never known about Bogor's peanut milk. In this activity the residents were very enthusiastic about participating in all the stages until it was finished.



Figure 1. Training activity for making milk from Bogor beans

The packaging and labeling of the milk products are carried out to maintain product quality, ensure product quality during storage, and attract consumers. Partners were introduced to various sizes and models of packaging bottles as options. This can be used as a consideration for production costs and selling prices if it is continued for household businesses.

**Milk Making Assistance**

Assistance and guidance is carried out to help partners carry out the stages of activities properly and correctly according to the targets to be achieved. During the assistance, it was seen that the partners were able to make milk well.

Communication during mentoring is carried out through wa group because conditions are not yet possible to make visits. Each group sends photos of the results of the activity of making milk and the creativity of the remaining milk extract. To add to the taste of Bogor peanut milk, you can add fruit, chocolate, ginger, fragrant pandanus and various other flavors. In addition, they can also make several kinds of cakes from the residue of the filtered milk.



Figure 2. Milk Production per Group with Assistance through Wa



Figure 3. Assessment of Milk Creation Results

**Program Evaluation**

Evaluation of the results of the training was carried out on July 23, 2020, by providing an assessment of the results of making milk and their creativity. The evaluation results show that partners can make milk properly and correctly. This can be seen from the results of the milk is not too thick and watery, the color is purplish white. The taste of milk depends on the sugar and flavoring used. In addition, partners are also very creative in making packaging for their milk products. Partners also take advantage of the remaining extract by making various kinds of cake preparations. Partners are also interested in selling red bean milk and other processed products.

To determine the success of this service program, partners are given a questionnaire with the same statements before the program is implemented. The results of the evaluation will be used to improve further activities.

Table 2. Percentage Improvement of Community Service Program Understanding

No.	Statement	Answer		
		Before	After	(%)
1	Knowing Bogor beans	15	15	0
2	Knowing the content of Bogor beans	2	15	87
3	Knowing the benefits of Bogor beans	5	15	66
4	Knowing the milk from Bogor peanuts	0	15	100
5	Know how to make milk from Bogor peanuts	0	15	100
6	Participation in making milk made from Bogor peanuts	0	15	100
7	Interest in participating in milk making training	15	15	0
8	Difficulty in making milk from Bogor beans	6	15	60
9	Public interest in Bogor bean milk business opportunities	12	15	20

The results of the questionnaire in Table 2. indicate that there is an increase in partners' knowledge of the content, benefits and methods of making Bogor peanut milk. This can be seen from the percentage of increase reaching 100% and it can be said that the program was successful. However, there must be a follow-up to this activity



Figure 4. Service Team and Partners (A), Bogor Peanut Milk in Bottled Bottles (B)

**IV. CONCLUSION**

The activity program "Empowerment of Tegalmanggah Village Non-Productive Communities through the Skills of Making Bogor Peanut-Based Milk" can increase the knowledge and skills of residents in making Bogor bean-based milk. This knowledge and skills can also serve as business opportunities.

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