

B-Fresh (Balongan Fresh): Effort to Improve the Independence of the Balongcabe Community Through the Processing of Soybean Agricultural Products

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Abstract

Purpose - This study aims to investigate the impact of B-Fresh (Balongcabe Fresh): An Effort to improve the independence of the Balongcabe Community Through Processing Soybean Agricultural Products. Balongcabe Village, Kedungadem, Bojonegoro has potential in the agricultural sector. Soybean is one of the commodities that many farmers grow in the dry season. Training on processing soybean agricultural products into soy milk aims to help improve the community's economy, because processed agricultural products will have a higher selling value than being sold raw.

Design/Methodology/Approach - This service is carried out using the Asset Based Communities Development (ABCD) method with the stages of inculturation, discovery, design, define, and reflection.

Findings - This training was carried out because farmers who previously only sold soybeans raw so they could process the soybeans into soy milk. The implementation of the training began with the presenters explaining the material for processing soybeans into soy milk and then practicing together on making soy milk, then packaging and marketing materials for soy milk.

Originality/Value - This training produced soy milk products with the B-Fresh brand (Balongcabe Fresh) in the hope of having good and profitable prospects as a small home industry to improve the economy of the people of Balongcabe village.

Keywords: Agricultural Products, B-Fresh, Independence, Economic Improvement, Soybeans

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I. INTRODUCTION

Indonesia is an agrarian country with a large rice field sector and almost all regions in Indonesia have great potential in the agricultural sector. Through the various agricultural sectors, the potential for processing agricultural products is able to drive the community's economy. According to (Fachri, 2002) Community economy is an economic system that involves several components of society in the development process where all levels of society become the driving force of development.

Soybeans are a primary example of vital agricultural products. In Indonesia, soybeans are an important main commodity, both in terms of domestic consumption and export potential. Usually, soybeans are used as raw materials for making food products such as soy sauce, soy milk, tempeh, tofu (sibuea et al., 2004). According to data from the Central Statistics Agency (BPS, 2003) and the Ministry of Agriculture (Kementrian Pertanian, 2020), Indonesia still imports large quantities of soybeans around 2.5 million tons per year. This is due to low productivity and dependence on imports. Improving the community's economy, especially for soybean farmers, can be done with various approaches. The

processing of soybean agricultural products is one example to increase added value that is able to provide business opportunities and improve the welfare of soybean farmers, small entrepreneurs who are engaged in the soybean processing industry (Handayani et al., 2021).

Based on observations, Balongcabe village is one of the villages located in Kedungadem District, Bojonegoro Regency, East Java. This village has an area of about 593 hectares, of which 35% of the village area is rice fields. Therefore, the majority of Balongcabe villagers work as farmers. According to the head of Balongcabe village, the people of Balongcabe village plant soybeans in the dry season, precisely after the harvest of rice plants. Soybeans have become an abundant crop but have not been optimally processed since the tofu factory in Balongcabe village was closed. Since then, soybeans have become the personal consumption of residents or sold at low selling prices. The results of the service carried out by (Aminah, et., al., 2013) stated that there are several obstacles in the soybean processing process, including limited capital, marketing reach and still using traditional and simple tools.

In response to these challenges, strategic steps must be taken to manage Balongcabe's soybean potential optimally, ensuring it serves as a catalyst for the local economy. A primary effort in this direction is providing direct assistance in processing agricultural yields, specifically raw soybeans into soy milk. This product in the form of soy milk was chosen as an effort to develop the economy because it has good prospects in the future. What makes this initiative unique is its flexibility. Soy milk can be produced individually or through community cooperatives by the people of Balongcabe. This approach does more than generate income, it addresses a vital health need by improving community nutrition for both children and adults. In a landscape where the price of cow's milk remains prohibitively expensive, soy milk offers an affordable, high-protein alternative. Through this program, it is hoped that the general public enhance their family's welfare by being creative and innovative, meeting their daily needs without compromising on essential nutrition.

Reviewing the results of the service carried out by (Riyanthi, et., al., 2021) that the SO (Growth) strategy is a strategy that utilizes existing strengths to increase excellence. This strategy is right for the development of MSMEs in the village. Based on the above background, the purpose of this service is to improve the economy of the Balongcabe Community through the processing of Soybean agricultural products, namely B-Fresh (Balongcabe Fresh).

II. METHOD

This service uses the Asset Based Community Development (ABCD) approach. Kretzman & McKnight stated that the Asset Based Community Development (ABCD) approach is an approach used to build a community starting from the discovery of village assets or potential, skills and capacities of residents, residents' associations and local institutions (LP2M STAI, 2022). The participants of this service activity were PKK women and soybean farmer groups and the people of Balongcabe village. This activity was carried out for one month which was divided into several stages, namely preparation, implementation and reporting. In week I, the stages carried out were the inculturation and discovery stage, week II was the design stage, week III was carried out the definition stage and week IV was carried out the reflection stage using a program achievement questionnaire. These stages are carried out in order to map the potential of Balongcabe Village and empower the community based on the potential possessed by the village.

Potential mapping in Balongcabe village was carried out in the first week by conducting the inculturation and discovery stages. Inculturation was carried out through gathering with community leaders and the general public of Balongcabe village with the aim of finding accurate data from the initial process by blending with the community more intensely. Furthermore, participating in social activities and helping to prepare village programs that will be implemented in the near future. After the inculturation stage, the implementation team conducted potential mapping and identified potential priorities in Balongcabe village by conducting a Focus Group Discussion (FGD) and conducting interviews with villagers who are included in the discovery stage with the aim of finding the potential that Balongcabe Village has. The next stage is to define or implement priority programs in the form of assistance in the processing of soybean agricultural products in improving the community's economy. After that reflection stage, the researcher conducted questionnaires and interviews to get feedback from the community regarding the achievement of the program that had been implemented.

III. RESULT AND DISCUSSION

RESULT

Based on the results of observation and mapping of assets in Balongrejo village (Badan Pusat Statistik, 2023), Kedungadem district, Bojonegoro District, the research team and residents of

Balongcabe village through a Focus Group Discussion (FGD) agreed on a plan for a training program for the processing of soybean agricultural products with the production of soy milk, packaging and marketing. B-Fresh (Balongcabe Fresh) development program: Efforts to Improve the Economy of the Balongcabe Community through Soybean Agricultural Product Processing is an effort to empower Balongcabe village by optimizing the potential of the village. This program or activity is a priority activity from several other programs that are mapped based on the potential of Balongcabe village. This activity utilizes natural resources (Natural Resources) assets and individual assets owned by Balongrejo village. There are large expanses of rice fields, soybean crops that have not been optimally processed and the skills of the Balongcabe village community are potential that can improve the welfare of the community through the processing of soybean agricultural products.

B-Fresh is a product brand proposed by the implementation team for soy milk products produced by the people of Balongcabe Village with the hope that the community's standard of living will be improved in the economic sector. Fresh comes from the English language which means fresh. According to the Great Dictionary of the Indonesian Language (KBBI), fresh can be interpreted as comfortable, healthy, and strong. The naming of soy milk with the term B-Fresh means that consuming soy milk can provide health and body strength for the people of Balongcabe in particular and outside Balongcabe Village in general. In addition to health and strength, B-Fresh is expected to improve the welfare of the people of Balongcabe Village.

The processed agricultural products are agricultural products from Balongcabe Village, namely soybeans that are processed into soy milk. Soy milk is a milk-like beverage made from soy. Based on the Indonesian National Standard (SNI), soy milk is a product derived from soybean seed extract (BSN, 1995). Plant-based soy milk has high fiber content, unsaturated fatty acids and protein, so it is good for health. Soy milk can also be an alternative to cow's milk for people who are allergic and don't like cow's milk or for those who can't afford the expensive price of cow's milk because soy milk is cheaper when compared to animal milk, and soy milk has good nutritional value and is suitable for consumption for all age groups. Soy milk originated in China and is a stable emulsion of oil, water, and protein. Soy milk has a composition of 3.5% protein, 2% fat, and 2.9% carbohydrates. Soy milk can be made with simple kitchen utensils by grinding dry soybeans with water, or by using a machine (Ariyanty, 2019). The B-Fresh soybean agricultural product processing program in Balongcabe Village uses simple kitchen equipment and is carried out in the third week of implementation.

In the third week of implementation, namely the define stage, the stage of implementation of the B-Fresh Development program (Balongcabe Fresh): Efforts to Improve the Economy of the Balongcabe Community through the Processing of Soybean Agricultural Products. The implementation team facilitates the implementation of the program which at the time of the presentation of LHF (Low Hanging Fruit) at the design stage is a program chosen by the community.

The following are the stages of implementing the B-Fresh Development program (Balongcabe Fresh): Efforts to Improve the Economy of the Balongcabe Community through Processing Soybean Agricultural Products.

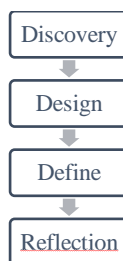


Figure 1. Stages of Implementation of the Empowerment Program

The empowerment of the B-Fresh (Balongcabe Fresh) development program follows a structured four-stage empowerment framework, as illustrated, this model ensures that the transition from agricultural potential to economic welfare is both systematic and community-driven. The process began with a comprehensive discovery phase focused on asset mapping and observation. Based on data from Badan Pusat Statistik (2023), the team identified significant natural and individual assets in Balongrejo village, including vast soybean crops that remained underutilized. This stage was critical for identifying the untapped potential of the Balongcabe community. During the design phase, a Focus Group Discussion (FGD) was conducted with village officials and community leaders to translate identified assets into an actionable plan. This collaborative effort resulted in the conceptualization of the "B-Fresh" brand and the selection of soybean processing as a priority "Low Hanging Fruit" (LHF)

program. The design specifically addressed previous community challenges, such as the unpleasant taste in locally produced soy milk. The define stage marked the formal execution of the planned program during the third week of implementation. At this stage, the implementation team facilitated the logistics of the B-Fresh development by establishing partnerships with external experts, including the Bojonegoro Food Security and Agriculture Office and the LPK Independent Agricultural and Rural Training Center (P4S). This culminated in a hands-on training session for 20 participants, focusing on refined production techniques, packaging, and marketing. Following the training, the reflection stage serves to evaluate the effectiveness of the intervention. This involves assessing whether the community successfully acquired the skills to produce high-quality soy milk using simple kitchen equipment and analyzing the program's potential to improve the community's standard of living in the economic sector.

During the Focus Group Discussion (FGD) with village officials and community leaders, it was known that Balongcabe residents had previously made soy milk but the taste produced was langu. Langu means an unpleasant smell or taste. The village hopes that there will be resource persons who have the competence to make soy milk with a taste that is good for consumption. Furthermore, the implementation team is looking for resource persons who are experts in processing soybean agricultural products with partnerships from outside the village. The first step of the implementation team to the Bojonegoro Food Security and Agriculture Office was to submit a request for resource persons for the processing of soybean agricultural products into soy milk. Furthermore, the Agricultural Extension Coordinator of Kedungadem District reviewed the implementation team post at the Balongcabe Village Hall, Kedungadem District to provide information on the availability of resource persons in the planned program in collaboration with the LPK Independent Agricultural and Rural Training Center (P4S) which is fostered by the Bojonegoro Food Security and Agriculture Office.

The implementation of soybean agricultural product processing training was held on the third Sunday of August at the Balongcabe Village Hall starting at 11.00 a.m. until it was finished. The Soybean Agricultural Product Processing Training in Balongcabe Village was provided by Mrs. Kristianingsih from LPK Independent Agricultural and Rural Training Center (P4S) and Mrs. Enggar Sulistyaningsih, A. Md. from the Bojonegoro Regency Food Security and Agriculture Office. This activity was attended by 20 participants consisting of PKK mothers and the people of Balongcabe village.

Then the activity continued with the delivery of material related to soy milk processing by the resource persons and continued with the division of groups to practice together. He conveyed the tools and ingredients for making soy milk, namely:

1. Tool
 - a. Pot
 - b. Blander
 - c. Filter Cloth
 - d. Stove
 - e. Bottle Packaging
2. Material

a. Soybeans	1 kg
b. Bed Pasir	1/2 kg
c. Salt	1 tbsp
d. Sodium Bicarbonate	0.01 (1/2 sdt)
e. Sodium Benzoate	0.01% (1/2 sdt)
f. Air	6 liter
g. Ginger	1 ounce

Furthermore, the resource person conveyed how to make soy milk, namely:

1. Sorting of materials
2. Soaked soybeans + 12 hours
3. Soaked soybeans are then washed and boiled in boiling water for + 15 minutes and added to sodium bicarbonate. After that, it is washed thoroughly
4. Blander and add with water
5. Filtered with a filter cloth until it produces a milk-like fitrah
6. Add soy juice with sugar and salt and boil until boiling
7. After boiling, sodium benzoate is added, then filtered and cooled
8. Add seasonings to taste
9. Pack in bottles
10. Soy milk is ready to consume

After presenting the material, the resource person divided the participants into two groups for the practice of making soy milk accompanied by the resource person. Each group practiced starting from soybeans that have been soaked then washed and boiled in boiling water for + 15 minutes and added sodium bicarbonate. After that, wash it thoroughly and then blend and add water then filter it with a filter cloth until it produces a fitrah that resembles milk, then add soybean juice with sugar and salt and boil until boiling, after boiling then add sodium benzoate, then filter and cool, then add flavorings according to taste, after that it is packaged in a bottle and soy milk is ready to be consumed.



Figure 2. Practice of Making Soy Milk

The community of Balongcabe village transitions from planning to practical implementation. It captures the define stage of the B-Fresh Development program. The packaging stage is carried out when the soy milk has been successfully cooked. Soy milk is packaged in plastic bottles that have been previously washed with warm water to maintain the sterility of the bottles and affixed with a B-Fresh brand sticker. The resource person also said that in addition to bottles, soy milk can be packaged with plastic. The packaging is adjusted to the target market or consumer and selling price. Namely from children, adolescents, the elderly, in the community of Balongcabe Village or outside the village, from the upper, middle or lower economic community. Mrs. Kristin said that soy milk with plastic packaging is usually sold at a price of Rp. 2,000.00 while soy milk with bottled packaging is sold at a price of Rp. 5,000.00 or even more.



Figure 3. Bottled Soy Milk Manufacturing

In addition to determining market targets, the resource person also said that soy milk marketing can be done by entrusting products to stores, markets or sold online by utilizing social media. Mrs. Kristin also added that young people can be maximized to help optimize the sale of soy milk online through social media, such as WhatsApp, Facebook, TikTok sellers, marketplaces and others.

At the end of the soybean milk processing training session, the resource person concluded about how to be effective related to soy milk processing, packaging and marketing which is expected to optimize the potentials of the village and improve the economy of the Balongcabe Village community.

The economy of society is a group of human groups that have had the order of life, norms, and customs experienced in their environment. The purpose of this economic improvement is to improve the level of the economy through productive independent businesses by paying attention to management in their businesses (Ahit, 2020). The economy organized by the community is a national

economy that is rooted in the potential and strength of the community at large to run their own economic wheels, one of which is from the processing of agricultural products.

DISCUSSION

Balongcabe Village, Kedungadem District, Bojonegoro Regency is a village that has the potential to produce soybeans. The harvest has not been fully processed optimally. Soybean farmers in Balongcabe village use soybean crops for personal consumption and some are sold to collectors at relatively low prices. After mapping the potential of the village and holding an FGD with community leaders and apparatus to determine priority programs, the processing of soybean agricultural products was agreed. The program is the hope of the people of Balongcabe village to improve the economy and increase skills.

Processing of agricultural products is the process of making materials from raw or fresh ingredients into products to meet physical needs or become a new source of economy for the community. If previously agricultural products in the form of soybeans were directly sold raw to collectors, then since the service was carried out, farmers began to process some of these agricultural products. The processing of agricultural products into food products has a positive impact on the community, because the selling value of processed products has a higher selling value than that of selling raw. If a product is packaged well in terms of size, neatness and according to consumer desires, it greatly affects the high increase in sales volume (Putri, 2019). According to the Ministry of Education and Culture, the determination of the price of soy milk is adjusted to production costs, packaging and market targets. This shows that prices from the producer side are influenced by production costs, marketing costs, the number of competitors and consumer targets. In addition, the price determination can be adjusted to the price of other soy milk on the market or other products as a reference so that it can increase sales volume (Putri, 2019).

Efforts to improve the community's economy through soybean processing also provide education related to product branding and product marketing. These two aspects play an important role because they have a significant impact. The marketing of B-Fresh soy milk products processed by the people of Balongcabe village is promoted through social media. The hope of using social media is to expand the target market, such as outside the surrounding villages or sub-districts. Social media is a marketing communication tool that can be categorized based on the reasons or motivations of marketers using social media and the targets of marketing programs that can be achieved by using social media (Morihsyah, 2015). Social media used by the people of Balongcabe such as Facebook, WhatsApp, and other marketplaces.

The existence of the training on processing soybeans into B-Fresh soy milk provides understanding and economic improvement of the Balongcabe village community. In addition to utilizing the potential in the village, the community is also happy to be able to develop themselves to become business actors so as to improve the economy. Based on the results of the service carried out by (Assya et., al., 2021) that agricultural land management is able to improve the community's economy, especially the Lumbang Maju farmer group in Sipedang village, Banjarnegara district, Banjarnegara Regency.

The reflection stage is the final stage of the soybean processing training empowerment program in Balongcabe village. The results of the reflection were from 20 training participants experiencing economic improvement, shown by an increase in sales of soy milk and an increase in market interest. This is in accordance with the results of the service carried out by (G. Rabbani, et., al., 2021) stating that economic empowerment through the weekly group program (PKKM) is able to increase the independence of community welfare if carried out in accordance with the concepts of community empowerment.

IV. CONCLUSION

Based on the results of this community service initiative, it can be concluded that the manufacture of soy milk possesses lucrative as a sustainable household industry. By introducing various flavor profiles, soy milk serves as a highly viable and cost effective to cow's milk that remains accessible for local production. The success of the program was further evidenced by the high level of participant interest, with many expressing a strong desire to develop soy milk production as a supplemental business venture. However, for this activity to remain sustainable, further efforts must be made regarding circular economy practices, specifically the conversion of soybean dregs—a byproduct of the filtering process—into other useful commodities. Ultimately, these findings suggest that future researchers should continue to explore diverse soybean processing techniques that yield high-value products to further enhance the village's economic resilience.

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