

PROFICIENT Community Service

Recycling Used Cooking Oil to Multipurpose Products for Family Economic Improvement

¹Reny Fitriana Kaban*, ²Martina Safitry, ³Ai Nety Sumidartini, ⁴Banaziriyah

¹ Faculty of Economics & Business, Perbanas Institute, Jl. Perbanas, RT.16/RW.7, Kuningan, Karet Kuningan, Setiabudi, Jakarta Selatan, Jakarta, Indonesia

^{2,3}Faculty of Administration /Public Administration, STIAM Institute of Social and Management Sciences , Jl. Pangkalan Asem no 55, Jakarta, Indonesia
ame, Faculty/Study Program, College, Address of the College

⁴Faculty of Teaching & Education, Open University, Jl. Cabe Raya, Pondok Cabe, Pamulang, Tangerang Selatan, Banten, Indonesia

*correspondence: reny.fitriana@perbanas.id

ABSTRACT

Keywords :

Recycling, Used Cooking Oil, Multi Purpose Product, Family Economic, Improvement.

Accepted : Mei 14, 2024

Approved : Juni 13, 2024

Published: Agustus 30, 2024

Publisher:

Perbanas Institute



This work is licensed under Attribution-NonCommercial - ShareAlike 4.0 International. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/4.0/>

This Community Service aims to develop the potential and skills of human resources, housewives in Kedung Waringin Village in utilizing the natural potential of the village, waste cooking oil to produce something of high selling value and provide economic, social, and environmental benefits for the surrounding community. Improving women's skills can foster local economic activities that can indirectly improve community welfare. The multi-use products resulting from the creativity of recycling used cooking oil are soap for washing and candles as a source of lighting, alternative room decoration, and aromatherapy media.

For the sustainability of this used cooking oil recycling skills training and to support the achievement of the community service goal, increasing community income through the creative economy, the community service team also followed up with online marketing activities so that the products produced by the community as output from the training could be sold so as to provide additional community income. By making recycled products, the community can generate income independently to increase family income. The result of this community empowerment activity is increased community capacity.

Keywords: Recycling, Used Cooking Oil, Multi Purpose Product, Family Economic Improvement

A. INTRODUCTION

Community Service is a community empowerment program with the aim of increasing potential, both the quality of human resources and the natural potential around the community, to be processed so that it has more use value than what already exists (Wardani,

Saptutyingsih, & Fitri, 2020). In Bojong Gede Asri Housing, Kedung Waringin Village, Bojong Gede Sub-district, Bogor Regency, this has not been done well. For this reason, better development and organization efforts are still needed. For example, in the field of skills, the work of housewives still requires further training in managing the natural potential of the village. Most housewives in Bojong Gede Asri housing are housewives who do not have skills so they need assistance and training in increasing family income so that the family economy does not depend entirely on the income of the head of the family.

The problems found in Bojong Gede Asri housing are 1) this community is dominated by housewives who have not utilized the natural potential of the village properly, 2) lack of skills in managing the potential of the village, and 3) lack of income because most of the population of Kedung Waringin Village are housewives. Utilization of natural materials in the kedung waringin village environment, such as orange leaves, lemongrass, and household waste can provide direct benefits to people's lives in the social and economic fields. In addition, this training also improves the quality of human resources through empowering mothers in Kedung Waringin Village.

Everything can be valued with money. In this age of creativity and appreciation, there are many natural resources that can be processed or recycled by the community. In addition to being useful for themselves, recycling these natural resources can also be useful for others, which can be an economic source for those who are willing to be a little creative (Herditiya et al., 2023).

The potential of the environment around the community needs to be utilized properly, for example by making it a product that can be processed so that it has a high selling value. This can increase the community's income (Said & Hidayanti, 2023). Identification of the potential of natural resources and the environment around the community needs to be done based on local wisdom to support government programs in the field of natural resource management and the environment in a good and sustainable manner. One of the utilizations of natural potential is to increase community income. Therefore, it is necessary to empower community groups, especially groups of housewives, so that they can increase family income independently, not only depending on the head of the family (Wikantari & Supriadi, 2022).

This community empowerment program aims to develop the potential and human resource skills of housewives in utilizing the natural potential of their village, namely used cooking oil waste to produce something of high selling value and provide economic and social benefits for the surrounding community. Improving the skills of housewives can foster local economic activities that can indirectly improve the welfare of the Kedung Waringin Village community. The multi-use products resulting from the creativity of recycling used cooking oil are soap for washing and candles as a source of lighting, alternative room decoration, and aromatherapy media.

Candles have been used extensively throughout history not only as a means of illumination, but also to set the mood. The candles in question are aromatherapy candles. Aromatherapy candles are candles that contain fragrance ingredients that can be used as a refreshing, relaxing, and headache cure. Aromatherapy candles can be used for a variety of purposes, including stress and anxiety relief (Azzahra et al., 2023).

Aromatherapy candles are another application of existing candles. In making aromatherapy candles, several ingredients are used. One of them uses aroma oil (essential oil) which has an aromatherapy fragrance. Aromatherapy itself has calming properties and has a refreshing aroma. Aromatherapy candles provide a therapeutic effect when burned. The aromatherapy candle formula is made from paraffin, crayons, lemongrass, lime leaves, and household waste from the village, namely used cooking oil. The training on making aromatherapy candles can improve the ability of residents to create a creative economy by utilizing the

natural potential in the village. The various formulas made produce candles that are quite hard and can burn perfectly. Aromatherapy candles have a good chance in the market. It is easy to make, the materials are also easy to obtain, the price is affordable, and the profit obtained from the aromatherapy candle making business is very high. Aromatherapy candles can be used to decorate and fragrance the room and can be used as a souvenir.

The objectives to be achieved through this Community Service activity are as follows:

1. Recycling aims to obtain new items for daily use as alternative or additional materials for home needs.
2. Recycling is specialized for sale, so in this case it can add to the economic income of the community.
3. Recycling with environmentally friendly principles also aims to preserve life and resources on earth, thus contributing to preventing environmental damage.
4. Recycling also aims to reduce the amount of new waste, the increasing amount of waste will cause nature to be increasingly damaged by environmental pollution.
5. Increase the creativity of mothers in managing waste properly and appropriately.

B. IMPLEMENTATION METHOD

The method of this community service activities are as follow:

I. Observation

Through this activity, the Community Service Team tried to observe the activities carried out by housewives in the neighborhood or the surrounding environment, the results obtained that most of them do not utilize their time and potential for entrepreneurial activities.

II. Problem Determination

After conducting observations with the result that some of the housewives do not utilize their entrepreneurial potential, then coaching activities are carried out. Entrepreneurial potential, then fostering activities that can be a provision for entrepreneurship.

III. Determination of the Assisted Group

In determining the housewives who will be fostered, they who live in the neighborhood around the Community Service Team members are chosen, this is to facilitate communication relations. The team, it is to facilitate the communication relationship between the team and the objects. In choosing activities, deliberations were held with the fostered objects, and an agreement was obtained to activities to recycle used cooking oil into multi-purpose products. After that, they asked for permission permission to the local RT and RW to hold this activity.

IV. Implementation.

For the implementation to run well, the activities are not rigid, meaning that our position is the same. We are the same, no one is higher and the fostered group has the freedom to express ideas in coaching activities.

V. Evaluation

At this stage, the results of recycling by the housewives are expected to be followed up. They can develop this coaching activity into a side job.

Place and Program Implementation

1.Place of implementation of the training program

The place for implementing the used cooking oil recycling skills activities is in one of the residents' houses located at the Bojong Gede Asri housing complex RW 15 Kedung Waringin Village, Bojong Gede Kec.Bojong Gede, Bogor Regency.

2. Time of Program Implementation

Used cooking oil recycling skills activities on May 25, 2023.

C. DISCUSSION

Meeting Activity Description

1. Supporting Material Debriefing

This material is delivered by each PKM Team member in accordance with their respective expertise, namely:

Table 1. Community Service Teams and The Materials Given

No	Name	Scholar's Background	Material Given
1	Reny Fitriana Kaban, S.P. M.Si	Shariah Economics	The Urgency of Environmental Preservation for the Sustainability of Life Viewed from the Economic, Social and Environmental Sides as well as from the Sharia side
2	Martina Safitry, S.E, M.Si	Accounting	Calculation of Product Selling Price to Achieve Optimal Profit
3	Dr. Ai Netty Sumidartiny, S.E, M.M	Business Administration	Creative Marketing Tips and Tricks for Beginner MSMEs

2. Used Cooking Oil Recycling Skills

In this training, materials and equipment have been prepared by the proposing team. Women's groups were invited to attend the training on making laundry soap and aromatherapy candles.

a. Soap



Figure 1. Materials For Making Soap

Tools used:

1. Digital Scales to precisely measure the ingredients used

2. Basin as a container for making laundry soap ingredients
3. Ladle for stirring and transferring ingredients to molds
4. Strainer to filter the ingredients
5. Mold for making soap

How to make it:

1. Mix caustic soda into pandan water
2. Beat the caustic soda that has been mixed with water for up to 5 minutes, then let the solution stand for 2 hours.
3. Then add the caustic soda that has been sitting for 2 hours and shake again until it thickens.
4. Add the colorant while continuing to shake
5. Pour the mixture into the mold container, wait for 1 x 24 hours until thickened and hard.
6. Soap will get maximum results and release from the mold after 2 - 3 days from the pouring process in the mold.



Figure 2. Process of Making The Soap from Used Cooking Oil

b. Aroma Therapy Candles

Aromatherapy candles are special candles made from essential oils with an aroma that is soothing and pleasant. Aromatherapy candles have also been used since the last few centuries to relax the atmosphere. In this case, the candles are made from the basic ingredients of used cooking oil and paraffin as well as scents from natural plants. In the aromatherapy candle-making training, each participant was given tools and materials that had been previously prepared in a plastic tray. The tools and materials include various paraffin, aroma therapy oils and candle containers that have been provided by the PKM team.



Figure 3. Materials and Tools for Making Aroma Therapy Candle

With a few assistants, the participants started to go step by step in making aromatherapy candles. If there were any difficulties or questions, participants told the assistants or instructors to explain how. The first step is to heat the water, then add paraffin and mix it evenly with cooking oil. Next, add crayons and stir, then add aromatherapy, then pour the candle mixture into the prepared glass container, and finally plug the candle wick and let the candle harden. The candle wick used is a special wick.

Without realizing it, the word aromatherapy has become a part of modern human life in line. However, many people in Indonesia do not fully understand the meaning and benefits of aromatherapy. Aromatherapy is connoted more as a room and body fragrance to produce a calm and relaxing effect or evoke a romantic atmosphere. In fact, the benefits of aromatherapy are far more extensive and powerful. Since the time before Christ, aromatherapy has been used in health care in addition to beauty treatments. aromatherapy is increasingly believed, even applied, as a purely natural treatment to restore health and well-being to the body.

Cost Budget

1. Used Cooking Oil 50 grams
 2. Bleaching eart 100 grams Rp.200
 3. Paraffin 100 grams Rp.300
 4. Fragrance/ Aromatherapy oil Rp.200/pcs
 5. Crayons for coloring
 6. Candle wick Rp. 300 pcs
 7. Sloki glass Rp.2,000/pcs
 8. Mica box Rp.500/pcs
- TOTAL: 3,500 /pcs

The used cooking oil recycling training was attended by ten housewives from Bojong Gede Asri Housing. Based on gender, all aromatherapy candle training participants were female and married. Based on knowledge about the utilization of the environment, 50 percent of all participants in this used cooking oil recycling only listened and did not know what could be utilized from the natural environment around them to be made into something more valuable. A total of 10 percent did not know about environmental utilization, but already knew and utilized things around their place of residence for economic activities. The remaining 40 percent of all participants knew but did not utilize the environment around their homes.

EVALUATION FINDINGS

This Community Service aims to increase the capacity of the community, especially in kedung waringin village, especially mothers of Bojong Gede Asri housing, Kedung Waringin Village, Kel.Bojong Gede, Bogor Regency and the wider community in general, in earning income, namely by re-diluting used cooking oil into laundry soap products and aromatherapy candles in order to increase income through the creative economy. The result of this activity is the realization of face-to-face learning about making laundry soap and aromatherapy candles. This photo is intended so that the community can make these products easily with simple ingredients so that they can produce their own after watching the photo and practicing it through training.



Figure 4. Community Service Team with The Participants and The Aromatherapy Candle

Follow-up Online Marketing of Used Cooking Oil Recycling Products

Aromatherapy Candles

For the sustainability of the aromatherapy candle training and to support the achievement of the aromatherapy candle training objectives, namely increasing community income through the creative economy, the PKM team also followed up with online marketing activities so that the products produced by the community as output from the training can be sold so as to provide additional community income. The idea of online marketing is also carried out in a series of aromatherapy candle making training, in the form of aromatherapy candle product photo sessions. Thus, the presentation becomes attractive and saleable. From all this training, the community is expected to not only be able to produce high-value goods, but also be able to market them through whatsapp, facebook and instagram.



Figure 5. Result in Packagaing and Ready To Sell

D. CONCLUSION

The lack of utilization of natural potential in the environment around Bojong Gede Asri housing encourages the holding of Community Service Recycling Used Cooking Oil. This training can develop the skills of a group of housewives of Bojong Gede Asri housing in utilizing the natural potential of their village. This certainly provides benefits, both in terms of economic, environmental, and social aspects. By increasing the skills of housewives, local economic activities indirectly increase to increase the welfare of the community in the neighborhood.

The Bojong Gede Asri housing community has valuable natural potential, namely used cooking oil residues that can be used as ingredients for making laundry soap and aromatherapy candles. These two products are products that are worth selling. By making recycled products, the community can generate income independently to increase family income. The result of this community empowerment activity is increased community capacity.

LIST OF PARTICIPANTS

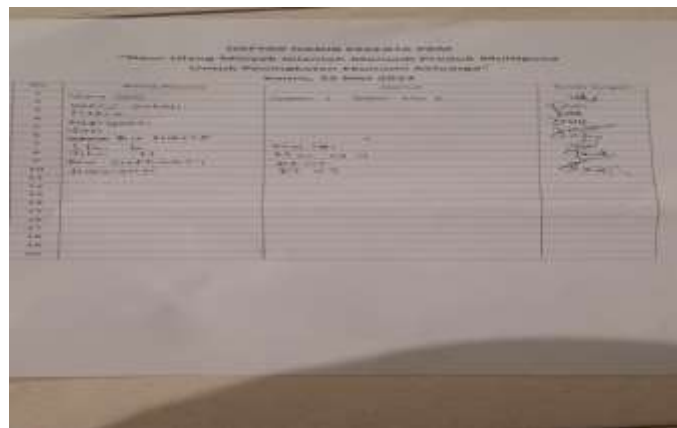


Figure 6. Participants List

REFERENCE LIST

- Azzahra, A. M., Rahmadina, Asir, A., Afrizal, Sapar, & Samsinar. (2023). Pemanfaatan Lilin Biasa Menjadi Produk Lilin Aromaterapi Fresh Yang Bernilai Jual. *Jurnal Pengabdian Kepada Masyarakat Nusantara (JPkMN)*, 4(3), 1685–1690. <https://doi.org/http://doi.org/10.55338/jpkmn.v4i3.1177>
- Herditiya, Dafrita, I. E., Trisianawati, E., Sari, M., Nawawi, Nurmayanti, N., & Manisa, T. (2023). Pemanfaatan Minyak Jelantah Dalam Pembuatan Lilin Aromaterapi Untuk Melatih Biointerprenuership Siswa SMAN 1 Sungai Kakap Kabupaten Kubu Raya. *JOMPA ABDI: Jurnal Pengabdian Masyarakat*, 2(4), 6–12.
- Said, H., & Hidayanti, N. F. (2023). Sosialisasi dan Pratik Pembuatan Lilin dari Minyak Jelantah Rumah Tangga di Desa Perempuan Barat. *Community Development Journa*, 4(2), 3493–3497.
- Wardani, D. T. K., Saptutyingsih, E., & Fitri, S. A. (2020). Ekonomi Kreatif: Pemanfaatan Limbah Jelantah Untuk Pembuatan Lilin Aromaterapi. In *PROSIDING SEMNAS PPM 2020: Inovasi Teknologi dan Pengembangan Teknologi Informasi dalam Pemberdayaan Masyarakat Pasca Covid-19* (pp. 402–417). <https://doi.org/10.18196/ppm.32.224>

Wikantari, M. A., & Supriadi, Y. N. (2022). Peningkatan Kewirausahaan Ekonomi Keluarga melalui Pemberdayaan UMKM. *Batara Wisnu Journal: Indonesian Journal of Community Services*, 2(2), 262–269. <https://doi.org/10.53363/bw.v2i2.96>