

## The Added Value of Coconut Shell Waste into Briquettes

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### Abstract

*This activity aims to increase the entrepreneurial spirit of PD NA and Nasyiatul Aisyiyah members, and increase the added value of coconut shell waste into briquettes. This activity was carried out by PD and members of Nasyiatul Aisyiyah. The activity method uses an approach; 1) Entrepreneurship training with Achievement Motivation Training material, basics of entrepreneurship, business communication and marketing, 2) practice of making briquettes, 3) marketing assistance. The conclusion from this activity is that AMT training materials need to be developed further, because changing a person's mentality (mindset) to become an entrepreneur requires a process. Shell charcoal has the potential to be developed and the raw material for briquettes can be organic material, such as organic waste.*

**Keywords:** PD NA, Coconut Shell, Briquettes

### 1. INTRODUCTION

The establishment of Nasyi'atul Aisyiyah (NA) cannot be separated from the history of Muhammadiyah itself which is very concerned about the continuity of the cadres who continue the struggle. In developing the ummah, Muhammadiyah requires strong cadres who will continue the struggle of its predecessors within Muhammadiyah. Apart from being a tadjid movement, Muhammadiyah is also a da'wah movement and is currently trying to promote Muhammadiyah as an economic movement. Nasyi'atul Aisyiyah (NA) as one of the autonomous institutions in the Muhammadiyah organization has administrators starting from the Center (Jakarta), Regional (province) Regional (Regency/City), Branch (District) to Branch (Village), with the number of members and millions of supporters. So far, Nasyi'atul Aisyiyah (NA) activities have been more related to recitation of the Koran, education by establishing schools and social activities in the community.

So far, the economic activities of Nasyi'atul Aisyiyah (NA) members still run independently, both at home and in traditional markets. One of the economic activities (business) of Nasyi'atul Aisyiyah (NA) Cilacap members which is spread across traditional markets is the coconut grater business. So far, coconut waste in the form of shells has only been thrown away or given to co-workers as firewood and has not yet been used as an item of economic value (Raya et al., 2023). Not many people use it to make charcoal briquettes from coconut shells, even though the raw material potential and market potential are quite large, both for local household consumption and for the activated charcoal industry, both for domestic and foreign use (export)(Marwanza et al., 2021).

From a technological aspect, processing charcoal briquettes can be done relatively easily with simple technology and can be carried out by small businesses(Arkan, 2018). Limited capital, limited access to market and market information, and quality that does not meet the requirements are obstacles and problems in developing the charcoal briquette processing industry. The problems that will be resolved in this service activity are; The entrepreneurial spirit of NA administrators and members, especially grated coconut craftsmen, is still low, they do not know

the simple technology for making briquettes from coconut shells, limited capital and access to briquette market information.

The aim of this service activity is to increase the entrepreneurial spirit of PD NA and its members, increase the added value of coconut shell waste, so that it can then be used as additional income for NA members who work as coconut grated craftsmen.

## 2. METHOD

The implementation of this community service activity will basically be carried out using a participatory method. It very close to the community empowerment learning method. The Steps taken below:

### 1. Entrepreneurship training

Entrepreneurship training, to equip PD NA Cilacap Regency members to have an entrepreneurial spirit. Training materials include Achievement Motivation Training, basic concepts of entrepreneurship, marketing strategy, and business communication. Meanwhile, the method of delivering material is through lectures, discussions and simulations.

### 2. Technical training in making briquettes from coconut shells.

Tools and materials consist of coconut shell, starch, water, burning barrel, 50 mesh and 70 mesh sieve, briquette mold, plastic briquette packaging, siller, paralon pipe. Meanwhile, the process flow for making briquettes is as follows: Arranging, Sifting, Mixing media, and Printing Charcoal Briquettes.

### 3. Briquette Marketing Assistance

The final activity of the Science and Technology for the Community program is briquette marketing assistance. The difficulty that small entrepreneurs often experience is in the field of marketing. Because marketing is not only related to sales, but starts from designing brochures, packaging design, until the product reaches the final consumer.



Figure 1. *Socialising*



Figure 2. *Group discussion*

### 3. RESULT AND DISCUSSION

#### 1. Entrepreneurship training

The entrepreneurship training was carried out with 28 participants. The training materials include Achievement Motivation Training, Basic Entrepreneurial Concepts, Marketing Strategy, and Business Communication. While the method of delivering material through lectures, discussions and simulations. Material through lectures, discussions and simulations. Entrepreneurship training materials are as follows;

a. Entrepreneurial basics. This material conveys the importance of learning to be an entrepreneur. Entrepreneur is someone who has the ability to create, seek, and take advantage of opportunities according to what is desired.

b. Motivation. This material is related to how to change the paradigm of thinking or changing the "mindset". In addition, participants are also taught to have a DREAM or a clear goal. By having dreams that are managed properly, an entrepreneur will have a stand, focus on targets, have confidence in his decisions, have the ability to make decisions, and be able to survive in emergencies.

c. Business communication. This material is about the importance of communication in business both in the form of verbal and nonverbal communication (communication carried out using gestures as sign language or body language. Besides that, participants are also provided with material about a person's character. In general, a person's character is divided into 4 characters namely, sanguine, choleric, melancholy and phlegmatic.

d. Marketing strategy. This material provides the ability to understand marketing strategies for NA administrators and members to deal with changing market conditions, technological developments and lifestyles, distribution systems, patterns of consumer behavior, seasonal demands, market segments and unfulfilled opportunities.

#### 2. Technical training in making briquettes from coconut shells.

Tools and materials consist of coconut shell, starch, water, burning barrel, 50 mesh and 70 mesh sieve, briquette mold, plastic briquette packaging, siller, paralon pipe. While the process of making briquettes is as follows:

a. Charcoal, sawdust and coconut shells are made of charcoal by manual charcoal (burning).

b. Sieving Sieving aims to produce sawdust charcoal and coconut shells that are soft and smooth. Sawdust charcoal was sifted through a sieve with a 50 mesh size and coconut shell charcoal with a size of 70 mesh.

c. Mixing media, filtered sawdust and coconut shell charcoal is then mixed with a ratio of 90% sawdust charcoal and 10% coconut shell charcoal. When mixing, add 2.5% starch glue to the entire mixture of sawdust charcoal and coconut shells.

d. Charcoal Briquette Printing, After the ingredients are mixed evenly, they are then put into a briquette mold and pressed

### 3. Briquette Marketing Assistance

Briquette marketing assistance activities cannot be carried out optimally. Because production is still small and limited, besides that, the activities of PD NA and grated coconut artisans in the market have resulted in briquette production activities not being maximized.

### 4. CONCLUSION [ Cambria, Bold, 11 pt ]

AMT training materials need to be developed further, because changing a person's mentality (mindset) to become an entrepreneur requires a process. Shell charcoal is a business that has the potential to be developed with a very abundant source of shell raw materials. This business unit can be developed in locations that have coconut plantations spread across Cilacap Regency, so that it can increase the income of people in rural areas, which also serves as a material for charcoal briquettes on a household scale. Raw materials for briquette production can be developed from other organic materials, such as organic waste

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