

SOCIALIZATION OF THE UTILIZATION OF COFFEE HUSK WASTE AS COMPOST MATERIAL TO INCREASE COFFEE PRODUCTION

Reko Apriantoni¹, Eddy Silamat², Adnan³, Bursamin⁴

Faculty of Agriculture, Pat Petulai University

Email: rekoaprianto54@gmail.com, eddysilamat9@gmail.com, adnan62@upprl.ac.id, bamin73@gmail.com

Abstrak

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Bengko Village is located in the Sindang Dataran sub-district of Rejang Lebong Regency. The majority of the village's population works as farmers. The cultivated commodity is coffee. Coffee is a source of income for the people of Bengko Village, but in recent years coffee production in this village has continued to decline. One of the causes is the lack of fertilizer application and the high price of fertilizer for farmers, as well as a lack of community knowledge about making compost that is more environmentally friendly and can improve soil structure. The purpose of this community service is to share knowledge with farmers in Bengko Village about how to make compost from unused coffee husk waste so that farmers are not dependent on environmentally unfriendly chemical fertilizers.

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INTRODUCTION

Bengko Village is located in Sindang Dataran District, Rejang Lebong Regency, Bengkulu Province is a village where the majority of the population works as coffee farmers. Coffee is the main commodity of the Bengko Village community due to its geographic location and ecosystem conditions that are very supportive for coffee cultivation. According to data from the Central Statistics Agency (BPS) (2024), Bengko Village has quite high rainfall, averaging 2,800 mm/year, is located at an altitude of 800-1000 m and topography consists of hilly slopes suitable for cultivating horticultural crops and coffee plants. (Sektor & terhadap, 2025)

The coffee cultivated in Bengko Village is Robusta. Robusta coffee has a higher yield than Arabica coffee. Furthermore, its prominent characteristics include its

somewhat rounder beans, a thicker curvature compared to Arabica coffee, and a nearly flat centerline from top to bottom. (Sektor & terhadap, 2025) Robusta coffee is more resistant to fungus. *Hemileia vastatrix* and has a higher production compared to Liberica coffee. BPS (2024) data shows that Rejang Lebong in 2023, with a coffee plantation area of 30,393 ha, only produced 11,824 tons of coffee. This figure is relatively low compared to the potential of Robusta coffee. According to BPS (2024), the productivity of Robusta coffee in the Bengko area is still relatively low at 700 kg/ha compared to productivity in Vietnam, which reaches 1,500 kg/ha. Therefore, efforts are needed to increase coffee plant productivity, especially in Bengko Village. One effort that can be made to increase coffee productivity is by improving soil conditions and applying appropriate fertilizers. (Ningrat et al., 2025)



The use of organic compost can be a solution in efforts to improve soil structure and porosity, increasing soil fertility and beneficial microorganisms that are beneficial to plants. (Darmawan., 2020) In addition, organic fertilizer can be an alternative solution in efforts to reduce dependence on chemical fertilizers. Large-scale and continuous use of chemical fertilizers can lead to a decline in beneficial microorganisms, which causes nutrient absorption by plants to be disrupted. Therefore, the use of compost is a priority in efforts to increase coffee plant productivity. (Novita et al., 2019)

The potential of coffee husk waste as a basic material for compost fertilizer has the potential to be developed. Traditional coffee bean processing produces coffee husk waste up to 40-50%. (Arwaa Marden et al., 2024) The people of Bengko Village do not utilize coffee husk waste, thus causing environmental problems due to the process of burning coffee husk waste by the community. Utilization of coffee husk waste can overcome the problem of coffee husk waste accumulation and can be used as compost to improve soil fertility conditions. Organic compost fertilizer made from coffee husk has a nitrogen content of 1.67%, P₂O₅ as much as 1.11%, so it can be used as an additional basic material for making organic compost fertilizer. (Ansiska et al., 2022) The purpose of this activity is to socialize the use of coffee husk waste as a basic material for compost fertilizer to increase coffee productivity in Bengko Village, Sindang Dataran District, Rejang Lebong Regency, Bengkulu Province.

METHOD

a. Activity Location

This Community Service was carried out in Bengko Village, Sindang Dataran District, Rejang Lebong Regency, Bengkulu Province

b. Target Audience

The target audience for this community service activity is the community in Bengko Village.

c. Type of activity

In overcoming the problems that occur in Bengko Village community As previously described, this Community Service Program offers several approaches that can help solve existing problems, namely by providing outreach on coffee husk waste compost, so that the people of Bengko Village can utilize coffee husk waste as a raw material for making compost. Organic compost fertilizer can reduce the community's dependence on chemical fertilizers.

d. Activity stages

The implementation of the community service program is divided into two stages: preparation and implementation. The purpose of developing an extension work program is to ensure more organized and focused activities. The following is a breakdown of each stage:

1.

Stage of Preparation

- a. Preparation of proposals and PPTs for community service extension materials.
- b. Preparation of extension facilities and infrastructure. This preparation includes providing extension facilities and infrastructure.
- c. Field coordination. Field coordination will be carried out by the Team.

2. Implementation Level

The implementation of the Bengko Village Community Service Program was held at the home of the Bengko Village Head. This activity included an introduction of the extension team from Pat Petulai University to the Bengko Village community, led by a presenter from the Pat Petulai University extension team. This was followed by a presentation by the head of the committee, followed by a question-and-answer session.

e. Costs and Activity Schedule

Table 1. Activity Costs

No	Component	Proposed cost (IDR)
1	Snack	200.000
2	Transportation	200.000
3	Teaching Materials	50.000
4	ATK	50.000
5	Report Creation	100.000
6	Table, Mat and Chair Rental	100.000
7	Cleaning Fee	100.000
8	Sewa Speaker	70.000
9	Publication	1.000.000
Total		1.870.000

Table 2. Activity Schedule

No	Activity Name	Month												
		1	2	3	4	5	6	7	8	9	10	11	12	
1	Proposal Submission and Revision													
2	Field Survey													
3	Preparation for Implementation													
4	Implementation													
5	Implementation Evaluation													
6	Report Creation													

RESULTS

a. Output Achieved

After completing the theoretical training, it is hoped that the Bengko Village community will have knowledge of how to make compost from coffee husk waste. Coffee husk compost can be a solution to the community's dependence on and limitations on chemical fertilizers. Utilizing coffee husk waste can reduce existing waste, thus providing economic benefits to the community.



b. Benefits Obtained

- 1) The Bengko Village community can learn about the benefits of coffee skin waste compost fertilizer.
- 2) The Bengko Village community group can utilize coffee skin waste to make organic compost fertilizer, thereby increasing economic value for the community.

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