

# Eco-friendly Product Training for Young Generation in Kemiling, Bandar Lampung, District Indonesia

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**Abstract.** The ecoprint technique counseling activity carried out for the community in Kemiling sub-district is one of the activities aimed at increasing creativity and environmental awareness, especially among young people in the Kemiling sub-district area, Bandar Lampung. This training can help the younger generation understand the importance of protecting the environment and the negative impact of products that are not environmentally friendly by reducing the use of chemicals and replacing them with natural materials that are environmentally friendly. The ecoprint technique uses simple techniques and tools, therefore this counseling was carried out in stages with face-to-face methods and educational techniques, discussions, and practices to 50 participants because the ecoprint technique uses simple techniques and tools. The youth absorbed the training knowledge. In addition, the materials used were readily available in the surrounding environment, namely leaves. The results of ecoprint counseling are able to realize various functional works.

**Keywords:** Eco-friendly Product, Training, Young Generation

## 1 Introduction

The younger generation plays an important role in determining the future direction of the nation. Their creativity and concern for the environment are key to realizing sustainable development. The future of the nation lies in the hands of the young generation. This is also supported by the results of the population census in 2020, which recorded that the number of people in the millennial category was 25.87%, or around 69,901 million of the total population of 270.20 million. About 70.72% of Indonesia's population is currently aged between 15 and 64 years [1].

One of the real contributions of the younger generation to the future of the nation is applying the principles of sustainable development. Ecoprint is a coloring technique that involves beautifying fabrics using natural materials while producing motifs [2], [3]. This statement is also supported by a sentence from Fatmala and Hartati stating that the use of natural materials is a characteristic of the Ecoprint technique [4].

Ecoprint has three types, namely: (1) pounding technique; (2) boiling technique; and (3) steaming technique. Various methods can be used, but this implementation produces ecoprints with the pounding technique. The method is the simplest method in the ecoprint application [5]. In the ecoprint technique, natural resources use plants, such as leaves, that are placed on the fabric and then hit so that the plant's essence seeps into the fabric naturally. and from here it can be used as an inspiration for increasing knowledge about ecoprint, empowering the younger generation, and adding skills.

## **2 Literature Review**

### **2.1. Ecoprint Technique**

The ecoprint technique is a natural dyeing method that involves the transfer of pigments from plants, such as leaves and flowers, to fabric through a direct contact process. The ecoprint technique involves the use of natural and simple materials, making it more environmentally friendly than conventional textile dyeing that uses harmful chemicals [7].

### **2.2. Pounding Method**

The pounding method is one of the techniques in ecoprinting that involves beating leaves or flowers onto a fabric medium. As a result, the natural pigments of the plant are transferred to the fibers of the fabric medium. The advantage of this method is that it does not require a lot of equipment and materials, making it suitable for implementation in communities with limited resources. The use of natural fixators such as lime, alum, and arbour can improve the color's resistance to washing. These fixators help bind the natural pigments to the fabric fibers, so the color can last longer [6].

### **2.3. Training Application and Impact**

Training on ecoprinting techniques has been held in various communities, with significant results. The ecoprint training has increased the productivity and creativity of housewives in PKH Bangunjiwo, Bantul Regency. They managed to produce various products, such as masks, hijabs, scarves, long cloths, and clothes, through ecoprint techniques [7]. Then, with the training of making ecoprints by utilizing natural materials in the environment of Dukuh IV Cerme, Panjatan, Kulon Progo Regency, the women members of the PKK and Karang Taruna can develop new skills and increase income through ecoprint products [8]. In Bah Sarimah village, Silau Kahean sub-district, Simalungun district, local potential-based ecoprint training using the pounding method successfully utilized simple materials and tools that are easily accessible to the local community [9]. This method ensures the color is firmly bonded to the fabric medium, resulting in an aesthetically pleasing and durable product.

### **2.4. Sustainability and Environmental Benefits**

Ecoprint is part of the eco-fashion movement that focuses on making textile products that are environmentally friendly and sustainable. The utilization of natural materials such as leaves and flowers, as well as the use of iron waste as a mordant, can reduce dependence on synthetic dyes that are bad for the environment [10]. This technique also teaches people to appreciate and utilize the potential of nature around them more wisely.

## 2.5. Community Empowerment through Ecoprint

Ecoprint training has a significant impact on community empowerment. In Rawamangun, East Jakarta, the ecoprint training effectively improved the skills and entrepreneurial spirit among the community, especially women, which in turn had a positive impact on increasing their income and welfare [11]. Also, the training in Sidomulyo Village, Yogyakarta, contributed to the improvement of participants' knowledge and skills and encouraged active participation in developing the ecoprint business [12].

## 2.6. Eco-friendly Training for the Young Generation

Eco-friendly training for young people plays an important role in educating them about environmental awareness and developing practical skills that support sustainability. The ecoprint technique training in Kemiling subdistrict is expected to motivate the younger generation to raise environmental awareness and explore local potential creatively and sustainably. This program aims to form a young generation that not only has practical skills but also a high awareness of the importance of preserving the environment [6].

## 3 Method

The target audience for this ecoprint training activity is young people in Kemiling Sub-district, Bandar Lampung, who are between 18 and 22 years old. The participants in this ecoprint training activity are young people in Kemiling Sub-district, Bandar Lampung, who are between 18 and 22 years old, around 50 people, with the characteristics of having enthusiasm for learning new things and having a high spirit of creativity.

This activity was held on Saturday, February 10, 2024, at Wira Garden Tourism Park, Kemiling District, Bandar Lampung, and started from 1.00–4.30pm. The reason for choosing the young generation of Kemiling District, Bandar Lampung, specifically the direction of the goal is to improve skills, train creativity, add relationships, and provide supplies that are expected to be developed into an idea for building a business.

**Table 1.** Participant Characteristics

Category	Description	Number of	%
		Participants	
Gender	Man	20	40%
	Woman	30	60%
Age	18 - 20 years	25	50%
	20 - 22 years	25	50%

This table of participant characteristics shows that the sex distribution is more dominant in women, equaling 60% of the total sample. The distribution of age characteristics is quite equal, with participants aged 18–20 years and 20–22 years each being 50%. It shows that women more interested in the ecoprint training activities.

The method used in the implementation of this training activity is a face-to-face practical training method directly mentored by 5 people, then providing demonstration learning about ecoprint material, which includes the definition of ecoprint, tools and materials used, and simple techniques in making, and continuing to carry out practical activities of making ecoprint together.

The technique used in this ecoprint activity is the pounding technique, in which the participants choose the leaves that have color pigments they want to use, then arrange the leaves in the desired position to make them look beautiful on the fabric medium, and then beat them with a hammer or stone until the color pigments on the leaves stick to the surface of the fabric, as seen in the following figure.



**Figure 2.** Ecoprint Pounding Technique

#### 4 Discussion

The Ecoprint Community Service activity held in Kemiling Sub-district, Bandar Lampung, Indonesia attended by 50 participants and was guided by 50 experienced mentors, proved to be an effective platform to increase the creativity and environmental awareness of the youth in Kemiling Sub-district, Bandar Lampung.

Through a dynamic face-to-face method, eco-printing patterns can be created through three techniques: steaming, leaf fermentation, and pounding [13], [14]. This community service (PM)

training focused on eco-printing with the pounding technique. Participants were taught the ecoprint technique, which is the art of printing motifs on fabric using leaves and simple tools. Using ecoprint with pounding techniques must be considered, including choosing leaves, the correct way of drying, and the accuracy of the technique. This statement is corroborated by Musdalifah et al. (2022), which emphasize that understanding the selection and treatment of leaves with specific solutions is crucial to achieving the desired colors and motifs. Further assert that skills in the pounding technique, mastery of the position, and accuracy of the applied pressure are essential for effectively transferring leaf pigments to fabric. Additionally, highlight the importance of understanding natural drying processes to successfully complete eco-friendly printing [15].

The pounding techniques taught are easy to understand and practice, allowing participants to produce unique and functional ecoprint artworks. This not only enhances their creativity but also fosters a sense of love and care for the environment. Ecoprinting, apart from its main function as a beautiful and eco-friendly natural print technique, also offers several other functions that benefit individuals, society, and the environment. Here are some of these functions:

1. Enhancing Individual Creativity: Developing Artistic Skills

Ecoprinting allows individuals to experiment with various organic materials and printing techniques, encouraging artistic exploration and producing unique and personalized works of art. Enhances Knowledge of Nature: The ecoprinting process involves understanding the natural properties and colors of leaves and plants, thus enhancing knowledge and appreciation of the beauty of nature.

2. Increase the selling value of the product.

Ecoprinted products have a story to tell about their eco-friendly manufacturing process and involve a personal touch, enhancing their selling points. Targeting the Environmentally Conscious Market: Consumers who are increasingly conscious of environmental sustainability are more interested in eco-friendly products such as ecoprints.

3. Social and environmental impacts:

Increased Environmental Awareness: Ecoprinting promotes eco-friendly practices and increases public awareness of the importance of nature conservation. Economic and Creative Opportunities: Ecoprinting opens up new business opportunities for individuals and communities to create unique and eco-friendly products. Preservation of Local Culture: Ecoprinting can be used to showcase traditional motifs and designs, preserving local culture and increasing appreciation for cultural heritage.

The benefits of ecoprinting community service do not stop there. This activity also opens up new opportunities for the youth to develop their skills in the art of ecoprinting. Participants choose the leaves they want to use, then arrange the leaves in the desired position and make them look beautiful. It is new for the youth to develop their skills in ecoprint art.

## 5 Conclusion

Based on the results of the ecoprinting activities that have been carried out, it can be concluded that ecoprinting is a form of activity that uses environmentally friendly materials, so the risk of environmental pollution is very small, and this activity is a positive step in encouraging creativity, skills, relationships, and environmental awareness for the younger generation. Its success can be an inspiration for similar activities in the future, paving the way for a greener and more creative future for the youth in Kemiling District, Bandar Lampung.

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