

## ECOPRINT TRAINING TO PROMOTE A CREATIVE ECONOMY IN BUMIHARJO VILLAGE

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**Abstract** - *The Bumiharjo Village area is rich in natural materials that have not been utilized optimally. These natural materials can be developed into a source of income for residents. The way to develop these natural materials to improve village Human Resources is by holding ecoprint technical training. Ecoprint training in Bumiharjo Village uses the face-to-face method. The ecoprint training was intended for PKK members of Bumiharjo Village with a total of 29 participants. The ecoprint training that was carried out in this training was the pounding technique.*

**Keywords:** *Ecoprint Training, PKK Members of Bumiharjo Village*

## 1. INTRODUCTION

Bumiharjo Village is one of the villages in Demak Regency where most of the area is rice fields. This has made most of its residents work as farmers. Apart from rice fields, the Bumiharjo Village area is rich in natural materials that can be utilized by its residents. Natural materials that can be used are leaves and flowers. These natural materials can be developed into a source of income for residents. One way to develop these natural materials to improve village Human Resources is by conducting technical training of ecoprint.

Ecoprint derived from the eco meaning ecosystem and print which means print. Coloring ecoprint technique pioneered by Indi Flint. Ecoprint is interpreted as a process of transferring color and shape to cloth through direct contact (Saptutyningsih & Wardani, 2019). This technique is done by attaching plants that have color pigments on the fabric. The plants used are also plants that have a high sensitivity to heat, because this is an important factor in extracting color pigments (Pressinawangi & Widiawati, 2014). Ecoprint technique utilizing ingredients from plant parts that contain color pigments such as leaves, flowers, stem bark (Hikmah & Retnasari, 2020).

The use of natural dyes is considered a cultural heritage inherited from our ancestors which is still being preserved (Hikmah & Retnasari, 2020). By developing ecoprint technique, then the use of natural dyes will be increasingly in demand. World trade provides incentives for textile products that use natural dyes to enter certain markets with high selling prices. This is something that is interesting for art workers with ecoprint technique.

Motives resulting from ecoprint technique only come from various types of leaves, flowers, and stems. This technique is quite unique, because the resulting motifs come from fibers and the original form of leaves (Asmara & Meilani, n.d.). The motifs and colors of the fabrics produced from the ecoprint technique has its own characteristics, because the resulting motifs are different and unpredictable even though they use the same manufacturing technique and plant species. This is what makes ecoprint technique has high artistic value (Naini & Hasmah, 2021).

Ecoprint became an alternative business opportunity in the field of fashion. Basically, the fashion business is a business that anyone can do. Especially in this digital era that makes it easy for someone to do everything, one of which is promoting a fashion business on social media. Social media also makes it easier for fashion entrepreneurs to see trends that are currently popular with consumers. The fashion business is also a business that demands creativity and innovation. Ecoprint business can be a fashion business choice that is creative, innovative, exclusive and different from the others. According to (Sifaunajah et al., 2020) ecoprint is also a business opportunity everywhere, because the materials used are easy to obtain and in demand by all groups. By utilizing natural resources in the surrounding environment, ecoprint products are worth selling, has a high selling price, and most importantly are environmentally friendly.

The potential of the environment around the community needs to be put to good use, one of which is by making it a product that is worth selling so that it can increase people's income. Identification of potential natural resources and the environment

around the community needs to be carried out based on local wisdom in order to support government programs in good and sustainable management of natural resources and the environment (Saptutyningsih & Wardani, 2017). One of the utilization of natural potential is sought to increase people's income. Therefore, it is necessary to empower community groups, especially the PKK towards ecoprint technique not only depend on the agricultural sector.

## 2. METHOD

Ecoprint training in Bumiharjo Village using the face-to-face method. Ecoprint training is for PKK members of Bumiharjo Village with 29 participants. The approach method includes lecture, discussion, and training methods. This method uses the workshop method in the form of socialization, training, and manufacturing techniques directly to the desired result. The ecoprint training that was carried out in this training was the pounding technique.

### • Tools and materials

Tools and Materials used with the pounding technique are as follows:

- 1) Natural fiber fabrics (cotton, mori, calico, etc.)
- 2) Flower leaf
- 3) TRO (Turquoise Red Oil)
- 4) Tunjung
- 5) Natrium karbonat ( $\text{Na}_2\text{CO}_3$ )
- 6) ZWA (Secang, Turmeric, Mahogany, etc.)
- 7) Hammer
- 8) Scissors
- 9) Plastic
- 10) Gloves
- 11) Wood Stirrer
- 12) Measuring Cup
- 13) Scales

### • Stage

There are four stages that go through when using the hitting technique, namely:

#### 1) Level Scouring

Level scouring is the decay stage of the residue attached to the fabric by soaking it in a special detergent solution. Stagescouring can be done as follows:

a) Dissolve 5 grams of TRO with 1 liter of water

b) Soak and let stand 6 hours or more, then rinse with clean water

c) Dry the cloth

#### 2) Fabric mordant level

Faber mordant level is the stage of adding metal / metal to the fabric which is late inscouring. This works so that the printed results are good and strengthen the absorption of colors. This stage can be passed by: a) Prepare the fabric that has been scouring

- b) Dissolve 100gr of alum/500gr of cloth plus 30 gr of sodium ash/500 gr of cloth with 5 liters of warm water
- c) Dissolve all ingredients
- d) Enter the cloth, squeeze - squeeze and soak in the solution overnight. Make sure all the cloth is completely submerged
- e) Rinse with clean water and dry
- f) Manufacturing ecoprint stage
- g) Lay out the plastic as a base
- h) Lay the cloth over the plastic
- i) Arrange the leaves as desired
- j) Hit the leaves covered with plastic, so they don't damage the cloth and get dirty with smudges
- k) Dry the resulting ecoprint cloth

### 3) Fixation stage

This is the stage of strengthening/locking the color. The solution used is alum, lime, or tunjung. Alum will give a natural effect, lime tends to be bright, and tunjung tends to be old and sharp. Methods :

- a) Dissolve 17 grams of alum or 50 grams of tunjung in 1 liter of water
- b) Soak the cloth that has got the pattern for about 30 minutes then dry it

## 3. RESULTS AND DISCUSSION

The ecoprint training program from KKN students for PKK members in Bumiharjo Village ran smoothly on July 27 2023. In its implementation, KKN Post 108 students practiced several stages before moving on to the stage of making ecoprints. The ecoprint speaker, Mrs. Nana Misrochah, S.Si., M.Pd as a Lecturer in Environmental Engineering at UIN Walisongo Semarang, assisted by KKN students, demonstrated the scouring stage. The scouring stage is the process of breaking down residue attached to the fabric by soaking it in a solution of Turkish Red Oil (TRO). This stage is carried out by KKN students because the soaking is done for 6 hours or more, after which it is dried. The second stage, namely the mordant stage, is carried out by adding metal (alum and soda ash solution) to the fabric that has been scoured.

The mordant stage was also carried out by KKN students first because the cloth had to be soaked overnight and dried. Next, enter the core stage, namely making ecoprints. PKK members of Bumiharjo Village receive tote bag facilities, punching tools, and plastic. KKN students also provide leaves and flowers for the motifs that will be formed in this activity. The leaves used are: teak leaves, ketapang leaves, papaya leaves, jatropha leaves, frangipani flowers, and hibiscus flowers. PKK members of Bumiharjo Village were asked to be creative in designing their respective ecoprints as beautiful and attractive as possible.

One of the reasons for choosing the pounding technique is that it does not take too long to produce a color on the fabric. This is proven by the implementation of ecoprint training starting at 1 pm and finishing at 3 pm. The PKK members of Bumiharjo also

played an active role in discussions with the presenters regarding the chemicals used in this pounding technique. Figures 1 and 2 show documentation of this activity.



**Figure 1.** Ecoprint Technique Training for PKK Mothers in Bumiharjo Village



**Figure 2.** Photo with KKN Post 108 and PKK mothers from Bumiharjo Village

In Figure 1, you can see the high enthusiasm of the participants in participating in this ecoprint activity. In practice, participants can understand that strong colored leaves are suitable for pounding techniques. The colorful flowers and leaves that had been prepared by the KKN students were arranged in such a way and then beaten using wood. After being hit with wood, marks will form from the blow which are patterned and colored. This is based on the type of leaves and flowers chosen by the participant.

The committee hopes that apart from increasing the creativity and innovation of the Bumiharjo Village PKK, this ecoprint training can be developed into a business with high sales value. Considering that in Bumiharjo Village there are still many different types of green plants, so in terms of ingredients it is easy to find. Materials that come from nature also do not require large costs. The positive response from training participants was reflected in positive comments during ecoprint practice, both regarding activities and technical implementation.

The participants gave positive comments, such as: the training was interesting, new knowledge for PKK members, the material presented was easy to accept, and inspired people to be more creative. The evaluation results obtained from the ecoprint training are good, in the future intense training is needed to get satisfactory results. This

activity also has an impact on partner sectors, namely (1). partners understand the concept of ecoprint as an environmentally friendly product, (2). knowing the utilization of natural potential in the surrounding environment, (3). foster a partner's entrepreneurial spirit (Irdalisa et al, 2023). Ecoprint making training is useful in improving people's skills so that work effectiveness and efficiency can increase as well as the demands of science and technology needs and development (Aini, et.al., 2021).

Apart from that, the potential development program in Bumiharjo village is in the form of a variety of plants which are used to improve the skills of mothers and increase family income. In this training, mothers were taught how to make batik using ecoprint techniques starting from traditional processes, production processes to modern processes. As an effort to support programs from KKN through creative economy programs, community empowerment as well, through ecoprint training. It is hoped that this ecoprint training can foster an interest in entrepreneurship and can improve the village economy. The media used are also not limited, starting from the selection of fabrics and natural dyes from leaves and flowers. Compared to plain/patterned fabric with digital printing, the results obtained from ecoprint are much more exclusive and seem beautiful and classy.

So that people's income does not only depend on the agricultural sector, certain training is needed that can increase income, especially for the women of Dukuh Bomo, daffodil, corner. The ecoprint training was chosen which utilizes the plants in each hamlet. From the training on making ecoprint products, 43.75% of all training participants were interested in practicing and selling the ecoprint products they made. This figure shows that quite a number of training participants are motivated to increase family income through the ecoprint business. Meanwhile, the training on making ecoprint video tutorial techniques succeeded in creating online learning that training participants could use by watching the video tutorial if they wanted to practice it again. The video tutorial is also uploaded on social media which can be used by the wider community. It turns out that the ecoprint technique can not only be done using plant media, but the ecoprint technique can be done using other materials. The results of this research are fabric sheets and fashion products with unique, clear, elegant and minimalist patterns. From this it can be seen that the ecoprint technique is an alternative that can be used as an environmentally friendly business opportunity. Products produced using ecoprint techniques also have artistic value and high selling value. The results of this research are fabric sheets and fashion products with unique, clear, elegant and minimalist patterns. From this it can be seen that the ecoprint technique is an alternative that can be used as an environmentally friendly business opportunity. Products produced using ecoprint techniques also have artistic value and high selling value. The results of this research are fabric sheets and fashion products with unique, clear, elegant and minimalist patterns. From this it can be seen that the ecoprint technique is an alternative that can be used as an environmentally friendly business opportunity. Products produced using ecoprint techniques also have artistic value and high selling value.

#### 4. CONCLUSION

From the ecoprint training program held by KKN students on July 27 2023 in Bumiharjo Village, it can be concluded that this training program:

- 1) KKN students realize that there is natural potential that can be used as an alternative business in the fashion sector that is more environmentally friendly.
- 2) Students held an ecoprint training program to increase the knowledge and skills of the community in Bumiharjo Village, especially members of the Bumiharjo PKK.
- 3) As a result of this ecoprint training program, 43.75% of all training participants were interested in practicing and selling the ecoprint products they made.

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