

# Community Empowerment as an Effort to Preserve Batik with an Ecological Approach in Indonesia

**Abdul Malik**

Nonformal Education  
Universitas Negeri Semarang, Indonesia  
Abdul.malik@mail.unnes.ac.id,

**Ghanis Putra Widhanarto**

Nonformal Education  
Universitas Negeri Semarang, Indonesia  
ghanisputra@mail.unnes.ac.id

**Abstract:** The emergence of conservative trends in the environmental field has encouraged batik artisans and entrepreneurs to play an active role in increasing the level of conservation in their environment. Through ecobatics which has become a trend in developed countries, encouraging the use of ecobatic methods in the production and selection of dyes. The purpose of this study is to describe the insight of batik craftsman knowledge about the importance of nature / environment conservation, what materials can be used as natural dyes in batik, the stages of the "ecobatic" production process in the village of Gemawang, Semarang district; and 4) the benefits of producing "ecobatics". This research approach uses qualitative descriptive methods with data collection techniques through interviews, observation and documentation. Data validity is tested through source triangulation techniques and methods. The data analysis technique uses an interactive model through the stages of reduction, display and conclusion drawing. This research reveals that the insights of batik craftsman knowledge about the sustainability / nature conservation is relatively low. Natural dyes used to produce ecobatics are all types of plants ranging from leaves, roots, stems and fruit. The ecobatic production process is the same as the batik production process in general, it's just that the dyeing process is mostly done to get optimal coloring results. Profits from ecobatic production consist of financial benefits and environmental conservation benefits. This research can be used as a preliminary study in developing an ecobatic-based environment and conservative patterns in utilizing the potential of the region as a source of income for the community.

**Keywords:** ecobatics, conservatives, natural dyes, social learning

## I. INTRODUCTION

The demographic conditions of a community determine the dimensions of the needs of each group (Orton et al., 2019) such as economic conditions and social relations at certain levels. Studies in Europe (Agha & Rascher, 2013) find that multi-system approaches at different levels are influenced by an understanding of the social system mechanisms of each group. This means that a community will survive in its population when it can follow the system used in accordance with the social level of society, for example the economic level.

The unique cultural heritage of various countries in the world attracts tourists to buy souvenirs from various ethnic regions. Cultural heritage and conservation are very important to be managed properly as a living heritage site (Vakhitova, 2015) so that it becomes an icon for a region. Batik is a legacy from Indonesia, batik heritage in Indonesia has become a very conservative world cultural heritage with a deep meaning about the philosophy of ancient folklore. Tanzania, in the research reported as a country that has a noble cultural heritage (Chinyele & Lwoga, 2019) has used this conservation pattern as support for the promotion of cultural heritage. From some of these reports it means that cultural heritage is a supporter of the identity of an area, so it needs to be preserved as an effort to make it eternal.

Community empowerment has become an approach used in various development projects in the world, including development in the preservation of culture. One example of community empowerment in efforts to preserve cultural heritage is the *Cultural Heritage Project* (CHP) program in Beijing China through discussion

activities. This project succeeded in moving the community members to restore the Qiang tower with funding from the Prince Clause Fund. People's hopes for their future can play a greater role in preserving cultural diversity throughout the world as quoted in a study (Yunxia & Prott, 2016). This finding is in line with the results of the study (Chinyele & Lwoga, 2019) which states that the level of community participation increases when they are given the opportunity to make higher decisions. From the results of the above research it can be concluded that efforts to preserve cultural heritage can be successful if it is able to invite the community to participate in decision making starting planning, implementation and evaluation.

Ecobatik is a term consisting of two words, namely eco (ecology) which means and batik. From these two words, ecobatics can be interpreted as environmentally friendly batik. This term was popularized by The German-Indonesian Chamber of Industry and Commerce (ECONID), which initiated the *Clean Batik Initiative* (CBI) program, one of which was "ecobatic", which is an environmentally friendly batik production.

## II. EMPOWERMENT COMMUNITY

Empowerment is now the mainstay of community development approaches. The development approach that was originally *top-down* to *bottom-up*, which was initially centralized into decentralized, which was initially oriented toward uniformity (*locality*) to local variations, dependency to sustainability, *improvement* to *transformation*. Freire in his book *Paedagogy of the Opressed* (1986) revealed the need to empower

individuals to be able to take a role and control in their communities for social change. This is in line with the opinion of Narayan (2002) which states that empowerment is the expansion of access and ability of the poor to participate, negotiate, influence, and control the responsible institutions that affect their lives.

Community empowerment according to Roland in a study (Orton et al., 2019) is a shift in power / ability in the implementation of collective control that was originally carried out by outsiders to shift into the power of, by and for the community itself. From these opinions, it can be concluded that empowerment is the ability of a person to actively participate in influencing, negotiating, controlling and accessing government and other community resources. In the era of regional autonomy, community empowerment is really needed. In the political field, research (Bagus, Purbadharmaja, Ananda, & Santoso, 2019) found that a successful government is a government that has three main pillars in development, namely the government, the private sector and the community. All three must run in synergy for the success of the development process. Even the role of government is increasingly being shifted to the role of the private sector and the community.

The importance of community empowerment in the field of technology was also stated by (Koukopoulos, Koukopoulos, & Jung, 2017) which states that the key to the success of a technology information system is the active participation of every citizen not solely done by professionals in the IT field. Research reports (Godbolt, Flyen, Hauge, Flyen, & Moen, 2018) state that the resilience of a cultural heritage depends on the owner, the strength of the cultural building or cultural system influences information about the cultural heritage of the community. Research support for the study of cultural heritage has indeed been done by many experts, including those with an economic nuance that can increase people's income.

Several studies have examined the cultural heritage, specifically the nuanced culture of tourist attractions. However, this study revealed the cultural heritage of the historic art form of batik and economic benefits for the surrounding community. So, it is important to conduct research to revive a culture that can be accepted by the surrounding community as supporting the economy through an ecological approach to community empowerment programs.

The purpose of this study is to describe the insight of batik craftsman knowledge about the importance of nature / environment conservation, what materials can be used as natural dyes in batik, the stages of the "ecobatic" production process in the village of Gemawang, Semarang district; and the benefits of producing "ecobatics". This research approach uses qualitative descriptive methods with data collection techniques through interviews, observation and documentation. While the long-term benefits that can be obtained are studies on the benefits of ecobatics for improving the financial community of conservation.

### III. METHOD

This study uses a qualitative method that reveals information with content analysis techniques there are

using 4 steps to implement: (1) identification; (2) labeling data; (3) shorting data; and (4) data synthesis. This research uses case study design where the subjects taken are residents in batik production areas by utilizing ecobatics as the main coloring agent. Participants in this study were determined using a focused model that is focused on batik craftsmen who use ecobatics. While the Gemawang area is considered relevant because the participant's residence is in the batik artisans' community with a lower economic level. Data collection is done by interview. The respondents are business owners as well as batik artisans and several batik artisans or as employees.

Before determining data collection techniques, to facilitate researchers entering *settings* research, the researcher carries out a systematic flow of steps as follows: (1) searching information from books and searching data online; (2) arrange pre-survey permits research, to explore and find out the field of research; (3) take care of a research permit, as a formal condition for conducting research; (4) fostering good relations with all related elements; and (5) after the presence of researchers can be well received, then researchers begin research to collect data or information needed. The data collection techniques use in-depth interviews, observation and documentation.

Data validity was tested using source triangulation techniques and methods. Before the data collected is presented or drawn conclusions, researchers first examine the truth of the data by comparing between sources / subjects and with other methods.

### IV. RESULTS AND DISCUSSION

Ecobaticat the implementation level is difficult. The results found that the knowledge and attitude of batik to nature conservation in Gemawang village, Semarang district were relatively low. Economic orientation is still their priority. Concern for the natural environment is still far from expectations. Nevertheless, the role of the government through the Office of Cooperatives and SMEs began to help pay attention to environmental sustainability by starting to build waste treatment facilities. With this facility, batik production waste will be processed before being disposed of, so that it does not cause environmental damage. This is in line with the general definition of conservation, which is translated as the wise use of natural resources (Christianto, 2010). The importance of batik's knowledge and attitudes towards environmental preservation is also mentioned by Siregar (2009) in Rahman (2012) which states that the purpose of conservation is to realize the preservation of biological natural resources and the balance of its ecosystem, so that it can better support efforts to improve welfare and quality of life human.

Awareness of the importance of environmental conservation is also in line with research Hunga's (2018) which mentions that home batik has led to the emergence of environmental (water, land, air), social and health crises. This crisis raises awareness of the dangers of production waste and awareness of the consumption of goods that are environmentally friendly is a positive opportunity for the implementation of environmentally friendly batik. Eco-friendly batik (ecobatik) is a batik production activity using natural dyes. Natural dyes that

can be used include various plants ranging from leaves, stems, roots or fruit. From the results of research on batik in Gemawang village obtained, plants that can be used as natural coloring agents are teak leaves to produce brown, high plants and secant for red, indigo plants for blue, jelawe skin and pomegranates for yellow. This is in line with the opinion of Nurainun, et al (2008), before the beginning of the 20th century, batik craftsmen only made batik using dyes from nature such as teak, noni trees, *soga*, tilapia, *tingi*, *tegeran*, young teak leaves, and others. In its development, natural dyes began to be abandoned because it takes a long process and natural colors fade easily.

The dyeing / coloring process requires several dyes so that the resulting color is better (Tocharman, 2017). In addition to various types of plants that are commonly used as natural dyes, other types of plants such as coffee leaves are also found in certain ways and techniques. The ecobatic production process starts from the preparation stage by preparing tools and materials, then production to finishing (the fabric is ready for use). The ecobatic production process in Gemawang village, Semarang district is no different from the ecobatic production process in other places. At first the fabric was drawn using a pencil or called making batik designs. Then thicken the motif with wax that has been melted (staged / held). Next cover the white part which is colorless using a night candle. The next step, the process of coloring in parts that are not covered by wax by dipping the cloth in a certain color. If it is finished then dried by drying. After drying, then painted again using canting. The goal is to close the part that will be retained in the first coloring. After finishing, then proceed with the second dyeing process. The next step after the second immersion, then remove the wax on the cloth that is attached by entering the cloth into the water that has been heated on the furnace.

After the cloth is clean from wax and dry, the batik process can be done again by closing the wax to hold the first and second colors. The process of opening and closing a night candle can be done repeatedly according to the number of colors and complexity of the desired motif. The next step is nglorot, which is a fabric that has changed its color by boiling it using hot water to remove the waxy layer, so the motifs that have been drawn are clearly visible. Finally is washing batik cloth and drying and then ready to use.

Ecobatik is actually a potential financial benefit. Batik cloth that is produced by writing and using natural dyes has a much higher price than the batik which is produced by printing and using synthetic dyes. In Gemawang, batik sells ecobatic products with prices starting from Rp. 1 million to Rp. 2 million. Even during a visit the Minister of Trade (Marie Elka Pangestu) bought one of the ecobatic fabrics at a price of Rp. 2.5 million. This means that financially, producing ecobatics is far more profitable. This is in line with the results of Alamsyah (2017) research which concluded that by using natural dyes, the local and international market share was increasingly open, and the selling price of batik was higher. In addition to financial benefits, producing ecobatics also benefits the environment, namely preserving the environment. Natural dyes are safe for the

survival of the living ecosystem. The use of synthetic dyes in Germany and the Netherlands has been banned since 1996 (Alamsyah, 2017). This shows how dangerous dyes are with chemicals (synthetic). Another advantage, it's easy to find natural dyes around us. Because our country is a fertile country, various plants that can be used as natural coloring agents are available here.

## V. CONCLUSIONS

Based on the results of research and discussion it can be concluded as follows: (1) batik insight into the importance of environmental / natural conservation is relatively low, ranging from attitudes, responsibilities to environmental concerns; (2) materials that can be used as natural dyes ranging from leaves, roots, stems to fruit. In Gemawang, a new natural coloring material was found. One of them is natural coloring from coffee leaves which produces a gray color; (3) the ecobatic production process is almost the same as the batik production process in general. It's just that in ecobatics, it takes more dyeing to produce good colors; and (4) the benefits gained from producing ecobatics are financial benefits, environmental sustainability and the ease of obtaining materials.

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