



Strengthening the Magersaren Community in Producing and Marketing Handicrafts Based on Natural Waste for Economic Independence in Boro Summersari Hamlet (UB Forest), Malang Regency

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Abstract. Plenteous natural potential has not guaranteed the welfare of the people who settle around it. The same is true for the Magersaren settlers who live in Boro Summersari Hamlet, Karangploso District, Malang Regency, which is also a forest area managed by Universitas Brawijaya (UB Forest). This study aims to describe the community service activities carried out by UB lecturers and students in empowering the Magersaren community who live in UB forest to process their natural wealth into handicrafts as well as to market them. This study uses qualitative method to examine the entrepreneurship and the participatory behavior of the Magersaren people. The result shows that craft production requires creativity and product innovation based on perseverance. The knowledge gained in this research activity is the application of this concept of social green entrepreneurship which combines the three pillars of ecological, economic and social sustainability; can contribute to strengthening the Magersaren community self-sufficiency in hand-craft production, and a lot of rural parts in Indonesia which are culturally and naturally rich of potentials. This leads us one step forward in helping their green economy to thrive.

Keywords: Magersaren community · Community service program · Green economy

1 Introduction

In Indonesia, ownership rights and management of state-owned production forest land are managed by Perum Perhutani, a state forest enterprise. On the island of Java, in the forest area there lives a group of settlers who live from processing forest products. The settler was then known as *magersari* or in Javanese known as *Magersaren*. According to the KBBI, *magersaren* can be interpreted as people who live on state-owned land and work on the land at the same time. *Magersaren* is taken from the Javanese language ‘*pager*’ which means fence or boundary, and ‘*sari*’ which means beautiful, core, or not long [1]. In the social life system of the Javanese rural community, *magersaren* is attached to someone who builds a house and lives in someone else’s yard. The phenomenon of *magersaren* in the forest area is basically closely related to the beginning of the implementation of the intercropping system in forest management activities, especially in Java [2].

One of the *magersaren* settlements in Malang Regency is located in Boro Summersari Hamlet, Tawangargo Village, Karangploso District. They live in a production forest area which is currently managed by UB Forest, a business entity owned by Universitas Brawijaya [3]. *Magersaren* settlers in Dusun Boro Summersari live in simple house buildings that have a semi-permanent construction system. Their lives are below the poverty line.

Their household income only relies on the spouse’s income from agricultural products. Based on the results of interviews with the locals, it is known that there are no training programs that encourage creativity and innovation for the community, especially for youth groups and housewives. Thus, this study aims to determine the transfer of science and technology that is environmentally sustainable either ecologically, socially or culturally to support the creativity and awareness of the *magersaren* community for their economic independence. This paper describes the activity flow in implementing a sustainable social entrepreneurship model by evaluating the Doctor Service program carried out by the authors during the service period in 2022.

2 Method

This research was conducted in the hamlet of Boro Summersari, Tawangargo, Karangploso, Malang Regency. This area is specifically located in the KHDTK Education Forest area (Forest Area with Special Purposes) belonging to UB Forest (Figs. 1 and 2).

Through the Decree of the Minister of LHK No. SK676/MenLHK-Setjen/2015, on December 31, 2015, Universitas Brawijaya (UB) obtained forest management rights covering an area of 544.74 Ha from the Ministry of Environment and Forestry, Republic of Indonesia. However, based on the latest regulations, namely UB Rector’s Regulation No. 2 of 2020, the area has changed to 514 Ha. The area then developed into an Educational Forest with the status of Forest Areas with Special Purposes (Kawasan Hutan Dengan Tujuan Khusus (KHDTK)). The rights consist of production forest areas and protected forests located on the slopes of Mount Arjuna. As a form of branding, UB sets its popular name as UB Forest. The majority of plants grown in the UB Forest area are mahogany and pine, but the locals also plant coffee between the trees.



Fig. 1. Maps and Aerial view of *Magersaren* settlers



Fig. 2. Common-type of houses in Boro Summersari hamlet

The actors in this research are the Magersaren settlers in Boro Summersari, UB Forest. The group consisted of 100 people consisting of the age group of toddlers to the elderly. They live in 29 houses spread across the area. Each house has a varying number of family members. Starting from 1 person to a maximum of 6 people in one house. Under the applicable law [4–6], they cannot erect permanent buildings for their personal interests. This condition makes them live under poverty line.

Thus, through the UB's Doctor Service program that starting from July to November 2022, through the UB's Doctor Service program, the team introduces a dedicated approach that can help improve their lives. The locals are taught to make crafts while implementing the Three Models of Sustainability and Entrepreneurial Pillars approach.

The research method used is qualitative by doing interviews to some of the community figures and observing where the study is conducted. The observation was done to identify natural sources that could be potentially used as materials to be processed into handicrafts by the settlers.

After the program was conducted, through this paper, researchers will describe the hindrance that happened by doing data reductions from the community service program, which is by identifying the important weakness needed to be overcome with.

3 Results and Discussion

The research study focused on the implementation of economic, environmental, and social activities based on the combination of three models of sustainability and entrepreneurial pillars approach (see Fig. 3). The first data collection of the phrase 'sustainable development' in published literature appeared in 1980 when the IUCN, in collaboration with the UNEP and the World Wildlife Fund (WWF), published their 'World Conservation Strategy', subtitled 'Living Resource Conservation for Sustainable Development' (IUCN, UNEP, WWF 1980). This early conception of sustainable development is motivated by the need for economic development, with its social and economic objectives, to take conservation into account by considering resource limitations and ecosystem carrying capacity.

The sustainable development scheme is taken from a phrase in English, namely sustainable development. This means that a process related to development has the meaning of meeting the needs of the current generation without compromising the needs of future generations [8]. These needs are interrelated, and consist of three main pillars: economic, social, and environmental. These three pillars support each other and strengthen each other to achieve the desired scheme, namely at the meeting point of the three pillars.

Several studies have been carried out as a plan for conceptual change, and it is from this research that it is found that sustainable development is not the same as green development. Because one of the pillars of sustainable development is in the form of economic factors, production costs must also be considered so that sustainability can be carried out continuously, and is not hampered if one day a disaster occurs [9].

Research studies are focused on economic, environmental and social activities based on the A Combination of Three Models of Sustainability and Entrepreneurial Pillars

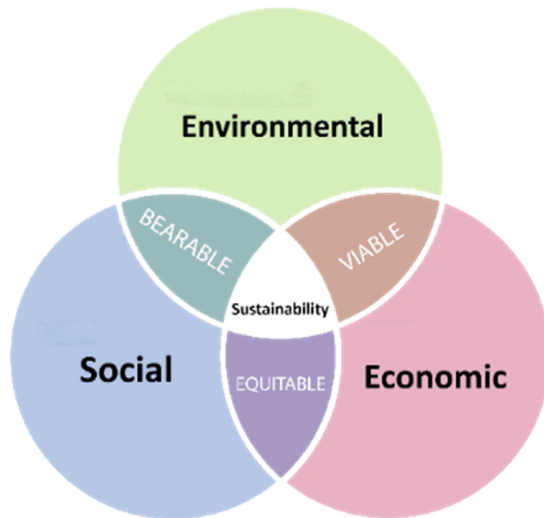


Fig. 3. Pillar models of sustainability (Source: Purvis, *et al.* [7])

approach. The model chosen is one in which economic, environmental, and social factors overlap because they are related to each other.

In the relationship between social and environmental aspects, the Magersaren people work for their economic fulfillment by adjusting their environment and cultivating state-owned land. Magersaren farmers do not have their own agricultural land. They only got management rights from Perhutani at that time and continued in the current UB Forest Management period. This greatly affects their level of economic income due to limited access by state forest regulations. The consequence can be seen from the interrelationship of social and economic aspects, showing their life status which has not developed significantly. Socio-economic development in this region indicates that an inclusive economic growth scheme has not yet been formed.

Therefore, in order to encourage sustainable economic growth for the Magersaren community in Boro Summersari Hamlet, the research team tried to apply the concept of Social Green Entrepreneurship. Initially, the team discussed with the community to solve social, environmental and economic issues to find out what potentials could be utilized. During the discussion, the team identified several natural potentials that are abundant in forest areas and have economic value, such as pinecones and coffee.

The team also identified human resources, namely youth organizations (Karang Taruni) and housewives. In this program, the team is divided into two divisions, namely the handicraft division and the food products division. The food product division consists of housewives and UB agriculture students, while the handicraft division consists of students from the UB architecture department and the Boro hamlet youth organization, totaling three girls who are daughters of the local community.

The craft team started collecting pinecones and coffee from the forest area (see Fig. 4). It is very easy to find pinecones because the dominant forest area around it is dominated by pine trees. As for coffee, it is obtained from the rest of the coffee cherries that fall from plants that grow between pine trees (Fig. 4).

In the process of making it, the team collects creative ideas through precedent studies related to handicrafts that can be produced from natural waste (see Fig. 5). Pine fruit and coffee have the potential to be developed into entrepreneurial products because they



Fig. 4. Team looking for natural waste



Fig. 5. Brainstorming entrepreneurial ideas



Fig. 6. Coffee Painting Training

are quite easy to make. Pinecones can easily be made into key chains, while damaged coffee beans can be mashed first and then used for coffee paintings (see Fig. 6).

In practice, production is done in several stages (see Fig. 7). In the production of key chains from pinecones, the activity is carried out by training the youths on how to assemble pinecones which can be turned into key chains. Apart from that, they also teach how to make products look more attractive and packaged properly so that they are suitable for commercialization. As for coffee painting production activities, the stage taken is to provide initial training to draw sketches. After the sketch is finished, then the cardboard media is smeared with glue and then sprinkles ground coffee on the sketch image.

After carrying out all production activities, the team with the Karang Taruni Group evaluates all the products that have been produced. The team assesses that Karang Taruni of Boro Summersari Hamlet has been able to produce 2 handicraft products based on natural waste on a small scale. This is in line with their hobby in the arts.

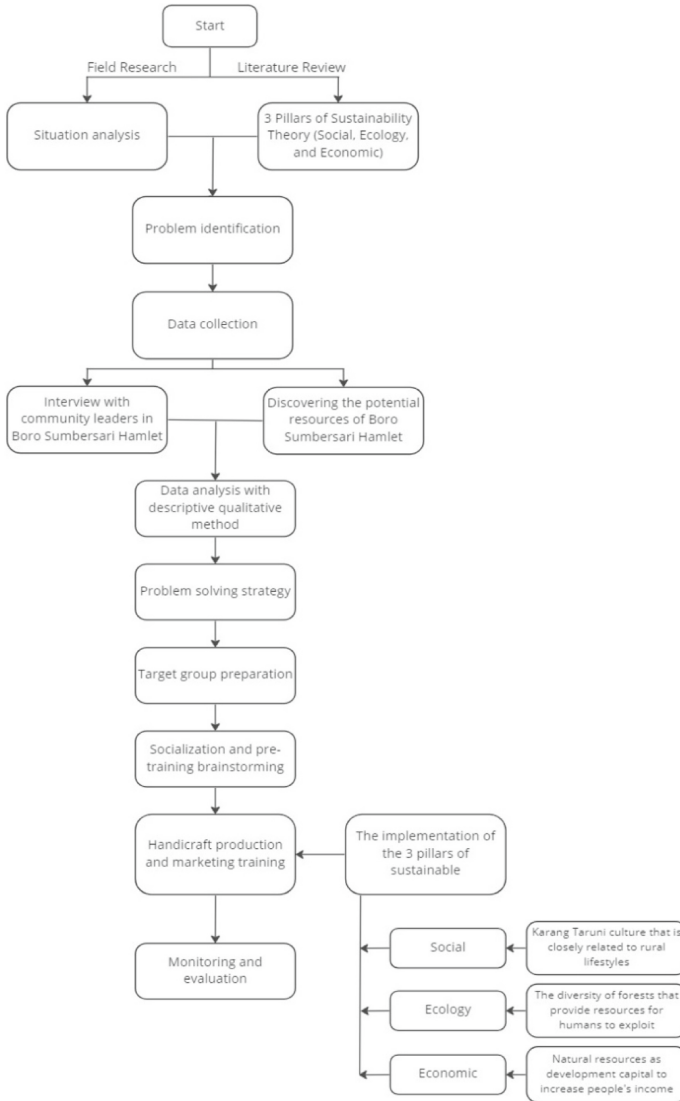


Fig. 7. Phase of implementing program

The obstacles encountered are the need for improvement in terms of product quality, such as workmanship neatness and visual creativity. In addition, they have not found the right strategy and marketing place to sell the products they produce.

Therefore, the team provides a solution by providing marketing training, especially online-based by utilizing the marketplace and social media. According to Kerpen [10], social media is a media revolution that provides space for consumers to obtain information and convey information.

In its development, a business will associate social media as one of the most effective tools for promotion. In addition, the e-commerce marketplace has the most important role in today's digital era, apart from being easy to use, the costs required by business people are very low. Data from the Ministry of Communication and Informatics Republic of Indonesia (Kemkominfo) reveals that e-commerce growth in Indonesia has increased sharply, 91% during the pandemic. Meanwhile, internet user penetration also jumped 73.7% [11]. However, the obstacle faced by business actors in utilizing social media is the limited human resources (HR) who understand the field of information and communication technology [12, 13].

Karang Taruni is taught to create marketplace and social media accounts independently and create promotions according to their characteristics and abilities. The team also provides administrative training such as creating and compiling simple financial reports, online promotions and sales, and determining pricing strategies.

The scheme that the team has implemented has adapted the concept of the Three Models of Sustainability and Entrepreneurial Pillars. The economic pillar in a sustainable development scheme means that the biggest problem in dealing with a development is the lack of economic resources to lead people to become economically independent individuals. In the context of Boro Summersari Hamlet, the pillars of the community's economy are natural resources around it as development capital to increase their income.

According to Budiman (in Suradi, [14]), that successful development has elements: 1) high economic growth and 2) sustainable, in the sense: a) there is no damage or social upheaval, and b) there is no damage natural environment. In the context of this program, these elements are the focus of attention.

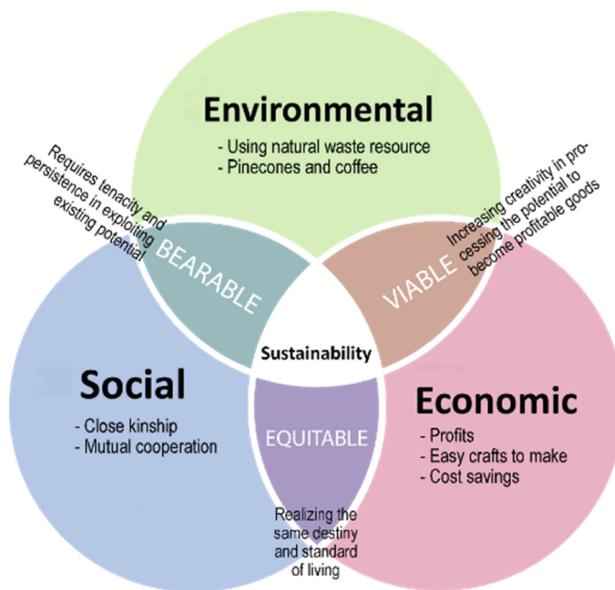


Fig. 8. Evaluation of implementing Pillar models of sustainability in Boro Summersari Hamlet

The social pillar in the sustainable development scheme is influenced by human resources as a support for the activities carried out. Lifestyle and activity patterns influence this pillar as a support for the other pillars. In the people of Boro Summersari Hamlet, a close sense of brotherhood among them is an asset that must be maintained. The rural lifestyle that is still strong there also influences decision-making actions, which still prioritize deliberation for consensus (Fig. 8).

Then the environmental pillars related to ecology can be seen from the forest products that give human resources a life that can be utilized. The magersaren community's role can also be the spearhead of forest conservation. Environmental aspects, in sustainable development and in the green economy, are aspects that are highly considered and become a condition for ensuring the development of life for the Magersaren Community who continue to prioritize forest sustainability.

4 Conclusion

The concept of Social Green Entrepreneurship by combining the Three Models of Sustainability and Entrepreneurial Pillars approach which is applied to the magersaren community provides an illustration that this concept can be a driving force for the development of their quality of life. By analyzing natural conditions and the community, this service program tries to identify the potential of nature and society in order to increase their economic level.

In its implementation, several trainings were carried out such as teaching youth organizations (Karang Taruni) how to make crafts that utilize natural waste, namely pinecones and coffee. From the ongoing activities, it was found that craft production requires innovation, creativity and perseverance. Even though at the beginning they encountered difficulties in the aspect of creativity, but with intense discussion and training, they were finally able to make it. Another obstacle is how to market it. For this reason, the team also teaches them how to use the marketplace and social media to sell. With these entrepreneurial activities, the Karang Taruni group can channel their hobbies as well as their desire to be creative and make a profit.

From all of that, consistency is needed so that this activity can continue. This shows that the concept of green economy cannot only rely on ecological or environmental aspects alone. It takes firmness from the actors who run it. The sustainability of the economic activities of the Magersaren community in Boro Summersari Hamlet still has to consider several aspects, such as training intensification, awareness regarding production efficiency, and knowledge regarding the types of products that are of interest to the public. In addition, it is also necessary to consider the social conditions of the community, such as the need for a forum for associations between residents that support their economic activities, for example a cooperative which do not yet exist.

Researchers hope that from the training and experiment activities directly to the Karang Taruni group, the production of handicrafts from natural waste can continue independently and generate profits for the Magersaren Community in the future. Boro Summersari Hamlet with various resources in it requires more attention related to the handicrafts produced, so that in the future it will be much more active for handicraft activities in the local market.

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