



Balibe Mountain Stone Worker Women: Innovation in Science and Technology of Mining Waste Crafts to Improve the Welfare of Bonder Village, West Praya District

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Abstract: The development and progress of the world towards the end of the 21st century has raised the issue of gender. This issue of gender has become a debate among many circles. Gender is a term used to describe the distinction between men and women. In a society that adheres to a patriarchal system, the economic function of the family is played by the husband as the head of the household, while the existence of a woman is identical to domestic work in the household. The pressure of economic needs is a real challenge that must be addressed by the family, including encouraging the role of women to help with the economic function of the household. When women work outside the home, especially as stone breakers, there is a shift in roles and functions that are certainly inherent in the understanding of women as part of their self-existence. Women stone breakers who work around the Balibe rock mountain are a group of women housewives who are poorly educated and have no skills. Economic pressure is the main reason they become stone breakers. This community service activity aims to provide innovation and education to groups of women farm workers in improving soft skills to improve quality, through counseling and training. The location of the community service activity is in Bonder Village, Praya Barat District, Central Lombok Regency-NTB. With partners of the Balibe stone labor group totaling 15 people. This activity is strongly supported by partners and all communities at the research location. The involvement of partners in this activity is in the training activities for making handicrafts from mining waste, partners collect stones that are unique in shape and can be formed as basic materials for making crafts. There are several crafts made, namely frames, flower vases, bamboo gazebos. In this activity, the equipment provided is in the form of stone-breaking business equipment including hammers, protective glasses, gloves, hammers and Japanese hats.

Keywords: Crafts; Mining waste; Women workers

Introduction

A prosperous life is everyone's dream. If a country or region has a leader who is successful in leading the country well, then that is proof that the people are living prosperously (Basyir, 2023). The fulfillment of all the needs for a prosperous life can be seen from the availability of food, clothing, housing, health, education, work and so on for every member of society (Harahap,

2022; Siswanta, 2008). A problem that is often seen in the surrounding environment is how jobs are often grouped based on gender (Wulandari, 2022), In fact, Islam has given men and women rights regarding who earns a living, but because of increasingly sophisticated developments, people's mindsets have changed (Darusman et al., 2023). The socio-economic aspects that affect people's lives consist of several things that are part of the socio-economics of society. Activities in the

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economy, in addition to having quality in raw materials and natural resources, must also have qualified human resources in order to build the economy in a better direction (Agustina et al., 2018). One of the most dominant roles in a family is a woman. At this time women do not only play the role of housewives who take care of housework but many housewives work to help the family economy. This is done in order to fulfill all the needs of the family and with the fulfillment of these needs it is said to be a prosperous family.

In poor families, generally all human resources are mobilized to earn income, as an effort to fulfill daily basic needs (Christoper et al., 2017; Paulus, 2016; Telaumbanua & Nugraheni, 2018). Therefore, in poor families, unemployment is something expensive, because other family members work or become a burden for other household members (Aprilia, 2019). Female stone workers on Mount Batu Balibe are a common phenomenon for the surrounding community. These stone workers are housewives who live around Mount Batu. These great women have to struggle to help their husbands earn a living. Economic limitations are the reason they struggle with the dangers that threaten their lives at any time.

Female stone workers of Mount Balibe in Bonder Village are women who work as stone breakers and as scavengers of mining waste. They are seekers of sustenance from the remains of excavations that are not transported by stone transport trucks. Working as stone workers is their main job because the agricultural system in this area is rain-fed and seasonal, while working as stone workers is their main job. Economic limitations and low education are their characteristics. The number of female stone workers of Mount Balibe is 35 people consisting of housewives. The existence of female stone workers of Mount Balibe is an interesting thing to raise and become the focus of research. In this service, it is hoped that it will benefit the female stone workers of Mount Balibe so that they can be independent and have more skills in utilizing worthless goods into goods of high economic value.

Based on the results of pre-research, the problems of female stone workers (partners) are having no skills and low education, difficulty in getting jobs, and poverty. Based on the problems faced by female stone workers from Mount Balibe, problem solving is carried out in several stages, including: the problem of having no skills and low education; providing training in handicrafts from mining waste into products with high economic value; providing short non-formal education about business and its mechanisms; the problem of difficulty in getting jobs; partners are given counseling related to the importance of quality human resources to be able to compete; and the problem of poverty; Partners will be given training in business management, product

promotion using both online and offline media. From this activity, partners gain knowledge about the business world needed.

Method

The Entrepreneurial Partnership Service was carried out for 8 months, namely from January to October 2024 in Bonder Village, Praya Barat District, Central Lombok Regency-NTB. The service activities were carried out by a service team consisting of 3 lecturers and 3 students. The stages of the service activities carried out are as shown in Figure 1.

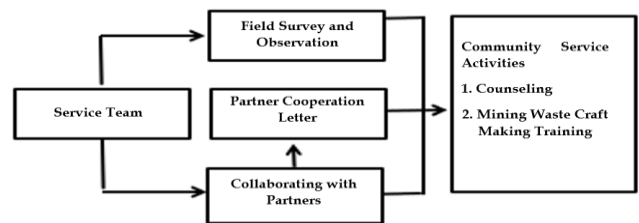


Figure 1. Evaluation of PKW implementation

Evaluation of activities is carried out by analyzing business development, skills development, providing sustainable business coaching and analyzing problems and providing solutions to partners so that this community service activity can be beneficial for improving the skills and economy of female stone crusher workers (Ifriqia et al., 2016).

Keberlanjutan Setelah PKW berakhir

The continuation of community service activities after the end of the community service implementation period can be seen in the Figure 2.

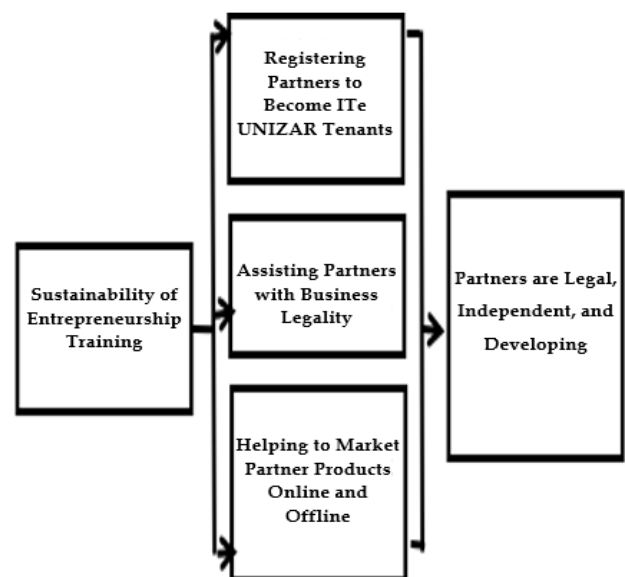


Figure 2. Sustainability of Entrepreneurial Partnership Activities

Result and Discussion

Socialization Activity for the Implementation of Entrepreneurial Partnership Service

The implementation of this service aims to empower the community, especially female stone workers on Mount Balibe in Bonder Village through counseling and training related to the environment, technological innovation in the use of mining waste stones and financial and business management. The socialization activity was carried out in the form of a discussion involving ten female stone workers and the Entrepreneurial Partnership Service (PKW) team and five students from Al-Azhar Islamic University. The socialization was carried out by providing information to the community, especially female stone workers, regarding the potential of mining waste as raw materials for crafts and providing an understanding of the importance of preserving the environment and utilizing resources wisely.



Figure 3. Socialization Activities

Extension activities

Extension activities are carried out with the aim of partners having additional information and knowledge about natural resource management through the utilization of mining waste stones that have been neglected by changing them into economically valuable craft products. This extension activity also aims to increase awareness of the importance of sustainable natural resource management to reduce negative impacts on the environment and maximize its benefits for the community. As an effort to improve the economic welfare of the community, especially female stone workers, the PKW team provides extension on financial planning and management and provides alternative solutions for sources of income for female stone workers

which are ultimately expected to improve the welfare of female stone workers so as to contribute to sustainable village economic development. (Hariyono, 2020).



Figure 4. Extension activities

This outreach activity was responded positively and actively participated by ten female stone crusher workers. The female stone workers were very enthusiastic to participate in this outreach activity because the information and understanding provided by the team regarding the potential of natural resources and negative impacts on the environment as well as financial planning and management and business management were new knowledge for female stone workers.

Implementation of Mining Waste Stone Utilization Training Activities

Mining waste stone is considered waste and is not utilized optimally. Through this training, female stone workers were invited to see the potential of mining waste stone on Mount Balike as raw material for crafts with economic value.

The training activity on the utilization of mining waste stones aims to provide practical skills in processing Balibe mountain stone waste stones into attractive and valuable craft products such as home accessories, key chains and other creative products so that they can increase family income and create new business opportunities in their environment (Rismayadi et al., 2018; Rule et al., 2012). In addition to introducing the idea of utilizing mining waste stones as craft products and providing basic skills in making stone crafts, the team also encouraged participants' creativity to develop unique craft designs and opened participants' insights into craft marketing strategies. The PKW team taught basic techniques for selecting mining waste stones that can be used as raw materials for crafts until the final completion of the craft product.



(a)



(b)

Figure 5. Making crafts from broken stones: (a) Training process for making crafts from broken stones; and (b) Craft products produced

In addition to the basic techniques for making crafts from mining waste stones, the PKW Team also delivered materials related to basic design and aesthetic value in designing craft products that are more aesthetic and in accordance with market tastes to increase product selling power. In addition, the team also encouraged innovation in craft products by encouraging participants' creativity to develop various variants of craft products from mining waste that are more varied and have added value, including the use of other materials such as tree branches and dry leaves as additional materials for making crafts.

After participating in the training, participants: a) became aware of and recognized the potential of mining waste stones as a craft material with economic value; b) succeeded in making several simple products such as decorative frames with stone decorations and key chains; c) were enthusiastic about making products and hoped that they could be sold for additional family income.

A total of ten female stone workers actively participated in this training and felt that this training provided applicable skills even though there were several obstacles experienced during the training, such as additional assistance in operating certain tools.

Implementation of Business Management Training Activities

This business financial management training activity aims to improve the understanding and skills of female stone workers in building and managing their businesses. This training is designed as an effort to empower the economy through increasing financial literacy so that participants are able to optimize the management of income, expenses and business profits more effectively. In this activity, partners are given basic training in good financial management by providing a basic understanding of the importance of financial management in small businesses. simple financial records (recording assets, debts, capital, income and

expenses), the concept of separating personal finances from business finances and encouraging business financial planning and instilling the habit of saving. In this activity, partners are given basic theory and education on how to do good financial records. In addition to increasing understanding regarding the importance of managing business finances, participants also get an overview of making simple financial records, business financial plans and the motivation of participants to save and separate personal money from business money (Luo et al., 2011). All participants attended the training enthusiastically and stated that this training was very useful as basic knowledge to open a new business. However, some participants need further assistance regarding financial records if they will later open a new business.



Figure 6. Business Management Training

Handover of Stone Breaking Equipment

The handover of work aids to female stone workers is part of the PKW program which aims to help facilitate the work of partners and support their productivity in utilizing mining waste into valuable products. Some of the tools provided include: hammers, safety glasses, Japanese hats, gloves, and grinders.



Figure 7. Handover of Tools to Partners

Conclusions

Handicraft training for female stone workers has a positive impact on improving the economy of families and communities. The training provides new skills to female stone workers in making various types of handicrafts that have sales value. Participants are able to utilize local raw materials and stone waste to create creative and economically valuable products. For the sustainability of the activity, it is expected that all aspects will contribute significantly, both the government, the village and the implementers of community service activities. Collaboration between all parties continues to run to realize the hopes of partners, namely having an independent business.

Acknowledgments

For the success of this activity, we would like to thank Unizar through the Institute for Research and Community Service (LPPM) which has provided financial support for this activity. It is hoped that in the future Unizar can be part of the development of partner businesses in realizing the goal of being able to utilize resources that are not valuable to be of high value so that they can become one of the business opportunities for the community. And gratitude is also given to the Bonder village community, especially the community at the Research location located on Mount Batu Balibe who have helped organize this activity.

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