



The Utilization of Wood Waste as a Handicraft Product in Londut Village, Kualuh Hulu District, Labuhan Batu Utara Regency

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ABSTRACT

Waste can cause environmental problems if not handled properly. This is because this waste is generally just thrown away by wood processing factories. The research problem is that wood processing produces quite large amounts of waste which can pollute the environment if not handled properly. This research aims to identify the types of wood waste produced, analyze the characteristics of the waste, and explore opportunities for utilizing wood waste in Londut Village, Kualuh Hulu District, North Labuhanbatu Regency. The research method uses a qualitative approach with interview techniques with wood craftsmen as craft owners and two craftsmen. The research results show that the main waste from wood processing is wood chips and sawdust, which are used by craftsmen and local communities to make crafts such as shoe racks, flower racks and other items. The existence of wood processing actually has a positive impact on society, such as ease of obtaining building materials and additional sources of income. In conclusion, the use of wood waste in Londut Village has been carried out well and provides economic benefits for the surrounding community. Suggestions for utilizing wood processing waste in Londut Village, namely education and training for wood craftsmen on sustainable waste management practices are very important to increase their knowledge and skills.

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INTRODUCTION

Indonesia has a lot of wood resources, so there are many factories and SMEs that produce products from wood undermaterials. Nurjanah (2020) said that the wood processing industry is very dependent on wood as the main forest commodity. Not only that, the wood processing process must pay attention to the environment from start to finish because it can cause waste. For example, Sudiryanto (2020) noted that the sawmill industry generates waste of 58.85% of the volume, consisting of leather, wood chips, shavings, and sawdust, with wood scrap waste of 11.67%.

This waste can cause environmental problems if not handled properly. Because this waste is generally disposed of by wood processing plants. If wood waste is dumped into the river, it can also pollute the environment because the flow of the river is obstructed, the quality of the soil near the landfill drops, and other negative impacts. Alternative wood waste management procedures are needed because procedures that are stacked and burned can also disturb the environment (Farahdiansari & Moh, 2023).

Wood has unique properties and characteristics so that it is widely used for construction purposes. The increasing demand for wood and the diminishing potential of forests demand the efficient and wise use of wood, among other things, by utilizing sawn wood waste into useful products. Wood waste that is widely found in sawmills is usually only used as fuel, or sometimes even thrown away. However, currently such waste is starting to be widely used as raw materials for handicrafts. The main waste from the wood industry is divided into several types, including bark, small pieces and wood chips from sawing and cutting, and wood chips, as well as wood dust. This wood waste can then be recycled and used for various other craft products. (Anggreni., et al 2022).

Seeing the potential in Londut Village, which has a considerable potential for Natural Resources (SDA) in Labuhan Batu Utara district, there is a timber home industry in Londut Village. Londut Village is located in Kuala Hulu District, Labuhan Batu Utara Regency, North Sumatra, Indonesia. Labuhan Batu Utara Regency itself is located in the province of North Sumatra. There are small industrial wood craftsmen at home who make door and window frames that produce quite a lot of wood waste. The wood waste produced by producers is reused to make creative products. In order to use wood efficiently, it is necessary to strive to use wood waste into more useful products. However, those who work on this home wood industry are small and medium entrepreneurs. On the other hand small pieces of wood and some wood chips are left to rot, stacked and burned. This is because quality and knowledge are still minimal. Some of the wood chips from these cuts left alone can cause problems. Wood waste that is allowed to decompose, pile up and burn will have a negative impact so it is necessary to take measures (Maulana et al., 2020).

Circumstances like this that make waste difficult to reduce, efforts are needed to manage wood waste in Londut Village, Kualuh Hulu District, Labuhan Batu Utara Regency to overcome environmental problems and also help the village, which in turn will build economic development. One of the significant parts of the rural economy, namely Londut Village, Kualuh Hulu District, North Labuhanbatu Regency, is a wood processing industry. But the industry produces large amounts of wood waste, which if not handled properly can pollute the environment. Bark, as well as wood chips from sawmills and cutting, and dust and wood chips are some of the types of waste produced by the wood industry. This waste is very difficult to reduce (Anggreni., et al 2022).

The utilization of waste from the wood processing industry is very important to reduce environmental impacts and increase the economic value of the waste. The potential and opportunities for the utilization of wood processing industrial waste were carried out in Londut Village, Kualuh Hulu District, North Labuhanbatu Regency, this study aims to identify the use of wood waste produced from wood cutting into a creative product that has the potential to be reused and become an economic value. This research is expected to provide solutions or suggestions in the management of waste from the wood processing industry in the area, as well as increase economic value and reduce the environmental impact of this industrial activity.

METHODOLOGY

Qualitative methods are used in this study. A wood craftsman and a community living in Londut Plantation Village, Kualuh Hulu District, Labuhan Batu Utara Regency, is the main subject of this study, which was conducted through in-depth interviews. In-depth interviews were conducted to obtain complete data on wood waste management in small industries (Creswell, 2014).

The method of collecting information relates recordings and documentation of interview findings with sources. The types of wood waste produced, waste management methods, waste quantity, waste utilization, and positive and negative impacts of the wood processing industry are discussed in the interview guidelines.

RESULTS

The community in Londut Village, Kualuh Hulu District, Labuhan Batu Utara Regency, can now process wood waste. Although wood waste disposal can pollute the environment and the air, the community digests wood waste that can still be processed, which can be used by managers as a byproduct for wood production. This is beneficial for wood managers and home craftsmen because it provides them with additional job opportunities.

According to the Head of the Hamlet in the area, "wood craftsmen are very useful for the village and the community because they can help the village economy by making various products from wood such as windows, doors, chairs, tables and even waste from wood is also used as other crafts such as shoe racks, flower racks and so on. However, it is also necessary to be aware that they must pay attention to environmental sustainability and occupational health, they must still maintain the quality of their production and pay attention to the surrounding environment". The results of the research on the use of wood processing waste in Londut Village, Kualuh Hulu District, Labuhan Batu Utara Regency, are as follows:

Residual Waste from Production

Wood waste is the residue of wood production produced by wood processing. The product results are such as cabinets, door frames, windows, etc. Then it produces waste that can be reprocessed in Londut Village, Kualuh Hulu District, Labuhan Batu Utara Regency.

Wood Waste Management

Wood waste management, according to Mr. Wood producers, is "wood can be processed into various kinds of crafts such as shoe racks, flower racks, and various other items.

Weight of Wood Waste Generated According to the wood producer, "the waste produced is incalculable because the resource person has never weighed or calculated the weight of the wood waste".

Utilized by Artisans or the Community

According to the wood producer: "wood waste is always used by the resource person and even the surrounding community because the waste can be used for various kinds of handicrafts and can be useful, besides that the resource person also said that the resource person also makes money from the waste such as schools that often order shoe racks".

Timber Waste Management

The way to deal with wood waste is based on an interview with the Producer, namely "by utilizing wood waste into a useful work of art and can also make money". 6. Negative and Positive Impact

According to the wood producer and the surrounding community, "there is no negative impact from the wood processing site, in fact, it has a very positive impact because with the wood processing site, villagers do not need to go far to buy doors, windows or materials to make other houses and even villagers can also feel the benefits of wood waste because villagers on average use the wood waste to make shoe racks, placemats (cutting boards), flower shelves and even masi many more".

DISCUSSION

Based on the interviews conducted, information was obtained that the main waste produced from the wood processing industry owned by the Producer was in the form of wood chips and wood powder. Mr. Producer employs 2 employees to help his business. The wood used in his business includes mahogany, teak wood, rubber tree wood and durian tree wood. The wood waste produced can be processed into various kinds of crafts and can be used for various community purposes. According to the Producer, "the quantity of wood waste produced cannot be estimated with certainty because it has never been weighed. However, wood waste is always fully utilized", both by the producer himself and the surrounding community. According to Mr. Producer, the impact from the community on wood processing is "The demand for wood products from the community drives the demand for services and products of wood workers as well as the recognition and appreciation of the community for the skills of wood craftsmen".

Based on the results of an interview with one of the community leaders, the Head of the Hamlet also said that "The impact of wood craftsmen on the community can create jobs, contribute to the economic development of the community and wood workers often participate in community development projects such as building schools, mosques and other infrastructure". Overall the relationship between woodworkers and society is interconnected, with each party influencing the other in various ways.

Based on the results of the research presented, it can be seen that the use of wood waste in Londut Village, Kualuh Hulu District, North Labuhanbatu Regency has been carried out well by the local community. This is in line with previous research that also examines the use of wood waste in various regions. In this study, wood waste produced from the wood processing industry is in the form of pieces of wood. The waste is then processed into various handicraft products such as shoe racks, flower racks, and other items. The use of wood waste provides additional economic value for the surrounding community. These findings are in line with previous research by Anggreni et al. (2022) and Nulngaffan et al. (2023) which highlighted the importance of utilizing wood waste as an environmentally friendly handicraft product and a source of increasing income for rural communities. In addition, research by Farahdiansari & Moh (2023) also shows that wood waste can be used to make educational toys for children. However, in this study, no quantitative data related to the weight or volume of wood waste produced was obtained. This can be a limitation in estimating the potential for waste utilization more accurately.

However, the results of the study show that wood waste has been fully utilized by craftsmen and the surrounding community. Furthermore, this study also found that the existence of the wood processing industry providing a positive impact on the people of Londut Village, such as the ease of obtaining building materials and additional sources of income from the use of wood waste. This is in line with the findings of Jumawan & Ali (2020) who highlighted the importance of creative efforts in wood waste processing to support the rural economy.

Overall, this study strengthens previous findings related to the use of wood waste as an effort to reduce environmental impacts and increase economic value at the village community level. However, to maximize the benefits of wood waste, more accurate data collection and weighing are needed so that the potential for its use can be estimated more precisely. The difference from previous research lies in the scale of the industry being studied. This research focuses on the smallscale wood processing industry, while the previous study studied more medium-scale industries. In addition, this study provides a more specific picture of the use of wood waste at the village level and the surrounding community.

CONCLUSION

This study succeeded in identifying the main waste from wood processing in Londut Village in the form of pieces of wood and wood powder that can be processed into various crafts such as shoe racks, flower racks, and used for mushroom cultivation, chicken farming, and plant fertilizer. The use of wood

waste has been fully carried out by artisans and the surrounding community to make products with economic value, provide ease of obtaining building materials, and additional sources of income. Thus, the existence of the wood processing industry has a positive impact and the utilization of waste has been carried out well in Londut Village, Kualuh Hulu District, Labuhan Batu Utara Regency.

Based on the results of the research, suggestions for wood craftsmen, namely, need to be focused on developing efficient and environmentally friendly techniques to process wood waste into more useful products. Furthermore, it establishes partnerships with relevant governments/institutions to receive training support, access to capital, and production facilities. Education and training for woodworkers on sustainable waste management practices is also important to improve their knowledge and skills. In addition, the research can examine the potential for the development of innovative products from wood waste, as well as analyze the economic and social aspects of the implementation of these new practices. Collaboration between wood craftsmen, educational institutions, and the local government is expected to strengthen efforts to overcome the problem of wood waste in Londut Village. The implementation of these suggestions is expected to optimize the use of wood waste, increase economic value, and support sustainable development in the area.

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