Reducing Wood Waste into Eco Friendly Mix Media Artwork

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INTRODUCTION

The wood waste is used as firewood for industry, wood-burning stoves, household cooking needs, food stalls that carry traditional concepts using wood-burning stoves. If we calculate the need for firewood from wood waste in a day, it is possible to pollute the air around us. Wood-burning stoves can have a detrimental effect on indoor air quality if the alternative-fuel appliance emits pollutants indoors [1]. Research before has found the smoke from burning wood can irritate the respiratory system and has been shown to have adverse health effects on the lungs, especially children. The major concern today regarding pollution and health, air pollution has been directly responsible for increases in mortality and morbidity in the general population when pollutant levels were elevated [3]. Most of the common pollutants can directly affect the respiratory system, especially lung function [4]. Detriments in air quality cause adverse changes in the lower respiratory tracts of susceptible individuals [5].

A solution is needed to reduce wood waste for the use of firewood. Wood scraps, which are usually produced by furniture factories, will not only become waste if people can find out how to use them to become objects that have a function again [6]. From the research results, the most widely used fuel is firewood with a percentage of 82.5% and the least used fuel is gas with a percentage of 7.5% [7]. The wood used is wood waste which is usually used for firewood, the main goal is to reduce wood waste, utilize and reduce air pollution due to wood burning smoke.

METHODS

Research potential to develop the use of waste wood for action research to reduce firewood waste and programs in concern for the reduction of air pollution. This research is an action research with descriptive research method using a qualitative approach and research data. Data was collected through several methods, including field observations, in-depth interviews, and document study methods. The action that will be taken is to try to use the research results into a prototype work related to eco-friendly mix media artwork because it is an environmentally friendly artwork with firewood waste. In addition to action research analysis, this research also uses methods to assess the effect of waste wood on the environment, use of firewood that is easily accessible, facilities need to be provided to support the development of waste wood into eco-friendly mix media artwork.

RESULTS AND DISCUSSION

Wood waste is many used for firewood, especially in suburban spots, rural areas, and villages. The smoke that billows around the furnace can spread and cause pollution within a radius of 50-100 m depending on the wind speed in the area and air pollution will interfere with respiratory health, the study stated that pollution also has high risks, such as air pollution, adding CO2, damaging pneumonia, bronchitis, and It is estimated that eight people per minute die globally from inhaling stove fumes, or 4.3 million people annually. When people inhale, air containing particles will be inhaled into the lungs [8].

The researchers tried to explore and make observations on the volume of use of wood waste for firewood per day and in total in a month, compared to using a gas stove. The results showed that the monthly consumption of firewood of the rural households studied ranged from 165 - 256 kg. The action taken is to utilize wood waste into eco-friendly works of art in the form of mixed media. This eco friendly concept is an activity, guide and policy that moves to maintain environmental conditions by applying various different ways. It will be explained in the discussion of the results and discussion related to the specifications of the type of wood waste, calculating the cost of using it in a day and in total in a month, as well as how to create mixmedia artworks with wood waste materials.

continuation in discussion...

Table 1. Quantity and Cost of waste wood to firewood (Data Analysis fro m a Food Stall in Colomadu D istrict, Karanganyar - Indonesia)

Time	Total Stem	Cost (IDR)
Day	30	IDR 30.000
Week	210	IDR 220.000
Month	1470	IDR 900.000

Figure 1. Waste wood

Figure 2. Wood-Burning Large Stoves

Figure 3. artwork process

Figure 4. Eco Friendly Mix Media Artwork

CONCLUSION

Utilization of wood waste is needed to reduce air pollution due to the use of wood for burning, some previous research has proven that pollution due to firewood can interfere with breathing, especially for children, and interfere with oxygen in the air. The existence of an air pollution control program is needed so that climate change does not occur. One of the newest solutions is the utilization and reduction of wood waste that was previously used for firewood into an eco-friendly mix media artwork, this is an effort to protect the environment from the increasingly widespread air pollution. It is hoped that this writing and research will bring new hope and benefits in the utilization of wood waste from firewood, and it is hoped that in the future there will be new research papers and actions related to reducing wood waste that is used as works of art and other crafts.

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