Application Of Ecobrick As A Garden Hardscape Material

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Abstract.
Ecobricks are solid plastic bottles filled with non-biological waste to make reusable building blocks. Eco-bricks is a collaboration-based technology that provides solid waste solutions at no cost to individuals, households, schools and communities. Also known as Bottle Brick or Ecoladrillo. The service method is by conducting an ecobrick workshop then making ecobrick chairs and educating about plastic waste. Ecobricks can be a hardscape material and as an artificial resource. The use of ecobricks is expected to be a change in the use of resources. The production process can be modified to allow the substitution of useless materials to be utilized.

Keywords: *Ecobrick, Material Hardscape, Plastic*

I. INTRODUCTION

Ecobricks

Eco-Bricks comes from the word Ecology which means ecology and Bricks which are bricks or can also be called environmentally friendly bricks. because it can be an alternative to conventional brick in building buildings. Therefore, ecobricks are commonly used as raw materials for making furniture. Ecobricks are solid plastic bottles filled with non-biological waste to make reusable building blocks. Eco-bricks is a collaboration-based technology that provides solid waste solutions at no cost to individuals, households, schools and communities. Also known as Bottle Brick or Ecoladrillo. This local waste solution began to be called Ecobrick by a growing community movement around the world.

Hardscape

According to (Hakim, 2012) elements or landscape materials are classified into two types, namely softscape and hardscape.

1. *Softscape*
   Softscape is a term used for material elements that come from nature. Softscape element is the dominant element, consisting of plants or trees and water.
2. *Hardscape*
   Hardscape are artificial material elements or elements other than vegetation which are intended to be garden-forming objects, consisting of buildings, gazebos, garden chairs, fish ponds, fences, pergolas, fountains, garden lights, stones, wood, and so on.

II. METHODS

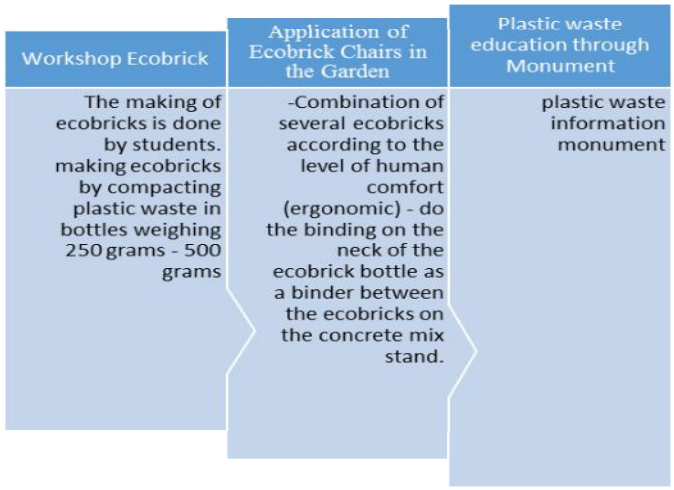

Fig 1. Methode Diagram

III. RESULT AND DISCUSSION

Making ecobricks by utilizing plastic waste and compacting it into bottles until it is solid and flawless. Ecobricks can minimize plastic waste before it goes to the landfill. One way to reduce plastic waste is to turn it back into goods that are used and utilized. The manufacture of ecobric chairs can save costs in alternative seat materials in garden hardscapes so that they become man-made resources because garden chairs are usually made of concrete or iron. Combination of several ecobricks according to the level of human comfort (ergonomic) - do the binding on the neck of the ecobricks bottle as a binder between the ecobricks on the concrete mix stand. Alternative use of ecobrick chairs is highly recommended in reducing plastic waste

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Fig 2. Ecobrick

Fig 2. Ecobrick chair as hardscape material

Fig 3. Ecobrick Chair

The information on the monument aims to provide education on the decomposition period of plastic waste. Education needs to be done as a real appeal and consideration in disposing of plastic waste. It is hoped that this information can provide doubt and awareness in using or utilizing plastic waste.

Fig 4. Ecobrick monument

IV. CONCLUSION

Ecobricks can be a hardscape material and as an artificial resource. The use of ecobricks is expected to be a change in the use of resources. The production process can be modified to allow the substitution of useless materials to be utilized.

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