

## Socialization of Ecobrick Making to Housewives in Suka Makmur Village, Gerung District, West Lombok Regency

Sri Wahyuningsih<sup>1</sup>, Nurhidayah<sup>2</sup>, Enida Fatmalia<sup>3</sup>, Dini Yuliansari<sup>4</sup>, Ahmad Ruhardi<sup>5</sup>

<sup>1,3,4,5</sup>Prodi Kesehatan Lingkungan, Sekolah Tinggi Teknik Lingkungan Mataram, Indonesia

<sup>2</sup>Prodi Teknik Lingkungan, Sekolah Tinggi Teknik Lingkungan Mataram, Indonesia

\*Corresponding-Author. Email: [sriw7634@gmail.com](mailto:sriw7634@gmail.com)

### Abstrak

Salah satu Proses daur ulang sampah yang ramah lingkungan serta tidak menghabiskan biaya tinggi adalah Program Ecobrick. Ecobrick merupakan pemanfaatan sampah plastik ramah lingkungan yang dijadikan berbagai macam barang yang berguna seperti kursi dan meja. Kurangnya sosialisasi terhadap masyarakat tentang proses pembuatan ecobrick menjadi salah satu faktor yang mendukung kurangnya minat masyarakat dalam pembuatan ekobrick. Program Pengabdian masyarakat ini bertujuan untuk memberikan sosialisasi tentang ecobrick kepada masyarakat desa suka makmur kecamatan gerung kabupaten Lombok barat. Metode yang digunakan dalam pengabdian ini berupa pelatihan, dimana warga diberikan sosialisasi tentang pembuatan ecobrick dan langsung mempraktekannya. Kegiatan sosialisasi yang dihadiri mayoritas ibu-ibu berjalan dengan lancar, Peserta sosialisasi antusias mengikuti kegiatan dan termotivasi untuk mengaplikasikan ilmu yang didapat di kehidupan sehari harinya.

**Kata Kunci:** sampah plastik, daur ulang, *ecobrick*

### Abstract

*One of the processes for recycling waste that is environmentally friendly and does not cost a lot of money is the Ecobrick Program. Ecobricks are the use of environmentally friendly plastic waste that is used as a variety of useful items such as chairs and tables. The lack of socialization to the community about the process of making ecobricks is one of the factors that support the lack of public interest in making ecobricks. This community service program aims to provide socialization about ecobricks to the people of the Suka Makmur Village, Gerung District, West Lombok Regency. The method used in this service is in the form of training, where residents are given socialization about making ecobricks and immediately practice it. The socialization activity which was attended by the majority of mothers went smoothly. The socialization participants were enthusiastic about participating in the activity and motivated to apply the knowledge they had learned in their daily lives.*

**Keywords:** plastic waste, recycle, *ecobrick*

### INTRODUCTION

In Indonesia, there is still a lot of use of plastic which is one of the materials used for single-use packaging. Unfortunately, the management of plastic waste in Indonesia has not been managed properly. One of the main contributors to environmental

pollution, both land and sea pollution, is plastic waste (Diana & Fansuri, 2019). The waste problem is becoming a more and more attention time develops. Society and waste becomes inseparable because daily community activities will always produce waste, especially for plastic waste. everyone

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has responsibilities responsible for protecting the environment, steps the easiest thing to do is by disposing of waste in its place (reduce) and separating waste according to the type so that the waste is fit for use can be recycled. Management bad waste can result in pollution, both air pollution, water pollution inside and above ground surface, as well as the emergence of various kinds of diseases that threaten public health.

Ecobricks are friendly bricks environment that can be an alternative for conventional brick in erecting buildings, garden spaces, green spaces, as well as raw materials for making furniture such as chairs, tables, and so on. Ecobricks too is a solution to provide new life for plastic waste without there are burdensome costs. Where with ecobricks, plastic waste will be filled into a solid bottle so that the waste does not need to be burned, buried, and so on (Imron, 2018).

One simple way to anticipate plastic waste is to process plastic waste into ecobricks. This method first appeared in Guatemala and has now been adopted by residents in other countries such as in South Africa who recycle plastics as building materials (Hopkins, 2014). The process of making ecobricks is simple and inexpensive in terms of cost, but is estimated to be effective in reducing the amount of plastic waste that pollutes the environment, especially in areas that do not yet have a good waste recycling industry (Antico, et al., 2017). Seeing the problem of plastic waste in Suka makmur village, our service team is interested in doing service by holding a socialization of making ecobricks in Suka Makmur Village.

## METHOD

The socialization activity regarding waste separation and making ecobricks with housewives in Sukamakmur Village was carried out on Monday, October 31, 2022 at 19.00-20.00 WITA. This activity is implemented using a participatory training method. The socialization begins with the

provision of material about making ecobricks, then participants are guided to make their own ecobricks using the tools and materials that have been provided. After the process of making ecobricks by each group is complete, all the results will be combined into one whole. After that, a trial will be carried out on the results of the ecobrick. Then the closing session of the socialization and photo session with the participants of the socialization.



Picture 1 : Photo Sesion

## RESULTS AND DISCUSSION

The ecobrick socialization activity was held on Monday 31 October 2022 in Sukamakmur Village, Gerung District, West Lombok Regency. Making ecobricks is basically very simple. In his presentation, the socialization speaker said that plastic waste must be sorted first, it should not be mixed with organic waste. Organic waste is waste that can decompose relatively quickly in nature, such as food scraps, leaves, and wood twigs. Organic waste is 'wet', has a high water content, so it needs to be separated from inorganic waste which is relatively dry. Sorting can be done by providing different colored trash cans; For example, organic waste in green and inorganic waste in yellow.

Based on the speaker's description, plastic waste mixed with organic waste can still be processed into ecobricks, but it needs to be cleaned and dried first. This is important to prevent mold growth and decay of organic matter in the ecobricks. In addition, it should be noted that in the ecobrick bottle, waste other than plastic should not be included, such as paper,

glass, metal, sharp objects (Suminto, 2017). Furthermore, the plastic waste that has been dried is reduced in size, so that it is easier to put it in a plastic bottle. By applying sufficient pressure, the plastic waste needs to be compacted to the bottom and walls of the plastic bottle. To compact the plastic waste in the ecobrick, you can use a stick made of wood or bamboo that is longer than the height of the bottle so that it is easy to hold and apply pressure.

The denser the ecobricks, the higher the density. The high density of ecobricks indicates that more plastic waste can be accommodated in bottles, so it is better to reduce the amount of plastic waste in the environment. In addition, the high density of ecobricks makes ecobricks stronger against pressure, so they are not easily damaged. Dense ecobricks can have a density of approximately 200 ounces per bottle with a volume of 600 ml (Asih and Fitriani, 2018). Due to the large amount of plastic waste that can be accommodated in an ecobrick, this simple technology is expected to reduce the amount of plastic waste that is brought to the landfill and prevent plastic waste from contaminating water (rivers, seas) and soil.

Participants in community service activities who are housewives look enthusiastic in participating in the training, mothers are very excited to put garbage into bottles, then unite the botos with one another and arrange them according to the desired shape.

Participants in the service activities, which were dominated by women, showed high enthusiasm in participating in the activities. This was especially evident when participants were given the opportunity to try to make their own ecobricks after the material session was delivered by the presenters. The mothers seemed excited to put plastic waste using wooden sticks into the mineral water bottles that had been prepared. Participants seemed a little difficult when compacting plastic waste into the bottom of the bottle. This happens

because the amount of plastic waste that is included is too much. After being briefed, participants understand that plastic waste must be put in a small amount and then compacted with sticks. Once solid, new plastic waste can be added to the bottle. In addition, the size of the plastic inserted also determines the ease of compacting the ecobricks. Large plastic, it is recommended that the soldering iron be reduced using scissors or similar cutting tools.

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## CONCLUSION

The socialization activity for making ecobricks by housewives in Sukamakmur Village, Gerung District, West Lombok Regency is going well. This activity was able to increase the awareness and understanding of the training participants about plastic waste management. Making ecobricks that are relatively easy and simple is one of the factors that makes the enthusiasm of residents increase to apply it starting from their respective homes.

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