

**WORKSHOP ON PROCESSING PLASTIC WASTE INTO CRAFTS
THROUGH THE KKN PROGRAM IN KARANGPUNG HAMLET, SRAGEN DISTRICT**

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Abstract - *Waste is produced from various types of community activities and is one of the environmental problems that have an impact not only on the environment but also on human health such as environmental pollution, death of animals or plants, and the onset of diseases caused by the waste. Therefore, one of the efforts to reduce is by processing waste into a craft. The method carried out in waste processing is through the workshop method held by KKN students of UIN Sunan Kalijaga Yogyakarta by bringing speakers from the Bank Sampah Gemah Ripah Yogyakarta team to fill the workshop event. The main target of this workshop is the women of Dusun Karangpung including RT 05 and 05 A. This activity is carried out in such a way and aims to obtain the results obtained by the people of Dusun Karangpung so as to produce crafts with economic value.*

Keywords: *Craft, Waste, Workshop*

1. INTRODUCTION

Waste is anything that is unused, not utilized, disliked, or discarded that results from human activities and does not occur naturally (Zuraidah et al., 2022). Waste originating from human activities will continue to increase along with the increase in population. Waste that is not managed properly will have a negative impact on the environment and public health. Various problems that will arise due to poor waste management include environmental pollution, the emergence of sources of disease, and the possibility of natural disasters in the long term (Kanda & Sari, 2024). Therefore, waste that continues to accumulate must be balanced with increasingly good waste management.

The increase in waste volume must be overcome by conducting waste management. Waste management is an activity carried out to overcome waste from generation to final disposal, which includes waste generation control activities, waste collection, transportation, processing, and final disposal (Purwendah et al., 2022). Waste management in Indonesia still cannot be said to be good. Most of the community's activities in waste management include burning waste, some others by throwing it into garbage cans, then transported by the authorities and finally buried in landfills (Atmanti, 2023).

Waste problems are closely related to community actions in waste management, because the main source of waste comes from the community (Yuniantari et al., 2022). Community members are the smallest element involved in the responsibility of waste management (Rosa et al., 2022). A community-based independent waste management program that starts from households in the RT / RW, sub-district, sub-district, and continues on a wider scale can be carried out to overcome the waste problem (Aji, 2019). Therefore, it is appropriate for all elements of society to participate in managing the waste they produce themselves.

The community environment generates the most household waste. Household waste is solid waste that comes from the remains of daily activities in the house, excluding liquid waste and special waste, as well as natural processes that occur in the home environment (Dobiki, 2018). To manage household waste, it is necessary to pay attention to several procedures including: 1) separating waste bins for organic and inorganic waste; 2) converting organic waste into compost; and 3) recycling inorganic waste into useful objects (Rosa et al., 2022).

Based on the observation conducted in Karangpung Hamlet, Banaran Village, the data shows that the community already has an awareness of waste management. The women in Karangpung Hamlet routinely hold waste sorting activities every week. Waste from the houses is collected and then sorted. Sorting is done by separating white plastic waste, colored plastic,

paper, cans, bottles, iron, and other categories of waste. After the waste is collected, it is then sold to collectors and the proceeds from the sale become additional funds for the treasury.

Waste management that has been carried out in Karangpung Hamlet can be further improved by recycling waste, especially plastic waste. Plastic waste can be recycled into crafts that have a higher economic value than before recycling. However, based on the observation, there is no plastic waste recycling activity in waste management activities in Karangpung Hamlet. Therefore, this community service activity offers a workshop on processing waste into crafts aimed at the women of Karangpung Hamlet. This workshop activity aims to empower mothers in utilizing waste creatively so that it can become an economically valuable product. Through this workshop activity, it is hoped that mothers can be more creative in utilizing household waste, so as not only to overcome the increasing volume of waste, but also to create new economic opportunities.

2. METHODS

The activity of processing waste into handicrafts was carried out using the workshop method with the target audience of Karangpung Hamlet women. The steps of implementing this workshop include 2 stages, namely the planning stage and the activity implementation stage. The planning stage begins with obtaining permission from the head of the local RT, this stage aims to obtain permission related to the implementation of the workshop. The next step was to contact the speakers who would conduct the workshop. The chosen speaker comes from the Gemah Ripah Waste Bank Yogyakarta team. The next stage is to invite workshop participants. And the last stage is to prepare infrastructure, tools and materials.

The second stage is the activity implementation stage. The implementation stage was carried out with 3 activities, namely the presentation of material and training in making brooch crafts from plastic waste. The material presented was material on the management and utilization of household organic and inorganic waste including the impact of waste waste, how to manage waste with the waste bank method and how to utilize inorganic waste. Furthermore, the training activity of making brooches from plastic waste. Each participant was given a kit containing the tools and materials needed to make a brooch. The tools and materials needed in making brooches include color plastic bags, green and black plastic bags for leaves, 2 flower pistils, 1x1 cm flannel, safety pins, irons, scissors, and hot glue. In this activity, the procedures for making brooches were explained by the speaker and followed by the participants. Participants create brooches that have been made in the form of flowers.

3. RESULTS AND DISCUSSION

Definition and Types of Waste

Based on Sragen Regency Regional Regulation Number 3 of 2014 concerning Waste Management, it is stated that, waste is the residue of daily human activities and / or natural processes in the form of solid waste, specific waste is waste that is due to its nature, concentration, and / or special management. Based on Sragen Regency Regional Regulation Number 2 of 2023 concerning Waste Management, household waste is waste originating from daily activities in households that does not include feces and specific waste. Waste similar to household waste is Household Waste originating from commercial areas, industrial areas, special areas, social facilities, public facilities, and/or other facilities. Degradable waste, hereinafter referred to as organic waste, is waste derived from plants, animals, and/or their parts that can be decomposed by other living things and/or microorganisms, such as food waste and litter. Hazardous and Toxic Waste, hereinafter referred to as B3 Waste, is the residue of a business and/or activity that contains B3. According to Tekhobanoglos, et al (1993), waste is solid or semi-solid waste material resulting from human or animal activities that is discarded because it is unwanted or no longer used. Meanwhile, in the Environmental Dictionary, waste is material that has no value or is not valuable for regular or special use in production or use; damaged or defective goods during manufacturing; or excess or discarded material. Based on the above definitions, it can be concluded that waste is the result of the remnants of daily human activities that are no longer considered useful in the form of solid or semi-solid, both organic and inorganic, but not including human waste. The remains that can be regarded as waste must be managed so as not to endanger the surrounding environment (Yulia, et al, 2016). Separating waste based on its classification will facilitate waste management and processing. Based on its nature, municipal waste can be divided into two, namely: 1) Organic waste is waste that is easily degraded so that it is easily decomposed. Examples: vegetable waste, leaves, animal parts, food waste, paper, wood and others. 2) Inorganic waste is waste that is difficult to degrade so it is difficult to decompose. Examples: plastic, glass, metal, cans and others (Destilia, et al, 2012). Based on Setyo and Nurhidayat, (2010), waste is broadly separated into three, namely: 1) Organic / wet waste is waste that comes from living things, such as leaves, kitchen waste, restaurant waste, vegetable scraps, fruit scraps, etc. This type of waste can be degraded. 2) Inorganic/dry waste is waste that cannot be degraded naturally. Examples: metal, iron, cans, plastic, rubber, bottles, etc. 3) Hazardous and toxic waste (B3), this type of waste is harmful to

humans. Examples: batteries, used syringes, chemical toxic waste, nuclear waste, etc. This type of waste requires special handling.

Government Policy on Waste Management

Waste management is a systematic, comprehensive, and sustainable activity that includes waste reduction and handling. Waste reduction is a series of activities that include limiting waste generation, recycling waste, and reusing waste. The policy carried out by the Sragen Regency Government in the context of waste reduction is regulated in the Sragen Regency Regional Regulation Number 2 of 2023 concerning Waste Management, a waste management policy that for more than three decades has only relied on the collect-transport-dispose approach (end of pipe) by relying on the existence of landfills, changed to a reduce at source and resource recycle approach through the application of the 3Rs. The five stages of handling are: 1) Segregation is the activity of grouping and separating waste according to type; 2) Waste Collection is the activity of picking up and moving waste from waste sources to TPS or TPS3R, including street sweeping, sidewalks and public facilities; 3) Transportation is the activity of carrying waste from the source or TPS or TPS3R to TPST or TPA using motorized or non-motorized vehicles designed to transport waste; 4) Processing is the activity of changing the characteristics, composition, and/or amount of waste; and 5) Final Processing of Waste is the activity of returning waste and/or residues from previous processing to environmental media safely. Temporary Shelter, hereinafter abbreviated as TPS, is a place before waste is transported to recycling, processing, and/or integrated waste processing sites. Waste Processing Place with the 3R principle (reduce, reuse, recycle), hereinafter referred to as TPS3R, is a place where regional-scale collection, sorting, reuse, and recycling activities are carried out. Integrated Waste Processing Site, hereinafter abbreviated as TPST, is a place where activities for collecting, sorting, reusing, recycling, processing, and final processing of organic waste are carried out. Final Processing Site, hereinafter abbreviated as TPA, is a place to process and return waste to environmental media safely for humans and the environment.

In waste management, there needs to be a procedure for utilizing waste so that it can be easily utilized into useful items. Waste management can be done with the 3R principle (Reduce, Reuse, Recycle). Reduce is done by reducing disposable items to minimize waste. Reuse is done by reusing items that are still suitable for use that can be used as craft materials. Recycle is done by separating waste according to its type so that it is easier when it will be reused.

Workshop Results

KKN students provide training or workshops to Karangpung Hamlet women about processing plastic waste into brooches. The purpose of the workshop is to provide awareness to the women of Karangpung Hamlet so that they can manage plastic waste into craft products that have economic value.

The tools and materials needed in making brooches include color plastic bags, green and black plastic bags for leaves, 2 flower pistils, 1x1 cm flannel, safety pins, irons, scissors, and hot glue. The first step in making the brooch is to iron the plastic. Second, fold the color crackle at an angle 3 times then cut it to form petals. Do the same with the other four sheets of plastic. Third, cut the crackle pattern to the center. Fourth, stack one petal then stick with hot glue. Do the same with the other four patterns with each level above increasing by one pile of petals. Fifth, put a pistil and stick it with hot glue. Sixth, assemble all the petals by sticking them together with hot glue. To make the leaves fold the green crackle at an angle 3 times, then cut it to form a three-tiered ladder with pointed ends. Then attach the leaves to the finished flower petal arrangement. Next, attach the flannel to the center. After that give a pin at the bottom using hot glue. Brooch crafts from plastic are ready to use.



Figure 1. Plastic brooch craft

4. CONCLUSION

Waste problems often occur in the community. Therefore, it is necessary to prevent or take an active role from the community to reduce these problems. One of the efforts that can be done is by holding a workshop that we have done in Karangpung Hamlet, we can conclude that: Plastic waste can be made into items with economic value in the form of brooches.

With this workshop, we hope to provide benefits and become a craft to improve the quality of human resources that is well responded by the people of Karangpung Hamlet, Banaran Village, Kalijambe District, Sragen Regency.

REFERENCES

- Aji, R. W. (2019). Strategi pengelolaan sampah rumah tangga di Kabupaten Cilacap Jawa Tengah. *Jurnal Manajemen Dan Ekonomi*, 2(2), 118–134.
- Atmanti, H. D. (2023). Kajian pengelolaan sampah di Indonesia. In *Pembangunan Berkelanjutan di Indonesia dalam Mewujudkan Tujuan Ekonomi Inklusif* (pp. 15–27).
- Dobiki, J. (2018). Analisis ketersediaan prasarana persampahan di Pulau Kumo Dan Pulau Kakara Di Kabupaten Halmahera Utara. *Jurnal Spasial*, 5(2), 220–228.
- Destilia Anggraini, Mutiara Bunga Pertiwi, dan David Bahrin. (2012). Pengaruh Jenis Sampah, Komposisi Masukan dan Waktu Tinggal Terhadap Komposisi Biogas Dari Sampah Organik. *Jurnal Teknik Kimia*. No. 1, Vol. 18, pp. 17-23.
- Kanda, A. S., & Sari, C. P. (2024). Analisis permasalahan dan kebijakan penanggulangan sampah di Daerah Pajajaran Kota Bandung. *SAMMAJIVA: Jurnal Penelitian Bisnis Dan Manajemen*, 2(1), 61–69.
- Peraturan Daerah Kabupaten Sragen Nomor 2 Tahun 2023 Tentang Pengelolaan Sampah
Peraturan Daerah Kabupaten Sragen Nomor 3 Tahun 2014 Tentang Pengelolaan Sampah
- Purwendah, E. K., Rusito, & Periani, A. (2022). Kewajiban masyarakat dalam pemeliharaan kelestarian lingkungan hidup melalui pengelolaan sampah berbasis masyarakat. *Jurnal Pacta Sunt Servanda*, 3(2), 163–171. <https://doi.org/10.23887/jld.v3i2.1609>
- Rosa, M. K. A., Rodiah, Y., & Kurniawan, A. (2022). Edukasi pengelolaan sampah rumah tangga di Kelurahan Sawah Lebar Baru Kota Bengkulu. *Abdi Reksa*, 3(1), 52–58. www.ejournal.unib.ac.id/index.php/abdireksa
- Setyo Purwendro dan Nurhidayat, 2010, *Mengolah Sampah Untuk Pupuk Pestisida Organik*, Penebar Swadaya, Jakarta.
- Tchobanoglous, G., Theisen, H. and Vigil, S.A. (1993) *Integrated Solid Waste Management: Engineering Principle and Management Issue*. McGraw Hill Inc., New York.
- Yulia Kurniaty, Wahyu Haji Bani Nararaya, Ranatasya Nabila Turawan, dan Fendy Nurmuhamad. (2016). Mengefektifkan Pemisahan Jenis Sampah sebagai Upaya Pengelolaan Sampah Terpadu Di Kota Magelang. *Varia Justicia*. Vol 12 No. 1, pp. 135-150.
- Yuniantari, N. K. H. S., Aryana, I. K., & Jana, I. W. (2022). Hubungan tingkat pengetahuan dan pekerjaan kepala keluarga dengan tingkat partisipasi dalam pelaksanaan program bank sampah. *Jurnal Kesehatan Lingkungan*, 12(1), 7–16.
- Zuraidah, Rosyidah, L. N., & Zulfi, R. F. (2022). Edukasi pengelolaan dan pemanfaatan sampah anorganik di MI Al Munir Desa Gadungan Kecamatan Puncu Kabupaten Kediri. *Budimas : Jurnal Pengabdian Masyarakat*, 4(2), 1–6. <https://doi.org/10.29040/budimas.v4i2.6547>