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Management Waste Plastic Become Useful Items

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Abstract

Use plastic in a way continuously will become serious problem in Indonesia. Plus, plastic produce a number of dangerous substances for health man. Processing waste plastic is effort For reduce rubbish plastic to the minimum possible done through cycle repeat. Amount big rubbish plastic all around environment give rise to idea For use it become product creative who has mark benefit for residents in Brangkal Village. From the observations that have been made done, known problem that is lack of understanding For manage waste plastic become product useful, therefore That A movement required For educate and provide Skills to public For manage rubbish plastic. The purpose of activity This is For give socialization and giving training to the people of Brangkal Village, especially PKK mothers for recycle repeat rubbish plastic become product craft form ecobricks and flower pots. Implementation activities, ie done Forum Group Discussion, then give socialization and skills practical For make product from rubbish plastic. Expected end result is awareness from public about danger use stack trash and improve Skills For manage rubbish plastic become product beneficial.

Keywords: ecobricks, handicrafts, waste plastic

INTRODUCTION

Currently, trash Still become problem big in Indonesia and around the world, especially trash that isn't easy decompose like plastic. This matter No regardless from enhancement amount resident every year, which resulted increase in waste volume. With many population and lack thereof knowledge about rubbish, Indonesia will bear more Lots burden as a contributing country trash in the world. According to (Jambeck et al., 2015)Indonesia at the moment This is contributor rubbish plastic biggest to sea second after China. The Philippines, Vietnam and Sri Lanka top the list third until fifth. Because Indonesia is the second most populous country donate rubbish, government should develop method new For reduce rubbish. Like quoted from National Geographic Indonesia (2016), stated that amount production Waste in Indonesia reaches 175,000 tons per day or 64 million per year, and insight management rubbish Still low. With so, one effort innovation can achieved through education public .

Utilization waste plastic means push use plastic as much maybe and can recycled repeat (Ramadhan et al., 2020). When compared with the manufacturing process goods new, recycled repeat is a process of change material used become product new, this process in a way No direct can reduce, usage energy, and house gas emissions more glass low. According to (Yuliarty et al., 2019), cycle repeat is one of the approach management complex waste that includes sorting, collecting, processing, distributing and manufacturing goods or material used use. This is part important from management modern waste and there is a hierarchical process 4R waste (*Reduce, Reuse, Recycle, Replace*). Everyone should understand the importance of 4R (*Reduce, Reuse, Recycle, Replace*) as step First in processing rubbish For create clean and economical environment (Kusminah, 2018). Between available materials recycled repeat is glass, plastic,

paper, metal, textiles, and electronics. According to (Nurwati, 2019), rubbish plastic can be changed into crafts that are interesting, useful and valuable to sell. Because the textures and colors are diverse and beautiful. The processing and manufacturing is sufficient it's easy, and anyone can do it.

Brangkal Village has a dense population, which has an impact on increasing household waste. Therefore that is, Brangkal Village has a good potential for managing household waste, especially plastic. Apart from that, Mrs. PKK in Brangkal Village is active in various existing activities planned and owned ability to help housewives in various social activities. Frequent PKK members sigh about lack of public awareness for sorting and managing waste. Most of the people in Brangkal Village usually throw away household waste directly to the river or burn it in the yard.

So far this is the community in Brangkal Village not yet too involved in managing and recycling plastic. Household waste burned will cause environmental damage like global warming. Burning waste plastic will impact on the atmosphere because it releases carbon dioxide (CO₂), which can speed up global warming. Apart from that, burning waste impacts on the environment and public health. Burning is not perfect because it threatens public health because it forms dioxin, which can cause cancer, heart inflammation, and nerve disorders. Finally, because various p., UNNES KKN student is active in 5 Brangkal villages make a program with a goal is to change waste into useful and valuable products. Brangkal Village Community requested to participate in this activity to make *ecobricks* and flower pots made from waste plastic. Waste plastic used in this activity originates from used drinking water bottles and trash wrap plastic.

The main objective of the service program is to increase awareness of the people of Brangkal Village about the importance of sorting and processing waste. Apart from that, this program also aims to increase skills and knowledge of the people of Brangkal Village about waste management. Later, the rest of the plastic from household waste will be sorted and changed into useful and valuable crafts. Enhancement of residents' skills in Brangkal Village in this way will increase community knowledge and maintain the environment.

METHOD

Activity done through *Forum Group Discussion*, socialization and training to the Brangkal Village PKK Mother about managing waste plastic, that will be used as craft and use as *ecobricks* and flower pots to decorate Brangkal Village Park. Entire PKK women in Brangkal Village, District Karanganyar, Regency Klaten, is the target of this activity. Figure 1 shows a general description of the method used.

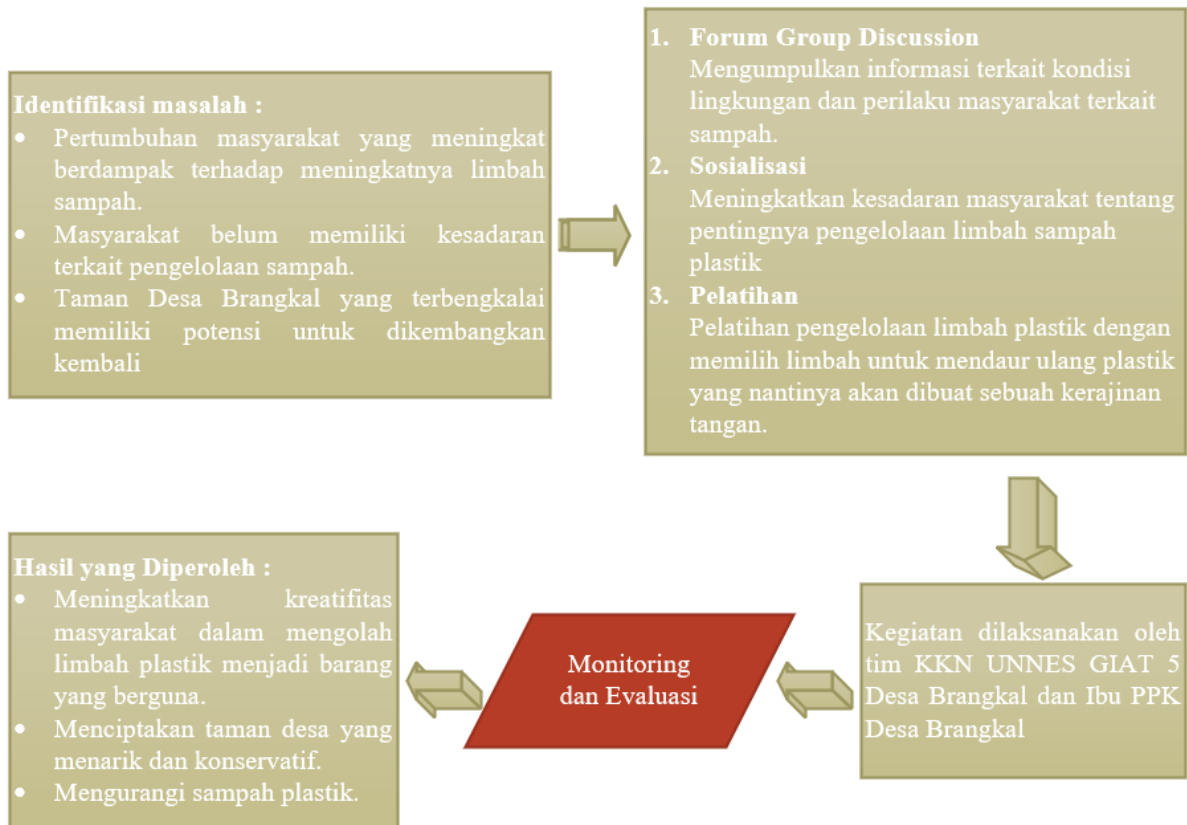


Figure 1. Flow diagram devotion

RESULTS AND DISCUSSION

Analysis Condition of Brangkal Village Through the Group Discussion Forum

Engagement and awareness public For guard sustainability environment is very important in management rubbish plastic. Need exists increase awareness the people of Brangkal Village about importance manage rubbish plastic. One of method best For manage rubbish for public is with reduce rubbish with effective way . This is a must too increase awareness public about method manage waste plastic and how matter That impact on the environment.



Figure 2. Forum Group Discussion

At stage beginning moment identification problem, student try For discuss through *Forum Group Discussion* (FGD) with device village. The purpose of holding this FGD is For dig information related description condition environment and behavior people in the village

barracks related management rubbish. After coordinate with device village, KKN implementers review direct related condition environment in Brangkal Village. From stage This team executor find various problem related heap thrown away rubbish carelessly by people on the banks of the river (see Figure 3). As for the problem other that is park village As it should be become village icon However moment This the condition abandoned (see Figure 4).



Figure 3. Stack trash on the edge river



Figure 4. Abandoned Brangkal Village Park

Furthermore team do initiative For carry out socialization and training related with the impact caused from waste rubbish plastic to environment and do cooperation with Ms PKK for turn on back to Village Park at once utilise results craft hand through management trash that will made. Purpose accomplished socialization and training This is For build awareness the people of Brangkal Village about importance manage rubbish plastic. Socialization and training process walk with fluent attended by members of the Brangkal Village PKK Mother. The Village Park design (see Figure 5) with draft utilization rubbish bottle plastic become *ecobricks* as fence barrier ditches and flower pots for planting media as well as decorate park .



Figure 5. Brangkal Village Park Plan

Socialization

Socialization held on July 6 2023 attended by Mrs. PKK Brangkal Village with total of 56 participants. Socialization done with explain management rubbish plastic use 4R method (*Reduce, Reuse, Recycle, Replace*) to PKK mothers in Brangkal Village as the front guard in arrange House ladder. The first method that is *Reduce* which means to reduce rubbish. Example application step *reduce* that is with reduce usage rubbish pocket plastic with method replace it with basket or shopping tote bag For activity shopping daily. Second method that is *Reuse*, management rubbish with method This that is with use return still trash Can utilized. Example application step *reuse* that is use bottle used drinking water as a plant pot small, aside That can utilized in making *ecobricks*. Furthermore that is method *recycle* that is with recycle repeat still trash can be recycled repeat. Example application step *recycle* that is process rubbish organic become fertilizer compost, trash plastic like used detergent, coffee packets, and others utilized return For made craft hand like bags, wallets, flower vases, cases tissue and shape creative other. Then method *replace*, principle management rubbish with method *replace* that is replace material that is not friendly environment with more material friendly environment. Example application step *replace* ie use straw *stainless steel* For reduce straw plastic. Example other like reduce use *styrofoam* For wrap food and carry place Eat Alone from House Because rubbish the No can degraded in a way experience. This also applies with tool Eat like spoon and fork and refused made spoons and forks from plastic.



Figure 6. Activity socialization management rubbish

Training

Activity training held on August 8 2023, attended by Mrs. PKK Brangkal Village. In activities training making craft hand use rubbish plastic there is a number of things that must be done prepared that is :

- a. Rubbish plastic
- b. Plastic bottles
- c. Scissors

- d. Wire
- e. Rope

On training management waste plastic in Brangkal Village, step next is sorting waste plastic with objective recycle repeat. Following is mandatory procedures done :

- a. First, trash collected. If Society throws away trash in the right place, recycling repeat will more easy. However, if society throws it away rubbish on site rubbish normal, trash No will recycled repeat. For makes it easier cycle repeat, place collection rubbish must made in different places .
- b. Next, plastic will do used must washed moreover formerly before used. This matter done For remove dirt and components that are not made of from plastic .
- c. final step is a must done is enter plastic into the bottle. The goal is agar bottle plastic become hard and filled full until can used as *ecobricks*. As for form product Another thing that was made was a flower pot .



Figure 7. Results of activities training management rubbish plastic

Evaluation Activity

One of method For reduce pollution environment and disturbances health in Brangkal Village is with manage rubbish with good and right. Brangkal Village Community Not yet too aware about management waste and management rubbish. As a result, there is need will possible actions increase awareness public about management waste and its importance notice environment. *Forum Group Discussion*, socialization and training done in activity For increase awareness public about health and creating clean environment . Activities in Brangkal Village walk with Good. Apart from that, the people of Brangkal Village give positive support . A total of 56 PKK women from Brangkal Village attended the event. Activity This produces two products new : *ecobricks* and flower pots made from plastic remainder House ladder. Brangkal Village PKK Mother show extraordinary enthusiasm normal during activity taking place. The mothers were very happy process rubbish plastic become something craft hand. They are very active participate in this process For produce valuable and useful products, as well help reduce amount rubbish plastic that can be damage Brangkal Village environment. After that, product Mrs. PKK's work is placed in the Brangkal Village Park. Expected with activity These are the women of Brangkal Village can sort and process rubbish House ladder in a way effective .

Following This is evaluation activity before held socialization and training as well as after implemented it socialization and training in Brangkal Village :

Table 1. Evaluation results implementation socialization and training in Brangkal Village

Village Conditions	Before	After
Community Behavior	Rubbish plastic Still thrown away out of place by the residents of Brangkal Village	Brangkal Village Community know How manage waste and reduce plastic .
Condition environment	In a few place found rubbish House stacked stairs	Brangkal Village Community more aware environment. This matter proven with change plastic become things you can used return .
Condition air	Brangkal Village Community throw away	Brangkal Village Community more

	rubbish without sort and throw away rubbish out of place, that's the end of it cause air in Brangkal Village become bad	understand method manage rubbish plastic, so they can make product without damage environment and produce benefit
River Conditions	Stack rubbish piled up on the banks of the river consequence from lack of awareness public related management rubbish .	Society has understanding For sorting and not throw away rubbish haphazard .
Rubbish	's a lot of rubbish yet changed become goods beneficial .	With change rubbish become goods useful, the people of Brangkal Village reduce amount rubbish plastic .

CONCLUSION

Activity devotion public This can produce conclusion :

1. Participating community socialization and training has understand danger rubbish plastic for environment life through counseling and discussion interactive between participants and teams executor activity .
2. Participating community has obtain ability For change rubbish plastic become more products worth .
3. Product yield craft participant used as decoration and use For turn on back to the abandoned Brangkal Village Park .

Advice we can give based on Suite activity until finished is :

1. Activity devotion public must Keep going developed Because get response positive from public .
2. For increase potency management rubbish in the village, necessary There is activity programmed continuation .

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