

## **Utilizing Kitchen Waste as Evidence of Love for the Planet**

**Aziz Atmadipraja**

*Universitas Siliwangi Tasikmalaya, Indonesia*

*azizatmadipraja@gmail.com*

### **Abstract**

This program is an empowerment for mothers in Pangandaran Regency in order to take advantage of unused organic kitchen waste to be useful for the environment. Before starting kegiatam, the group goes through several stages, including group discussions about partner activities, learning material about eco enzymes in partners, then after that we can empower the targets that have been set through the results of group discussions. Because during the Covid 19 pandemic. Nevertheless, the target remains enthusiastic in following this activity. .

Keywords: Eco enzyme, Love planet

### **A. Introduction**

A healthy environment reflects a comfortable, safe, and peaceful lifestyle. One of them can be seen from how to handle waste in every household, because garbage is always a problem in every region. Garbage always causes environmental discomfort, unpleasant odor, dirty, and causes pollution and disease. This condition occurs because every day garbage is always produced from every household so it continues to accumulate and become waste that is not useful.

Wastewaste becomes easy to process if the public knows where the beginning of the emergence of garbage, knows how to separate waste based on its type, and knows how garbage can arrive at the final handling. While Wardi, to process good waste if the garbage does not become a growing the breeding medium of disease

seedlings and does not become an intermediate medium for the spread of a disease. Waste is the waste of a human business or activity that is solid and considered useless. Waste is one of the problems faced by many cities around the world. The higher the number of residents and their activities, making the volume of garbage continues to increase. As a result, to overcome waste requires a lot of costs and increasingly large land (Wulandari & Sodik, 2019).

In addition, of course, waste endangers health and the environment if not managed properly. Indonesia is one of the largest largest largest contributor of waste in the world. Based on publication sources from one of the national television, according to Jambeck in 2015 from the University of Georgia said, Indonesia is the second largest contributor of waste with a volume of 187,2 million tons / year, with China in first position with 262,9 million tons / year and subsequently followed by the Philippines, Vietnam, and Sri Lanka. (Septiani et al., 2003) . Waste management is a systematic, thorough, and continuous activity that includes the reduction and handling of waste. Waste reduction as referred to in Article 19 letter a includes activities to limit waste, recycling of waste, and/or reuse of waste.

Today, waste management in society still rests on the final approach, i.e. waste is collected, transported, and disposed of to the final waste processing site. In fact, large volumes of garbage deposits at the site of the final processing site of waste have the potential to release methane gas that can increase greenhouse gas emissions and contribute to global warming. Decomposition of waste through natural processes requires not a long time and handling at a great cost. The waste management paradigm that rests on the final approach is time to be abandoned and replaced with a new paradigm of waste management. The new paradigm views waste as a resource that has economic value and can be utilized, for example for energy, compost, fertilizer or industrial raw materials. The principle of the process of making eco enzymes is actually similar to the process of making compost, but plus water. As a growth medium so that the final product obtained in the form of liquids is preferred because it is easier to use. The specialty of this eco enzyme is that it does not require large

land for the fermentation process as in composting, even this product does not require a composter tub with certain specifications.

Used bottles of mineral water and other used products that are not used can be used as fermentation. It also supports the concept of reuse in saving the environment. Eco enzymes have many benefits such as being usable as plant growth factors, a mixture of floor cleaning detergents, pesticide residual cleaners, crust cleaners and a drop in the temperature of a car radiator. Enzymes are produced through fermentation of a mixture of brown sugar, kitchen wastewater or fresh vegetables as well as fruit waste. According to Tang and Tong the process took as long as 3 months. Based on the results of research on the right targets for this empowerment, we chose the targets on the mothers of PKK Pangandaran Regency. Because the kitchen is usually the place that produces the most waste, both organic and inorganic.

When planet earth struggles to provide resources (land, water, food, energy, etc.) to sustain its 7 billion people, at the same time every year, 1/3 of a ton is wasted as waste! It is ironic that food waste is one of the biggest contributors to environmental impacts, simply because of human ignorance and carelessness. Therefore, education for the community as a form of concern for the preservation of environmental functions, environmental management and recycling of household waste (SRT) and household waste similar to household waste (SSSRT).

## **B. Method**

Community Service (PKM) activities are carried out in Pangandaran Regency. The method used is extension and demonstration of making eco enzymes into fertilizers from household waste. Household waste in question is organic waste such as vegetable waste, fruit waste or fruit skin, food wrapping from leaves, expired kitchen spices, leaves, fallen plant branches. In addition to waste, other ingredients that need is palm sugar / sugar cane / molasses and water.

The event was held in an open space attended by the chairman of RT and some local residents. Activities are carried out in open spaces, to avoid crowds and to make

air circulation better. Before being given counseling, first pre-tested to find out the level of knowledge of local residents about the adverse impact of waste on the environment and the utilization of household waste. At the time of counseling was conveyed about the importance of maintaining environmental cleanliness, the impact if ignored on environmental cleanliness and the use of household waste as compost. Furthermore, there was a demonstration of the manufacture of eco enzymes. This activity was assisted by students of Siliwangi Tasikmalaya University.

#### **D. Discussion**

Community empowerment programs for mothers are empowering our goal to be able to process organic kitchen waste into eco enzymes. This is done because of the cutting of waste distribution flow into more useful products. This effective way can be realized through the manufacture of eco enzymes that are applied at the household level. Eco enzymes are liquid extracts produced from fermentation of leftover vegetables and fruits with substrates of brown sugar, granulated sugar, or molasses. The purpose of this program is to provide a complete organic waste management program solution that circulates in the community that is converted into eco enzymes. This program is expected to provide more benefits for many parties. Students can use this program as a medium to add insight into eco enzymes.

As for academics are expected to conduct further research on the benefits of eco enzymes and can use them to reduce waste in Indonesia and even the world (Galintin *et al*,2021). Before this empowerment activity is carried out, all group members go to the partner to get direction and material about the process of making eco enzymes and the benefits obtained. In this activity, it is necessary to provide the necessary ingredients such as kitchen waste in the form of leftover vegetables that are not used and fruit skins.

The aim of marketing is to change the orientation of other marketing management philosophies which have proven unsuccessful in overcoming various problems, due to changes in the characteristics of today's market which tend to develop. These changes occur, among others, due to population growth, increased purchasing power,

increased and expanded relationships or communications, technological developments, and changes in other market environmental factors. Kotler argues that marketing has the aim of building mutually satisfying long-term relationships with parties who have the main interest of customers, suppliers, distributors in order to obtain and maintain references and their long-term business continuity.

The term marketing includes foundation marketing, educational institution marketing, personal marketing, mosque marketing, marketing nonprofit organizations. The marketing objective of these non-profit institutions is to create satisfaction for consumers, customers, congregations, students, the people, who will enjoy the products they produce. Therefore, these institutions must know very well who the consumers, congregations, and students they will serve. If consumers are satisfied, then the problem of profit will come by itself. Producers will reap profits continuously, as a result of giving satisfaction to their consumers.

According to Philip Kotler, promotion is any form of communication persuasion designed to inform customers about goods or services, and to influence them to purchase those goods or services, which includes publicity, personal selling, and advertising. Promotion involves both advertising and personal selling. The goal is to inform and persuade customers. Advertising communicates the benefits of goods or services to potential customers through mass media. Personal selling involves the art of persuading in sales on a face-to-face basis. The company's promotional program can have an important role in creating an image in the minds of customers.

Promotion is an activity aimed at influencing customers so that they can get to know the products offered by the cooperative to them and then they become happy and then use the product. The tools that can be used to promote their products are in several ways, namely advertising (advertising), sales promotion (sales promotion), and personal selling.

1) Advertising (advertising), is the main tool for cooperatives to Affect its members.

Advertising can be done by cooperatives through newspapers, radio, magazines, and billboards.

- 2) Sales Promotion (sales promotion), is a cooperative activity selling the products it marketed in such a way that members will be easy to see. For example, sticking pamphlets in front of the office or on a bulletin board so that many members see and are then interested in using the product.
- 3) Personal Selling, is a cooperative activity to make direct contact with members and prospective members. With direct contact, it is hoped that there will be a positive relationship or interaction between the cooperative and its members and prospective members. Included in this category are door-to-door, telephone, internet.

Empowerment is a process by which people become sufficient to participate in shared control over, and influence over, events and institutions that affect their lives. Empowerment emphasizes that people acquire sufficient skills, knowledge and power to influence their lives and the lives of others they care about. In the view of Islam, empowerment must be a non-stop movement. This is in line with the paradigm of Islam itself as a religion of movement or change. The term empowerment is a translation of the foreign term empowerment. Lexically, empowerment means strengthening. Technically, the term empowerment can be equated or at least equated with the term development. Even these two terms, within certain limits are interchangeable or interchangeable.

Meanwhile, the availability of land for processing the final waste management is increasingly difficult because the carrying capacity of land, especially in urban areas, is decreasing. As a result of the increasing level of public consumption and other activities, there is also an increase in waste or waste produced. better known as domestic waste (household) has become an environmental problem that must be handled by the government and the community itself. Many people will not clean, especially in terms of disposing of garbage and many people littering and if this continues to happen continuously it will have a very large negative effect on the environment, such as destroying the beauty of a city, not to mention the disease that will cause harm to the environment. It is easy for people who live around piles of garbage.

Empowerment is both a process and a goal. As a process, empowerment is a series of activities to strengthen the power or empowerment of weak groups in society, including individuals who experience poverty problems. As a goal, empowerment refers to the conditions or results to be achieved by a social change, namely people who are empowered, have power or have the knowledge and ability to fulfill their physical, economic, and social needs, such as having self-confidence, being able to convey aspirations, have a livelihood, participate in social activities, and are independent in carrying out their life tasks.

In SNI 19-2454-2002 waste management by the community is related to community behavior, namely waste generation, sorting, storage, collection, transportation and destruction. as:

- a. Garbage generation is the amount of waste generated/generated by the community.
- b. Waste sorting is the grouping and separation of waste according to the type, amount, and or nature of the waste.
- c. Garbage storage is an activity to temporarily accommodate waste in an individual/communal container at the source of the waste. With the requirements that the waste container material is not easily damaged and watertight, economical and easy to obtain/manufacture.
- d. Garbage transportation is an activity of transporting or carrying waste from TPS/containers and or directly from the source of the waste to be taken to the TPA, using a motorized vehicle/not specially designed.
- e. Waste disposal is an activity carried out as a final processing in a landfill with controlled stockpiling and sanitary landfill including leachate and gas processing, landfilling of waste for tidal areas with a pool system (an acrob, facultative, maturation), and by composting and burning waste using incinerator in accordance with applicable regulations.
- f. Obedience to regulations, local governments make rules on waste management, so that it will form positive community behavior in managing waste, and regulate the provision of incentives to people who do waste management and vice versa.

Each inorganic waste such as glass or glass, cans, scrap metal, and so on, is collected and sold to collectors, and then recycled. Generally, urban waste consists of 65-70% organic waste, which is of very good quality as raw material for compost. Composting can be done at the TPA or in other places far from settlements. The composting process does not have a negative impact on the environment, if the composting area is covered with plastic or other covering materials. Compost as plant fertilizer as well as in the soil, among others, functions as a source of nutrients, loosens the soil, and improves soil structure, aggregate, aeration, and porosity.

Behavior and behavioral symptoms that appear in the activities of these organisms are influenced by both genetic (hereditary) and environmental factors. In general, it can be said that genetic and environmental factors are the determinants of the behavior of living things, including human behavior. While the environment is the condition or land for the development of the behavior. By using the principles of 4 R, Reduction, Recycle, Reuse and Replant, the idea emerged to manage organic waste in the environment, both in the form of household waste and waste from gardens/parks. Waste management is a systematic & sustainable activity that includes integrated waste reduction and handling. It is called integrated because it is followed by all citizens, starting from yourself, starting small, starting from now.

Plant production on planting media and soil rich in organic matter will be healthy and healthy, and productivity will be higher. In contrast to products from inorganic/chemical waste, compost, which is the result of processing from organic waste, the quality is relatively controllable. Compost fertilizers cannot be equated with chemical fertilizers in terms of their distribution to plants. In the short term, chemical fertilizers will look beneficial, but in the long term they will damage the nutrients in the soil. In contrast to compost, it will enrich the nutrients in plants, it can be given anytime, any time, because it will be absorbed by plants as needed (such as "sustain release" in medicines).



## **E. Conclusion**

The problem of waste is an important problem that can damage the environmental ecosystem. Cutting waste distribution flows to landfill is an effective way and accelerates waste processing into more useful products. This effective way can be realized through the manufacture of eco enzymes that are applied at the household level. Eco enzyme is a liquid extract produced from the fermentation of leftover vegetables and fruits mixed with sugar. The implementation of this empowerment program is expected to process organic waste from cooking waste that is not used such as pieces of vegetables or fruits to become useful products. This is done because to reduce the amount of waste produced to maintain environmental cleanliness. .

## REFERENCE

- Galintin, O., Rasit, N., & Hamzah, S. (2021). Production and characterization of eco enzyme produced from fruit and vegetable wastes and its influence on the aquaculture sludge. *Biointerface Research in Applied Chemistry*, 11(3), 10205–10214. <https://doi.org/10.33263/BRIAC113.1020510214>
- Septiani, U., Oktavia, R., Dahlan, A., Tim, K. C., & Selatan, K. T. (2003). *Eco Enzyme : Pengolahan Sampah Rumah Tangga Menjadi Produk Serbaguna di Yayasan Khazanah Kebajikan*.
- Wulandari, W., & Sodik. (2019). Bank Sampah Upaya Kreativitas Masyarakat Dalam Peningkatan Pendapatan. *Conference on Innovation and Application of Science and Technology (CIASTECH 2019)*, *Ciastech*, 65–70.