

## ENVIRONMENTAL COMMUNICATION STRATEGY ON THE USE OF ORGANIC WASTE IN SOUTH LAMPUNG

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### Abstrak

Permasalahan sampah bukan hanya pada perkotaan saja namun di pedesaan menjadi masalah utama lingkungan. Fenomena ini juga terdapat pada desa Baru Ranji Lampung Selatan yang terdapat 7 dusun hanya memiliki tempat pembuangan sampah satu tanah kosong hanya diangkut satu bulan sekali oleh alat pengangkut kecamatan. Bau busuk sampah basah mencemari lingkungan bahkan hilangnya keindahan pemandangan sekolah karena pembuangan sampah ada didepan sekolah. Membangun kesadaran masyarakat tidaklah mudah perlu strategi komunikasi lingkungan dalam pemanfaatan sampah sehingga dapat mengurangi sampah. Penelitian ini secara alamiah dan holistic serta menyeluruh yang berorientasi data deskriptif yang natural dengan pendekatan kualitatif. Hasil penelitian menunjukkan bahwa strategi komunikasi lingkungan melalui pendekatan komunikasi dengan sosialisasi, strategi komunikasi berkelompok, komunikasi personal dan penyampaian pesan dalam berkomunikasi bersifat informatif dan edukatif, dalam pengolahan dan pemanfaatan sampah rumah tangga memiliki nilai ekonomis, dengan mengubahnya menjadi eco-enzyme yaitu ekstrak cairan hasil fermentasi limbah sayuran dan buah-buahan. Komunikasi lingkungan merupakan sarana konstitutif dan pragmatis sehingga dapat merubah pola pikir, pola tindak masyarakat.

**Kata Kunci:** Strategim Komunikasi Lingkungan, Sampah, Eco Enzyme

### Abstract

The waste problem is not only in urban areas but in rural areas it is a major environmental problem. This phenomenon is also found in the village of Baru Ranji, South Lampung, where seven hamlets only have a waste dump, and one empty land is only transported once a month by the sub-district transporter. The stench of wet waste pollutes the environment and even loses the beautiful view of the school because the rubbish dump is in front of the school. Building public awareness is not easy, it requires an environmental communication strategy in utilizing waste so that it can reduce waste. This research is natural, holistic, and comprehensive, oriented towards natural descriptive data with a qualitative approach. The results of the research show that environmental communication strategies through communication approaches with socialization, group communication strategies, personal communication, and conveying messages in communication are informative and educational, in The processing and utilization of household waste has economic value, by turning it into eco-enzymes, namely the resulting liquid extract. fermentation of vegetable and fruit waste. Environmental communication is a constitutive and pragmatic means that can change people's thought patterns and action patterns.

**Keywords:** Strategy, Environmental Communication, Rubbish, Eco Enzyme

### INTRODUCTION

Waste is an environmental problem that is often in the spotlight in society. The waste problem has become a serious problem not only in Indonesia but also in big cities in several countries in the world. (G. P Nugroho, 2023) Garbage is residual waste from products or goods that are no longer used, but can still be recycled into viable commodities. Waste that circulates freely in the community is treated in various ways. Among them, if waste is handled well, it can be recycled and reused and turned into useful items, but if waste is not handled well, there are also problems in society, such as burning rubbish and littering. Waste is divided into two categories, namely inorganic waste, namely waste consisting of inorganic materials, for example, metal, plastic, glass, rubber, and cans. Organic waste is

waste composed of organic materials which are not durable and decompose quickly. Usually, this type of waste comes from living creatures, such as vegetables, rotten fruit, leftover rice, and leaves.

Garbage or waste is one of the problems that always arises in various areas. Organic waste will decompose naturally, and inorganic waste that has not experienced natural decomposition. There are many ways to dispose of or dispose of waste, such as through fertilizing and composting organic waste, and burning inorganic waste. depends on the Disposal of this waste is still not optimal Due to various factors, lack of technical training dangers from processing side effects (smoke and gas) Toxic substances such as carbon monoxide and ammonia, HCN, etc.

Waste is a term used to describe unwanted, unused, or useless substances or materials produced by humans in daily activities, such as leftover food, plastic packaging, paper, metal, glass, and so on. Waste can also come from industrial or construction processes. (Mustikawati et al., 2023) Waste that is not managed properly can pollute the air, water, and soil, as well as causing ecosystem damage and threats to wildlife. The public needs to be aware of the importance of reducing, recycling, and responsibly disposing of waste to preserve the environment and reduce negative impacts.

In Indonesia, the largest contributor to the accumulation of waste is household waste (62%) where the main composition of household waste is food waste/food processing waste commonly referred to as organic waste (44%). Likewise, in Lampung Province in South Lampung Regency, household waste is a problem faced by the government and the community's indifference to disposing of waste.

Table. 1. Number of Facilities Volume of sub-district waste in South Lampung Regency Year 2022

| NO. | KECAMATAN       | VOLUME SAMPAH                            |   | JUMLAH (M3) |
|-----|-----------------|--|---|-------------|
|     |                 | SAMPAH YANG DIHASILKAN RUMAH TANGGA (M3) | SAMPAH SEJENIS SAMPAH RUMAH TANGGA (M3) |             |
| 1.  | Natar           | 49                                       | -                                       | 49          |
| 2.  | Jati Agung      | 32,86                                    | -                                       | 32,86       |
| 3.  | Tanjung Bintang | 21                                       | -                                       | 21          |
| 4.  | Tanjung Sari    | 8,12                                     | -                                       | 8,12        |
| 5.  | Katibung        | 18,55                                    | -                                       | 18,55       |
| 6.  | Merbau          | 14,44                                    | -                                       | 14,44       |
| 7.  | Way Sulan       | 6,21                                     | -                                       | 6,21        |
| 8.  | Sidomulyo       | 16,68                                    | -                                       | 16,68       |
| 9.  | Candipuro       | 14,72                                    | -                                       | 14,72       |
| 10. | Way Panji       | 4,62                                     | -                                       | 4,62        |
| 11. | Kalianda        | 24,04                                    | -                                       | 24,04       |
| 12. | Rajabasa        | 6,34                                     | -                                       | 6,34        |
| 13. | Palas           | 15,56                                    | -                                       | 15,56       |
| 14. | Sragi           | 9,12                                     | -                                       | 9,12        |
| 15. | Penengahan      | 10,81                                    | -                                       | 10,81       |
| 16. | Ketapang        | 13,57                                    | -                                       | 13,57       |
| 17. | Bakauheni       | 6,26                                     | -                                       | 6,26        |

**Source: Regional Sectoral Statistics Data for South Lampung Regency 2022**

Merbau Mataram subdistrict, especially Baru Ranji village, has seven hamlets with the majority of people living in the village because most of them are farmers. The problem that occurs in Baru Ranji is the lack of knowledge and skills of the community in managing environmental or household waste, especially fruit and vegetable waste. The home kitchen is one of the largest producers of organic waste in daily life. This type of organic waste includes leftover vegetable pieces from tubers, fruit peels, unused pulp, or types of vegetables that are wilted. This organic waste decomposes and produces a foul smell, pollutes the environment, and releases methane gas from the decomposition of the waste.

According to Law of the Republic of Indonesia no. 18 of 2008, what is meant by waste is the remains of daily human activities and/or/natural processes in solid form. (Law No. 18 of 2008) (Wahyudin, 2017) Meanwhile, according to Minister of Home Affairs Regulation No. 33 of 2010, waste is the remains of daily human activities and/or/natural processes in a solid form consisting of household waste or similar types of household waste. Meanwhile, waste management is a systematic, comprehensive, and sustainable activity that includes planning, reducing, and handling waste.

Research related to similar research, namely regarding environmental communication, includes (Mirza Shahreza: 2020) showing that the convergence communication model in the Waste Bank program has three supporting stakeholders bringing three interests, namely, those who see the environmental theme as a source (ruler), object (government/ South Tangerang Environmental Service) and the spirit (waste bank community) which ultimately forms convergent communication, namely equal delivery and reception of messages so that there is mutual understanding and interdependence which positions the waste bank as a public space in discussing environmental themes, especially waste management issues. Likewise, according to research (Rina Susanti: 2022), communication is needed to prevent and deal with waste problems. The concrete action taken by the Nagari Sungai Pua government to contribute to the success of sustainable development was by issuing Nagari Regulation no. 18 of 2018 concerning waste. Implementation of the Nagari Regulations is the Mitra Mandiri waste collection service program in Nagari Sungai Pua which is managed by Bunmnag. As an effort to handle the impact of rubbish on rivers and riverbanks. This program has just been implemented and requires outreach to the community to join as partners. The communication used is environmental communication using mass communication with banners and personal communication by visiting people's homes. Based on observations made, communication is considered to influence waste management as seen from rivers that are clean of rubbish. Likewise, the results of research (Efni Cerya: 2021) regarding changes in personal communication behavior are more influential than mass communication. To increase knowledge, mass communication can be used, but behavior change is more influential if personal communication is used. Apart from that, people are also starting to realize the importance of maintaining cleanliness and managing household waste, such as separating waste based on type and disposing of waste at official disposal sites.

Waste management has become one of the problems that society must face. It can be seen that human activities currently cannot be separated from activities that produce waste or rubbish, both organic waste and non-organic waste. The main activity of waste management is moving waste from the source or generation to designated waste disposal sites. So far, organic materials from organic waste have not been managed and utilized optimally by the community. Organic materials from organic waste have great potential to be reused into useful goods and can have quite large economic value. In fact, in rural areas, organic waste is widely used by residents. Usually, they throw organic waste on plantation or agricultural land to be used as natural fertilizer. However, generally, they have not processed organic waste effectively and continuously. If organic waste is simply spread on agricultural land without any prior processing, then the nutrient elements in the waste cannot be optimally absorbed by plants. Therefore, there needs to be appropriate management efforts so that organic waste can become productive, useful and has economic value. Organic waste can be processed into organic fertilizer, biogas, charcoal briquettes, fish/livestock feed, handicrafts, and eco enzymes. Eco enzyme is an alternative use of organic waste into a product with high economic value and benefit value. (Rizkita et al., 2023)

To reduce the negative impact of waste on the environment, one solution to reduce waste is to use it as an Eco Enzyme. Training in making Eco Enzyme in Baru Ranji by utilizing organic waste is an effective way to encourage awareness and concern for the environment from an early age and can have a positive impact on the environment and society in Baru Ranji.

## METHODS

This research was conducted in Baru Ranji Village, Merbau Mataram District, South Lampung. The research was conducted during the implementation of the UIN Raden Intan real work lecture (KKN) program. The data collected in this research is in the form of primary data and secondary data. The primary data needed in this research relates to waste management in Baru Ranji Village. Primary data collection was carried out by direct observation in the field and interviews with parties involved in waste activities. The data collection technique was carried out by conducting interviews with village government officials, the community, and KKN students from UIN Raden Intan as companions in making coenzymes. Secondary data collection was carried out by searching for data from the South Lampung Environmental Service Agency. Secondary data includes a general description of the study area, availability of waste facilities and infrastructure, amount of waste transported, areas and population served, institutional systems, financing conditions, and regional regulations governing waste. The data that has been collected becomes reinforcing information on the information provided by the resource person through interviews. In analyzing the Environmental Communication strategy in waste utilization, qualitative descriptive analysis is used to explain the environmental communication strategy in waste utilization through assistance in making eco enzymes in the Baru Ranji village community, South Lampung.

## RESULTS AND DISCUSSION

### Environmental Communication Strategy

Household waste management is the collection, transportation, processing, recycling, or disposal of waste materials. This management can be carried out by transporting, stockpiling in the ground (covered), making compost, burning it around the house, throwing it into rivers/ditches/sea, and throwing it away carelessly. Efforts to manage household waste are categorized as good if it is carried out by transporting it (by officers), dumping it in closed ground, and making it into compost. It is categorized as not good if it is managed by burning it and throwing it anywhere, including into rivers/drains/seas/rivers (Ministry of Health of the Republic of Indonesia, 2018).

The community can play a role in managing waste produced by households, for example by recycling, sorting waste before throwing it away and throwing waste in a place that does not cause pollution or new problems. Management of household waste should be sorted before disposal, namely by sorting perishable and non-perishable waste. The behavior of households in Indonesia in sorting easily decomposable and non-decomposable waste is still low. This phenomenon also occurs in Baru Ranji Village. Based on observations and interviews, it is known that public awareness of disposing of waste at official waste disposal sites is still low. Apart from that, the low level of public awareness in managing household waste can also be seen in the ditches which are full of rubbish. (Seprianto, 2023) People's behavior in throwing rubbish into the river or burning rubbish has not changed significantly. The community's habit of burning waste is still the community's choice in managing waste. There needs to be communication and outreach carried out by related parties to provide education to the public about the importance of managing household waste in the environment.

Educational and persuasive communication to the community to protect the environment from pollution due to waste. The communication used in this research is environmental communication. (Pitriansyah et al., 2021) from an environmental communication perspective, humans always communicate about and about their environment. This interaction always occurs which is the core of the communication process. Environmental communications looks at this position. Cultural aspects, and traditions, all have a close relationship as part of interactions with this environment.

Environmental communication is not just about talking about how to protect the environment, but also about aspects of humans' ability to learn and adapt to that environment. (Wahyudin, 2017)

The message strategy in communication, namely informative and educative messages, is conveyed in activities to campaign for waste reduction and handling, namely socialization. (Jaya et al., n.d.) Message material in this socialization activity is prepared through discussions between village officials and KKN students for management and waste handling. This material was delivered to residents, namely an explanation of organic waste and inorganic waste, complete with examples through pictures. What is meant by organic waste and inorganic waste, an explanation of the negative impacts of waste that is not managed properly, such as land, air, and water pollution which will impact public health and reduce the quality of the environment, and an explanation of the benefits of waste by sorting and managing it well. through the 3R principle (reduce, reuse, recycle). (Suryandari et al., 2019)

In carrying out personal communication (R.Susanti and S Evanita, 2022) by visiting community members' homes, and providing information about the waste service program managed by KKN students. After that providing counseling with persuasive communication by providing brochures for the waste service program and also inviting the public not to throw rubbish in rivers or burning rubbish will result in air pollution or even land fires. The community is also asked to manage their waste so that a clean environment can be achieved



Picture. 1. Personal Communication Strategy in Outreach to the Community

Environmental communication is a constitutive and pragmatic means for humans' understanding of their environment and their relationship with nature. Constitutive relates to education, persuading or convincing, and awareness to help humans solve their environmental problems. Pragmatic understanding is planning, organizing, and organizing natural problems as a subject for humans.



Picture. 2. Form of Communication: Socialization of waste processing programs

One form of communication that can be done is through socialization. There needs to be socialization about how to process household waste by sorting waste and the dangers of waste to health and the environment. Apart from that, the community can participate in household waste management, either directly or indirectly. Direct community participation can be carried out by individual participation in activities that are directly related to household waste, such as activities related to the 3R principle (reduce, reuse, recycle) (Adi Prabowo et al., 2022) as the main principle in waste management household.

Before carrying out communication activities with the community, it is necessary to prepare the elements needed for this communication activity. The elements required include determining communication goals, communicators, targets, and messages. In carrying out this activity, the author conducted this research while implementing the Real Work Lecture program for UIN Raden Intan Lampung students. One of the superior programs is assistance in making eco enzymes in utilizing household waste.



Picture. 3. Group Communication Strategy

To make people understand more about the benefits of waste and how to manage waste, the communication carried out is a group communication strategy so that it is more effective if there is something that residents do not understand.

#### **Utilization of waste through making eco enzymes.**

A clean and healthy environment is an important part of sustainable development. Sustainable development is a development that considers the next generation. In principle, the concept of sustainable development is multidimensional development that takes into account the interests of future generations related to economic, social, and environmental aspects which are realized in measures of justice, comfort, and sustainability. This development has three pillars that are interconnected with each other, including economic sustainability, social sustainability, and environmental sustainability. Humans are a natural balance system where humans cannot be separated from the environment. So the role of humans in protecting the environment is very large.

The production activities carried out give rise to consumption and at the same time produce waste which hurts the environment. Environmental problems occur due to many factors, including the increasing human population resulting in piles of waste that continue to increase all the time, made worse by the lack of adequate waste disposal locations, and the lack of public understanding of the impacts of waste and waste management. Handling of household waste is not optimal and needs to be improved. Waste is still a complex problem, if it is not followed up it will have an impact on life in the future.

Waste handling in rural areas is poorly recorded because there are no rubbish bins and rubbish dumps like in urban areas. Baru Ranji Village has an unofficial rubbish dump, namely the empty land in front of SDN Baru Ranji, Merbau Mataram District, where all kinds of rubbish is piled up from the



village community which has 7 hamlets. Within a few weeks, the rubbish was only transported by the sub-district's rubbish collection van. The stench is sometimes strong and carried by the wind, the resulting air pollution also disrupts students' learning activities in the village. This can be seen that there is no public awareness of choosing organic or organic waste or it is possible that people do not understand how to choose waste so that even household waste has benefits. (Vestikowati, 2022)



Picture. 4. Accumulation of rubbish

Household organic waste occupies the largest proportion of total waste production. Every day organic waste is produced by households in Indonesia. If organic waste is not managed properly, it will cause environmental pollution and health problems, especially for people living around the waste.(Yulistia & Chimayati, 2021) As we know, organic waste that accumulates will rot and give off an unpleasant aroma, making it inviting. various disease vectors such as flies, mosquitoes, mice, and cockroaches. Apart from that, rubbish that is thrown carelessly, for example into ditches or rivers, will obstruct water flow. As a result, the rubbish piles up so that the water flow is blocked resulting in flooding. However, not all trash is useless. Several types of organic waste can still be processed so that they have ecological and economic value.

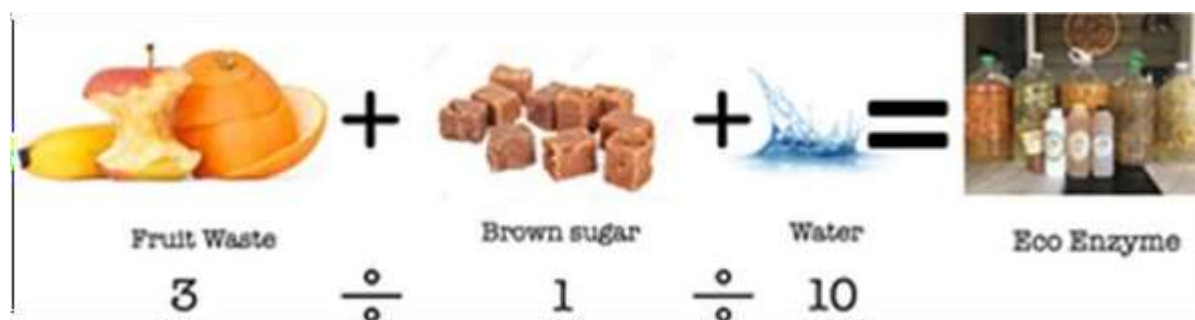
So far, organic materials from organic waste have not been managed and utilized optimally by the community. Organic materials from organic waste have great potential to be reused into useful goods and can have quite large economic value. In fact, in rural areas, organic waste is widely used by residents. Usually, they throw organic waste on plantation or agricultural land to be used as natural fertilizer. However, generally, they have not processed organic waste effectively and continuously. If organic waste is simply spread on agricultural land without any prior processing, then the nutrient elements in the waste cannot be optimally absorbed by plants. Therefore, there needs to be appropriate management efforts so that organic waste can become productive, useful and has economic value. Organic waste can be processed into organic fertilizer, biogas, charcoal briquettes, fish/livestock feed, handicrafts, and eco enzymes. The eco enzyme(Muarief et al., 2023) ) is an alternative use of organic waste into a product with high economic value and benefit value.

KKN students have the initiative to look at the environment of Baru Ranji village, including the piled up rubbish, so that it can be utilized, One of the uses of rubbish is making an eco enzyme(Nazurahani et al., 2022) namely by providing training and assistance in selecting waste and utilizing waste.



Picture. 5. Training on making an eco enzyme

Eco enzyme is often referred to as a multipurpose fluid (Ronny & Ihsan, 2022) because it can be used in household, agricultural, livestock, and industrial fields. Making eco enzyme This only uses kitchen waste at home, such as vegetables, fruit peels, and food waste. (Jelita, 2022) Examples of this use include natural cosmetic ingredients, natural medicine ingredients, floor cleaning/disinfectant ingredients, insecticides, and liquid fertilizers. which can stimulate plant hormones to improve the quality of fruit and vegetables and increase crop yields. Use as a liquid fertilizer by diluting every 30 ml of solution enzyme into 2 L of water then sprayed on the plants.(Kriswantoro et al., 2022)



Picture. 6. Stages of Making Eco Enzyme

It was felt that the implementation of training on making eco enzymes for residents was very helpful for residents to know how to process organic waste, especially that which comes from household waste. The advantage of processing organic waste into eco enzyme is that people can fulfill their need for surface cleaning fluid and household equipment independently and at a low cost.(Widhiarso et al., 2023) Another advantage is the reduction in the amount of waste that is wasted, so it can create cleaner, more comfortable, and neat environmental conditions. The resulting product, namely eco enzyme, has the potential to be sold, considering the existence of household organic waste from Baru Ranji residents which have not been utilized optimally and the other materials needed are very easy to find. The sustainability of making eco enzymes to become marketable products, of course, requires support and monitoring from village officials or local government to mobilize the community.

## CONCLUSION

The target and achievement of this activity is increasing public awareness and participation in household waste management. It is also hoped that this activity will be able to change society's paradigm from "throwing away rubbish" to "using rubbish". This change is important because it will change people's perception that waste is not something that has to be thrown away but can instead be used. Handling the waste problem should be a matter of shared concern and responsibility. Good communication with the community will also produce good results with effective delivery in the form of educational communication using personal communication, socialization communication, and group



communication. One real example of awareness of waste management is household waste management. Housewives can be the spearhead of this awareness movement regarding household waste processing. The waste problem is not something that can be solved directly from each home. However, it is hoped that early waste management will be able to reduce the amount of waste that continues to accumulate and cannot be decomposed at the final disposal site. Therefore, as far as possible, waste management must be started and managed from the smallest producing zone, namely households, one of which uses its eco enzyme. Preparation of solution eco enzyme This is simple enough that it can be done anywhere. By making iteco enzyme This means that indirectly we have implemented a sustainable lifestyle that is more environmentally friendly.

## SUGGESTION

In conducting this research, This research is still far from perfect, but the researcher is trying to maximize data collection and carry out this service process, of course, in carrying out this research, full support from village officials is needed so that accompanying the community requires the umbrella of village officials because the researcher is a party from outside the village.

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