



LOCAL GOVERNMENT POLICY IN EMPOWERING WOMEN IN HOUSEHOLD WASTE MANAGEMENT

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Abstract: Waste is the residue of human daily activities and natural processes in solid form. The waste production rate continues to increase, not only in line with population growth but also with the increasing consumption patterns of society. On the other hand, the waste management capacity conducted by both the community and local government still needs to be optimal. This research uses a normative juridical research method with a legal research approach. It employs standards using a literature review. The literature review in this research is based on legislation, books, journals, academic news media, and online sources. This research uses The legal approach to explore possible concepts and techniques. This normative legal research aims to find a general legal model for rationalizing natural resources. The Organic Village activities begin with meetings and planning within community groups at the Dasa Wisma level. In the Dasa-Wisma group meetings, a routine program is developed to conduct weekly organic and inorganic waste inventories. The challenges faced in the field are analyzed, and alternative solutions are considered. The Legok Makmur Organic Village activities start with meetings and planning within community groups at the Dasa Wisma level. The Legok Makmur activities carried out by the community association include daily organic waste counting, plant watering, processing of shredded organic waste every Sunday around noon, and receiving sales proceeds of inorganic waste from residents in exchange for goods. These topics include environmental maintenance, collaboration with club administrators, harvests, member shopping, external group members, vegetable cultivation, and poultry and fish farming. The community has the right and equal opportunity to think and actively participate in disaster management and environmental management.

Keywords: Environmental; Government; Household; Women

1. Introduction

Waste is the residue of human daily activities and natural processes that are in solid form.¹ The waste production rate continues to increase, not only parallel to population growth but also in line with the increasing consumption patterns of society. On the other hand, the waste management capacity carried out by both the community and local government still needs to be optimal. Improperly managed waste can impact the environment and the surrounding community's health.

A waste bank is a container where dry waste is collected and sorted, and it operates like a bank, but instead of money, it stores waste.² According to the Regulation of the Minister of

¹ Riswan, Henna Rya Sunoko, and Agus Hadiyanto, 'Kesadaran Lingkungan', *Jurnal Ilmu Lingkungan*, 9.1 (2015), 31–39 <<https://ejournal.undip.ac.id/index.php/ilmulingkungan/article/view/2085>>.

² Nur Hafizah and Muhammad Hidayat, 'Kreativitas Perempuan Dalam Pengelolaan Sampah Rumah Tangga Melalui Bank Sampah Unit Andalas Sepakat Kelurahan Andalas Padang', 6 (2023), 87–97.



Environment of the Republic of Indonesia No. 13 of 2012, a waste bank is a place for sorting and collecting recyclable waste that has economic value. The presence of waste banks can create an environmentally conscious community and bring benefits. These waste banks follow the principles of 3R (Reduce, Reuse, Recycle) to minimize the amount of waste. The waste collected can be creatively transformed into valuable forms that have commercial value.

Currently, only the Ministry of Environment is authorized to handle waste. However, city and rural planning organizations or non-governmental organizations can also be involved. Anyone still concerned about the environment and interested in waste management can contribute. Waste management financing will continue to be provided through the local government budget (APBD), but more is needed.

The issue of waste management only arises in large cities, resulting in the neglect of waste management in rural areas. Many rural communities still need to be aware that waste management also negatively impacts the environment. For example, many people often dispose of waste in the sea, which can damage marine ecosystems. Addressing such problems requires legal advice on waste management for urban and rural communities.

There have been several previous studies that examined women's creativity in handling household waste. The survey by Nakalama, Setyawati, and Priyo Siswanto explains that there are ways in which women can contribute to improving the environment by utilizing local potentials.

Second, a study conducted by Aditya explains that mothers living in Larangan MegaAsri apartments or housing complexes have a good understanding of waste issues, as evidenced by the existence of waste banks and activities such as waste selection and sorting. They also generate financial benefits by collecting and selling inorganic waste such as plastics, cans, etc. Third, the study by Widiyanto explains the existence of an innovative waste management called "Salin Mas" (Banyuma's Garbage Online), which is a variant implemented by the local government of Banyumas Regency initiated by the village head for waste management in the municipality and Community-Based Organizations (CBOs).

2. Research Method

This research adopts a normative juridical research method and a legal research approach. It employs the standard of using a literature review. The literature review in this study is based on legislation, books, journals, academic news media, and online sources. The legal approach is utilized in this research, exploring possible concepts and methods. This normative legal research aims to find a general legal model for rationalizing natural resources. The evolving legislation and institutions in natural resources and their sectoral egos are analyzed at the central and regional levels. Historical, legal, and conceptual approaches are employed to obtain prospective access to secondary legal materials regarding the legal status of natural resources and the environment. Primary legal materials are also utilized to gather information on specific respondents. Purposive sampling, including an online survey, mainly targeting institutions

responsible for legal aspects, is used. Tertiary legal materials, such as dictionaries, encyclopedias, and others, are also referred to as guiding legal sources.³

3. Discussion

3.1. Pattern Of Women's Empowerment Through The Village Program In Improving Women's Welfare In The City Of Magelang

a. Legok Makmur Organic Village Activities

The "Kampung Organik" (Organic Village) activities begin with meetings and planning within the community groups at the Dasa Wisma level. In the Dasa-Wisma group meetings, routine programs are developed to conduct weekly organic and inorganic waste inventory. Challenges encountered in the field are analyzed, and alternative solutions are considered. Organic waste is separated and processed into compost. On the other hand, inorganic waste is processed, and some of it is exchanged for nine staple food items.

This positive action attracts the attention of the community members. The environmental group not only expands to the Dasa Wisma but also involves the Neighborhood (RT) and Community Unit (RW) Family Welfare Movements (PKK). The group also establishes a legal and coordinated organization and obtains an official certificate at the sub-district level. This large group also creates a regular schedule as part of their program. Their success becomes a magnet for other RWs (neighborhoods) and even attracts other complaints. Legok Makmur Organic Village utilizes the "PKK SMART" concept as a waste management solution.

The Legok Makmur activities conducted by the community association involve shredding organic waste daily, watering plants, processing shredded organic waste every Sunday around noon, and receiving the sale proceeds of inorganic waste from residents in exchange for goods. The group works for approximately 10 minutes, focusing on nine essential topics during the first and third weeks. These topics include environmental maintenance, cooperation with club management, harvesting, shopping for members and external group members, vegetable cultivation, and poultry and fish farming. (1) The community has equal rights and opportunities to actively think and work in disaster and environmental management.

One distinctive feature that sets Kampung Organik Legok Makmur apart from other organic villages is the cultivation of Arabian chickens, which originated from the assistance provided by the Central Java Province through the P2KP (Accelerated Strengthening of Food Consumption Variety) program, with a grant of 47 million. The group distributed this assistance to community members through catfish and laying Arabian chicken seedlings, aiming to improve the economy of less privileged families through this cultivation. Additionally, there is a home industry that produces ginger syrup. The syrup is manufactured during exhibitions in Magelang City or during visits from other parties. This Ginger Syrup industry already has a PIRT permit from the Magelang City government. The idea behind this industry emerged due to the many syrup bottles collected by residents in the waste bank, which had a meager selling price.

b. Factors and Impacts of Legok Makmur Organic Village

Supporting Factors:

³ E Rahmi, R Mushawirya, and E Nuriyatman, 'Prospektif Omnibus Law Bidang Sumber Daya Alam', *Bina Hukum Lingkungan*, 2021 <<http://bhl-jurnal.or.id/index.php/bhl/article/view/170>>.

- There is a spirit, motivation, and commitment from the residents of Kalisari Wates to manage waste in a way that can be beneficial.
- The empowerment activities are relatively easy to finance as they rely on household waste generated daily.
- There is participation from the residents to engage in community activities.
- Visits from both within and outside the Magelang City area provide encouragement and enthusiasm for the Legok Makmur community in developing empowerment, environmental improvement, and waste management awareness.
- The strong commitment from the Magelang City Government to enhance environmentally conscious development that involves its community.

Inhibiting Factors:

- Residents' awareness of separating waste for economic value still needs to be higher, as residents still dispose of garbage in temporary dumping sites (TPS).
- The availability of yard space for cultivation is still limited

Positive Impacts of Legok Makmur Organic Village:

- Residents become active, creative, and independent in waste management.
- The environment becomes clean due to efforts in waste management.
- Contributing to the achievement of the Adipura Kencana Trophy in 2014.
- Acquiring knowledge in gardening, composting, handling inorganic waste, and others.
- Being able to enjoy self-grown vegetables.

Negative Impacts of Legok Makmur Organic Village:

The negative impact is a strong influence that brings about negative consequences due to implementing Kampung Organik Legok Makmur. However, the author believes that there are no negative impacts arising from waste management empowerment efforts. This is evident from the ongoing waste management activities carried out by PST Legok Makmur. The enthusiastic participation of the residents in waste management is also apparent.⁴

c. Coordination with Local Government

It is necessary to support the smooth operation of the organic village activities to coordinate with the City Government. Therefore, the Magelang City Government has formed a special moderation team to assist in interacting with waste management. There are 21 moderators, with 17 facilitators at the neighborhood level, three at the sub-district level, and one at the city level. The cleanliness of Magelang City is nominated for the Adipura Kencana award, partly due to the growing organic village with the community's involvement as an innovation that has now spread almost everywhere, especially in Legok Makmur Organic Village as a role model. The Magelang City Environmental Agency conducts socialization regarding waste management policies, technical guidance on waste management, and waste recycling training. Usually, these socializations or activities are undertaken only occasionally but once every three months. The

⁴ Dyah Ayu Risky Paramitha and Budi Setiyono, 'Pola Pemberdayaan Perempuan Melalui Program Kampung Organik Dalam Meningkatkan Kesejahteraan Perempuan (Studi Kasus Paguyuban Perempuan Pengelola Sampah Terpadu Legok Makmur Di Kelurahan Wates, Kecamatan Magelang Utara, Kota Magelang)', *Journal of Politic and Government Studies*, 08.03 (2019), 1–13.

goal is to train residents to participate in cleaning the environment through 3R-based waste management (reduction, reuse, and recycling).

In addition, this Organic Village program also coordinates with the sub-district level, as some of the facilitators come from the sub-district class. The Magelang Utara sub-district and the Legok Makmur Integrated Waste Management Women's Association are involved through the sub-district, acting as the coordinator. This is because the Legok Makmur Organic Village is located in the Magelang Utara sub-district, and there are facilitators at the sub-district level who then oversee the activities at the neighborhood level, especially in the Wates neighborhood.⁵

3.2. Government policy on household waste management

1. Impact Of Household Waste

On the contrary, according to Government Regulation No. 81 of 2012, waste generated from daily household activities does not include fees and hazardous waste². The sources of household waste are as follows:

a. Organic waste

According to the chemical definition, organic waste contains carbon (C) elements, including waste from living organisms (such as animal and human excrement). It contains pathogenic microorganisms, urine (usually nitrogen and phosphorus), food scraps (vegetable waste, carrots, cabbage, spinach, lettuce, etc.), paper, cardboard, cartons, dishwater, used cooking oil, etc. Some of these wastes are highly toxic; Pharmaceutical residues use batteries and battery acid. Regarding domestic waste management, waste is classified as (B3), which means hazardous and poisonous substances. Bathing water may contain pathogens or biological contaminants such as bacteria, fungi, viruses, etc. However, technically, some people define organic waste as waste that only comes from living organisms (of course) and is readily biodegradable. This means natural organic materials are difficult to decompose and degrade. Such as paper and synthetic organic materials (human-made) that are difficult to stain or rot.

b. Inorganic waste,

It refers to waste not containing carbon elements, such as metals (e.g., iron from used cars or tools, aluminum from cans or discarded household appliances), glass, and inorganic fertilizers (containing nitrogen and phosphorus). This waste does not contain carbon elements. Thus, microorganisms cannot decompose it. Like organic waste, the commonly applied definition of inorganic waste, especially in solid form (garbage), may slightly differ in practice. Based on the above description, technically, inorganic waste means waste that cannot be broken down or is only challenging to decompose naturally by decomposing microorganisms. In this context, organic materials such as plastics, rubber, and paper are also inorganic waste. Microorganisms find it challenging to deteriorate these materials due to their complex and lengthy chemical chains. Classification of solid waste is carried out into six groups according to technical terms:

⁵ Rosmidah Hasibuan, 'Analisis Dampak Limbah/Sampah Rumah Tangga Terhadap Lingkungan Hidup', *Jurnal Ilmiah 'Advokasi'*, 04.01 (2016), 42–52 <<https://www.google.com/search?client=firefox-b-d&q=jurnal+issn+rosmidah+hasibuan>>.

1. Organic waste: Semi-wet solid waste consisting of organic materials that can decompose.
2. Inorganic and non-degradable waste (garbage): Solid waste that is either inorganic or organic but sufficiently dry and difficult to decompose by microorganisms, such as paper, plastic, glass, and metal.
3. Ash waste: Solid ash waste is primarily generated from combustion.
4. Animal remains All waste materials in the form of animal carcasses.
5. Road sweeping waste: Solid waste resulting from street sweeping, which includes various scattered debris on the roads.
6. Industrial waste: Solid waste generated by industrial activities.

c. Determination of sample management policies and strategies

The Waste Management Law regulates that the formulation of national waste management policies and strategies is the responsibility of the central government. However, local governments also have the power to establish their waste management policies and procedures within their respective jurisdictions as long as they are "consistent with the overall policy." The policies and strategies of districts/cities should be implemented based on provincial policies, and these should be implemented based on national guidelines. It can be seen that the central government and the districts play a leading role in guiding local governments/cities in waste management. Something similar is also mentioned in Government Regulation No. 81 of 2012 on Household Waste Management and Household Waste (PP No. 81/2012).

For district/city governments, besides formulating and establishing policies, they should also pay attention to waste management strategies. District/city governments must prepare master plan documents and feasibility studies for domestic and household waste disposal, intended for a minimum ten-year period of ten years⁵. This master plan serves as a space for regional innovation, identifying and selecting appropriate upstream and downstream waste treatment options, ranging from waste reduction measures to financing.⁶

d. Donggala Regent's Regulation on Regional Strategies, Targets, and Programs for Reducing and Handling Household Waste and Household-like Waste

The strategy for reducing Household Waste and Similar Waste to Household Waste referred to in Article 2 (1) letter b includes:

- Implementing norms, standards, procedures, and criteria in reducing Household Waste and Similar Waste to Household Waste;
- Strengthening coordination and cooperation between provincial and district/city governments;

⁶ Margaretha Quina, Fajri Fadhillah, and Angela Vania, 'Kewenangan Pemerintah Daerah Dalam Pengelolaan Sampah Sumber Kewenangan Pemerintah Daerah Dalam Penyusunan Peraturan Pembagian Kewenangan Dalam Pengelolaan Sampah', *Kertas Kebijakan*, 2 (2019), 1–13 <<https://icel.or.id/wp-content/uploads/190730-Lembar-Informasi-2-Kewenangan-Pemda-dalam-Pengelolaan-Sampah.pdf>>.

- Strengthening the commitment of executive and legislative institutions at the central and regional levels in providing budgets for reducing Household Waste and Similar Waste to Household Waste;
- Enhancing leadership capacity, institutional capacity, and human resources in efforts to reduce Household Waste and Similar Waste to Household Waste;
- Establishing an information system;
- Strengthening community involvement through communication, information, and education;
- Implementing and developing incentive and disincentive systems in reducing Household Waste and Similar Waste to Household Waste;
- Strengthening the commitment of the business world by implementing producer responsibilities in reducing Household Waste and Similar Waste to Household Waste.

3.3. Creativity woman in household waste management

Creativity Solar Biodigester In Andalas Padang Sub District

This research utilizes the normative legal research method within the framework of normative legal research and library research. The literature review of this research is based on legislation, books, scientific journals, and online media or news sources. The research method is a legal approach, including conceptual and future-oriented systems. This normative legal research also discusses historical, legal, abstract, and prospective strategies, all of which aim to explore secondary legal materials regarding the legal status of natural resources and the environment. Primary legal materials are also used to obtain information from target interview respondents through online questionnaires, particularly for legislative authorities and institutions related to legal aspects. Additionally, tertiary legal materials provide guidance, such as dictionaries, encyclopedias, and others.

Leisure is one of the ways for women in the Andalas region to spend their free time at home by participating in creative waste recycling activities, where women see the potential in their participation that benefits themselves and the wider community. They can contribute positively to society through innovative waste management and involvement in programs organized by the Andalas Sepakat Waste Bank Unit.

Based on the interview results, it can be concluded that the creativity of the solar biodigester fills their leisure time. The mothers themselves perform this creative activity at home. It involves processing waste using a device by adding decomposed organic waste (easily degradable waste), which is then processed using a solar biodigester using sunlight. This device's output is compost, which can be used as plant fertilizer. Based on field observations, several households receiving carbon from the PLTS (solar power plant) are customers of the Andalas Sepakat waste management unit. The existence of this waste management creativity program provides positive feedback for women working in this field because it offers a good understanding of waste management through its socialization, facilitation of activities through the Andalas Waste Bank Program, and government support.⁷

⁷ Hafizah and Hidayat.

Processing of Plastic Waste Through Ecobrick Product Creativity in Baron Village

The training and mentoring of Eco-Bricks production in Baron Hamlet are carried out as part of one of the thematic work programs of Community Service (KKN), namely "Training in Inorganic Waste Management (Eco-Bricks)." The tools and materials needed to make eco-bricks are specifically beverage bottles, especially 1.5-liter bottles, household plastic waste, tape, and wood to compress the plastic waste into a solid form. The plastic bottles and household plastic waste are sourced from the destruction of the residents of Baron Hamlet, which were previously not processed.

The activity starts with socialization with Baron Hamlet's residents and providing information about the benefits of transforming plastic waste into a new and valuable product, such as eco-bricks. Ecobricks are an alternative method for processing plastic bottles and household plastic waste that residents would otherwise discard or burn. This approach reduces the environmental impact of plastic waste since it is used for bottling and eliminates the need for steaming, disposal, or sending it to a landfill. The mission of Ecobrick is not to destroy plastic waste but to recycle and transform it into something valuable for use and sale. The production of eco-bricks does not require special skills and involves minimal costs, as the main component is household plastic waste. Eco-bricks can be made at any time, individually or with others. The creative aspect of eco-brick products can be realized through home furniture such as tables, chairs, and buildings. When implemented in Baron Hamlet, the onboarding and mentoring process includes sorting plastic bottles for eco-brick work, sorting the waste for filling the plastic bottles, sorting bottle caps when they are filled, combining or assembling the bottles, and then combining or making them into round or hexagonal shapes. Alternatively, the bottles can be combined according to each individual's creativity.⁸

Women's Participation In Waste Management Economic Value And Based On Local Wisdom

Women's participation in waste management in Sitimulyo village manifests through their contribution and involvement in various stages of waste management, including planning, implementation, and program evaluation. Women actively participate and assist in collecting, sorting, and processing waste. Their participatory skills and abilities encourage different companies to involve women in Sitimulyo village. There are six forms of participation, which represent different levels of individual involvement. Relevant examples of participation include waste collection, processing, and selection, where community members can actively engage in these activities. Based on the types above of participation, the participation outcomes achieved by community members can be categorized into two forms: tangible and intangible. The actual form includes labor, financial contributions, and knowledge, while the ethereal form encompasses ideas and social participation. Women's involvement in household waste disposal activities in Sitimulyo village can be observed in every stage, including planning, implementation, and enjoying the results.

⁸ Patria Sandy Putra Leria and others, 'Pengolahan Sampah Plastik Melalui Kreativitas Produk Ecobrick Di Dusun Baron, Muntilan, Magelang', *Community Empowerment*, 5.1 (2020), 11–15 <<https://doi.org/10.31603/ce.v5i1.3130>>.

It is known that most women in Sitimulyo village have a high level of participation. However, a low proportion of women have moderate and increased involvement. Many women, particularly mothers, in Sitimulyo village are actively involved in waste bank management and participate in various activities. The low participation of women in the implementation stage is due to several reasons, as mentioned earlier. Many women feel that the socialization regarding household waste management activities conducted by waste bank administrators and neighborhood leaders still needs to be improved. The implementation of waste management can be seen through their involvement in contributing money and labor, depositing waste in the waste bank, sorting waste, filling out the waste savings book, participating in recycling craft activities, and making compost. The training that women or mothers in Sitimulyo village most experience is depositing waste in the waste bank. Organic waste, which is readily biodegradable, is processed and utilized, such as making compost from living organisms. Compost goes through a sorting process based on its type, as not all waste materials can be used in compost production. Compost derived from organic and green waste will aid in the decomposition process.⁹

4. Conclusion

Legok Makmur Organic Village Activities The "Kampung Organik" (Organic Village) activities begin with meetings and planning within the community groups at the Dasa Wisma level. The Legok Makmur activities conducted by the community association involve shredding organic waste daily, watering plants, processing shredded organic waste every Sunday around noon, and receiving the sale proceeds of inorganic waste from residents in exchange for goods. These topics include environmental maintenance, cooperation with club management, harvesting, shopping for members and external group members, vegetable cultivation, and poultry and fish farming. (1) The community has equal rights and opportunities to actively think and work in disaster and environmental management. One distinctive feature that sets Kampung Organik Legok Makmur apart from other organic villages is the cultivation of Arabian chickens, which originated from the assistance provided by the Central Java Province through the P2KP (Accelerated Strengthening of Food Consumption Variety) program, with a grant of 47 million.

Organic waste According to the chemical definition, organic waste is any waste containing carbon (C) elements, including waste from living organisms (such as animal and human excrement). However, technically, some people define organic waste as waste that only comes from living organisms (of course) and is readily biodegradable. b) Inorganic waste refers to waste that does not contain carbon elements, such as metals (e.g., iron from used cars or tools, aluminum from cans or discarded household appliances), glass, and inorganic fertilizers (containing nitrogen and phosphorus). Based on the above definition, technically, inorganic waste means waste that cannot be broken down or is only challenging to decompose naturally by decomposing microorganisms.

⁹ E Yuningtyas Setyawati and R Sapto Hadi Priyo Siswanto, 'Partisipasi Perempuan Dalam Pengelolaan Sampah Yang Bernilai Ekonomi Dan Berbasis Kearifan Lokal', *Jambura Geo Education Journal*, 1.2 (2020), 55–65 <<https://doi.org/10.34312/jgej.v1i2.6899>>.

This research utilizes the normative legal research method within the framework of normative legal research and library research. They can contribute positively to society through creative waste management and participation in programs organized by the Andalas Sepakat Waste Bank Unit. The existence of this waste management creativity program provides positive feedback for women working in this field because it offers a good understanding of waste management through its socialization, facilitation of activities through the Andalas Waste Bank Program, and government support⁸

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