



Waste bank in strengthening the healthy living community movement (GERMAS) during the COVID-19 pandemic



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Manuscript submitted: 17 January 2022, Manuscript revised: 01 April 2022, Accepted for publication: 07 May 2022

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Keywords

COVID-19;
health;
healthy living community
movement;
waste bank;
waste management;

Abstract

The purpose of this study is to investigate the effectiveness of waste banks in strengthening the Healthy Living Community Movement (GERMAS) during the COVID-19 pandemic. This study is a qualitative descriptive study that analyzes waste management through the waste bank program in strengthening the Healthy Living Community Movement (GERMAS) during the COVID-19 pandemic, as well as a review of pertinent legislation and regulations. This article is based on secondary legal materials, such as books, journals, essays, and other written works from print and digital media, as well as field occurrences. The findings revealed that community-based waste management is a waste management technique that relies on the active participation of the community. The government and other institutions only serve as motivators and facilitators. Savings and loans, paying for electricity with garbage, caring for the environment, and recycling are all advantages of a waste bank. This suggests that the Waste Bank, as a source of community assistance, has the potential to improve socioeconomic conditions while also empowering the community in waste management and strengthening the GERMAS program during the COVID-19 Pandemic.

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1 Introduction

The Germas (healthy living community movement) is a frontline program in President Joko Widodo's government to develop better Indonesian human resources. According to Presidential Instruction (Inpres) Number 1 of 2017 regarding the Healthy Living Community Movement, Germas is a systematic and planned action carried out collaboratively by all components of the nation with awareness, willingness, and ability to behave healthily to improve the quality of life (Daniati et al., 2020). Germas is based on the concept of multi-sectoral and integrated control. To boost population productivity and reduce the burden of financing health services owing to disease, Germas must be instilled to accelerate and synergize promotional and preventative activities for healthy living, one of which is waste management (Karno & Sulaiman, 2021). The central government's role and support (commitment), local governments' engagement, professional organizations, community organizations, and the private sector (business world) all play a role in the success of Germas implementation in the community. Germas' primary activities are organized into six clusters, which are as follows (Dewi & Tobing, 2021):

- Increased physical activity;
- The improvement of healthy living behavior;
- Providing healthy food and accelerating nutrition improvement;
- The improvement of disease prevention and early detection;
- The improvement of environmental quality; and
- The improvement of education on healthy living.

One of the points in this research is enhancing healthy living behavior and environmental quality through adequate and correct waste management, which is based on Germas' six key activities (Ahmad, 2022). Garbage will persist indefinitely as long as life activities continue. Every year, the volume of waste will undoubtedly expand in tandem with society's increasing materialism. The amount of garbage produced in Indonesia fluctuates, according to data received from the Ministry of Environment and Forestry (Itasari, 2020). In 2019, Indonesia generated 29.14 tons of garbage, which is expected to rise to 32.82 tons in 2020. Indonesia generated 21.88 tons of garbage in 2021 (Erviana, 2017). The COVID-19 pandemic condition also increases the volume of trash generated by patient handling operations, whether in referral institutions or quarantine and residential areas. This pandemic condition has triggered the use of personal protective equipment from exposure to the COVID-19 virus infection, such as used masks, used gloves, used bandages, used tissues, used food and beverage packaging, as well as used personal protective equipment, which increases and creates new problems, namely medical waste. COVID-19 infections are not only generated from hospitals, but also the community or households (Bryson, 2021).

These facts and conditions reveal that waste is always a concern, with an increase in waste every year. If this issue is not handled soon, it will have an impact on both health and the environment (Kartika, 2016). According to Article 28H of the 1945 Constitution of the Republic of Indonesia (UUD NRI 1945), the right to a good and healthy environment is a type of human right, namely: "Everyone has the right to live in physical and spiritual prosperity, to have a home and have a good and healthy living environment and have the right to health services" (Soekanto, 2014). In-Law Number 32 of 2009 concerning Environmental Protection and Management (UU PPLH) (Sulaiman, 2018), it is regulated the right of everyone to a good and healthy environment (Haines et al., 2006; McMullan, 2006). Based on this arrangement, the environment and health are fundamental problems to be resolved by the government regarding waste management as a manifestation of the main tasks of community-based Germas (Fauzi et al., 2021).

Law Number 18 of 2008 concerning Waste Management (hereinafter referred to as the Waste Management Act) and Government Regulation Number 81 of 2012 concerning Management of Household

Waste and Types of Household Waste (hereinafter referred to as PP on Household Waste Management) mandates the need for a fundamental paradigm shift in waste management, namely from the collect-transport-dispose paradigm to processing that relies on waste reduction and waste management (Joob & Wiwanitkit, 2020). It is time for the paradigm of waste management that relies on the final approach to be abandoned and replaced with a new paradigm, namely a paradigm that considers waste as a resource that has economic value and can be utilized (Ilczak et al., 2021). Waste management can be carried out with a comprehensive approach, starting from upstream, namely since a product that has the potential to become waste has not been produced and continues downstream, namely in the phase where the product has been used, so that it becomes waste which is then returned to the environmental media safely (Yuliartini & Mangku, 2020). Waste reduction activities seek to enable all levels of society, including the government, business, and the wider community, to carry out activities to limit waste generation, recycle, and reuse waste, also known as Reduce, Reuse, and Recycle (abbreviated 3R) through the following efforts: intelligent, efficient, and planned efforts. However, this 3R activity still faces a huge challenge, mainly the community's lack of understanding of waste sorting (Roder-DeWan, 2020).

As a response to this challenge, the Ministry of Environment is working to establish a Waste Bank. Creating a Waste Bank is a social engineering activity that teaches individuals how to sort rubbish and develops public awareness about waste management (Mashdurohatun & Rasia, 2017). The role of the waste bank, on the other hand, is to create public awareness about waste management. The program's goal is to limit the amount of waste delivered to the Final Disposal Site (TPA). The establishment of this waste bank is the first step in raising community awareness about the importance of garbage sorting, recycling, and utilization (Aeni, 2021). This understanding is critical since waste has a resale value, and ecologically conscious waste management can create a new Indonesian culture (Calabrò & Grosso, 2018; Guerrero et al., 2013; Sharholy et al., 2008).

The establishment of a waste bank must be integrated into the 3R program movement so that residents can reap immediate benefits, not only monetarily, but also in terms of environmental health, with clean, green, comfortable, and healthy community conditions (Fikri, 2021). With the publication of the PP on Household Waste Management, the role of the waste bank became more prominent. The PP requires the existence of a waste bank, therefore, producers collaborate with existing waste banks to manage waste from their products (Wijayanti & Suryani, 2015; Indrianti, 2016; Kim, 2004). Thus, the role of trash banks can both enhance Germas in the community and aid in the society's economic resilience during the COVID-19 pandemic (Song & Zhou, 2020).

2 Materials and Methods

Based on the Presidential Instruction (Inpres) Number 1 of 2017 concerning the Healthy Living Community Movement, it is stated that Germas is a systematic and planned action that is carried out jointly by all components of the nation with awareness, willingness, and ability to behave healthily to improve the quality of life (Malik et al., 2021). Germas is built on the concept of integrated and multi-sectoral control. Waste Bank is a facility for managing waste with 3R principles, as a means of education, behavior change in waste management, and the implementation of a Circular Economy, which is formed and managed by the community, business entity, and/or local government (Ramimpi & Setiyono, 2022). Waste Management at the Waste Bank has the intention that comprehensive waste management needs to be carried out in an integrated manner from upstream to downstream with a circular economy approach by the central government, regional governments, and the community so that it can provide economic benefits, guarantee health for the community, and be safe for the environment as regulated in the Regulation of the Minister of Environment and Forestry Number 14 of 2021 concerning Waste Management in Waste Banks (Soekanto, 1984).

In solving the formulation of the problem raised, the research method used is normative or doctrinal legal research with a juridical-normative approach. The normative legal research method uses existing library materials research methods (Abdurrahman, 2009). Research data collection was carried out using secondary legal materials in the form of books, journals, articles, and other written works, both from print and internet media related to this research (Kunderevych et al., 2022). Because this research is normative, the data collection technique used was the study of documents or library materials, and the legal material analysis technique used was the deduction technique (from general to specific) and interpretation (interpretation)

which aimed to analyze existing legal materials. Data analysis was carried out using qualitative analysis techniques (Ozili & Arun, 2020). This technique is intended to answer the problem of how to manage community-based waste and the benefits of the waste bank program in strengthening the healthy living community movement (GERMAS) during the COVID-19 pandemic (South, 2014).

3 Results and Discussions

It should be noted that rising community demands, particularly during the COVID-19 pandemic and government policies, have increased the usage of masks, including medical masks at the household level (Alfarel et al., 2021). This circumstance generates a new issue with garbage mounds, both ordinary household waste and contagious medical mask waste, which is one of the wastes generated by families during a pandemic. As a result, amid the COVID-19 pandemic, a collaborative role between the government and the community in waste management is required to give economic value to the community as well as a good and healthy environment (Mangku et al., 2020).

Community-based waste management

Hygiene management includes waste management. In essence, the definition of clean includes not only the absence of waste but also the knowledge that leads to an aesthetic perspective. Three major concerns in waste management must be carefully considered (Genta & Sarjana, 2016):

- Identification of the existing waste management system condition;
- Good and correct definition in terms of waste management; and
- The pattern of training and development policies.

Therefore, waste management can be interpreted as all activities carried out to handle waste from the time it is generated to its final disposal. Broadly speaking, waste management activities include controlling the waste generation, waste collection, transportation, processing, and final disposal (Antin et al., 2020).

The Waste Management Law and the Government Regulation on Household Waste Management mandate the need for a fundamental paradigm shift in waste management, namely from the collect-transport-dispose paradigm to processing that relies on waste reduction and waste management (Utama et al., 2020). Now is the time to leave the waste management paradigm that relies on the final approach and replace it with a new paradigm, namely a paradigm that considers waste as a resource that has economic value and can be utilized. Waste management can be carried out with a comprehensive approach (Anggreni et al., 2019), starting from upstream or since a product that has the potential to become waste has not been produced and continues downstream, i.e. in the phase where the product has been used. Thus, the waste can be returned to the environmental media safely.

Waste management is not only difficult but also extremely complex. This is since waste management encompasses technological, economic, and societal aspects. The waste management system is a waste management procedure that consists of 5 (five) components. Because these five factors are inextricably linked and will constitute a single unit, attempts to improve waste management must encompass several systems. These are the elements (Mangku, 2018):

- Institutional aspects;
- Financing;
- Settings;
- Operational techniques; and
- Community participation.

These five aspects are the initial prerequisites so that solid waste management can be carried out properly. One aspect to another is closely related and mutually supportive. Institutions function as drivers and

implementers so that the entire system can operate properly. Financing that includes budget and sources of funds can support operational needs. Meanwhile, the community as waste producers plays a role in reducing waste accumulation and in providing funds. Another thing that is no less important is regulatory support which is the legal umbrella so that the system can achieve its goals effectively. In Article 11 paragraph (1) letter b of the Waste Management Law, it is stated that the community participates in the decision-making process, implementation, and supervision in the field of waste management. Thus it can be said that the role of the community is very important in waste management as a form of strengthening Germas during the COVID-19 pandemic as well as helping to strengthen community economic resilience during the crisis due to the COVID-19 pandemic (Greenberg et al., 2020).

Community-based waste management is an approach to waste management that is based on the active participation of the community (Mosolov, 2020). The government and other institutions only act as motivators and facilitators. Environmental management requires the facilitation and implementation of community-based efforts as a strategy for empowering and increasing their access to important environmental resources (Hesti, 2020), especially land, infrastructure, and services. Community-based waste management is very important because these activities are carried out by community members themselves. However, community-based waste management often fails due to low household participation. If waste management is not considered a necessity, it will result in low participation and willingness to pay (Sukadaryati & Andini, 2021). Community-based waste management activities can continue if there is a change in the behavior of residents who manage their waste independently, accompanied by community organizing (Mangku et al., 2020).

The 3R waste management approach opens new views and insights for the community in managing waste. Waste is no longer seen as a useless item but can be used as something of added value through a 3R approach. Therefore, community involvement to participate in recycling activities is very necessary, both as producers and as members of the waste-producing community (Urkidí & Walter, 2011). Waste will have economic value if it is an insufficient quantity to be traded or further processed as economic goods (Awaliyah et al., 2020). If the community as a waste producer takes part in waste management, for example by accommodating and marketing waste, then this will require a container. In this example, the Waste Bank serves a vital function by providing a haven for the community and improving socioeconomic conditions while also empowering the community in waste management (Widyastuti et al., 2021). Furthermore, the Waste Bank serves as a vehicle for the reforestation movement. Waste management through the Waste Bank can also serve as a way of community education. The Waste Bank technique empowers the community to care about cleanliness and health (World Health Organization, 2020).

The benefits of the waste bank program in strengthening the healthy living community movement (GERMAS) during the COVID-19 pandemic

The COVID-19 pandemic has an impact on all elements of life, from the tiny to the major scale, including health and economic issues, which ultimately affect the entire world. The International Monetary Fund (IMF) expects that the world economy would contract by -3 percent and may even worsen depending on how long the COVID-19 outbreak lasts (Bryson, 2021). The COVID-19 epidemic has such a broad impact that it impacts all elements of social, health, and economic conditions (Ardiyanto et al., 2020). To address this issue, all elements of the government and the community must work together to increase resilience in the health and economic domains by developing initiatives that can stimulate the economy and have an impact on improving health care. As a stimulant to strengthen healthy living, the government in handling the anticipation of the spread of COVID-19 has issued various policies, one of which is the Germas program (Gupta et al., 2020).

Germas is the vanguard program in the era of President Joko Widodo's administration to build superior Indonesian human resources. Based on the Presidential Instruction (Inpres) Number 1 of 2017 concerning the Healthy Living Community Movement, it is stated that Germas is a systematic and planned action that is carried out jointly by all components of the nation with awareness, willingness, and ability to behave healthily to improve the quality of life (Whitsel & Johnson, 2022; Morgan et al., 2014). Germas is built on the concept of integrated and multi-sectoral control. Cultivating Germas is needed to accelerate and synergize promotive and preventive efforts for healthy living so that population productivity can increase and the burden of financing health services due to disease can decrease, one of which is through waste management programs. The role

and support (commitment) of the central government, local governments, as well as professional organizations, community organizations, and the private sector (business world) also determine the success of Gernas implementation in the community.

The pandemic situation has also compelled the government to make every effort to aid the development of the creative economy amid the COVID-19 pandemic, specifically by converting communal garbage into goods of economic value. Based on the concepts of Gernas and waste management, the two concepts can be combined to form an effective program known as the Waste Bank program amid a pandemic. Waste Banks have numerous strategic benefits, including aiding in the cleaning of the environment, which is the primary goal of the Gernas initiative, as well as building economic resilience in communities affected by the COVID-19 outbreak (Yasa, 2022).

The waste bank was founded in response to public concern for the environment, which is becoming increasingly polluted by waste, which will only exacerbate the situation. As a result, the processing is required, such as converting trash into useable commodities. Waste processing through a waste bank system is anticipated to help the government handle waste while also improving the community's economy (Hardanto et al., 2021). The foundation of the Waste Bank is intended to aid with waste management in Indonesia. The next goal is to raise public awareness of the importance of a healthy, quick, and clean environment. Waste Banks were also formed to convert waste into something more beneficial to society, such as handicrafts and economically valuable fertilizers. A waste bank is a location where various types of rubbish can be collected and sorted before being put in an environmental workshop (Mangku & Firdaus, 2022). The waste deposit results will be saved, and savings can be withdrawn within a particular time frame by following banking principles. As a result, each rubbish depositor will receive a passbook.

Waste Bank, when implemented, has the potential to minimize the high volume of waste in the community and at final disposal locations (hereinafter referred to as TPA). As a result, the amount of garbage generated in the community and landfills can be minimized. Waste Bank Management abides by the standards outlined in the Waste Management Law, which incorporates the 3R principle. The Trash Bank's independent waste management program is currently an alternate answer for the government and community in lowering the increasing volume of waste that is becoming uncontrollable (Geovanie et al., 2022).

Community-based waste management as an approach to waste management is based on the active participation of the community. The government and other institutions only act as motivators and facilitators. Environmental management requires the facilitation and implementation of community-based efforts as a strategy for empowering and increasing their access to important environmental resources, especially land, infrastructure, and services (Sudiatmaka & Hadi, 2021).

Community-based trash management is critical since these actions are carried out by members of the community themselves (Mangku, 2021). Unfortunately, due to minimal household participation, community-based trash management frequently fails. If waste management is not regarded as a need, involvement and willingness to pay will be low. Community-based waste management initiatives can continue if residents who handle their garbage autonomously with the support of community organizations change their behavior. The following are some of the advantages that can be achieved and expanded via the administration of this trash bank program (Haris & Tantimin, 2022):

- Savings and loans. Similar to the waste bank mechanism, in social lending, savings and loans are efforts to save with waste or borrow money with a return system in the form of waste.
- Pay for electricity with trash. This is intended to empower the community to be able to solve existing problems.
- Obtain medical treatment with waste. This benefit is one form of the waste bank program as an effort to empower the community. It is hoped that by obtaining medical treatment through this waste, the community will be able to know and use the facilities according to their existing potential.
- Caring for the environment is a form of unity and unity among citizens. Community development is demonstrated by environmental awareness programs among Indonesian citizens. With environmental care, people can solve problems that exist in their environment.
- Recycling is the process of converting waste into a usable and cost-effective craft.

In addition to the five benefits mentioned above, there is still a lot of potentials that can be developed from this waste bank program through collaboration with related parties, so that the community becomes more empowered with increased income (Arianta et al., 2020).

Waste will have economic value if it is in sufficient quantity to be traded or further processed into economic goods. If the community participates in waste management, for example, by tolerating and marketing waste, an organization will be required (Arifin & Lestari, 2019). In this scenario, the Trash Bank plays a significant role in providing a haven for the community, improving socioeconomic conditions, and empowering the community in waste management. Aside from being a means of carrying out a reforestation movement, waste management through the Waste Bank can also be a means of educating people to value saving for the community. The Waste Bank approach also empowers individuals to care about hygiene, which aids in the strengthening of Germas during the COVID-19 pandemic (Hesti, 2020).

Based on the above, the Waste Bank educates the public on waste sorting and develops public awareness about waste management to reduce waste carried to the TPA (Yuliartini & Pramita, 2021). Furthermore, residents who submit waste will receive additional revenue for economic independence, which may be utilized for savings and lending enterprises such as cooperatives, with low interest so that waste bank finances can be rotated and expanded, as well as environmental health realized (Pramita et al., 2022).

4 Conclusion

In response to the findings of the previous research and discussion, it can be concluded that waste management can be defined as all activities carried out to handle waste from the moment it is generated to its final disposal. The waste management system is a waste management method that consists of five (five) components: institutional elements, funding, settings, operational procedures, and community participation. Community-based waste management is a waste management technique that relies on the active engagement of the community. The government and other institutions only serve as motivators and facilitators. Environmental management necessitates the promotion and execution of community-based efforts as a method for empowering and expanding access to critical environmental resources, including land, infrastructure, and services. Savings and loans, paying for electricity with garbage, seeking medical care with waste, caring for the environment, and recycling are some of the advantages of a waste bank. This suggests that the Waste Bank is a way for the community to shelter, improve socioeconomically, and empower the community in waste management while also strengthening the Germas program during the COVID-19 Pandemic.

Acknowledgments

The authors would like to express gratitude to the Chancellor and Vice-Chancellor of Wijayakusuma University and Ganesha University of Education for allowing the authors to conduct the research. The authors also acknowledge the relevant ministries that have assisted researchers in conducting this research. Hopefully, this research will be beneficial to science. We appreciate all criticism, suggestions, and constructive input for the improvement of this research paper.





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