

THE EFFECTIVENESS OF THE DEVELOPMENT AND MANAGEMENT OF THE MOTEKAR WASTE BANK IN CIGEMBOR URBAN VILLAGE, CIAMIS DISTRICT, CIAMIS REGENCY

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Abstract

This study was motivated by the suboptimal effectiveness of the development of the Motekar Waste Bank management in Cigembor Village, Ciamis District, Ciamis Regency. The objective of this study was to examine the effectiveness of the development of the Motekar Waste Bank management in Cigembor Village, Ciamis District, Ciamis Regency. This study employed a qualitative research method involving seven informants. Data were collected through a literature review, field studies (observations and interviews), and documentation. The data were analyzed using qualitative data analysis techniques by processing the findings from interviews and observations to draw conclusions that addressed the research problems. The results indicate that the effectiveness of the development of the Motekar Waste Bank management has not yet been optimal. This is reflected in the low level of community participation, inadequate facilities and infrastructure, suboptimal management and institutional guidance, and the limited implementation of socialization and educational activities related to waste management. In addition, limited human resources and insufficient operational support have also hindered the development of the waste bank. Therefore, increasing community participation, strengthening institutional capacity, providing adequate supporting facilities, and enhancing continuous guidance and coordination are essential to improve the effectiveness of the Motekar Waste Bank management in supporting sustainable waste management and environmental conservation.

Keywords: Effectiveness, Development, Management, Waste Bank.

A. INTRODUCTION

To accelerate rural and urban development, strengthen coordination and sectoral development, optimize the utilization of natural and human resources, and foster a development climate driven by increasing community initiative and self-reliance, active community participation is essential. Communities play a crucial role in promoting environmental health as part of sustainable development. This implies that development cannot be achieved successfully without the involvement of all members of society, who contribute by utilizing their capacities and local potential to the fullest.

Waste has become a persistent environmental issue affecting both urban and rural areas and remains a major challenge that requires effective management. Unhealthy community practices, such as indiscriminate waste disposal along roadsides and rivers, open dumping, and open burning, have significant adverse impacts on environmental quality and public health. These practices contribute to natural disasters, the spread of diseases, and climate change. Improperly managed waste can contaminate air, water, and soil resources. Waste

management refers to a series of activities, including waste collection, treatment, processing, and final disposal, aimed at minimizing its negative impacts.

Currently, waste management remains a complex environmental issue that has not been fully addressed, both in urban and rural areas. Population growth, increasing consumption patterns, and changes in lifestyles toward greater convenience have resulted in a continuous increase in both the volume and diversity of waste generated each day. If not managed properly, waste can lead to environmental pollution, public health problems, and the deterioration of environmental aesthetics. These conditions indicate that waste management is not solely the responsibility of the government but also requires sustained community participation.

Within the context of sustainable development, waste management requires a shift in paradigm from the traditional "collect–transport–dispose" approach to one that emphasizes waste reduction, sorting, and recycling. One community-based approach that has proven effective in encouraging public participation is the establishment of waste banks. A waste bank is a community-based waste management system that applies the principles of the 3Rs (Reduce, Reuse, and Recycle), whereby waste is sorted and deposited in a manner similar to a banking system, creating both economic and environmental value.

The existence of waste banks serves not only as a mechanism for reducing the amount of waste disposed of in landfills but also as a means of community empowerment. Through waste bank management, community members are encouraged to develop environmental awareness, acquire skills in waste sorting and processing, and gain opportunities to earn additional income. Consequently, waste banks can function as strategic instruments for improving community welfare while simultaneously promoting environmental sustainability.

Therefore, it is important to evaluate the effectiveness of existing waste management practices to determine the extent to which waste management programs have achieved their intended objectives. Such an evaluation provides insight into the success of these programs in reducing waste generation, improving environmental cleanliness, and encouraging community participation. Furthermore, assessing the effectiveness of waste management can identify challenges and weaknesses in implementation, thereby providing valuable input for developing more appropriate, targeted, and sustainable policies and improvement strategies.

From a philosophical perspective, waste management is rooted in the values of human responsibility toward the environment as part of God's creation. This perspective aligns with the concept of ecocentrism, which views humans as an integral part of the ecological system rather than its sole rulers. Maintaining environmental cleanliness reflects ecological morality aimed not only at serving present interests but also at ensuring the well-being of future generations. In the Indonesian context, local wisdom values such as mutual cooperation (*gotong royong*), social responsibility, and collective environmental stewardship provide a strong philosophical foundation for community-based waste management. Accordingly, waste banks represent not merely an environmental-economic initiative but also a manifestation of the moral and social values embedded within society.

From a theoretical perspective, the effectiveness of waste bank management can be analyzed through the lenses of public management and community participation theories. Effectiveness refers to the extent to which an activity successfully achieves its predetermined objectives through the optimal utilization of available resources. In the context of waste banks, effectiveness can be assessed by examining how management systems, coordination, and community participation function synergistically. Community participation theory further suggests that the success of social programs largely depends on the extent to which community members feel a sense of ownership and actively engage in the process. Therefore, the effectiveness of the Motekar Waste Bank management in Cigembor Village depends not

only on adequate facilities and government support but also on the awareness and active involvement of local residents as key actors in environmental management.

From a legal perspective, waste management in Indonesia is firmly regulated through various legislative frameworks. The principal legal basis is Law No. 18 of 2008 on Waste Management, which emphasizes waste reduction and environmentally sound waste handling. The law affirms that every citizen has equal rights and responsibilities in maintaining environmental cleanliness. Furthermore, Government Regulation No. 81 of 2012 concerning Household Waste and Household-like Waste Management provides technical guidelines for waste management, including the importance of community participation in waste sorting and recycling. At the regional level, Ciamis Regency Regional Regulation No. 3 of 2015 on Waste Management establishes the legal foundation for implementing waste bank programs as part of an integrated environmental management system. Accordingly, the Motekar Waste Bank in Cigembor Village represents not only a social initiative but also the implementation of legal responsibilities aimed at creating a clean and sustainable environment.

Waste management has become an increasingly important issue in Cigembor Village due to population growth and expanding economic activities, both of which have contributed to a rise in waste generation. Data indicate that total waste generation in Cigembor Village reached approximately 12,174 tons in 2023 and increased to approximately 18,871 tons in 2024, suggesting a continuing upward trend in waste production alongside community development and daily consumption patterns.

Regarding public awareness of waste management, community participation has shown gradual improvement despite existing challenges. Participation in waste bank programs, including the Motekar Waste Bank, has increased environmental awareness through environmental education, waste-saving activities, and economic incentives that encourage residents to view waste as a valuable resource. Community-based initiatives, such as household waste sorting and waste reduction, have achieved participation rates of approximately 70% when supported by participatory and educational approaches. These findings indicate that community awareness regarding waste sorting, environmental cleanliness, and sustainable waste management has gradually improved as a result of the educational and management programs implemented by the Motekar Waste Bank.

These conditions call for a waste management system that is not only curative but also preventive and participatory. One form of social innovation emerging from collective environmental awareness is the establishment of waste banks. Through waste banks, communities are encouraged not only to sort and collect waste but also to generate economic benefits from recyclable materials. Nevertheless, questions remain regarding the effectiveness of these programs, particularly concerning the extent to which village-level waste banks, such as the Motekar Waste Bank in Cigembor Village, have succeeded in changing community behavior and reducing waste accumulation.

Waste bank management at the village level continues to face several significant challenges. One of the primary issues is the relatively low level of community participation. Many residents still lack sufficient awareness and understanding of the importance of sorting waste at its source, resulting in limited quantities of waste being deposited at the waste bank. Moreover, the perception that waste management is solely the government's responsibility has further reduced community involvement in sustaining waste bank activities.

Another challenge concerns the institutional and managerial aspects of waste bank operations. Management is generally simple and heavily dependent on the initiative and commitment of a limited number of administrators. Constraints in human resources, particularly in managerial and technical capacities, often lead to weaknesses in administrative management, financial record-keeping, and operational procedures. These conditions reduce transparency and accountability, ultimately affecting public trust and long-term participation.

In addition, inadequate facilities and infrastructure remain major obstacles to effective waste bank management. Limited storage facilities, insufficient waste sorting equipment, and restricted access to recycling markets hinder the optimal implementation of waste bank activities. Furthermore, insufficient policy support and technical assistance from village authorities and related institutions have affected the sustainability of waste bank programs. As a result, some waste banks have experienced stagnation or even ceased operations despite their significant potential to contribute to community-based waste management.

Preliminary observations revealed that the effectiveness of the development of the Motekar Waste Bank management in Cigembor Village, Ciamis District, Ciamis Regency has not yet reached an optimal level. This condition is reflected in several indicators. First, the volume of waste collected and processed by the waste bank remains relatively low, averaging approximately 1.3 tons per month, compared to the total waste generated by the community, which reaches around 3 tons per month. This situation occurs because not all residents actively participate in waste bank activities, and many still dispose of waste conventionally without separating organic and inorganic waste. Second, operational efficiency remains inadequate due to irregular waste collection schedules and limited funding for transportation and equipment maintenance. Third, innovation and long-term program development remain limited, as the waste bank lacks a clear strategic plan to expand partnerships, increase the number of customers, and enhance the economic value of recycled products.

Based on these identified problems, the researcher conducted a study entitled “The Effectiveness Of The Development And Management Of The Motekar Waste Bank In Cigembor Urban Village, Ciamis District, Ciamis Regency

B. LITERATURE REVIEW

Effectiveness

Effectiveness refers to the degree to which an organization or program successfully achieves its predetermined objectives through the optimal utilization of available resources. According to Richard M. Steers (2020), organizational effectiveness is measured not only by the achievement of organizational goals but also by the organization's ability to adapt to environmental changes, maintain its sustainability, and integrate all available resources. An effective organization is capable of implementing its programs in accordance with planned objectives while providing benefits to its stakeholders. Furthermore, effectiveness reflects an organization's capacity to overcome various obstacles so that its goals can be achieved efficiently and successfully. Therefore, effectiveness is an essential concept in evaluating the success of the Motekar Waste Bank management in improving community-based waste management. Effectiveness Indicators:

- Goal attainment
- Integration
- Adaptation

Waste Bank Management

Waste bank management is a systematic process aimed at reducing waste generation through waste sorting, collection, processing, and the reutilization of recyclable materials with economic value. According to the Indonesian Ministry of Environment and Forestry (2021), a waste bank is a form of community-based waste management designed to increase public participation in implementing the 3R principles (Reduce, Reuse, and Recycle). Through waste banks, communities are encouraged not only to maintain environmental cleanliness but also to gain economic benefits from waste management activities. Effective waste bank management requires strong institutional support, active community participation, adequate facilities and infrastructure, and continuous guidance. Therefore, the success of a

waste bank largely depends on the synergy among communities, government agencies, and other stakeholders involved in environmental management.

- Waste Bank Management Indicators:
- Waste sorting
- Waste collection
- Waste weighing
- Record keeping
- Waste processing or utilization
- Marketing partnerships for recycled products

Organizational Development

Organizational development is a planned process of change aimed at enhancing an organization's capacity to adapt to environmental changes and improve its performance sustainably. According to Rhenald Kasali (2023), organizational development is achieved through strengthening human resource capacity, fostering innovation, expanding collaborative networks, and improving organizational management systems. Organizational development focuses not only on organizational growth but also on improving service quality and ensuring the sustainability of organizational programs. Organizations that continuously develop are better equipped to face challenges, seize opportunities, and generate greater benefits for society. In the context of this study, organizational development serves as the basis for assessing the development of the Motekar Waste Bank through development programs, management innovation, and the expansion of collaborative partnerships.

- Organizational Development Indicators:
- Organizational capacity development
- Program innovation
- Cooperation or partnerships
- Expansion of service coverage
- Program sustainability

C. RESEARCH METHODOLOGY

This study employed a qualitative approach with a descriptive research design. A qualitative approach was selected because it aims to obtain an in-depth understanding of the effectiveness of the development of the Motekar Waste Bank management in Cigembor Village, Ciamis District, Ciamis Regency. Through this approach, the researcher was able to explore various information, experiences, and perspectives from the informants regarding the implementation of the waste bank management program, thereby providing a comprehensive understanding of the actual conditions in the field. Research data were collected through interviews, observations, and documentation to obtain accurate information that was aligned with the objectives of the study.

The informants in this study were selected using a purposive sampling technique based on the consideration that they possessed relevant knowledge, experience, and direct involvement in the management of the Motekar Waste Bank. The informants consisted of the Head of Cigembor Village, the Village Secretary, the Head of the Economic and Development Section (Kasi Ekbang) of Cigembor Village, the manager of the Motekar Waste Bank, and representatives of the local community. A total of seven informants participated in this study. They were expected to provide comprehensive, in-depth, and relevant information regarding the effectiveness of the development of the Motekar Waste Bank management as a community-based waste management initiative in Cigembor Village.

D. RESULT AND DISCUSSION

The development aspect is closely related to the sustainability and continuous improvement of a waste bank over time. Development can be assessed through the increasing number of customers, the growth in the volume of waste managed, the diversification of waste types and recycled products, and the expansion of collaborative networks with external stakeholders. An effective waste bank is not only able to sustain its operations but also demonstrates continuous progress and improved performance as evidence of successful management.

To examine the development dimension in measuring the effectiveness of the Motekar Waste Bank management in Cigembor Village, Ciamis District, Ciamis Regency, the following indicators were employed:

- **The Waste Bank has development programs to enhance its capacity and expand its service coverage.**

To determine whether the Motekar Waste Bank has development programs aimed at improving its organizational capacity and expanding its services, the findings of this study are presented as follows.

Based on the interview results, it was found that the Motekar Waste Bank has implemented development programs intended to strengthen its management capacity and broaden its services to the community. This is reflected in efforts to increase the number of customers, which currently ranges from approximately 80 to 100 active members, as well as plans to expand services to areas that have not yet been reached. Operational activities are conducted regularly one to two times per week, with a waste management capacity of approximately 120–200 kg per week, demonstrating both operational consistency and ongoing development initiatives.

The observational findings also revealed that these development programs have begun to materialize through various activities, including increased public outreach at the neighborhood (RT/RW) level, waste management training, and initiatives to develop recycled products. The management has also sought to improve service accessibility for the community, although limitations in facilities, infrastructure, and human resources remain evident. Furthermore, several areas have not yet been optimally served, indicating that service expansion has not been fully achieved.

These findings are consistent with the view of Rhenald Kasali (2023), who argues that organizational development should be carried out continuously through strengthening internal capacity and expanding service coverage to generate broader societal benefits. This perspective emphasizes the importance of innovation, collaboration, and adaptability in responding to changing community needs. In this context, the Motekar Waste Bank has demonstrated a positive direction in its organizational development, although further improvements are still required to strengthen its implementation.

Therefore, it can be concluded that the indicator concerning the existence of development programs to enhance organizational capacity and service coverage has been reasonably well achieved. This is demonstrated by development planning, regular operational activities, and the management's efforts to extend benefits to the community. Nevertheless, stronger support in terms of resources, facilities, and community participation is still required to ensure that these development programs become more effective, equitable, and sustainable.

- **The Waste Bank management continuously introduces innovations in waste management and utilization systems.**

To determine whether the Motekar Waste Bank management continuously implements innovations in waste management and utilization systems, the following findings are presented.

The interview results indicate that the management has consistently introduced innovations, although these innovations remain relatively simple in nature. Such innovations include improving waste sorting systems, enhancing administrative record-keeping, and developing recyclable waste into simple handicraft products. These activities are carried out regularly one to two times per week, with approximately 120–200 kg of waste processed weekly, indicating continuous efforts to improve and innovate waste management practices.

Observational findings further demonstrate that these innovations have positively influenced the waste management process. Plastic waste and other recyclable materials have been transformed into products with practical value, while service procedures have been improved to become more efficient and accessible for the community. However, several constraints remain, including inadequate facilities, limited training opportunities, and insufficient development of products with higher economic value. Consequently, the innovations implemented have not yet reached their full potential.

These findings are in line with Suryana (2017), who states that innovation is a key factor in increasing the added value of activities, particularly through the optimal utilization of limited resources to generate greater benefits. In this regard, the Motekar Waste Bank has demonstrated innovative efforts in managing and utilizing waste, although further enhancement in idea development and implementation is still necessary.

Thus, it can be concluded that the indicator concerning innovation in waste management and utilization systems has been adequately fulfilled. This is evidenced by improvements in management systems, the development of waste utilization activities, and the implementation of regular operational programs. Nevertheless, greater support in terms of infrastructure, training, and stakeholder involvement is needed to optimize innovation, ensure its sustainability, and increase the economic value generated for the community.

- **The Waste Bank establishes partnerships with various stakeholders (government, private sector, and community organizations) to broaden the impact of its activities.**

To determine whether the Motekar Waste Bank has established partnerships with multiple stakeholders, the following findings are presented. Interview findings indicate that the Motekar Waste Bank has established collaborative relationships primarily with the village government and waste collectors to support the sustainability of its waste management activities. These partnerships are reflected in the regular distribution of recyclable waste one to two times per week, with a processing volume of approximately 120–200 kg per week, and the participation of around 80–100 active customers. However, collaboration with private sector organizations and community groups remains limited, thereby restricting the broader impact of its activities.

Observational findings also reveal that these partnerships have contributed positively to the smooth implementation of waste bank operations, particularly in waste collection and sales. The management actively coordinates with relevant stakeholders to ensure that operational activities are conducted regularly and systematically. Nevertheless, the existing partnership network remains relatively narrow, especially with private enterprises and environmental organizations, limiting opportunities for program expansion and increased economic value.

These findings support the opinion of Edy Sutrisno (2016), who argues that cooperation and partnerships are essential factors in enhancing organizational effectiveness because they expand organizational resources, strengthen collaborative networks, and increase the impact of implemented programs. In this context, the Motekar Waste Bank has demonstrated efforts to establish partnerships, although these partnerships require further expansion and strengthening.

Therefore, it can be concluded that the indicator concerning partnerships with various stakeholders has been reasonably well achieved. This is evidenced by ongoing collaborations that support operational activities. However, greater efforts are still needed to expand cooperation, particularly with the private sector and community organizations, so that the impact of the waste bank's activities can become broader, more effective, and more sustainable for the local community.

Based on the findings regarding the development dimension used to measure the effectiveness of the Motekar Waste Bank management in Cigembor Village, Ciamis District, Ciamis Regency, it can be concluded that implementation has been reasonably effective. This is demonstrated by the existence of capacity-building and service expansion programs, continuous innovation in waste management and utilization systems, and partnerships with various stakeholders, including the village government and waste collectors. Operational activities are conducted regularly one to two times per week, processing approximately 120–200 kg of waste per week and involving around 80–100 active customers, indicating growth in both operational performance and community participation. Nevertheless, several challenges remain, including inadequate facilities and infrastructure, limited partnership networks, and relatively simple innovations. Therefore, greater efforts are required through stronger collaboration, technological development, and capacity building for waste bank managers to ensure that the development dimension becomes more effective, sustainable, and capable of generating broader environmental and socio-economic benefits.

E. CONCLUSION

Based on the findings of this study, it can be concluded that the effectiveness of the development of the Motekar Waste Bank management in Cigembor Village, Ciamis District, Ciamis Regency has not yet been optimal. This is reflected in the relatively low level of community participation, inadequate facilities and infrastructure, suboptimal management and institutional guidance, as well as the limited implementation of waste management socialization and educational activities. In addition, limitations in human resources and operational support have also affected the development of the waste bank. Therefore, greater efforts are needed to increase community participation, strengthen institutional capacity, provide adequate supporting facilities, and enhance continuous guidance and coordination to ensure that the Motekar Waste Bank operates more effectively in supporting sustainable waste management and environmental conservation.

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