

EVALUATION OF WASTE MANAGEMENT BY THE ENVIRONMENTAL AGENCY IN KAMPAR REGENCY

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ABSTRAK

Penelitian ini mengevaluasi sistem pengelolaan sampah oleh Dinas Lingkungan Hidup Kabupaten Kampar di Desa Kubang Jaya dengan pendekatan kualitatif menggunakan data primer yang didapat melalui wawancara, observasi, dan analisis dokumen. Teori utama pada penelitian ini adalah teori evaluasi kebijakan oleh William N. Dunn. Hasil penelitian menunjukkan bahwa pengelolaan sampah belum optimal akibat keterbatasan fasilitas, anggaran, dan tidak adanya pengangkutan sampah rutin. Partisipasi masyarakat rendah, sementara sistem pengelolaan limbah yang terstruktur belum tersedia, menyebabkan pendekatan yang reaktif. Pengumpulan sampah hanya mencakup wilayah tertentu, dan sebagian besar rumah tangga membuang sampah secara mandiri. Tidak ada pemilahan di sumber serta kapasitas pembuangan limbah yang terbatas memperparah kondisi. Respons pemerintah sering lambat, memicu akumulasi limbah yang berdampak pada kesehatan dan lingkungan. Meskipun program seperti bank sampah telah diperkenalkan, implementasinya belum konsisten. Studi ini menekankan perlunya peningkatan anggaran, infrastruktur, dan keterlibatan masyarakat untuk menciptakan pengelolaan sampah yang berkelanjutan. Kolaborasi antara pemerintah, sektor swasta, dan masyarakat sangat diperlukan guna membangun sistem pengelolaan sampah yang terintegrasi. Penelitian mendatang disarankan mencakup desa lain guna memperoleh gambaran menyeluruh dan mendukung perencanaan kebijakan jangka panjang yang berbasis data serta penegakan peraturan dan edukasi publik.

Kata kunci: Evaluasi; Kebijakan; Lingkungan.

ABSTRACT

This research evaluates the waste management system by the Kampar Regency Environmental Agency in Kubang Jaya Village with a qualitative approach using primary data obtained through interviews, observations, and document analysis. The main theory in this research is the theory of policy evaluation by William N. Dunn. The results showed that waste management was not optimal due to limited facilities, budget, and the absence of routine waste transportation. Community participation is low, while a structured waste management system is not yet in place, leading to a reactive approach. Waste collection only covers certain areas, and most households dispose of waste independently. No segregation at source and limited waste disposal capacity exacerbate the situation. Government response is often slow, triggering waste accumulation that impacts health and the environment. Although programs such as waste banks have been introduced, implementation has not been consistent. This study emphasizes the need for increased budget, infrastructure and community engagement to create sustainable waste management. The government, private sector and community must collaborate to build an integrated waste management system. Future research is recommended to include other villages to get a comprehensive picture and support data-driven long-term policy planning and enforcement of regulations. term, data-driven policy planning as well as regulatory enforcement and public education.

Keywords: Evaluation; Policy; Environment.

INTRODUCTION

Human life is inevitably accompanied by various challenges, one of which is the issue of waste. Every individual, in one way or another, generates waste (Cheng et al., 2022). The decline in environmental quality caused by waste problems is related to the relationship and reciprocity between the population, values, and patterns of society toward the realization of waste, waste management organizations or agencies, and the waste management system implemented (Anderson et al., 2019).

Environmental concerns have gained attention due to growing awareness that population growth has intensified human socioeconomic activities, which pose a threat to the environment, which have also increased. The most important factor in this problem is the size of the human population or the population growth rate (Kahfi, 2017). Waste that is not handled properly can disrupt the aesthetics of the environment, cause odors, and lead to the development of diseases. Environmental disturbances by waste can arise starting from waste sources, where waste producers do not handle waste properly. This can happen to waste producers who do not want to provide garbage cans in their homes and prefer to throw garbage arbitrarily into waterways or burn it so that it pollutes the surrounding environment. Garbage cans provided in households and commercial locations, such as markets, are not covered, so the garbage scatters and becomes a breeding ground for flies and causes odors (Saputro et al., 2015).

A good, healthy, and clean environment can be created through a set of regulations that can always support the creation of a good, healthy, and clean environment and the need for supervision and/or control of environmental pollution carried out by an authorized agency (Saputri et al., 2015) Law Number 18 of 2008 on Waste Management defines waste as the residual material from human daily activities and/or natural processes that is solid in form. "Furthermore, according to Kampar Regency Regional Regulation Number 23 of 2009 on Waste Management, waste management is a systematic, comprehensive, and sustainable activity that encompasses waste reduction and handling. It is the responsibility of the government as part of its public service mandate, carried out through the formulation and implementation of waste management policies (Mulasari et al., 2016).

Waste reduction activities aim to encourage all segments of society-including the government, the business sector, and the general public-to engage in efforts to minimize waste generation through limitation, reuse, and recycling, commonly known as the 3Rs (Reduce, Reuse, Recycle). (Pinotti et al., 2020) However, this 3R activity still faces the main obstacle, namely, low public awareness of how to sort waste (Suryani, 2014).

Waste reduction efforts involve minimizing waste production, recycling materials, and reusing items to extend their lifecycle and reduce environmental impact (Liu et al., 2017). Meanwhile, waste handling activities involve sorting, which includes categorizing and separating waste based on its type, volume, and/or characteristics (Sewak et al., 2021). Waste handling also includes several key activities: collection, which refers to gathering and transferring the waste from its source to Temporary Shelters (TPS) or integrated treatment facilities; transportation, which involves moving waste from its source and/or from the TPS or treatment site to the Final Processing Site (TPA); processing, which is based on the characteristics, composition, and quantity of the waste; and final disposal, which entails safely transferring waste and/or the residue from previous treatments into environmental media.

"Referring to Kampar Regent Regulation Number 48 of 2016 on the Position, Organizational Structure, Duties and Functions, and Work Procedures of the Kampar Regency Environmental Office, the Kampar Regency Environmental Agency is primarily tasked with assisting the Regent in formulating policies related to environmental impact control, waste management, conservation, rehabilitation, and environmental preservation. In Article 14, Paragraph 1, it is stated that The Waste Management Division is led by a Head of Waste Management and Hygiene, who has the task of assisting the Head of the Service in the field of planning, implementation, supervision, sweeping, collection, and transportation of waste management.

The potential for daily waste generation in Kampar Regency consistently increases from 2019 to 2024. In 2019, daily waste is estimated to reach 335 tons. This figure continues to grow yearly, around 350 tons in 2020, 360 tons in 2021, 368 tons in 2022, and 375 tons in 2023. The highest increase occurred in 2024, with an estimated waste generation of 392 tons per day. This increase reflects population growth, socioeconomic activities, and people's consumption patterns, all of which directly impact the volume of waste. This trend shows the urgency of strengthening waste management policies and increasing the capacity of environmental infrastructure in the Kampar Regency. With the increasing potential for waste generation in Kampar Regency every year, many facilities and infrastructure are needed and adequate so that waste management can run well. Of course, it also requires more budget for waste management activities in Kampar Regency.

From the data obtained from the Kampar Regency Environment Office, the sub-district with the most waste generation in Kampar Regency is Siak Hulu District. Therefore, this research was conducted in one of the villages in Siak Hulu District, Kubang Jaya Village. In Kubang Jaya Village, many piles of garbage around community settlements and roadsides exist. This is due to the lack of waste facilities and infrastructure, such as Temporary Shelters (TPS), which causes people to litter carelessly on vacant land. And because there is no schedule for routine waste transportation from Kubang Jaya Village to the Final Processing Site (TPA) in Kampar Regency.

The Kampar Regency Environmental Agency has also introduced innovations in the 3R (Reduce, Reuse, Recycle) waste management program by establishing waste banks. According to the Minister of Environment Regulation Number 13 of 2012, which provides guidelines for implementing the 3Rs via waste banks, these banks serve as facilities for sorting and collecting recyclable and/or reusable waste that holds economic value-a waste bank functions as a financial institution where waste acts as a transactional commodity. Unlike conventional banks that primarily use money as their medium of exchange, waste banks focus on waste management-a pressing environmental issue today. Waste banks are regarded as an alternative solution for managing excess household waste by converting it into economically valuable resources (Shentika, 2016).

The waste bank owned by the Kampar Regency Environment Agency is called Bank Sampah Lestari, which is located in Bangkinang Kota District (the capital of the Regency) and operates for the people of Bangkinang Kota District. As for other sub-districts, it has not been made by the Kampar Regency Environment Office.

The previous reference used is research (Rendy M, 2015) titled Evaluation of Waste Management Policy at the Palu City Hygiene and Parks Office. The study reveals that although policy evaluation in waste management has been conducted in Palu City, it has not been fully optimized. This is due to issues related to evaluation criteria such as effectiveness, efficiency, and adequacy. Effectiveness has not been achieved because of insufficient control from relevant authorities and low public awareness regarding waste management. Likewise, efficiency remains unfulfilled due to poor environmental behavior and awareness and the community's failure to comply with the designated waste disposal schedules fully. Then, the research (Tato, 2015) with the research titled Evaluation of Waste Management in Gowa Regency Case Study of Somba Opu District where the result of the research is that the management of waste in Somba Opu District is not good, starting from containerization, collection, transportation, and community participation. Meanwhile, regulations are still classified as not good; the only ones classified as good are levies and financing. Furthermore, the research (Apriliani, 2018) with the research titled Evaluation of the Implementation of the Duties of the Pekanbaru City Environment and Hygiene Office in Waste Management (Study in East Tangkerang Village) where the result of the research is that there is still a weak improvement in cleanliness by the Pekanbaru City DLHK which has not been implemented perfectly so that most people do not know about the programs that the City DLHK Pekanbaru will organize. There is still a lack of facilities and infrastructure owned by the Pekanbaru City DLHK in waste management. The community still has a weak active role in disposing of waste.

The three studies made important contributions in identifying various common problems in waste management, such as weak supervision, lack of facilities, low awareness and community participation, as well as not optimal regulation and implementation of programs. However, all three studies were conducted in urban areas and did not specifically examine the context of Kampar Regency, which has its own geographical, social, and administrative characteristics. The ongoing research on Evaluation of Waste Management by the Environmental Agency in Kampar Regency aims to fill this gap, by evaluating how waste management policies and implementation are carried out in a region that has a mix of rural and urban areas. In addition, this research also makes a novel contribution by highlighting more specifics of the role of the Kampar Environmental Agency, local challenges, as well as the effectiveness of the programs that have been implemented so far. As such, this research broadens insights into waste management practices at the district level and enriches the literature on environmental policy evaluation in Indonesia.

In reference to the previous research above, the author's research has several differences. The research will start with the difference in the title, the location of the research, the year of the research, and the theory used in the implementation of the research. Based on the phenomenon that the author found in the field and under the description above, this study aims to analyze the evaluation of waste management by the Environmental Agency in Kampar Regency and the inhibiting factors of the Kampar Regency Environmental Agency in waste management.

METHOD

The type of research used in this study is qualitative with a descriptive method. In this study, the researcher took the location of Kubang Jaya Village, Siak Hulu District, Kampar Regency, with the analysis

unit being the Kampar Regency Environmental Agency. Meanwhile, the research was carried out for 2 months, from October to December 2020.

The techniques used to determine research informants are purposive sampling and snowball sampling. Purposive sampling is a sampling technique for data sources that requires certain considerations. Meanwhile, according to Sugiyono (2013), snowball sampling is a sample determination technique that is initially small in number and then grows. Therefore, the Key Informant in this study is the Head of the Kampar Regency Environmental Office. Meanwhile, the informants in this study consisted of the Head of the Waste Management Division of the Kampar Regency Environmental Agency, the Head of the Waste Handling Section of the Kampar Regency Environmental Agency, the Head of the Waste Management and Utilization Section of the Kampar Regency Environmental Agency, the Waste Supervisor of the Kampar Regency Environmental Agency, the Head of Kubang Jaya Village and the people of Kubang Jaya Village.

Tabel I: Identity of Key Informants and Informants

Name	Gender	Age	Education	Position
Ir. Aliman Makmur, M.Si, Ph.D	Man	57	Doctoral Degree	Head of the Kampar Regency Environmental Agency
Yusrizal, A.Md	Man	52	Associate's degree	Head of Management of the Kampar Regency Environmental Agency
Tukiran, A.Md	Man	54	Associate's Degree	Head of the Waste Handling Section of the Kampar Regency Environment Agency
Nasmi Yerni	Woman	58	Senior High School	Head of Waste Management and Utilization Section Kampar Regency Hiudp Environmental Agency
Irsan, S.Sos	Man	42	Bachelor's Degree	Waste Supervisor of the Kampar Regency Environment Agency
H. Tarmizi, HB	Man	47	Senior High School	Head of Kubang Jaya Village
Dordiati	Woman	46	Senior High School	Kubang Jaya Village Community
Zakirman	Man	34	Senior High School	Kubang Jaya Village Community
Siti Khadijah	Woman	30	Senior High School	Kubang Jaya Village Community
Nita Siregar	Woman	35	Junior High School	Kubang Jaya Village Community

Source: Author's Data Processing, 2020

This study's primary and secondary data sources are primary and secondary data. The data collection techniques used in this study are observation, interviews, and documentation.

RESULTS AND DISCUSSION

This discussion will describe the results of research on the Evaluation of Waste Management by the Environment Agency in Kampar Regency. This research focuses on Waste Management by the Kampar

Regency Environmental Agency in Kubang Jaya Village, Siak Hulu District, Kampar Regency, following Kampar Regency Regional Regulation Number 23 of 2009 concerning Waste Management. The indicators used in this study are the Evaluation indicators, which consist of effectiveness, efficiency, adequacy, leveling, responsiveness, and accuracy.

Effectiveness

Effectiveness is concerned with whether an alternative achieves the expected outcome of the action, which is closely related to technical rationality, always measured by its unit of product or service or monetary value (Zidane & Olsson, 2017). The effectiveness of achieving tasks appropriately with the right objectives and the direction of policies is made following their objectives and functions. One of the things that must be seen from the success of the task carried out by the Kampar Regency Environment Agency in Kubang Jaya Village is its effectiveness. The author has several assessment items to assess the level of success or tasks given to the Kampar Regency Environmental Service. The elements of the question that include the effectiveness indicators are Waste Reduction Activities and Waste Handling Activities.

From the interviews with existing sources, the author sees that waste management activities, including waste reduction and waste handling activities, have not been effective. Waste handling activities in Kubang Jaya Village, carried out by the Kampar Regency Environment Agency, are minimal and have not been coordinated optimally. The Kampar Regency Environment Agency went down to Kubang Jaya Village to handle waste only when the volume of waste produced by the people of Kubang Jaya Village was high, there was a build-up, and there was no regular or periodic waste transportation. Even in a year, only 2 to 3 times the waste transportation is carried out from Kubang Jaya Village to the Final Processing Site (TPA) in Kampar Regency, also due to budget limitations and the long distance from Kubang Jaya Village to the landfill in Kampar Regency which makes waste handling activities in Kubang Jaya Village not effective in its implementation. However, with the efforts made in the field, the Kampar Regency Environment Agency continues to try to provide the best service for the people of Kubang Jaya Village.

From these findings, it can be concluded that the effectiveness of waste management in Kubang Jaya Village is still low. Theoretically, effectiveness in public policy must meet the elements of inputs, processes, outputs, and outcomes that run optimally (Mukherjee et al., 2021). However, in this context, it can be seen that the main obstacle is in the input and process aspects, namely, limited resources, both in terms of budget and waste management infrastructure. These limitations result in an optimal output, namely the low frequency of waste transportation and the lack of waste reduction programs at the community level.

Efficiency

Efficiency is concerned with the effort required to produce the desired results. Efficiency, synonymous with economic rationality, is the relationship between effectiveness and effort; monetary costs generally measure the latter (Cattaneo, 2019). Efficiency is achieving optimal results using existing resources based on predetermined tasks and functions. The elements of the question on this efficiency indicator are socialization about maintaining cleanliness in the community and innovation of the Waste Bank Program.

Based on the results of interviews with the speakers, the efficiency indicator shows that the efforts made by the Kampar Regency Environment Agency in socializing and maintaining cleanliness and waste

management in a 3R (reuse, reduce, recycle) manner have not been efficient. Because socialization and training on recycling household waste into handicrafts that can be of economic value are only carried out by village officials and environmental care groups. Therefore, many people still throw garbage carelessly and do not use household waste in handicrafts that can be of economic value. Even the innovation in reducing the amount of waste generated, initiated by the Kampar Regency Environment Agency, namely the waste bank, has not been implemented in Kubang Jaya Village. Therefore, the efforts made by the Kampar Regency Environment Agency to socialize with the community and implement waste bank innovations are not efficient. As shown in figure 2 below, one form of socialization from the Hiduo Kampar Environmental Agency can be seen in overcoming the waste problem, but it can be seen in the other image that the pile of garbage is still piling up.

Figure 1: A form of socialization of the Kampar district environmental agency



Source: Author's Data Processing, 2020

In the context of efficiency, a program can be considered efficient if the resources used produce maximum output at the minimum possible cost (Tukker, 2015). However, in this case, the socialization carried out has not reached a broad target, so the impact on community waste management is still low. The limited scope of socialization causes information about 3R practices and the economic benefits of waste management not to be conveyed comprehensively. This results in a low level of community participation in waste management programs. In addition, the lack of implementation of waste bank innovations in Kubang Jaya Village also shows that there is inefficiency in using solutions that can help reduce waste generation significantly. Waste banks are an incentive system that encourages people to sort and recycle waste. However, without concrete implementation, the local community cannot feel the potential benefits of this innovation.

Adequacy

Adequacy is how far the level of achievement is desired, the need for value, or the opportunity to grow a problem (Dan & Pollitt, 2015). The adequacy criterion highlights the strong connection between the chosen policy alternatives and the anticipated outcomes. Adequacy is the policy in implementing programs and regulations determined by organizational cooperation in achieving goals. Furthermore, to find out the answers and responses of informants, the following indicators of adequacy are the Provision of Temporary Shelters (TPS)

Based on the results of interviews with the source, for the adequacy indicator, the author found that the Temporary Shelter (TPS) provided by the District Environment Agency in Kubang Jaya Village is still minimal and not enough to accommodate waste generation. The Kampar Regency Environment Agency only provides two-arm roll containers as TPS. The arm roll container is no longer maintained and is damaged. Then, there is no fleet of trucks transporting waste to the Final Processing Site (TPA) owned by the Kampar Regency Environment Agency, whose route passes through Kubang Jaya Village and even Siak Hulu District. Also, the budgeted waste budget is insufficient to meet waste transportation activities in the Kampar Regency area.

Figure II: Damaged and Abandoned Waste Transport Operational Vehicles



Source: Author's Data Processing, 2020

Adequacy in public policy refers to the extent to which available resources can meet existing needs (Wong et al., 2015). In the context of waste management in Kubang Jaya Village, adequacy can be measured through the number and condition of supporting facilities, transportation systems, and budget allocation. The findings show that the availability of TPS in Kubang Jaya Village is minimal, with only two arm roll containers that are no longer in suitable condition. This indicates that the existing TPS capacity is insufficient to accommodate the volume of waste the community produces. From a resource efficiency perspective, inadequate landfills will cause waste to accumulate faster, increasing the risk of environmental pollution, disease spread, and inconvenience to the community. In addition, the absence of a fleet of garbage trucks serving Kubang Jaya Village has worsened the condition. Transportation systems that are not available or do not run regularly cause garbage accumulation at the polling station. This shows that the existing waste policy does not consider the needs of areas far from the city center. When viewed from the equitable distribution of public services, the absence of access to transportation to the landfill shows inequality in hygiene services between villages and urban areas in the Kampar Regency. In terms of budget, the limited funds allocated for waste management further emphasize this sufficiency problem. Inadequate budgets hinder facility upgrades, fleet procurement, and the development of a more comprehensive management system. In the context of public policy, insufficient budget allocation is often the main obstacle to effective policy implementation (Obona, 2016). Below is data on waste facilities and infrastructure in the Kampar district.

Table II: Waste Facilities and Infrastructure in Kampar Regency

Item Type	Sum	Condition	Information
TPA	6 Hectares	0,5 Ha building 2 Ha landfill	Capacity 60 Tons/day
TPS	156 Unit	Good	101 units in Bangkinang Kota District (the capital of the Regency), 18 units in Salo District, 20 units in Siak Hulu District, eight units in Bangkinang District, and eight units in Kuok District
Waste Bank	1 Unit	Good	Located in the capital of the Regency
Excavator	2 Unit	Good	
Bulldozer	1 Unit	Moderately Damaged	
Arm Roll Truck	3 Unit	Good	
Garbage Truck	14 Unit	Good	10 units operate within the district capital, and four units operate in the sub-district
Motorbike	2 Unit	Good	
3-Wheel Garbage Motor	15 Unit	Good	5 operational units of DLH Kampar Regency, 10 operational units in the sub-district
Container Garbage	5 Unit	Good	
Pick Up	4 Unit	Good	2 units operate within the district capital, and two units operate in the sub-district

Source: *Kampar Regency Environment Agency, 2020*

Alignment

Equalization concerning costs and benefits is distributed equally to different groups of people (Lewis et al., 2021). Level-oriented policies are the consequences (e.g., implementation and monetary units) or efforts (e.g., monetary costs) that are fairly distributed. Leveling provides maximum results in policies created for the organization and the environment based on their duties and functions. The elements of questions that the author asked the informant were the Waste Management Budget, Waste Facilities, and Infrastructure

Based on the results of interviews with the source for the leveling indicator, the author found that the budget for waste management in Kampar Regency is still unevenly distributed in each existing sub-district and village. With a minimal budget, the local government only focuses on budgeting the waste management budget for the capital city of Kampar Regency, Bangkinang Kota District. The Kampar Regency Environment Agency has tried to budget for each sub-district, with at least three waste officers to the Kampar Regent and the Kampar Regency Regional Secretary. However, the proposals submitted to the Kampar Regent and the Regional Secretary of Kampar Regency have not yet been realized. Waste facilities and infrastructure in Kampar Regency are still inadequate and uneven. This is due to the limited budget of the Kampar Regency local government. The facilities and infrastructure provided are still focused on Bangkinang Kota District, the capital of Kampar Regency. Waste facilities and infrastructure have been exhausted in the Bangkinang Kota

District area. The uneven advice and infrastructure in Kubang Jaya Village cause waste problems and complaints from the people of Kubang Jaya Village.

Responsiveness

Responsiveness refers to the degree to which a policy meets specific groups of people's needs, preferences, or values (Erikson, 2015). The responsiveness criteria are the most important because the analysis can satisfy all the other criteria. Responsiveness is the ability of the bureaucracy to carry out the development of programs according to the needs to be achieved. The elements of the question that include the indicators of responsiveness are Community Complaints in Slow Waste Management and Follow-up of Community Complaints by DLH Kampar Regency.

Based on the results of interviews with the resource persons for the Responsiveness indicator, the author found that the people of Kubang Jaya Village complained about problems resulting from poor waste management. The community complained that the city's beauty was disturbed due to the accumulation of garbage and the bad smell of garbage that reached the community settlements of Kubang Jaya Village, which could cause flooding and diseases to the people of Kubang Jaya Village. Meanwhile, the response from the Kampar Regency Environment Agency to reports from the community about the waste has been good. In a short time, the Kampar Regency Environmental Agency went directly to Kubang Jaya Village to solve the problems that occurred. But it would be nice for the Kampar Regency Environment Agency to prevent problems in Kubang Jaya Village. Therefore, the community will not have any more complaints about the waste in Kubang Jaya Village.

Responsiveness in public policy refers to the extent to which the government responds to the community's complaints, needs, and aspirations quickly and appropriately (Korolev, 2015). The Kampar Regency Environment Agency was declared to respond quickly to community reports. When complaints about accumulated waste are made, the agency immediately goes to the field to deal with the problem. This shows that, reactively, local governments are quite responsive to the problems faced by the community. However, from a public policy perspective, only reactive responsiveness tends to be ineffective in the long run. The government should not only respond to complaints after the problem occurs but also take preventive measures to prevent the problem from recurring. Currently, the actions taken are still firefighting, where the service only intervenes when the garbage has accumulated and caused public complaints. In addition, a quick response to community reports does not necessarily mean the problem is resolved comprehensively. Without a sustainable waste management system, the same problems will continue to occur, and complaints from the community will continue to be repeated.

Accuracy

The criterion of accuracy is related to the desired outcome or goal that is useful or valuable (Brookhart, 2018). Because the question of policy appropriateness does not concern an individual or more than one criterion together, accuracy is the certainty of implementation carried out with directed activities to achieve the set implementation tasks. The elements of the question include accuracy indicators, namely the Waste Transportation Schedule and Performance in Waste Management.

Based on the results of interviews with the source, for an accuracy indicator, the author found that there is no routine waste transportation schedule carried out by the Kampar Regency Environmental Agency in Kubang Jaya Village, resulting in various problems related to waste. However, if there is an emergency, the Kampar Regency Environment Agency immediately goes directly to Kubang Jaya Village to transport waste. Then, according to the people of Kubang Jaya Village, the performance of the Kampar Regency Environmental Agency in waste management is still not good. There are still many complaints from the community and problems with waste in Kubang Jaya Village. The people of Kubang Jaya Village hope to be facilitated in the disposal of their waste and the transportation of waste in Kubang Jaya Village so that the people of Kubang Jaya Village no longer arbitrarily throw garbage and are not far away from disposing of the waste they produce.

Accuracy in public policy refers to the extent to which policies or programs are implemented according to the community's needs, conditions, and expectations (Viennet & Pont, 2017). Although the Kampar Regency Environment Agency responds immediately if there is an emergency case, this approach is not appropriate enough for solving the waste problem systematically. Only reactive policies (only intervene when there are reports or emergency conditions) do not solve the root of the problem, namely the absence of a structured and sustainable waste management system. In addition, from a public policy perspective, the right program suits the needs and expectations of the community. In this case, the people of Kubang Jaya Village want more accessible waste disposal facilities and a more regular transportation system. The fact that the community still complains a lot about the existing system shows that the policies implemented do not appropriately answer the community's needs.

CONCLUSION

Based on the results of the research on the evaluation of waste management by the Kampar Regency Environment Agency in Kubang Jaya Village, it can be concluded that waste management in the area is still not optimal. Waste reduction and handling activities are less effective due to the limited waste transportation, which is only carried out 2–3 times a year. The main contributing factors are budget constraints and the considerable distance from the village to the Final Processing Site (TPA).

In terms of efficiency, socialization regarding cleanliness and the implementation of the 3R (reduce, reuse, recycle) principle is still limited, mainly targeting only village officials and environmental care groups. Waste bank innovations, which are expected to reduce waste generation, have not been implemented in Kubang Jaya Village. Regarding adequacy, the availability of facilities and infrastructure, such as Temporary Waste Shelters (TPS), remains inadequate. The village only has two arm roll containers in poor condition and no regular garbage transport fleet. Budget limitations have led to an unequal distribution of waste facilities, with most resources focused on the district capital, leaving other villages underserved. From the responsiveness aspect, the Kampar Regency Environment Agency does respond to community complaints about waste piles, but the responses tend to be reactive rather than preventive. There is no systematic mechanism to anticipate and prevent the recurrence of such problems. Regarding accuracy, the lack of a regular waste transportation schedule remains a key issue that triggers public dissatisfaction. The policies implemented have not yet aligned with the community's expectations for a more structured and sustainable waste management system.

Implications of this research suggest that increasing the waste management budget, optimizing available resources, and expanding community-based socialization efforts are crucial. Encouraging innovations like waste banks and ensuring a more equitable distribution of waste facilities and transport fleets are also essential steps forward. However, this study has several limitations. First, it only focuses on one village (Kubang Jaya), which limits the generalizability of the findings to the broader Kampar Regency context. Waste management practices may vary significantly across other villages, especially those with different geographic, demographic, and administrative characteristics. Second, the research does not include a longitudinal analysis to assess the long-term effectiveness of existing waste policies due to limited data on outcomes and program impacts. Third, there is limited engagement with stakeholders beyond the environmental agency, such as private sector actors or non-governmental organizations, which may also influence waste management outcomes. Future research should broaden its scope to include multiple villages or sub-districts, apply a time-series approach to measure long-term policy impacts, and involve a wider range of stakeholders to gain a more holistic understanding of the waste management system in Kampar Regency.

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SHORT PROFILE

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