

Waste Management By The Local Government Of Ogan Ilir Regency (Case Study: In Timbangan Village)

Jeli Yana¹, Azizah Husin^{2*}, Ardi Saputra³

^{1,2,3} Sriwijaya University, Indonesia

* Corresponding author:

Email: azizahhusin@fkip.ac.id

Abstract.

Waste management in Timbangan Village, Ogan Ilir Regency, faces various challenges such as low community discipline, limited final processing facilities, and a lack of sustainable waste utilization programs. This study aims to analyze the waste management process carried out by local governments and identify the factors that affect its effectiveness. With a qualitative approach through interviews and direct observations, data were collected from various relevant parties, including cleaners and environmental officials. The results showed that although the Temporary Shelter facilities were adequate and the waste collection was running quite efficiently, community behavior and final waste management were still suboptimal, causing environmental problems such as waste accumulation and health risks. It is suggested that the government increase public education, expand the use of waste management technology, and develop waste utilization programs such as waste banks and composting to create sustainable waste management. This study provides an important overview for improving waste management in other areas with similar challenges.

Keywords: Waste Management; Timbangan Village and Policy Effectiveness.

I. INTRODUCTION

Waste management is an important issue faced by many regions in Indonesia, including Ogan Ilir Regency, especially in Timbangan Village. As a consequence of daily activities, waste continues to increase in line with population growth and people's consumption patterns. In this context, it is important to understand how local governments manage waste to not only meet the needs of today's communities but also contribute to future environmental sustainability. Law Number 18 of 2008 concerning Waste Management emphasizes that waste management must be carried out properly and correctly to minimize negative impacts on society and the environment.[1] In waste management, several key variables must be considered, including the selection of locations for waste disposal sites (TPS), collection, transportation, and waste utilization [2]. In Timbangan Village, the results of the study show that the existing TPS facilities are sufficient, but the main problem lies in the discipline of the community in using the facilities provided [1]. In addition, the process of waste utilization and final processing at the Final Disposal Site (TPA) is still very limited and does not use technology that supports sustainable processing.

Problems such as piles of garbage on the roadside that are not handled properly reflect low public awareness and weak waste management infrastructure [3]. The suboptimal waste management conditions in Ogan Ilir Regency reflect a major challenge for the local government in fulfilling its responsibilities. As seen in the observation of researchers in Timbangan Village, piles of garbage are not only an aesthetic problem, but also have the potential to pose health risks to the community, such as the spread of diseases [4]. In this situation, the government needs to formulate effective strategies in raising public awareness, such as educational programs to use existing waste containers and dispose of waste in its place. [5]. Thus, collaboration between the government and the community is key to sustainable waste management in this area. The purpose of this study is to explore and analyze the waste management process carried out by the local government of Ogan Ilir Regency in Timbangan Village. This research is expected to provide new insights into the challenges and opportunities that exist in waste management, inspire best practices in other areas, and serve as a basis for better policy formulation in waste management. [2]. In this case, sustainability is the main focus, where infrastructure improvement and community participation are expected to reduce the waste problem in the area.

II. METHODS

In this study, the researcher used a qualitative method with a descriptive approach to analyze and understand the waste management process carried out by the local government of Ogan Ilir Regency in Timbangan Village. [6]. This method was chosen because it can provide an in-depth picture of waste containerization, collection, transportation, utilization, and final disposal of waste, as well as the challenges faced in waste management in the area [7]. With a descriptive approach, the researcher seeks to describe the existing situation systematically, covering various variables relevant to the research theme. For the population and sample, this study involved five subjects. The subjects consisted of a head of the Ogan Ilir Regency Environmental Office, one head of Pollution Control, Environmental Damage and Waste Management of Hazardous and Toxic Materials (LB3), and three field cleaners. The selection of this subject was carried out in order to obtain a comprehensive perspective on waste management policies and practices from various levels of responsibility within the agency [8].

The instruments used in this study were semi-structural interviews and direct observation in the field [9]. Interviews were conducted to gather information from the subjects regarding waste management in Timbangan Village, while observations were used to assess the real situation related to waste management, including the condition of Temporary Shelters (TPS) and community behavior in disposing of waste [10]. The data obtained from interviews and observations will be analyzed using a qualitative analysis approach, which includes data coding, thematic grouping, and drawing conclusions depending on the patterns that emerge from the information collected. The research procedure began with the identification of problems related to waste management in Timbangan Village, followed by data collection through interviews and observations. This research includes direct observation of the condition of the polling station, community behavior, and the implementation of waste management procedures by the local government. Once the data is collected, the analysis is conducted to understand the factors that affect the effectiveness of waste management, as well as to make recommendations regarding possible improvements [11]. The results of this study are expected to provide a clear picture of the current waste management and the steps that need to be taken to improve the quality of services in waste management in Timbangan Village.

III. RESULTS AND DISCUSSION

Garbage Storage

Waste containers or Temporary Disposal Sites (TPS) are important facilities in the waste management system that function to temporarily accommodate waste before it is transferred to the final disposal site (TPA) [12]. The existence of a good TPS can help prevent leachate leakage, bad odors, and the spread of diseases caused by waste that is not managed properly. In the context of Timbangan Village, the waste containers are considered quite adequate, because the number of containers provided is in accordance with the capacity of the waste produced in the area. The TPS has been placed in a strategic location so that it is easily accessible to the public, thus making it easier for them to dispose of waste. However, there are still many challenges faced in the implementation of container management. The people in Timbangan Village still show a low level of discipline in using the polling stations that have been provided. Many of them still litter, which leads to even greater environmental problems. This shows that education on the importance of maintaining environmental cleanliness through the use of existing waste containers needs to be improved [13]. Cooperation between the Environment Agency and the community is needed to increase this awareness. Education is an important step in creating collective awareness among the community regarding cleanliness and better waste management. Through socialization programs, it is hoped that the community will be more active in using TPS and realize the negative impact of littering behavior. Along with that, there needs to be continuous monitoring to evaluate the effectiveness of TPS management and identify areas that require further attention [14].

Garbage Collection

Waste collection is a critical stage in the waste management process which includes the collection of waste from the TPS and then transferred to the landfill. In this village, waste collection is carried out using a communal system, which makes it easier for the community to participate in maintaining the cleanliness of

the environment [15]. The cleaners provided by the Environment Agency have carried out their duties well, routinely collecting waste from the polling stations to ensure that no build-up occurs [16]. From the results of observations in the field, the waste collection process in Timbangan Village is quite efficient, although there are still challenges, such as lack of community participation in disposing of waste in its place. Education to the public about the importance of disposing of garbage at polling stations is not only to maintain cleanliness, but also to prevent pollution and health problems must be strengthened. The Environment Agency should also increase community involvement in hygiene programs [17,28]. Community involvement can also drive better waste collection success. One way that can be done is to form a group of common intentions and goals, for example a cleanliness care community that can guide residents in cleaning and garbage collection activities. With this increased awareness and collaboration, it is hoped that the waste collection process can run more effectively and can contribute to the sustainability of waste management programs.

Garbage Transportation and Transfer

Transportation and transfer of waste is an important process to ensure that waste that has been collected at the TPS can be immediately transferred to the landfill. In Timbangan Village, transportation is carried out by officers using garbage trucks that are planned to serve scheduled and regular transportation frequencies [18]. Although the number of existing fleets is limited, which is only three units, the transportation of waste is running quite well without causing a significant buildup at the polling stations, which shows adequate performance from the officers involved. However, the main challenge in this transportation is the increasing volume of waste generated along with population growth. Plans to expand the garbage vehicle fleet and optimize transportation time need to be carried out so that more garbage can be transported every day. In addition, the use of technology to monitor the movement of transport vehicles can be a solution to improve system efficiency. Encouraging the community to be more disciplined and responsible in waste management is very important. The partnership between the Environment Agency and the community is expected to strengthen the transportation and transfer of this waste. With increased public awareness and support, waste transportation will be easier to carry out and can reduce negative impacts on the environment [19,27].

Waste Utilization

Waste utilization is an important process to reduce the amount of waste discharged into landfills and improve sustainability in waste management. In Timbangan Village, waste utilization is not optimal, because there are no programs that support waste processing and utilization, both organic and inorganic waste [20]. This condition requires serious attention from local governments, especially in developing and implementing effective waste sorting, processing, and processing programs. In addition, education to the public regarding waste sorting needs to be carried out so that they understand the importance of sorting between organic and inorganic waste before disposing of it. This can be done through regular socialization and training involving related parties, including educational institutions, to build a culture of environmental care at the community level [21,26]. Thus, citizen participation in waste management can be increased. The development of waste utilization programs and cooperation between the community and the government in creating sustainable waste management solutions is very necessary. For example, the implementation of a waste bank system that allows people to process their waste into goods of economic value, so that it can reduce the volume of waste thrown into landfills and at the same time improve people's welfare [22]. This is expected to create a better culture of environmental care in Timbangan Village.

Final Disposal of Waste

Final waste disposal is the last stage in the waste management process, where unused waste is processed or stored in landfills. In Timbangan Village, the existing landfill has not functioned properly due to inadequate facilities and technology. The final disposal process is currently only carried out by accumulating waste, which has the potential to cause environmental problems such as pollution [23]. This shows the need for evaluation and improvement in the management of final waste disposal in this area. The limited land for landfills is also a major challenge, so the Environment Agency must urgently find sustainable solutions to address this problem. Collaborating with communities in efforts to reuse waste as a

resource, such as in composting techniques, can be the first step to reduce the accumulation of waste in landfills [24,29]. Training and counseling on good waste management practices can also help in creating sustainability in waste management in this region. Awareness planting events on the importance of waste disposal management by the government must be carried out continuously. With improvements in comprehensive waste management, it is hoped that final disposal can run more effectively, while reducing the environmental impact caused by poor processing. Monitoring and evaluation of the actions that have been taken must continue to be carried out to ensure that the waste disposal management system in Timbangan Village can run optimally [25,30].

IV. CONCLUSION

The conclusion of this study shows that waste management by the local government in Timbangan Village, Ogan Ilir Regency, has shown several successes such as the availability of adequate Temporary Shelter facilities and the relatively efficient waste collection process. However, there are still a number of significant obstacles, including low community discipline in disposing of waste in its place, limited technology and final waste processing facilities, and lack of sustainable waste utilization programs. As a result, environmental issues such as garbage piles and health risks are still major challenges. The results of this study are limited to observations and interviews at the field level which may not have comprehensively described all aspects of waste management in the region, and have not quantitatively measured the impact of the policies implemented. For further research development, it is recommended that a quantitative study be conducted involving broader sampling and analysis of policy effectiveness and community participation in more depth. In addition, the evaluation of the use of modern technology and sustainable waste management models can be a key focus to improve the success of waste management in the future.

REFERENCES

- [1] L. N. Amali, I. R. Padiku, and A. M. Hunta, "Development of Integrated Waste Management Information System to Support Sustainable Development," *Jambura Journal of Informatics*, 2024, doi: 10.37905/jji.v6i1.24659.
- [2] H. Gutama and F. M. Iresha, "Evaluation of Solid Waste Management Effectiveness in Indonesia From 2019-2021: A Geographic Information System Analysis," *IOP Conference Series Earth and Environmental Science*, 2023, doi: 10.1088/1755-1315/1263/1/012067.
- [3] S. L. Claudya Manik, M. A. Berawi, G. Gunawan, and M. Sari, "Smart Waste Management System for Smart & Sustainable City of Indonesia's New State Capital: A Literature Review," *E3S Web of Conferences*, 2024, doi: 10.1051/e3sconf/202451705021.
- [4] M. D. Latanna, B. Gunawan, M. L. Franco-García, and H. Bressers, "Governance Assessment of Community-Based Waste Reduction Program in Makassar," *Sustainability*, 2023, doi: 10.3390/su151914371.
- [5] Warmadewanthi *et al.*, "Socio-Economic Impacts of the COVID-19 Pandemic on Waste Bank Closed-Loop System in Surabaya, Indonesia," *Waste Management & Research the Journal for a Sustainable Circular Economy*, 2021, doi: 10.1177/0734242x211017986.
- [6] R. Permatasari and A. Firda, "Strategy for Increasing Solid Waste Levy Revenue in Ogan Ilir Regency, South Sumatera Province," *Indonesian Journal of Environmental Management and Sustainability*, 2023, doi: 10.26554/ijems.2023.7.3.104-115.
- [7] F. N. Awan, S. Febriasri, and A. Zurfi, "Analysis of Community Participation in Waste Management at the Sidomandiri Sidoharjo Integrated Waste Processing Site (Tpst) Pringsewu Regency," *E3S Web of Conferences*, 2023, doi: 10.1051/e3sconf/202346803001.
- [8] Ibad and L. R. D. S., "The Management of Household Waste Based on Waste Bank to Increase Community Income in Surakarta City," *Jurnal Manajemen dan Kewirausahaan*, 2020, doi: 10.26905/jmdk.v8i1.3545.
- [9] M. Widyastutie, I. Kadar, and S. Wahyuni, "Evaluation of the 3R (Reduce, Reuse, Recycle) Waste Disposal Site Program in the Context of Reducing Waste in Sukabumi City," *Journal of Science Innovare*, 2022, doi: 10.33751/jsi.v4i1.6113.
- [10] E. K. Purwendah, R. Rusito, and A. Periani, "Kewajiban Masyarakat Dalam Pemeliharaan Kelestarian Lingkungan Hidup Melalui Pengelolaan Sampah Berbasis Masyarakat," *Jurnal Locus Delicti*, 2022, doi: 10.23887/jld.v3i2.1609.

- [11] E. D. P. Arum, I. Wahyudi, R. Wijaya, W. Lestari, and S. Yetti, "Peningkatan Kesejahteraan Masyarakat Desa Dengan Pemanfaatan Limbah Rumah Tangga," *Jurnal Inovasi Teknologi Dan Dharma Bagi Masyarakat*, 2023, doi: 10.22437/jitdm.v5i1.26351.
- [12] E. Luanmasar, M. Salakory, and J. Riry, "Perilaku Masyarakat Dalam Pengelolaan Sampah Di Pantai Desa Rumahtiga Kecamatan Teluk Ambon Kota Ambon," *JPGU*, 2022, doi: 10.30598/jpguvol1iss1pp27-37.
- [13] D. Shahreza, L. Lindiawatie, and N. Sodik, "Pelatihan Penentuan Harga Jual Produk Daur Ulang Di Bank Sampah Teratai Batu Ampar Jakarta Timur," *Jurnal PKM (Pengabdian Kepada Masyarakat)*, 2024, doi: 10.30998/jurnalpkm.v7i2.22239.
- [14] L. T. Jumaidi, I. Waskito, B. A. H. L., V. Kusumaningtyas, and N. Rizki, "Strategi Pembangunan Desa Wisata Dengan Mengembangkan Unit Umkm Pada Pemanfaatan Sumber Daya Limbah Lingkungan," *Jurnal Pepadu*, 2023, doi: 10.29303/pepadu.v4i3.3552.
- [15] E. W. Wijayanti, "Proses Berpikir Siswa Smp Dalam Menyelesaikan Masalah Matematika Materi Fungsi Ditinjau Dari Perbedaan Jenis Kelamin," *MATHEdunesa*, vol. 9, no. 3, 2020.
- [16] K. Karyati, K. Y. Widiati, K. Karmini, and D. R. Sari, "Persepsi Dan Perilaku Peserta Penyuluhan Dalam Pengelolaan Sampah Rumah Tangga Di Desa Bangun Rejo, Kutai Kartanegara," *Jurnal Masyarakat Madani Indonesia*, 2023, doi: 10.59025/js.v2i3.93.
- [17] S. Juwariyah *et al.*, "Pemberdayaan Pemuda Karang Taruna Desa Manisharjo Melalui Pemanfaatan Sampah Organik Menjadi Eco Enzyme," *JMS*, 2024, doi: 10.62085/jms.v2i1.83.
- [18] F. A. Utari, A. Pribadi, and S. W. Auvaria, "Perencanaan Aspek Teknis Dan Non-Teknis Pengelolaan Sampah Rumah Tangga Di RW. 01 Dan RW. 02 Desa Kenongo, Kecamatan Tulangan, Sidoarjo," *Jurnal Envirotek*, 2022, doi: 10.33005/envirotek.v14i2.217.
- [19] A. Muis *et al.*, "Pemanfaatan Sampah Plastik Dalam Upaya Merawat Lingkungan Guna Menumbuhkan Kreativitas Masyarakat," *Community Development Journal Jurnal Pengabdian Masyarakat*, 2022, doi: 10.31004/cdj.v2i3.2484.
- [20] R. Radeswandri, C. P. Ramadan, and R. Vebrianto, "Bingkai Dari Limbah Anorganik Sebagai Media Pembelajaran IPA Dalam Mengembangkan Kreatif," *Milenial Journal for Teachers and Learning*, 2020, doi: 10.55748/mjtl.v1i1.14.
- [21] E. Rusminingsih, A. Winarti, C. H. Mustofa, M. Marwanti, R. T. Purnomo, and S. Supardi, "Pendampingan Pembentukan Bank Sampah Di Aisyiyah Ranting Desa Mendak, Kecamatan Delanggu, Kabupaten Klaten," *WASATHON Jurnal Pengabdian Masyarakat*, 2024, doi: 10.61902/wasathon.v2i01.907.
- [22] M. N. Isda, T. Titrawani, S. Surjawati, M. Suhendra, and S. Fatonah, "Pemanfaatan Wadah Plastik Bekas Untuk Bertanam Sayuran Dalam Ketahanan Pangan Keluarga Masa Pandemi Covid19 Di Desa Padang Luas Kecamatan Tambang Kabupaten Kampar, Riau," *Jurnal Abdinus Jurnal Pengabdian Nusantara*, 2022, doi: 10.29407/ja.v6i3.16827.
- [23] Emilia *et al.*, "Sistem Pengelolaan Sampah Dengan Prinsip 3R Di SMAN 1 Pulau Beringin Kabupaten Oku Selatan," *Kemas*, 2023, doi: 10.31851/kemas.v1i2.13572.
- [24] Husin, S. D. Maharani, Yosef, and S. Sumarni, "Persepsi Guru tentang Pendidikan Peduli Lingkungan di Sekolah Dasar," *Pendidikan Kreatif*, vol. 11, pp. 1802-1811, 2020, doi: 10.4236/ce.2020.119132.
- [25] Husin, M. Faisal, and D. Purwaningsih, "Adiwiyata Schools (Obstacles and Expectations Of Environmental Culture Implementation At State Junior High Schools in Palembang)," *Jurnal Penelitian Pendidikan Indonesia*, vol. 9, no. 4, pp. 74-82, 2023, doi: 10.29210/0202312261.
- [26] Husin, H. Helmi, Y. K. Nengsih, and M. Rendana, "Environmental Education In Schools," *Jurnal Discover Sustainability*, vol. 1, no. 6, p. 41, 2025, doi: 10.1007/s43621-025-00837-2.
- [27] Husin and A. Saleh, "Peluang bagi Sistem Sekolah untuk Menanamkan Nilai-Nilai Lingkungan," *Jurnal Perlindungan Lingkungan*, vol. 10, pp. 1649-1656, 2019, doi: 10.4236/jep.2019.1012098.
- [28] W. Yuliani, A. Husin, and A. Saputra, "Kesadaran Masyarakat Dalam Menjaga Kebersihan Lingkungan Taman Kambang Iwak di Kota Palembang," *Jurnal Ilmu Pendidikan Nonformal*, vol. 9, no. 2, 2023, doi: 10.37905/aksara.9.2.1109-1114.2023.