

Implementation of Waste Management Policy in West Sumatra Province

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Abstract. Waste management is very important to help the government in dealing with waste problems in Indonesia. With this waste handling, the community is part of the government's efforts to carry out the implementation of existing policies. West Sumatra Province has a complex waste problem, with increasing waste volume and suboptimal management system. To overcome this, the local government issued several policies related to waste handling. This study aims to analyze the implementation of waste handling policies in West Sumatra province. The research method used is qualitative with a case study approach, data collected through observation and documentation studies. The results showed that the implementation of waste handling policies in West Sumatra province is still not optimal, this is due to several factors such as low public awareness of the importance of waste processing, lack of coordination and integration between related agencies, and lack of adequate infrastructure and resources. Therefore, it can be concluded that several efforts are needed to improve the effectiveness of waste management policy implementation in West Sumatra province, including strengthening coordination and integration between related agencies, increasing socialization to the community about the importance of waste processing, building adequate infrastructure and strengthening law enforcement.

Keywords: Waste Management, Policy Implementation, Government

1. Introduction

The waste problem is a problem that occurs throughout Indonesia. With the increasing population that increases every year, the generation of existing waste is increasing. Most Indonesians who still have low awareness of waste also exacerbate the problem. With various forms of human activities accompanied by a large population, the volume of waste can be harmful to humans and can pollute the surrounding environment if not managed properly. This problem is also caused by an imbalance in the amount of waste generated with the amount of waste that has been managed.

The waste problem can be a source of inconvenience for the community in their daily activities which on the other hand the existing community is also increasing from time to time. If this problem is not handled properly, then all other forms of problems will increase, both from social and environmental aspects. So that all forms of effort in the process of solving these problems are needed. One of them is problems related to waste management.

Waste management here is the responsibility of the government in the form of services, but by making policies regarding waste management (Fitri, Ati, & Suyeno, in Hastuti et al., 2021). The existence of policies on waste management has not determined that waste management can be managed properly. Where it is not uncommon to find agencies that have the task of handling waste are less able to overcome waste problems, causing ineffective waste management and can have a negative impact on health and the environment.

The Indonesian government has actually taken some precautions against waste management. The waste management law is a testament to how the government is tackling waste in the country. The law on waste management was born from the government's awareness that waste has become a national problem, so its management needs to be carried out comprehensively and integrated from upstream to downstream in order to provide economic benefits, healthy for the community, and safe for the environment, and can change people's behavior to be more aware of the good and bad waste problems for the environment. The government established a mechanism for managing household waste and household type waste through Law Number 18 of 2008 Article 20 Paragraph (1) concerning Waste Management through the Regulation of the State Minister of Environment (Menpora KLHK) Number 13 of 2012 concerning Guidelines for the Implementation of 3R (Reduce, Reuse and Recycle). Reduction can be interpreted as a daily attitude in reducing the causes of waste. Furthermore, Reuse means reusing used items without processing them first. While Recycle (recycling) can be interpreted as processing into other useful materials. (Abdussamad et al., 2022)

In waste management of an area, legal certainty, responsibility, and government authority are needed to deal with waste problems. One of the efforts made by the West Sumatra Provincial Government in responding to waste problems in order to create a clean, comfortable, and healthy province is to issue a policy on West Sumatra Provincial Regulation Number 8 of 2018 concerning Regional Waste Management. The definition of waste management in the Regional Regulation of West Sumatra Province is a systematic, comprehensive, and sustainable activity which includes waste reduction and handling.

The environmental quality index of West Sumatra province increased from previous years, namely by 73.58% in 2021, by 74.98% in 2022 and 75.85% in 2023 (based on data from BPS Prov. West Sumatra). However, the waste problem of West Sumatra Province has become a protracted problem that can disturb residents, over the past few months the Payakumbuh City Landfill was closed due to a landslide on December 20, 2023. Since then garbage has spilled in cities, which five years ago won the adipura

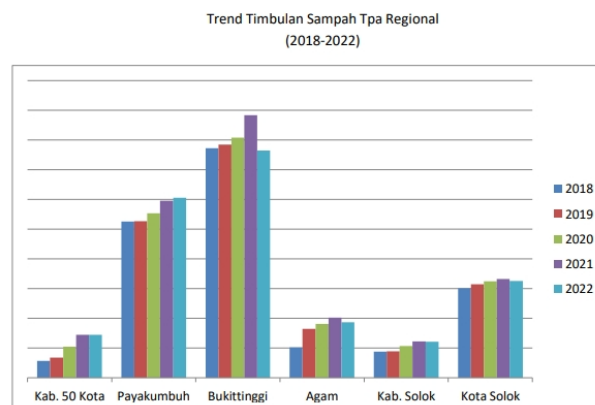
award. The landslide in Payakumbuh also revealed waste management problems in West Sumatra. So far, this province only has 13 landfills at the district / city level and 2 regional landfills that serve waste disposal across districts / cities. Some of these landfills are also overcapacity and many of these waste facilities are not operating optimally. The Payakumbuh City Government has designated this case as a waste emergency response status and is working with the Padang City Government to deal with this waste problem. Some of the waste from Payakumbuh City was sent to the Landfill Air Dingin, Padang.

The landfill of West Sumatra Province regional landfill in the last 5 years (2018-2022) can be seen from the following data:

Table 1: West Sumatra Province Landfill Regional Landfill
in the last 5 years (2018-2022)

Kab/kota	Year				
	2018 (ton)	2019 (ton)	2020 (ton)	2021 (ton)	2022 (ton)
Kab. 50 kota	2852	3414	5.241	7.230	7.225
Payakumbuh	26313	26318	27.669	29.799	30.311
Bukittinggi	38629	39236	40.424	44.206	38.236
Agam	5138	8243	9.077	10.134	9.359
Kab. solok	4383	4426	5.350	6.091	6.082
Kota Solok	15039	15750	16.234	16.616	16.278

source: ppid.sumbarprov.go.id



picture 1: Regional Landfill Waste Generation Trend (2018-2022)

Based on the data above, we can see that the landfill in the regional landfill from 2018 to 2022 shows a significant increase, based on this data we can see that the landfill in the regional landfill has increased from year to year. As we saw in 2018 Fifty City District, landfill is 2852 tons and in 2022 it is around 7225 tons. This indicates an increase

during the period. In addition, this trend is also seen in other cities such as Payakumbuh, Bukittinggi, Agam Regency, Solok Regency and Solok City.

Handling waste cases is not an easy thing because the growing population will definitely be balanced with high levels of consumption in the community and ultimately have an impact on waste production. Waste needs to be handled seriously, because waste can have an impact on human life both environmentally, health, socially and economically. With these conditions and consequences, it is necessary to carry out sub-district-based waste management which is intended so that waste does not endanger human health, does not pollute the environment, so that it can form public awareness behavior, and also waste that was previously a problem, can finally provide economic benefits to the community.

Waste management policy in this case really needs a legal basis so that the implementation of waste management can run proportionally, effectively and efficiently. The government has used its authority in providing legal certainty and clarity of responsibility with the promulgation of Law Number 18 of 2008 concerning Waste Management which aims to reduce waste problems (Zulfikar and Rinaldi in Azzahra et al., 2023). To follow up on the Law, Government Regulation Number 81 of 2012 concerning Guidelines for Household and Similar Household Waste Management was formed. To ensure legal certainty and provide protection for a good and healthy life is everyone's right as part of the protection of the entire ecosystem. then established Law Number 32 of 2009 concerning Environmental Protection and Management as a replacement for Law Number 23 of 1997 concerning Environmental Management (Hasibuan in Azzahra et al., 2023). West Sumatra Province has a responsibility in handling good and correct waste management through the formulation of waste management policies, so that policies made by the provincial government can be sustainable in the long term (sustainable development) through mature, controlled and environmentally sound planning.

2. Method

The type of research used is descriptive research with quantitative analysis. This method is a method that serves to describe the object under study through data or samples that have been collected as they are without conducting analysis and making conclusions that apply to the public (Abdussamad et al., 2022). This means that this study aims to be able to obtain an overview and how to understand policies related to the implementation of waste management policies, observe, and capture factually and actually the real world and examine the behavior of individuals, groups and their daily experiences, as well as study, explain, or interpret a case in its context naturally without intervention from the path as appropriate to the topic Issues discussed.

3. Results and Discussion

Garbage is one of the problems faced by many cities around the world. The higher the population and its activities, making the volume of waste continue to increase.

As a result, to overcome waste requires a lot of costs and increasingly large land (Sujarwo, dalam Raintung et al., 2022). According to Yuwono (Raintung et al., 2022) Waste is the rest of a business or human activity in solid form in the form of organic and inorganic substances that are decomposable or non-decomposed and are considered no longer useful so that they are disposed of in the environment.

Basically, the classification of waste source categories can also describe the classification of economic levels that will be used to assess the extent of the community's ability to pay waste levies and determine cross-subsidy patterns. Residential area (household) The sources of waste in the residential area are divided into: - High-income community housing - Middle-income community housing - Low-income / slum community housing (low-income / slum area). Commercial areas are generally dominated by commercial, entertainment and other areas. Commercial areas include markets, shops, restaurants, cinemas, beauty salons, industries, etc. (Kurniawan & Santoso, 2020)

Technical Operational Aspects are often further divided into 6 functional elements (aspects), namely generation (waste generation), handling consisting of separation, storage, and on-site processing (waste in a partial environment, storage and processing at the source), (collection), transfer and transport (transfer and transport), separation, processing and transformation (partial processing and transformation), and completely ended (disposal). The person in charge of waste management is managed by relevant agencies such as the Hygiene Office. Management by related agencies starts from the transportation of waste to the top of waste. For waste sources and waste sources, the responsibility of the manager, namely: The 3R program is predicted to reduce the quantity of waste empowered at the 3R TPS or at TPST or TPA, thereby reducing the burden of waste processing on a city scale. also as a regional scale. In determining waste management strategies, information is needed about the composition, rate and rate of waste generation. For example, waste dominated by organic waste easily requires activities that require activities and disposal with a better frequency than waste consisting of waste that does not rot, such as paper, plastic, leaves and so on. (Kurniawan & Santoso, 2020)

Results of an interview with the Head of the Environment Agency, Armen, A., S. IP as quoted by (Kasih et al., 2023) Regarding waste sorting, it is actually an effective way to reduce the presence of mixed waste and is even highly recommended in waste management efforts. Good waste sorting is by separating organic and inorganic waste produced from household waste, sorting inorganic waste, processing organic waste into compost, collecting inorganic waste to waste processing institutions. Waste management activities include waste control, waste collection, transfer and transport, processing, and final disposal. Garbage transportation is a piece of waste that carries waste from the transfer site or from the waste source directly to the landfill (TPA).

Article 28 H paragraph (1) of the Constitution of the Republic of Indonesia Year 1945 states that "everyone has the right to live a prosperous life physically and mentally, to reside, and to get a good and healthy living environment and the right to health

services". This provision is a mandate for the government. The waste problem is generally a classic problem that occurs frequently, especially an area that has a high population growth rate. The impact of population growth will be accompanied by an increase in the volume of waste as a natural production of human life. In addition, poor waste management ranging from management planning, management operations to the limitations of the institution in charge causes problems in the community ranging from social, environmental, to health problems.

Efforts to implement waste management at the policy level have actually been regulated in Law Number 18 of 2008. This law mandates that the implementation of regional waste management requires legal certainty, clarity of responsibilities and authorities of local governments as well as the role of the community and the business world, so that it can run proportionally, effectively and efficiently. Therefore, waste management is a form of public service implementation, the Provincial Government is a party that institutionally has authority and responsibility in the field of waste management.

The above carries legal consequences that the provincial government is the authority and responsible in the field of regional waste management even though operationally the management can partner with third parties. In addition, waste organizations, and community groups engaged in waste can also be included in regional waste management activities in West Sumatra Province and waste management problems have been constrained by the lack of land and waste management facilities. Due to limited land for waste management, especially in urban areas, it is necessary to establish several regional waste management development units according to the direction of the West Sumatra Provincial Spatial Plan.

Regional Regulation on Regional Waste Management is a normative provision that becomes a unified legal system in waste management. The legal regulation of waste management in this Regional Regulation is carried out comprehensively and its implementation is based on the principles of regionality and integration. The principle of regionality means that waste management is carried out across regions between districts / cities in West Sumatra Province, so it is not local and sectoral. While the principle of integration is a form of transformation of the ecosystem approach in waste management by viewing all related aspects as a unified system.

Based on West Sumatra Governor Regulation No. 61 of 2018 concerning regional policies and strategies for managing household waste and similar types of household waste. There is a mention of the target of reducing and handling household waste and similar types of household waste at the West Sumatra Province level from 2018-2025. The targets are as follows:

1. Target for Reducing Household Waste and Similar Household Waste at the Provincial Level

indicator	year							
	2018	2019	2020	2021	2022	2023	2024	2025
The Potential Generation of Household Waste and Similar Household Waste in Jakstrada (Ton/Year)	1.069.072	1.084.147	1.099.460	1.115.043	1.130.884	1.146.988	1.163.358	1.179.999
Target of Reducing Household Waste and Similar Household Waste in Jakstrada	18%	20%	22%	24%	26%	27%	28%	30%
Target of Reducing Household Waste and Similar Household Waste at the West Sumatra Provincial Level (Ton/Year)	192.433	216.829	241.881	267.610	294.030	309.687	325.740	354.000

2. Target for Handling Household Waste and Similar Household Waste at the Provincial Level

indicator	year							
	2018	2019	2020	2021	2022	2023	2024	2025
The Potential Generation of Household Waste and	1.069.072	1.084.147	1.099.460	1.115.043	1.130.884	1.146.988	1.163.358	1.179.999

Similar Household Waste in Jakstrada (Ton/Year)								
Target for Handling Household Waste and Similar Household Waste in Jakstrada	73%	80%	75%	74%	73%	72%	71%	70%
Target for Handling Household Waste and Similar Household Waste at the West Sumatra Provincial Level (Ton/Year)	780.423	867.318	824.595	825.132	825.546	825.831	825.984	825.999

In addition to Law Number 18 of 2008 concerning Waste Management which aims to reduce waste problems, it also refers to several regulations/policies related to waste in Indonesia in recent years, namely:

1. Government Regulation of the Republic of Indonesia Number 81 of 2012 concerning Management of Household Waste and Similar Household Waste
2. Government Regulation of the Republic of Indonesia Number 27 of 2020 concerning Specific Waste Management
3. Presidential Regulation of the Republic of Indonesia Number 97 of 2017 concerning National Policies and Strategies for Household Waste Management and Similar Household Waste
4. Presidential Regulation of the Republic of Indonesia Number 97 of 2017 concerning National Policies and Strategies for Household Waste Management and Similar Household Waste
5. Presidential Regulation of the Republic of Indonesia Number 83 of 2018 concerning Marine Debris Management
6. Regulation of the State Minister of Environment of the Republic of Indonesia Number 13 of 2012 concerning Guidelines for the Implementation of Reduce, Reuse, and Recycle through Waste Banks
7. Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number P.59/Menlhk/Setjen/Kum.1/7/2016 concerning Leachate Quality Standards for Business and/or Activities of Final Waste Processing Sites

8. Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number P.10/Menlhk/Setjen/Plb.0/4/2018 concerning Guidelines for the Preparation of Regional Policies and Strategies for Household Waste Management and Similar Household Waste
9. Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number P.75/Menlhk/Setjen/Kum.1/10/2019 concerning Roadmap for Waste Reduction by Producers
10. Regional Regulation of West Sumatra Province Number 2 of 2020 concerning Environmental Protection and Management Plan
11. Regional Regulation of West Sumatra Province Number 14 of 2012 concerning Environmental Protection and Management.

4. Conclusion

The waste problem faced by many cities around the world is increasingly complex as population and human activities increase. The increasing volume of waste requires a lot of money and land for management. Waste, both organic and inorganic, comes from various sources such as residential areas and commercial areas. Effective waste management involves various functional elements such as separation, collection, transport, and disposal. According to Law Number 18 of 2008, waste management is the responsibility of local governments by involving the role of the community and the business world.

This is further regulated in West Sumatra Governor Regulation No. 61 of 2018, which stipulates policies and strategies for household waste management until 2025. Limited land and management facilities, especially in urban areas, demand the implementation of waste management regionally across districts/cities. A good waste management strategy requires information about the composition and rate of waste generation and the application of the 3R principle (Reduce, Reuse, Recycle) to reduce the burden of treatment. The policies taken are expected to be able to create a healthy environment in accordance with the mandate of Article 28 H paragraph (1) of Constitution 1945.

References

- Abdussamad, J., Tui, F. P. D., Mohamad, F., & Dunggio, S. (2022). Implementasi Kebijakan Pengelolaan Sampah Melalui Program Bank Sampah Di Dinas Lingkungan Hidup Kabupaten Bone Bolango. *PUBLIK: Jurnal Manajemen Sumber Daya Manusia, Adminstrasi Dan Pelayanan Publik*, 9(4), 850–868.
- Azzahra, N., Frinaldi, A., & Rembrandt. (2023). Analisis Implementasi Kebijakan Pemerintah Mengenai UU No.18 Tahun 2008 Tentang Pengelolaan Sampah Di Kota Padang: Sistematis Literatur Review. *Gudang Jurnal Multidisiplin Ilmu*, 1(6), 35–42.

- Kasih, Y. D., Nefilinda, & Putri, R. E. (2023). Pola Persebaran TPS, TPA dan Upaya Pengelolaan Sampah di Kabupaten Agam Bagian Barat, Sumatera Barat. *Jurnal Ilmu Alam Dan Lingkungan*, 14(2), 64–74.
- Kurniawan, D. A., & Santoso, A. Z. (2020). Pengelolaan Sampah Di Daerah Sepatan Kabupaten Tangerang. *ADI Pengabdian Kepada Masyarakat*, 1(1), 31–36.
- Raintung, B. T. Y., Pangemanan, F., & Monintja, D. (2022). Implementasi Kebijakan Penanganan Sampah Berbasis Kecamatan Kota Manado (Studi Di Kecamatan Sario). *JURNAL GOVERNANCE*, 2(1), 1–10.
- [https://ppid.sumbarprov.go.id/images/2023/08/file/tren_timbunan_sampah_\(1\).pdf](https://ppid.sumbarprov.go.id/images/2023/08/file/tren_timbunan_sampah_(1).pdf)
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