



## COMMUNICATION STRATEGY ON ENVIRONMENTAL LAW FOR WASTE MANAGEMENT IN BUKITTINGGI CITY

Anggi Putri Kurniadi<sup>1</sup>, Susi Evanita<sup>2</sup>

<sup>1</sup> Fakultas Ekonomi, Universitas Negeri Padang, email: [anggi.putri.kurniadi.unp@gmail.com](mailto:anggi.putri.kurniadi.unp@gmail.com)

<sup>2</sup> Fakultas Ekonomi, Universitas Negeri Padang

### ABSTRACT

*This study aims to inform and to persuade the community of Bukittinggi City, especially in Mandiagin Koto Selayan Subdistrict to apply the environmental law regarding Regional Regulation Number 5 of 2014 which regulates the management and retribution of waste/cleanliness services because there is a point of waste accumulation in Mandiagin Koto Selayan Subdistrict, even though the Bukittinggi City won the Adipura award in the last three years in a row. The actions to anticipate this problem are through communication strategies on environmental law for waste management in Bukittinggi City to achieve a clean environment by using the hierarchy effect model. The results showed that the waste management in Bukittinggi City was not optimal due to the low awareness of the community in disposing waste in accordance with Regional Regulation No. 5 of 2014. Based on this, waste management is not neatly arranged which has an effect on environmental degradation and aesthetic disturbances. This study recommends that communication on environmental law and implementation of waste management be improved so that the Bukittinggi City can maintain the Adipura award in the future.*

### ARTICLE INFO

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### INTRODUCTION

Bukittinggi City has the advantage of the tourism sector and several historical relics such as, Japan Hole, Fort De Kock Fort and Jam Gadang. The combination of both makes Bukittinggi City as a tourist destination. Bukittinggi City has the advantage of the tourism sector and several historical relics such as, Japan Hole, Fort De Kock Fort and Jam Gadang. The combination of both makes Bukittinggi City as a tourist destination. The Government of Bukittinggi City seeks to prioritize the sapta of charm. Sapta of charm is a condition that must be realized to attract tourists in supporting the role of Bukittinggi City as a tourist city. The Government of Bukittinggi City was successful in carrying out the sapta of charm, especially in the cleanliness because it received the Adipura award for the last three years in a row

The Adipura award was received by Bukittinggi City due to the cooperation of all parties in maintaining environmental cleanliness of waste regulated in environmental law Bukittinggi City Regulation No. 5 of 2014 concerning waste management and levies / cleaning services with three main points regarding the problem of waste disposal, including the hours of waste disposal from 06.00pm to 06.00am, waste must be disposed of at the TPS (temporary waste disposal) and waste must be separated between wet and dry waste at the time of disposal. In addition, Department of Environment Bukittinggi City also established a waste management scheme in support of environmental cleanliness that waste must be disposed of in TPS of wood and container before being moved to the TPA (final waste disposal), which is summarized in Figure 1 below:

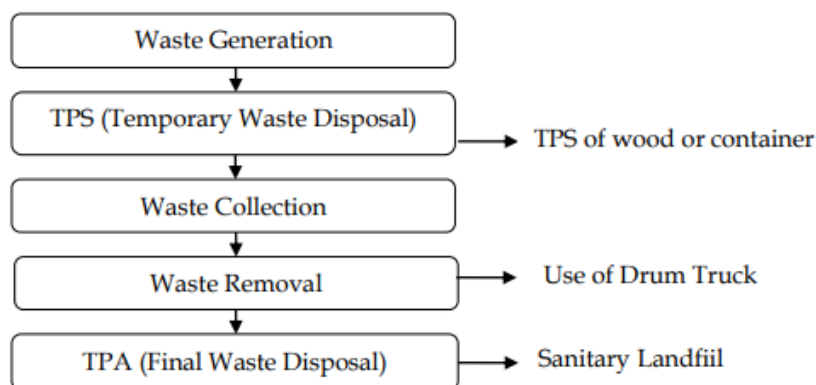


Figure 1: Waste Management Scheme in Bukittinggi City.<sup>1</sup>

The latest phenomenon behind the Adipura award is the point of waste accumulation. Based on observations in the field that the point of waste accumulation was found in Mandiangin Koto Selayan Subdistrict. The condition that occurs is waste scattered on the shoulder of the road at 08.30 am. In addition, waste is not disposed in TPS of wood or container. Based on data obtained from Department of Environment Bukittinggi City, that the government has provided many TPS in each subdistrict, including Aur Birugo Tigo Baleh Subdistrict has 61 TPS, Guguk Panjang Subdistrict has 102 TPS and Mandiangin Koto Selayan Subdistrict has 100 TPS. The condition of waste accumulation in Bukittinggi City is summarized in Figure 2 below:

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<sup>1</sup> Department of Environment Bukittinggi City.

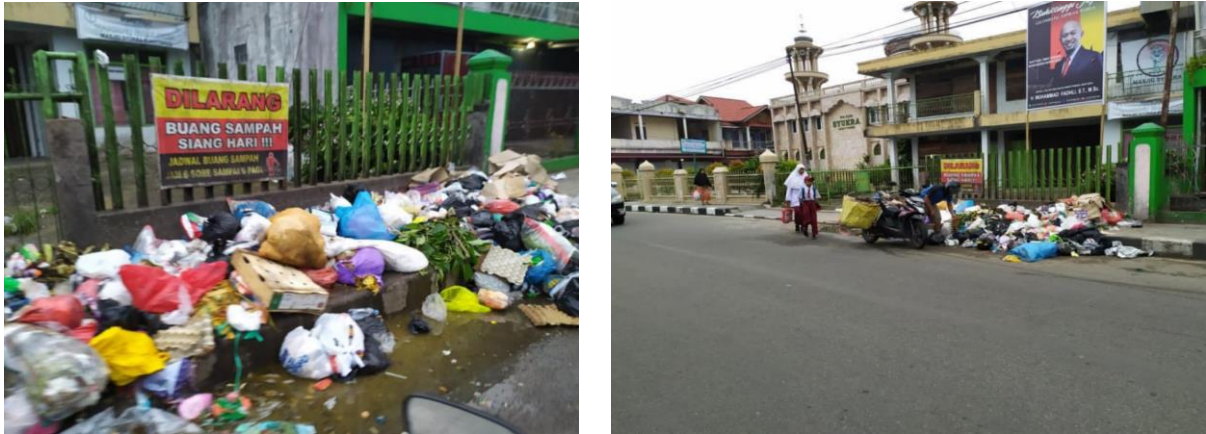


Figure 2: Point of waste accumulation in Bukittinggi City.<sup>2</sup>

Based on the information in Figure 2, the waste disposal management system implemented by the people of Bukittinggi City is not good because the community is not obedient to environmental laws.<sup>3</sup> This can be seen from the waste dumped by the community outside the schedule for waste disposal, the waste is not thrown in TPS and the waste disposed is not sorted between wet and dry waste. This condition shows that the community of Bukittinggi City in Mandiangan Koto Selayan Subdistrict disposes of illegal waste because the waste is disposed at location not intended as a landfill. The current condition of waste management in Bukittinggi City is not optimal because the environmental law<sup>4</sup> is not implemented sustainably, so that waste management is not neatly organized which has an effect on environmental degradation, aesthetic disorders and public health.<sup>5</sup>

Based on relevant research that waste has a wide impact on environmental pollution.<sup>6,7,8</sup> The community will not avoid the existence of waste in the environment if the community does not apply environmental law.<sup>9,10,11</sup> The effects of waste on public

<sup>2</sup> Researcher's Documentation, 2020.

<sup>3</sup> Regional Regulation No. 5 of 2014 Concerning Management and Levies on Waste/Cleanliness Services..

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> E. F., Mondol, R., Hasan, S., Rahman, S., Alam, S. A., Rahman & T. T., Sinthia. Solid Waste Management Strategy & Improvement of Existing Scenario Based on Market Waste. *Global Journal of Researches in Engineering Civil And Structural Engineering*, 13(4), hlm. 3.

<sup>7</sup> G. K., Singh, K., Gupta & S., Chaudhary. Solid Waste Management : Its Sources , Collection , Transportation and Recycling. *International Journal of Environmental Science and Development*, 5(4), hlm. 348.

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<sup>9</sup> E., Amasuomo & J., Baird. The Concept of Waste and Waste Management. *Journal of Management and Sustainability*, 6(4), hlm. 92.

<sup>10</sup> A. B., Berg, J., Zloch, M., Radziemska, D., Adamcová & M. D. Vavrková. Waste Management Law by Example of a Small European Commune. *Infrastructure and Ecology of Rural Areas*, 5(11), hlm, 1335.

<sup>11</sup> A. M., Ragossnig. Construction and demolition waste – Major challenges ahead ! *Waste Management & Research*, 38(4), hlm, 344.

health can be grouped into direct and indirect effects.<sup>12,13,14</sup> Direct effects are caused by direct contact with waste. While the indirect effects can be felt by the community such as the process of spoilage of waste. Uncontrolled waste disposal is a suitable for several organisms that can cause disease.<sup>15,16,17</sup> The environment is an important source in ensuring the survival of humans and other organisms on earth.<sup>18,19,20</sup>

The effects of waste on the environment are disturbances to the environmental balance such as air pollution and water pollution. Waste can also upset the balance of the environment, health and safety of community. Waste can cause pollution or contamination. Pollution that occurs is dirty air because it contains gases from the pile of waste.<sup>21</sup> Disposal of illegal waste will cause physical conditions that are not in accordance with normal environment such as increased temperatures, changes in pH and lack of oxygen in the waste disposal area caused by the process of waste refurbishment.<sup>22</sup> Gas produced during waste degradation can be dangerous for public health because it has toxins and can be deadly.<sup>23</sup>

Based on the phenomenon of the facts that occur that there are problems in waste management in the Bukittinggi City. It is necessary to have a communication strategy on environmental law for waste management that has a mission to maintain the achievements of the Bukittinggi City as a tourist city that receives the Adipura award. The novelty of this research is a combination of two sciences, namely law and communication. The importance of this research is to create a clean environment and Bukittinggi City can maintain the Adipura award in the future. Based on the background of the research that has been described, the formulation of the problem in this study are:

1. What is the role of environmental law for waste management in Bukittinggi City?

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<sup>12</sup> B., Akshaya & K., Selvakumar. Innovative Waste Management Technique Via Garbage Collecting Robotruck. *International Journal of Recent Technology and Engineering (IJRTE)*, 8(2), hlm, 271.

<sup>13</sup> S., Lee & H., Sun. Korean Household Waste Management and Recycling Behavior. *Building and Environment*, 46(5), hlm, 1162.

<sup>14</sup> J., Singh, R., Laurenti, R., Sinha & B., Frostell. Progress and Challenges to the Global Waste Management System. *Waste Management & Research*, 32(9), hlm, 805.

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<sup>17</sup> S. A., Mulasari, A. H., Husodo & N., Muhadjir. The Effectiveness of Health-Community-Based Waste. *International Journal of Indonesian Society And Culture*, 8(1), hlm, 53.

<sup>18</sup> J., Pyssa. Environmental, Technical and Technological Aspects of Hazardous Waste Management in Poland. *E3S Web of Conferences*, 02021(19), hlm, 2.

<sup>19</sup> N., Yukalang, B., Clarke & K., Ross. Solid Waste Management Solutions for a Rapidly Urbanizing Area in Thailand : Recommendations Based on Stakeholder Input. *International Journal of Environmental Research and Public Health*, 1(5), hlm, 6.

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<sup>22</sup> Y., Dhokhikah & Y., Trihadiningrum. Solid Waste Management in Asian Developing Countries : Challenges and Opportunities. *Journal of Applied Environmental and Biological Sciences*, 2(7), hlm 331.

<sup>23</sup> Halkos, George, Petrou, & N., Kleoniki. *Efficient Waste Management Practices: A Review*, hlm, 5.

2. What is the communication strategy of environmental law for waste management in Bukittinggi City?

The purpose of this study is to determine the role of environmental law in waste management in Bukittinggi City and determine the communication strategy of environmental law for waste management in Bukittinggi City.

## METHOD

This research is descriptive qualitative, which illustrates the problem based on the facts that occur. Data collection techniques are observation and documentation. The observation stage used is ordinary observation, which is direct observation of conditions that occur in the field. Meanwhile, the documentation stage was obtained from the study of literature. The technique of tracing law materials uses document study techniques and study analysis using qualitative analysis. The law research method in this study uses an empirical method that departs from an implementation problem, which is the gap between norms and implementation. While the communication method in this study uses a hierarchy effect model that aims to inform and persuade.

## RESULTS AND DISCUSSION

### 1. The Role of Environmental Law for Waste Management in Bukittinggi City

The environmental law for waste management in Bukittinggi City is Bukittinggi City Regulation No. 5 of 2014 concerning waste management and levies / cleaning services to improve public health and environmental quality. Waste management is carried out with the principle of responsibility, the principle of sustainability, the principle of benefits, the principle of justice, the principle of awareness, the principle of togetherness, the principle of safety, the principle of security and the principle of economic value. The purpose of environmental law Bukittinggi City Regulation No. 5 of 2014 is to improve waste management and public awareness to maintain a clean and healthy environment. The Role of Bukittinggi City Regulation No. 5 of 2014 concerning waste management and levies / cleaning services is:

- a. The waste management is carried out through the following stages:<sup>24</sup>
  - 1) Waste reduction is done by limiting waste generation, waste recycling and waste reuse.
  - 2) Waste sorting is done by separating organic, inorganic, and hazardous waste according to the amount and/or type of waste.
  - 3) Waste collection is carried out by the waste manager by moving the waste from the source of waste to TPS.
  - 4) Transportation of waste to landfill is done every day. Transport waste from the TPS to the TPA using the waste transportation facility.
  - 5) Waste processing is done in the form of changing the characteristics, composition, and amount of waste.
  - 6) Waste final treatment is integrated waste treatment, including composting, temporary storage of specific waste, and landfilling according to the specified method.
- b. The rights of community for waste management are as follows:<sup>25</sup>

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<sup>24</sup> Regional Regulation No. 5 of 2014 Concerning Management and Levies on Waste/Cleanliness Services on Article 7.

<sup>25</sup> Ibid, on Article 18 Paragraph 1.

- 1) Good environmental quality, such as clean, comfortable and healthy.
- 2) The community gets solid waste management services.
- 3) Formation of a waste management group.
- 4) Management of waste independently.
- 5) Supervise the implementation of waste management.
- 6) The community gets accurate information about waste management.
- c. The obligations of community for waste management are as follows:<sup>26</sup>
  - 1) Environmental management of waste management.
  - 2) Waste management by reducing and sorting according to the nature and type of waste.
  - 3) Provision of household bins and/or TPS in accordance with applicable regulations.
  - 4) Waste management financing.
  - 5) Provide accurate information about waste management.
  - 6) Waste management levies.
- d. The prohibition of the community for waste are as follows:<sup>27</sup>
  - 1) Prohibited from entering waste without permission into Bukittinggi City.
  - 2) Prohibited mixing trash with hazardous and toxic waste.
  - 3) Prohibited from managing waste that causes pollution and/or environmental damage.
  - 4) Prohibited to throw waste in the place and time that has been provided and determined.
  - 5) Prohibited from handling waste by open disposal at the final processing site.
  - 6) Prohibited to burn waste that is not in accordance with the technical requirements of waste management.
- e. Everyone who knows, suspects, and suffers losses due to illegal waste disposal can submit a complaint to the regional government. Complaints can be conveyed to the Lurah, Camat, and technical agents. In filing a complaint with at least information about the identity of the offender, estimated waste, proof of location and time of disposal of illegal waste.<sup>28</sup>
- f. Provisions on disposing of waste are as follows: <sup>29</sup>
  - 1) Waste from an activity must be separated between organic waste, inorganic waste and hazardous materials.
  - 2) Waste that has been sorted must be collected at the TPS.
- g. The regional government can give awards to community who do<sup>30</sup>:
  - 1) The best innovation in waste management.
  - 2) Reporting on violations of regulations.
  - 3) Reduction of waste generation.
  - 4) Waste handled in an orderly manner.

Based on this explanation, environmental law is needed as a tool to overcome environmental problems. Law instruments are needed in order to protect the environment and natural resources to be utilized based on environmental capabilities. The contribution of environmental law is to regulate the environment and humans. The

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<sup>26</sup> Ibid, on Article 18 Paragraph 2.

<sup>27</sup> Ibid, on Article 20.

<sup>28</sup> Ibid, on Article 22.

<sup>29</sup> Ibid, on Article 23.

<sup>30</sup> Ibid, on Article 34.

environment as an object of regulation is protected from human actions in order to support one another. Environmental law is useful as a regulator of human interaction with the environment in order to achieve order and order. In accordance with its purpose which is not only as a means of order, the environmental law also aims to create renewal in society. Law as a social engineering tool is very important in environmental law because the relationship between the community and the environment can be directed to accept and respond for the principles of development and progress.

## 2. The Communication Strategy of Environmental Law for Waste Management in Bukittinggi City

The communication method to convey information about the role of environmental law for waste management in Bukittinggi City is carried out through a hierarchy effect model. This model has two functions namely, to inform and to persuade. The stages of the hierarchy effect model are summarized in Figure 3 below:

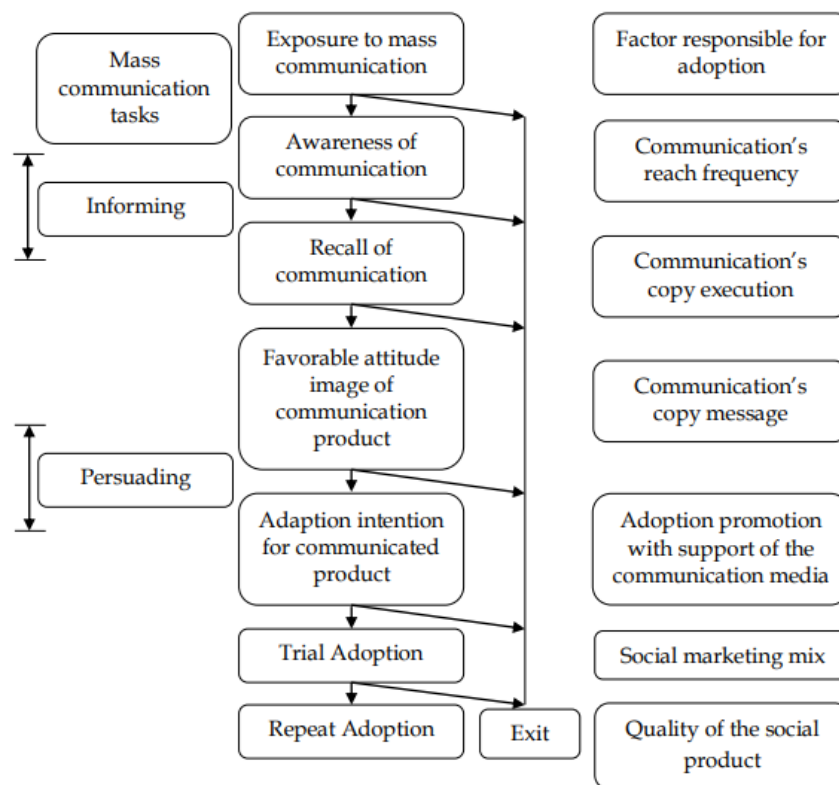


Figure 3: Hierarchy Effect Model<sup>31</sup>

Based on the information in Figure 3, there are two possibilities that can occur, namely the community is aware or not aware. If community realizes that, the information is in their minds and memories. While, if it is not realized by their self out of their minds. If the information conveyed to the public has been understood, realized and is in memory, the community has a positive attitude towards information and the desire to find out more. However, based on the facts that occur that the community has not been fully aware of the role of Regional Regulation No. 5 of 2014 concerning waste management and levies / cleaning services for regulates waste management. Thus, the information function in

<sup>31</sup> Cangara, H. *Perencanaan dan Strategi Komunikasi*. Jakarta: Rajawali Pers, hlm, 65.



this model is recognition, awareness, to the ability to remember. While, the function of persuasion is to include a positive attitude, attention, try and repeat. The communication strategy in this study was used to inform and to persuade the community in Bukittinggi City, especially in Mandiangan Koto Selayan Subdistrict to manage waste according on environmental law Bukittinggi City Regulation No. 5 of 2014 concerning waste management and levies / cleaning services by using positive messages on banners that aim to motivate the community to maintain cleanliness of environment.

## CONCLUSION

Based on the findings and analysis of researchers as a whole that waste management in Bukittinggi City is not optimal because there is a point of waste accumulation. This condition is caused by the lack of communication and socialization to the community of Bukittinggi City in Mandiangan Koto Selayan Subdistrict regarding the Bukittinggi City Regulation Number 5 of 2014 concerning the management and retribution of waste / cleanliness services, which consists of low levels of community knowledge about waste management, community needs in waste management, the prohibition of the community for waste and the rights of each community regarding waste management. This study recommends that communication on environmental law of Bukittinggi City Regulation Number 5 of 2014 concerning the management and retribution of waste / cleanliness services must be improved and socialization carried out by persuading through positive messages on banner so that community do not feel forced to comply it, if this is realized then The Bukittinggi City can maintain the Adipura award in the future.

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### **C. The Provisions of The Legislation**

- Regional Regulation No. 5 of 2014 Concerning Management and Levies on Waste/Cleanliness Services.
- Regional Regulation No. 5 of 2014 Concerning Management and Levies on Waste/Cleanliness Services on Article 7.
- Regional Regulation No. 5 of 2014 Concerning Management and Levies on Waste/Cleanliness Services on Article 18 Paragraph 1.
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