

## COMMUNITY PERCEPTION ON WASTE IN KOTO TANGAH DISTRICT

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**ABSTRACT:** This study aims to find out how the public perception about waste and the factors that influence perception. This type of research is survey research, with a population of people in Koto Tangah District, Padang City. The research sample was taken based on population density assuming the amount of waste produced was influenced by the population. Based on the results of the study, it is known that 68% of the people have a low perception of waste with the view that waste is a useless waste, has no economic value, and must be disposed of immediately; and 32% of the community has a moderate perception with the view that some waste has economic value and can be reused. Factors that influence people's perceptions of waste management are understanding and knowledge, concern for the environment and the willingness to process waste into products which have economic value. Community knowledge about waste management is high about sorting and processing waste, but people have a social environment that seldom uses waste and seldom participates in counseling on how to use waste, so that public awareness of the environment, confidence in processing waste and the willingness to process waste become products that have economic value is also low.

### 1. INTRODUCTION

Indonesia is an archipelagic country which has an increasing population from year to year. Increasing population growth makes waste as a consequence of human activities, where every activity must produce waste [1]. Padang City as the center of development, trade, education, health, and culture, becomes a domicile of tens of thousands of residents, so that waste is also a major problem.

Various programs were made by the government to overcome environmental pollution caused by waste, including the existence of Law Number 18 of 2008 concerning Waste Management (UUPS) with a waste management program launched by the government, namely in 3R. The UUPS explains that waste management consists of waste reduction (activities to limit landfill waste, waste recycling, and waste utilization) and waste management activities (sorting in the form of grouping and separating waste according to its type as well as transferring waste from the garbage source to the temporary shelter later to the final processing site). Furthermore, Reduce, Reuse, Recycle (3R) waste management has become a national policy since the enactment of Law No. 18 of 2008 concerning Waste Management. Law Number 18 of 2008 states that in Chapter XVI of the Transitional Provision of Article 44 that the waste management system must be changed to a sanitary landfill or controlled landfill system. The implementation of the program is expected to reduce waste from the source so that the waste disposed to the landfill is

also reduced.

But in reality, in the city of Padang in general the waste management program has not been optimally implemented. This can be seen from the implementation of the system which was hampered due to constraints on operational costs. In addition, based on observations, there are still many residents of Padang City who dispose of garbage not in accordance with the ethics, aesthetics and local regulations that apply, such as: motorists without feeling guilty throwing trash from their vehicles that are going to highways and trash in temporary landfills (TPS) which are spread over several edges of the road in a state of mixed between organic and inorganic waste. Waste management in Koto Tangah Sub-district in particular at this time, is also not maximized, and is limited to conventional management. This management process is handled by the Department of Hygiene and Landscaping (DKP). Household waste is transported from residential areas to Temporary Disposal Sites (TPS) and then dumped into Final Disposal Sites (TPA) without prior sorting and processing. This means waste is disposed of by the community especially housewives who are not divided. This fact shows a lack of public awareness of good and correct waste management.

According to [2] one's attitude and concern for the environment is a determining factor in efforts to improve environmental quality. Attitude and concern for the environment is formed from someone's stimuli, these stimuli will become a perception, thus the formation of a person's attitude or behavior in daily life is influenced by

perception. Stimuli received by each individual are not always the same, giving rise to different perceptions between individuals. The good perception of a person towards garbage will create good behavior in managing waste, whereas low and negative perceptions of waste will certainly have an impact on behavior that is not good towards waste and the environment. In addition, if a negative perception of an object arises then people tend to be resistant to the object. Conversely if a positive perception arises then someone will tend to accept or support the object [3]. Therefore, it is very important to do a research to find out how people perceive waste and the factors that influence perceptions in Koto Tengah District, Padang City. The purpose of the research is to help, prevent and even overcome the environmental impacts that arise.

## 2. METHODS

To see the volcano eruption risk level of Sinabung seen from 3 elements, i.e: 1) the volcanic

eruption hazard level; 2) the volcanic eruption vulnerability level; and 3) the capacity of handling capacity the volcano eruption of Sinabung in Karo Regency. The volcano eruption risk level of Sinabung is analyzed in each sub-district administrative unit with a scoring method against the volcanic eruption hazard indicator according to the Regulation of the BNPB No. 02 of 2012 based on the danger indicator of volcanic eruption.

## 3. RESULTS AND DISCUSSION

### 3.1 Community Perception of Waste

Perception can be interpreted as a picture in someone's mind about an object that becomes their concern. Knowing the public's perception of waste in Koto Tengah Subdistrict is very important, because one's perception will influence their attitudes and behavior towards waste. Perceptions of waste can be seen from the public general view towards waste.

Table 1 Community Perception on Waste

No	Village	Community Perception's level on Waste			Total
		High	Middle	Low	
1	Bungo Pasang	0	57 (24,46%)	17 (7,30%)	74
2	Balai Gadang	0	16 (6,87%)	14 (6%)	30
3	Lubuk Buaya	0	51 (21,89%)	78 (33,48%)	129
Total		0	124 (53,22%)	109 (46,78%)	233 (100%)

Source: Primary Data Processing, 2017

The public's view of waste can be seen from the way of looking at the existence of garbage, the benefits or uses of waste, and the value / value of waste. Based on Table 1, it is known that the people of Koto Tengah Subdistrict as many as 109 people (46.78%) were classified as low categories (66 people (72%) were in Lubuk Buaya Subdistrict) seeing waste as a waste product that was useless and had to be discarded. Furthermore, 124 people (53.22%) were found to be in the moderate category (67 people (54%) were in Bungo Pasang Village) with the view that waste is leftover goods that can still be reused, and no respondent has a high category of views who sees waste with 3R (reuse, reduce and recycle). Koto Tengah District community perceptions of waste

management can be seen from the following indicators:

#### a. Perception of Waste Use Value

The results showed that the majority of the people in Bungo Pasang Village, Balai Gadang Village stated that they did not agree that waste is a waste product that is useless, while the people in Lubuk Buaya Village strongly disagree that waste has a purpose. The low public perception of waste is possibly due to the low understanding of the community on waste use value and the low willingness of the community to make waste as something that has economic value.

Tabel 2. Community Perception about the Existence of Waste

No	Village	Perception Category of Waste Existence			Total
		High	Middle	Low	
1	Bungo Pasang	0	34(14,60%)	40 (17,17%)	74
2	Balai Gadang	0	15 (6,44%)	15 (6,445%)	30
3	Lubuk Buaya	0	0	129 (55,36%)	129
Total		0	49 (21,03%)	184 (78,97%)	233 (100%)

Source: Primary Data Processing, 2017

**b. Community Perception of Waste Disposal**

Community perception on waste disposal indicate that people prefer to dispose of garbage directly to Temporary Disposal Sites (TPS) rather than being burned at home, disposed of in the river, and sorted and piled up in the soil placed on

the landfill. 31% of the people in Bungo Pasang Village, 23% of the Balai Gadang Village and 34% of the people in Lubuk Buaya Village showed a community response that agreed on the perception of garbage disposal which is best placed in a Temporary Disposal Site (TPS).

Table 3. Community Perception of Waste Disposal

No	Statement	Village	SD %	DS %	A %	SA %	Total
A	A garbage is best placed at home then burnt	Bungo Pasang	27	31	30	12	100
		Balai Gadang	27	47	13	13	100
		Lubuk Buaya	22	50	26	2	100
B	garbage thrown to river	Bungo Pasang	53	38	9	0	100
		Balai Gadang	27	20	37	17	100
		Lubuk Buaya	56	41	2	1	100
C	Garbage is best placed at Temporary Disposal Sites (TPS)	Bungo Pasang	0	1	68	31	100
		Balai Gadang	0	0	77	23	100
		Lubuk Buaya	1	7	58	34	100
D	Waste is classified into organic and inorganic group	Bungo Pasang	1	1	64	34	100
		Balai Gadang	0	3	73	23	100
		Lubuk Buaya	0	10	44	46	100
E	certain garbage that is piled up in the Final Disposal Sites (TPA) should be buried in the soil to be destroyed by microorganism	Bungo Pasang	1	31	62	5	100
		Balai Gadang	10	27	47	17	100
		Lubuk Buaya	13	43	29	15	100

Description: SD : Strongly Disagree; DS: Disagree; A: Agree; SA: Strongly Agree.

**c. Perception on the Benefits of Waste**

The trash that is often found in Koto Tangah District is organic and inorganic waste. Based on the type, organic and inorganic waste can be utilized by recycling into a tool or other material

that can be reused. Organic waste can be recycled back into fertilizer, garbage that is wasted from metal can be processed into industrial materials and it can be distilled dry so that it can be reused.

Tabel 3. Community Perception about the Existence of Waste

No	Village	Perception Category of Waste Existence			Total
		High	Middle	Low	
1	Bungo Pasang	58 (24,89%)	0	16 (6,87%)	74
2	Balai Gadang	24 (10,30%)	0	6 (2,58%)	30
3	Lubuk Buaya	102 (43,78%)	0	27 (11,58%)	129
Total		0	184 (78,97)	0	49 (21,03%)

Source: Primary Data Processing, 2017

**d. Community Perception of Economic Value of Waste**

The results of the research conducted in Koto Tangah Subdistrict indicate that waste can be reprocessed so that it has economic value and

waste can be used as compost. With the perception that waste can be reprocessed into something that can be used to generate selling value, it shows that there is community interest in processing waste into economical stuff. This is in line with the

opinion [4], that the types of potential recycled materials at the scavenger level namely plastic (polyethylene, polystyrene, polypropylene, HDPE, LDPE, PVC); paper (duplex, newspaper, cardboard, CPO); metal (plates, cans) cloth, and glass (bottles). Thus in general it can be concluded

that spatially the perceptions of the people in Bungo Subdistrict towards the trash are classified as better than the others. For more details the distribution of the data can be seen in the table below:

Tabel 2. Community Perception about the Existence of Waste

No	Village	Perception Category of Waste Existence			Total
		High	Middle	Low	
1	Bungo Pasang	0	67 (28,76%)	7(3%)	<b>74</b>
2	Balai Gadang	20 (8,58%)	0	10 (4,29%)	<b>30</b>
3	Lubuk Buaya	0	109 (46,78)	20 (8,58%)	<b>129</b>
Total		0	20 (8,58%)	176 (75,54%)	<b>37 (15,88%)</b>

Source: Primary Data Processing, 2017

In general, people have a low perception of the value of waste. This is due to people's low understanding and knowledge of the use of waste and the willingness of the community to make waste as something that has economic value. Whereas good knowledge and perception about waste and waste management will generate good attitudes and behaviors and concerns about waste.

## 2. Factors Affecting Perception

Based on the results of public perceptions in the Koto Tengah District, it is known that in general the community has a low perception of the use value or the presence of waste, high about the benefits of waste (78.97%), while on the economic value of waste (75.54%), regarding waste management, the community prefers to be directly disposed to the Temporary Disposal Site (TPS). The high level of public knowledge about the benefits of waste, but having a low perception of the existence and use value of the waste, can be influenced by many factors. Such as, the social environments that rarely use waste, so the willingness to process waste becomes low and prefers to throw garbage directly into the Temporary Disposal Sites. This is because the fewer individuals feel the supporting factors and many inhibiting factors to be able to perform a behavior, then individuals tend to perceive themselves difficult to perform these behaviors [5], community perceptions can be influenced by living factors and participation in extension activities [6], and cognitive components (perceptual components) related to knowledge, views, and beliefs can influence how people perceive the object of attitude [7]. In addition, according to [7-10] perceptions are also influenced by external factors (stimuli and prominent characteristics in the environment that lie behind the object which is an inseparated round or unity, such as: social and environment) and internal factors (factors related

to one's own abilities that come from relationships with aspects, mental, intelligence, and physical).

Thus, it can be seen that the high level of public knowledge about waste management but has a low perception of waste in Koto Tengah Subdistrict can be caused by a social environment that seldom uses waste and seldom participates in counseling on how to use waste, so that public awareness of the environment, confidence in processing waste and the willingness to process waste into economically valuable products is also low.

## 4. CONCLUSION

Based on the research findings and the discussion above, it can be concluded 1. 68% of the community has a low perception of waste, with the view that waste is a useless waste, has no economic value, and must be disposed of immediately, while 32% of the community has a moderate perception with the view that some waste has economic value and can be reused. 2. Factors that influence people's perceptions of waste are knowledge, social environment, participation in counseling and willingness and confidence. Community knowledge about waste management is considered high about sorting and processing waste, but people have a social environment that seldom uses waste and seldom participates in counseling on how to use waste, so that public awareness of the environment, confidence in processing waste and the willingness to process waste become products that economic value is also low.

## 5. REFERENCES

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