



Role of Stakeholder Participation in Zero Waste in Kampoeng Sinaoe Sidoarjo

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Abstract: Environmental pollution caused by inadequate waste management is a pressing issue in Indonesia, particularly due to improper handling of household waste, low public awareness, and insufficient local government resources. The challenge is compounded by a significant daily waste accumulation 575 tons in Sidoarjo, of which 227 tons is unmanaged. This journal is important as it explores the role of community engagement in promoting sustainable waste management through initiatives like the Zero Waste competition, which encourages local participation, especially among youth in Sidoarjo. Employing a quantitative research methodology, the study involved 79 respondents from the Kampoeng Sinaoe learning community, using non-probability convenience sampling. Data were analyzed through validity tests, multiple regression analysis, and Likert scales. The findings revealed that tourists play a crucial role in implementing zero waste practices, with high participation rates in activities such as recycling and waste reduction. In contrast, the local government's involvement was minimal. This research underscores the significance of stakeholder participation, particularly the community and tourists, in enhancing waste management efforts. It highlights the need for greater governmental support and local engagement to foster sustainable environmental practices, suggesting that improved collaboration can lead to more effective waste management systems in Indonesia.

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INTRODUCTION

The problem of environmental pollution due to lack of waste management is a problem in some areas that has not been resolved and is a serious problem in most district / city in Indonesia. The problem is caused by waste (especially waste sourced from households) that is not handled properly. Low public awareness, limited landfill land, and limited local government capacity in financing are supporting factors that lead to increasingly complex waste problems. The constraints of limited funding from the government have resulted in efforts to find alternative ways to handle waste by not relying on government funding. Seeing this condition, the handling of household waste cannot only be the responsibility of the government, but ideally, the problem of waste care is also the responsibility of the community itself as a producer of waste. Because the community has great potential in providing its contribution in terms of waste management.

The Ministry of Environment and Forestry released the latest data which cites the percentage of the composition of plastics in Indonesia in 2018 reaching 15%, this figure is

reduced by 1% from 2017. The waste problem also goes down to Sidoarjo Regency, East Java Province with a population of 2,223,002 people who have the amount of garbage piled up in the landfill 575 tons / day with 227 tons / day of unmanaged waste. In 2016 there is collaboration between Jawa Pos, Finna and Sanitation Local Ministry held the Zero Waste competition. They initiated the environmental change movement by targeting young people in Sidoarjo. They got the winner was Kampoeng Sinaoe Sidoarjo. Before participating in the Sidoarjo Zero Waste competition, Kampoeng Sinau has been running two environmental programs since 2014 namely the village greening program and river patrol where the results of his hard work can be felt in the village where they live.

LITERATURE REVIEW

Many people think about how to manage the waste they produce. When they don't find an effective way, other problems can arise. Waste management is mostly done like :

a. Dumping

The easiest way through which individuals, institutions and governments manage their waste. At the global level, waste is flowing from economically developed countries to less developed countries.

b. Burning

It is the traditional way of waste handling. This is the most dangerous method of waste disposal because people and the environment are exposed to toxic substances such as heavy metals, toxic fumes, and ash. It was found that dioxin and furan were excreted from burning municipal waste.

c. Burying.

This is a product of „out of sight out of mind“ attitude. We hide our waste in deep pits or in sanitary landfills. Nowadays in urban areas, the solid waste filling is being used to reclaim wetlands or swamps. The organic material decomposes, producing acids. These acids mix with rainwater, dissolve heavy metals and other toxics from the waste and then percolate down through the landfill. If not stopped by a liner, this leachate will eventually, contaminate groundwater or surface water supplies.

Zero Waste is a philosophy based on a set of practices aimed at avoiding as much waste as possible. Cutting waste in a household is quite simple in zero waste, the steps are :

- a. Refuse what you do not need : Use items that do not need to be used, this is to stop the trash.
- b. Reduce what you do need : Create our lifestyle as a simple individual by always focusing on quality over quantity, more because we need it not just we want to feel the experience
- c. Reuse what you consume : Use the same product repeatedly to maximize usage and benefits. By reusing our goods is one of the conservation efforts by avoiding goods becoming waste
- d. Recycle what you cannot refuse, reduce, or reuse : The principle of recycling is carried out in as much as possible, goods that are no longer useful can be recycled
- e. Rot (compost) the rest : Composting is a natural way of recycling, allowing organic waste to decompose and return their nutrients to the soil. And in everyday household waste, one third is an organic waste so the composting process is the most sensible thing in reducing waste

A stakeholder is any person or organization that influences or is influenced by business, which is involved in the tourism. They have different goals and interests and are adapted to their activities. Many researchers classify destinations as having stakeholders in tourist destinations.

Table 1. *Stakeholder*

	INTERESTED STAKEHOLDERS	THE ROLE OF INTERESTED STAKEHOLDERS
PRIVATE SECTOR	Tourism offer holders (tourism suppliers)	They are main employers and they affect the complete tourism value chain.
	Intermediaries	They influence market accessibility through setting conditions to tourism offer holders (tourism suppliers) and tourism destinations.
	Transport business	They influence the market and financial sustainability.
	Private sector (excluding tourism businesses)	They assure revenues and prosperity.
	Professional associations	They lead and direct sectoral developmental activities.
PUBLIC SECTOR	Public (government) sector	They define the direction and influence sustainability through public politics, plans and financial support.
	Local and regional government	They influence the sustainability of tourism through planning on the local and regional level (lower level plans), they affect the infrastructure development and
		Support the local economic development.
	Tourism organizations	Directly related to tourism, primarily responsible for stimulating market demand through destination marketing.

CIVIL SECTOR	NGOs	They influence the sustainable tourism development and facilitate the cooperation of interested stakeholders.
	Vocational education	They help in tourism market research and in strengthening competences in tourism.
LOCAL COMMUNITY AND CUSTOMERS	Local community	Tourism employees and other sub-creators of hospitable tourism destinations.
	Tourists	By making their decisions, they influence the sustainability and profitability of tourism products.

RESEARCH METHODOLOGY

This study uses a quantitative research approach with the support of secondary data used to reinforce quantitative analysis. Also used population and sample. The total 79 respondent with used Hair et al formula and sampling techniques are non-probability sampling and convenience sampling because researcher can get opened to choose who is found on the Kampoeng Sinaoe. Then all variants in this research used ordinal scale and Likert interval, with multiple regression analysis helped by SPSS. For data analysis divide into 2, primary and sekunder data. Primer data collection done through by survey or experiments, such as questionnaire, observation and documentation. Data analysis technique divide into 5 such as validity and reliability test, simple regression analysis, classic assumption test (normality test, autocorrelation test, multicollinearity test), analysis of the coefficient of determination.

RESULT

Kampoeng Sinaoe is a learning community located in the Siwalanpanji village of Sidoarjo City. Kampoeng Sinaoe is an educational center in Sidoarjo because many educational institutions, start from kindergarten to universities are all there. Kampoeng Sinaoe in his group activity named "*Sinaoe Hijau*" contributed to zero waste activities for the community in the Kampoeng Sinaoe Sidoarjo environment. As a result for this research mostly man and range of age around 21-40 years old, last education is bachelor with government employee is the most tourist who visit Kampoeng Sinaoe. Summary results are follows :

Table 1. Respondent

No	Characteristics	Remarks
1.	Gender	- Male (48%) - Female (52%)
2.	Age	- <20 years old (17%) - 21 – 40 years old (56%) - > 40 years old (27%)
3.	Education	- SMA/ SMK (48%) - Diploma (1%) - Bachelor (51%)
4.	Job	- Student (16%) - Government Employee (46%) - Private employee (38%)

Table 2. Test Result

No	Characteristics	Remarks	Validity test	Reliability test	Mean of component	Autocorrelation test result	Multicollinearity test results	Hypothesis test results	The results of simple linear regression tests
1.	Government	Develop waste management regulation	0,399	0,890	3,40	2,304	<10	3,09	0,527
		Provide waste management facilities	0,742		4,00				
		Waste recycle training	0,611		4,43				
2.	Community	Recycle household waste training from government	0,551	0,704	4,48				0,80
		Recycle household waste training from operator	0,662		4,49				

3.	Operator	Rules of goods carried by tourist	0,838	0,828	4,41				0,856
		Waste recycle training for tourist	0,882		3,63				
		Collecting waste that still has economic value	0,874		4,54				
4.	Tourist	bring personal belongings according to the rules from the operator	0,954	0,910	4,49				0,552
5.	Refuse	Refuse the use of disposable items	0,964	0,689	4,39				
6.	Reduce	Reduce the use of disposable items	0,955	0,689	4,46				
7.	Reuse	Reusing items that are still useful	0,510	0,689	4,64				
8.	Recycle	Processing unused items into something more useful	0,820	0,689	4,70				
9.	Rot	Processing the remaining goods to be used as organic	0,482	0,689	4,37				

As per above mention variable of component stakeholder has mean of variable with a high score is operator 4,54 with indicator collecting waste that still has economic value. Then variable of zero waste with sub variable recycle have high score 4,7 with indicator processing unused items into something more useful. All of variable can be said to be valid because nominal of rtable higher than rcount and reliable because its exceeds than 0,60.

CONCLUSION

In this research used Slivar to looks stakeholder component in tourism consisting of government, community, operator and tourist and Bea Johnson for zero waste activities, consist of refuse, reduce, reuse, recycle, rot. The results of the analysis of the role of stakeholders participation in zero waste activities in Kampoeng Sinaoe Sidoarjo, the following conclusions can be drawn :

1. The most important stakeholders in zero waste is tourist, they give their participation with bring their own bottle and lunchbox when they visit Kampoeng Sinaoe and for the stakeholders who do not play a role in zero waste

- in Kampoeng Sinau is government
2. Zero waste program activities that have been carried out in Kampoeng Sinaoe include
 - a. Making soap from used cooking oil
 - b. Craft painting on glass bottles
 - c. Make cloth mats from used clothes

SUGGESTION

Based on the results of data processing and analysis on "The Role of Stakeholder Participation in Zero Waste Activities in Kampoeng Sinaoe" with 79 respondents, there are some suggestions can be given :

1. The role of stakeholder participation in Kampoeng Sinaoe Sidoarjo
 - a. The local government has to be more involved in managing Kampoeng Sinaoe
 - b. Kampoeng Sinaoe to keep the luggage rules for tourists
 - c. Tourists who come still follow the policies set by Kampoeng Sinaoe
 - d. Communities who live around Kampoeng Sinaoe to continue their participate in protecting the environment
2. Zero waste activities in Kampoeng Sinaoe to be further improved about the time of counseling and training.
3. The role of the government as stakeholders in Kampoeng Sinaoe Sidoarjo to be further improved, especially in zero waste activities in the Kampoeng Sinaoe Sidoarjo

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