

Assessing the Level of Community Social Awareness in Realizing Waste-Free Zone

Bintarsih Sekarningrum*
Faculty of Social and Political Sciences Padjadjaran
University - Indonesia

Desi Yunita
Faculty of Social and Political Sciences Padjadjaran University - Indonesia

Yogi Suprayogi
Faculty of Social and Political Sciences Padjadjaran University - Indonesia

— *Review of* —
**Integrative
Business &
Economics**
— *Research* —

ABSTRACT

Waste management has become an increasing environmental risk and financial burden, thereby underscoring the need to address these problems from the root, namely, the community. Community social awareness in managing waste is the key to realizing a waste-free zone. On the one hand, this study uses the quantitative approach for data collection by conducting a survey involving 120 respondents. On the other hand, the qualitative approach is used through observation, structured and in-depth interviews, and focus group discussions. This research also uses socialization and counseling methods related to environmental hygiene and waste management to determine the changes in people's mindset and behavior on waste management. Moreover, evaluation is conducted by monitoring waste volume, community behavior in sorting out waste, and product creation from rubbish processing. Results show that four important aspects establish social awareness in the community: volume (mutual understanding), intensity (community consensus), determinateness (involvement of local institutions), and content (religious encouragement). Therefore, community social awareness is based on individual awareness. Lastly, the individual factors that strengthen community social awareness include length of residency, home ownership status, education level, and type of work.

Keywords: social awareness, society, waste management, waste-free zone

1. INTRODUCTION

Community social awareness is among the important factors in dealing with waste issues. Social awareness is the totality of all the feelings and beliefs of every community member. Several studies have shown that even though social awareness toward waste management has emerged in the community through waste management effort, such endeavor has not been maximized to encourage public awareness on the general social structure.

A waste-free zone is an area where a waste management system is run independently by the community. An area is considered a waste-free zone if trash is not scattered throughout the area, including on road, sewers, rivers, and

temporary disposal sites of traditional market and commercial areas. To realize a waste-free zone program, waste should be managed in a variety of manner, including (1) sorting out organic and inorganic trash, (2) processing organic waste with bio-pore holes, (3) using organic waste as compost fertilizer material, (4) assessing the selling value of economic inorganic waste and its potential in the area, (5) building a Waste Bank, and (6) disposing residue waste in temporary disposal sites.

A waste-free zone will be realized if all the supporting components in waste management, such as community awareness and participation, proper policies, and adequate technical support and funding, are running well. Numerous related studies have been conducted on such issues as community participation (Utami, 2008; Razak, 2009; Yogiesty et al., 2010; Dwiyanto, 2011; Dwiyantari, Guricci, 2012; Prajanegara, 2013; Affandy, Setiadi, 2015; Sekarningrum, 2016), community behavior (Sekarningrum, 2013), community movements (Sekarningrum, 2014; 2015), waste bank (Asteria, 2016; Sekarningrum, 2017), government policy (Fangga, 2016), and social awareness (Assahari, Han et al Hasan, 2004; Desa, 2012; Tyolitatova, 2014). The current research uses previous studies as bases to focus on community social awareness as the key to a successful waste management. This study also provides an in-depth explanation of the work of Hasan's (2004) "Public Awareness is Key to Successful Waste Management," which suggests an urge to make the community aware of waste management and understand its consequences that are detrimental to the people's lives and welfare. The current study analyzes the issue of community social awareness, specifically in the field of sociology of health and environment.

2. METHODOLOGY

Quantitative and qualitative approaches are used to obtain a comprehensive description of social consciousness. The quantitative approach uses surveys to obtain information on the social consciousness of residents, including prominent figures, on waste management. By contrast, the qualitative approach is employed to obtain data on the waste management process from the key informants.

Population refers to the people living in the study area, particularly the locals who are willing to participate in the survey. A total of 120 residents are surveyed, while data are obtained from 20 key informants from different areas.

Data are collected through observation (physical and social), structured and in-depth interviews, and focused group discussion (FGD). In addition, socialization and counseling related to environmental hygiene and waste management are used to assess the changes in people's mindset and social behavior on waste management. Evaluation is likewise conducted by monitoring waste volume, social behavior in selecting waste, and product creation from waste management.

Data are processed through editing, coding, tabulation, analysis, and interpretation. Data obtained from in-depth interview, observation, and FGD are processed through analysis, selection, categorization, evaluation, comparison, synthesis, and repetitive contemplation to build inversions and for holistic understanding.

3. RESEARCH FINDINGS AND DISCUSSION

3.1. Waste Problem

Waste has become a complex social phenomenon for urban people, with the increasing population resulting in mounting wastes. In 2013, the population of Bandung City was 2,483,977 with 1,300 tons of waste per day. In 2016, the city's population increased to 2,490,622 with 1,500 tons of waste per day, thereby showing that population growth is apparently consistent with the mounting waste, the majority of which are household wastes (Tribun newspaper, 2017, citation from <http://jabar.tribunnews.com/2017/06/15/tahun-2013-volume-sampah-kota-bandung-1300-ton-per-hari-tahun-2017-kamu-bakal-kaget>). At present, only 23% (i.e., 345 tons/day) are considered manageable waste. This situation refers to the problem on people's awareness and behavior. The collect–stack–dispose model, which was previously considered effective in dealing with waste, has become a problem for the environment and health.

Eventually, the collect–stack–dispose model has gradually shifted. The reason is that people are increasingly realizing that household waste should pass a selection process to reduce the burden of rubbish dump. Several practices have been attempted to reduce waste, including sorting organic and non-organic wastes, creating bio-pore holes, managing saleable organic waste, and building a waste bank. Despite these attempts and the growth in social consciousness, no significant change has been observed in terms of reducing the mounting waste.

3.2. People's Characteristics

The respondents for this research are the residents in the study area. Information are obtained from 120 people comprising 34 males and 85 females with their ages ranging from 21 to 98 years old. The majority of the respondents graduated from junior and senior high school and work as entrepreneurs, employees, merchants, service providers, and factory workers. Moreover, the majority of the respondents are married (89.2%) and own their respective houses (77.5%) but 22.5% live in rented houses.

3.3. Community Social Awareness

A waste-free zone is an area designated to be garbage-free and achieved through good waste management and control. This zone is constructed and managed on the basis of sustainable environmental principles, in which each component consciously maintains the area clean and free of garbage. Zero Waste International Alliance explained that being trash-free is an ethical, economic, and visionary purpose that directs the people to change their lifestyle to enable their unused materials to be designed for beneficial resources for others.

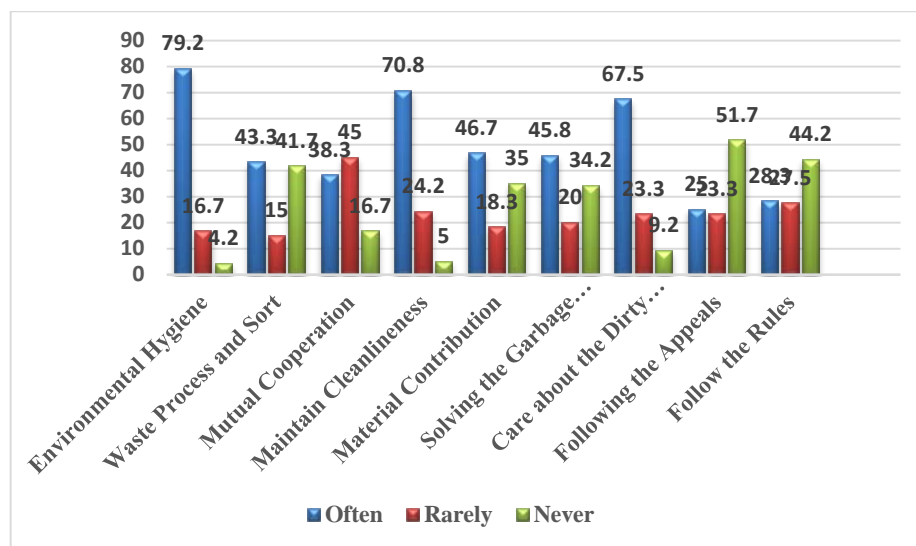
Social awareness as discussed in the current study refers to Emile Durkheim's theory of collective conscience. Durkheim defined collective conscience as "the totality of beliefs and feelings common to the average members of a society forms a determine system with a life of its own" (Durkheim, 1964 in Ritzer, 1996 : 139). Moreover, collective conscience regulates all human behaviors and conduct within community. Giddens (1972; in Ritzer, 1996) indicated that the

four variables of collective consciousness are as follows: (1) volume, which refers to the levels of values, beliefs, and regulations in collective consciousness adhered to by every individual in the community; (2) intensity, which delineates the extent to which the collective consciousness directs an individual's conduct; (3) determinateness, which refers to the clarity of several components of collective consciousness; and (4) content, which indicates the conflict between religious and secular values in collective consciousness. Social consciousness will eventually determine the level of social participation on waste management.

Waste refers to solid residue from daily human or natural processes. Waste management is a systematic, comprehensive, and continuous activity that involves waste reduction. This activity involves collecting, transporting, processing, recycling, and reusing wastes in different forms to mitigate the effects on health and restore the damaged environmental condition.

The following information is obtained from the community (i.e., 120 people) and prominent figures (20 people). First, in terms of volume, people have high awareness (74.2%) considering the existing values, belief, and regulation in their environment. This aspect is indicated by their good understanding of environmental hygiene, waste processing and sorting, environmental sustainability, material contribution, participation in managing waste, and caring for the environment. In general, the people share a common understanding of waste although they have different educational backgrounds and occupations. Given the limited time, they are occasionally involved in mutual cooperation and participate in and follow government instructions regulating waste management. If no solution is provided, it obviously becomes serious problem in developing a trash-free area, which requires collective synergy from all elements in the community. Therefore, the shared perspective of all community members plays an important role.

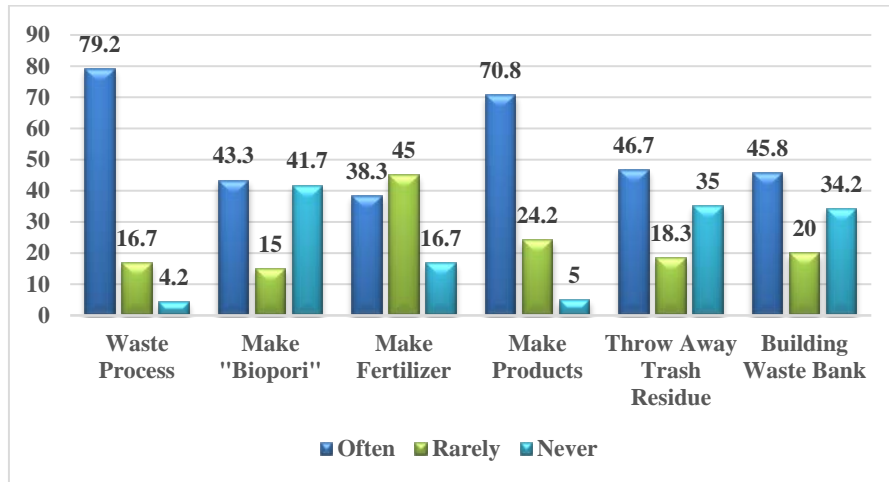
Volume



Second, in terms of intensity, the collective instruction from local people to manage organic and inorganic waste, create bio-pore holes, dispose waste in garbage dump, and build a waste bank is significantly high (77.1%). The more often the instruction

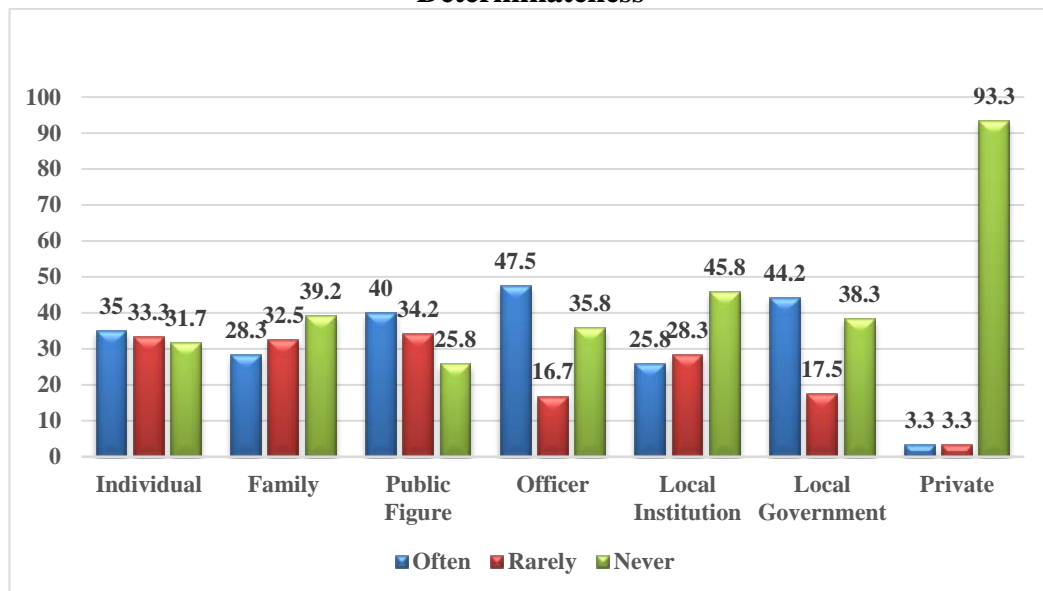
on waste management is provided, the better people’s perspective becomes. Therefore, waste management is expected to be adapted in the people’s social behavior and collective consciousness.

Intensity



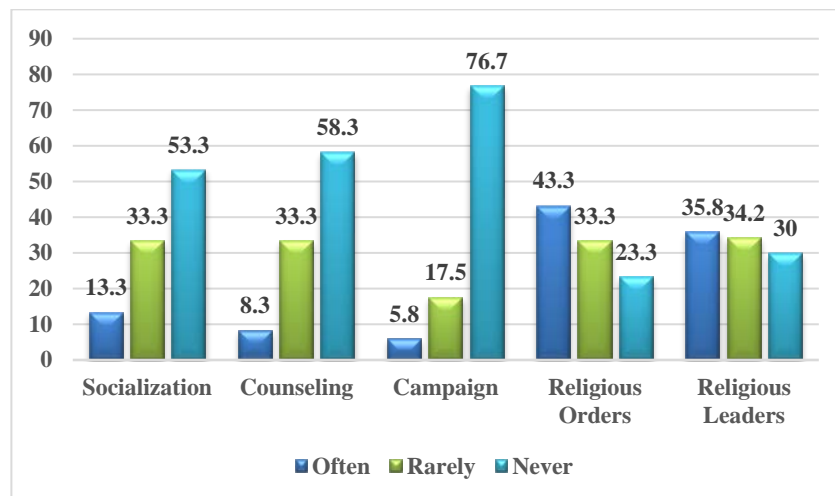
Third, the result for determinateness is high (61.8%), thereby implying that the involvement components in the community can reinforce social consciousness in waste management. Moreover, cooperation among these components can support the attempt to build a waste-free zone.

Determinateness



Lastly, in terms of content, the results show that religious components motivate people to realize cleanliness (57.7%) and can be used to drive collective consciousness in the community to achieve a trash-free area.

Content



The study on the collective consciousness components, namely, volume, intensity, determinateness, and content, indicates that people's collective awareness in realizing a waste-free zone is high. People's awareness does not establish itself independently but is based on individual's awareness. Nonetheless, individual awareness differs from collective awareness because the latter emerges from the totality of the shared belief and sentiment of the people in a community.

Other factors that support collective consciousness in the community to achieve a trash-free area are the residents' length of stay in the area, status of homeownership, education, and type of job. First, in terms of residency, the longer people live in is the area, the higher their awareness becomes. Second, the status of homeownership reinforces the formation of social awareness in realizing a trash-free area. Third, formal and informal educational attainment facilitates the shaping of the collective consciousness to achieve a trash-free area. The reason is that people gain further knowledge and understanding of environmental cleanliness, thereby becoming the foundation for establishing individual awareness. Lastly, the residents' job can either be a supporting or hindering factor to achieve collective consciousness. For example, employees show lower awareness than entrepreneurs. Particular jobs that require individuals to spend substantial time at work affects their social awareness on establishing a trash-free area. By contrast, housewives who spend the majority of their time at home have significantly higher awareness in realizing a waste-free zone.

These considerations indicate that the social awareness of a community will increase if people share an understanding of environmental cleanliness (volume), have a consensus to manage waste in their environment (intensity), have institutional components that tie them together in waste management (determinateness), and are united through religious approach to promote cleanliness in every conduct (content). These factors are important to raise the collective consciousness in the community. However, the growing collective consciousness to achieve a waste-free zone has not been sufficiently strong in the study area and continuously needs further reinforcement.

4. CONCLUSION

1. Community social awareness is based on individual awareness. Several individual factors that determine social awareness in the community are the length of residency, home-ownership status, education level, and type of job. Collective consciousness emerges from the shared belief and sentiment on environmental problems in the community.
2. The social awareness of a community is high if the people share an understanding (volume), share a consensus (intensity), have institutional components in the community to tie the members (determinateness), and are united through religious endorsement to change people's behavior (content).

ACKNOWLEDGMENT

The authors would like to acknowledge all individuals involved in this research and all female cadres who are members of the Family Welfare Empowerment Organization who assisted and became partners in waste management training activities for a waste-free zone.

REFERENCES

Book

- Krech, Cruchfield, Ballachey.1962. *Individual in Society*. McGraw Hill.
- Ritzer, George. (1996). *Classical Sociological Theory*. Singapore : McGraww-Hill International Companies, Inc.
- Spiegelmen, (2000). *Transitioning to Zero Waste – What can local governments do Now ?*. Paper presented at the BIOCYCLE West Coast Conference Portland, Oregon - March 20, 2006.

Journal Article

- [1] Dwiyanto, Bambang Munas. 2011. Model Peningkatan Partisipasi Masyarakat dan Penguatan Sinergi dalam Pengelolaan Sampah Perkotaan. *Jurnal Ekonomi Pembangunan*, Volume 12 No 2, December 2011. Page 239-256. Citation from <https://publikasiilmiah.ums.ac.id/bitstream/handle/11617/1322/07-Bambang1.pdf;sequence=1>.
- [2] Dwiyantari, MM. Sri, Lilis Yulialis. 2012. Faktor Penyebab Lemahnya Partisipasi Ibu-ibu dalam Penerapan hasil Pelatihan Pembuatan Kompos dan Handicraft dari Sampah Rumah Tangga yang Bernilai Jual di Kampung Sarimulya Desa Setu Kecamatan Setu Tangerang Selatan. *Jurnal Insani*, No. 13, 2 December 2012. Citation from <http://stisipwiduri.ac.id/File/N/Full/2431-JURNAL%20INSANI%20STISIP%20Widuri%20Desember%202012%20Sri%20Dwiyantari.pdf>.
- [3] Guricci, Imran. 2012. *Perencanaan Pengelolaan Sampah dengan Pendekatan Partisipatif*. Thesis report Indonesia University. Citation from <http://lib.ui.ac.id/file?file=digital/...Perencanaan%20pengelolaan.pdf>

- [4] Prajanegara, Andi Juli Fadli. 2013. Partisipasi Masyarakat dalam Pengelolaan Sampah Program Hijau Bersih Sehat (HBS) di Kelurahan Karanganyar Kecamatan Sungai Kunjang Kota Samarinda. *eJournal Administrasi Negara*, 2013, 1 (2), page 522-531. Citation from [http://journal.an.fisip-unmul.ac.id/site/wpcontent/uploads/2013/06/ejournalandi\(06-07-13-10-38-04\).pdf](http://journal.an.fisip-unmul.ac.id/site/wpcontent/uploads/2013/06/ejournalandi(06-07-13-10-38-04).pdf).
- [5] Razak, Novita, Heribertus Soegiyanto. 2009. Partisipasi Masyarakat dalam Pengelolaan Sampah di Dusun Sukunan Sleman DIY. *Jurnal Widya Sari*, Vol 14 No. 2 May 2012, page 1-17. Citation from http://repository.uksw.edu/bitstream/123456789/4340/2/ART_N%20Razak%20C%20H%20Soegiyanto_Partisipasi%20Masyarakat%20dalam%20Pengelolaan_fulltext.pdf.
- [6] Salman, Assahari. 2014. *Model Penyadaran Sosial Masyarakat dalam Pengelolaan Sampah Berbasis Kearifan Budaya Lokal (Adat Basandi, Syarak Basandi Jitabullah) di Kota Padang*. Proceedings SNSTL-I, 2014, 11 September 2014. Citation from http://lingkungan.ft.unand.ac.id/images/0738-46-Salman_Assahary.pdf.
- [7] Sekarningrum, Bintarsih. 2013. *Perilaku Masyarakat Membuang Sampah di Bantaran Sungai Cikapundung*. Research report, 2013, Padjadjaran University.
- [8] Sekarningrum, Bintarsih. 2014. *Gerakan Komunitas dalam Pengelolaan Sampah di Bantaran Sungai Cikapundung (first year)*. Research report, 2014, Padjadjaran University.
- [9] Sekarningrum, Bintarsih. 2015. *Gerakan Komunitas dalam Pengelolaan Sampah di Bantaran Sungai Cikapundung (second year)*. Research report, 2015, Padjadjaran University.
- [10] Sekarningrum, Bintarsih. 2016. *Model Pengelolaan Sampah Secara Partisipatif pada Masyarakat di Bantaran Sungai Cikapundung*. Research report, 2016, Padjadjaran University.
- [11] Sekarningrum, Bintarsih. 2017. Pengembangan Bank Sampah pada Masyarakat di Bantaran Sungai Cikapundung. *Jurnal Pengabdian Kepada Masyarakat*, No. 1 Vol 5, 2017. Citation from <http://jurnal.unpad.ac.id/pkm/article/view/16414>.
- [12] Utami, Beta Dwi, Nastiti Siswi Indrasti, Arya Hadi Darmawan. 2008. Pengelolaan Sampah Rumah Tangga Berbasis Komunitas : Teladan dari Dua Komunitas di Sleman dan Jakarta Selatan. *Sodality, Jurnal Sosiologi Pedesaan*, Vol 2, No. 1, 2008.
- [13] Yogiesti, Viradin, Setiana Hariyani, Fauzul Rizal Sutikno. 2010. *Pengelolaan Sampah Terpadu Berbasis Masyarakat Kota Kediri*. Citation from <http://journal.ipb.ac.id/index.php/sodality/article/view/5893>.