

Problems and Recommendations to Improve the Solid Waste Management Initiatives of the Local Government Unit of Tanauan, Leyte, Philippines

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ABSTRACT

More than two decades since its implementation, the Ecological Solid Waste Management Act (ESWMA) of 2000 or the RA 9003 remains to be the main framework for the solid waste management problem in the country. This study examined the main problem in solid waste management initiatives of the local government unit of Tanauan Leyte in relation to the implementation of Republic Act 9003. The findings of this study revealed that there is poor implementation of the said law in the municipality due to the lack of institutional arrangements and IEC efforts. A proactive approach to implementing the ESWMA is highly recommended.

Keywords: ESWMA, Local Government Unit, Municipal Solid Waste, RA 9003, Solid Waste Management.

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I. INTRODUCTION

Waste management has major serious implications for both health and environmental concerns in the country. Municipal solid waste (MSW) management is a severe problem in both emerging and developed countries, and the fast growth in urban population coupled with industrialization has serious environmental implications that have transformed solid waste creation and categorization patterns (Shekdar, 1991; Idris *et al.*, 2004). The lack of awareness and poor management of MSW management by actors, particularly in developing nations, has become a serious issue (Naveen *et al.*, 2018). Although developing countries generate less solid waste than developed ones, mismanaged solid waste disposal pollutes the environment. Lack of waste management knowledge also contributes to a variety of environmental problems (Naveen *et al.*, 2018). This became the rationale for the passage of the Republic Act (RA) 9003, also known as the Ecological Solid Waste Management Act of 2000. The National Solid Waste Management Commission (NSWMC) was founded within the Office of the President after the Department of Environment and Natural Resources (DENR) prioritized effective waste management in its 12-point environmental agenda. The Ecological Solid Waste Management Act of 2000 was passed to ensure effective solid waste management at the local level.

Solid waste management is defined by RA 9003 as a discipline concerned with the control, generation, storage, collection, transfer, and transport of solid wastes, as well as their processing and disposal. Aside from the NSWCM, each local government unit must establish a Solid Waste Management Board, which will be comprised of public officials and private sector representatives. The SWMB is charged with developing a 10-year local Ecological Solid Waste Management Plan that includes an effective and long-term solid waste management strategy that prioritizes the implementation of all viable re-use, recycling, and composting programs.

Although RA 9003 establishes waste reduction guidelines, LGU activities are currently limited. As a result, the purpose of this study is to convey the experiences of Tanauan, Leyte, Philippines, a third-class municipality, as well as to analyze its attempts to implement solid waste management in compliance with the Ecological Solid Waste Management Act of 2000.

II. METHODOLOGY

Since the enactment of RA 9003, few have been done to improve the collection and storage of solid waste in Tanauan, Leyte. Rosenzweig *et al.* (2012, as cited in Rosenzweig & Hillel, 2012) claims that supportive institutional conditions or an enabling environment are essential for developing countries to

achieve long-term service provision. Institutions are entities and/or systems of formal or informal rules that organize social interactions, including all customs and practices, organizations and agencies, and policies and laws (Hodgson, 2006; Decker *et al.*, 2015). As a result, this study examines the Tanauan local government unit's supportive institutional structures and activities for solid waste management in the municipality with respect to the Ecological Solid Waste Management Act of 2000. Data used in this study were generated from key informant interviews of concerned stakeholders and desk review of related documents.

III. RESULTS AND DISCUSSION

Solid waste is waste that is worthless, undesirable or abandoned as a result of everyday activities in the community (Mishra *et al.*, 2013). Solid waste management is the discipline concerned with the control of solid waste generation, storage, collection, transfer, processing, and disposal (Mishra *et al.*, 2013). Activities involved with the management of municipal solid waste from generation to final disposal in Tanauan Leyte can be divided into five functional elements: (1) trash generation, (2) storage, (3) collection, and (4) transportation, and (5) disposal. The first two of these elements are performed by residents in their households while the remaining three are performed by the local government unit of Tanauan.

A. Collection and Segregation

At the household level, it can be observed that solid waste remains unsegregated due to the “limited” information and education campaigns. There is a specific schedule for each barangay when their solid wastes are collected. What happens is that each household collects their solid wastes in one “sack” or container wherein biodegradables, non-biodegradables, and recyclable wastes are all together, and residents do not make the effort in segregating them. This can be the result of the “limited” information and education campaigns, and the lack of institutional arrangements that should have been set in place. Currently, there is no policy or a local ordinance in the municipality that urges residents to practice waste segregation. Furthermore, during waste collection, there are no separate schedules or separate trucks focused on collecting specific types of waste.

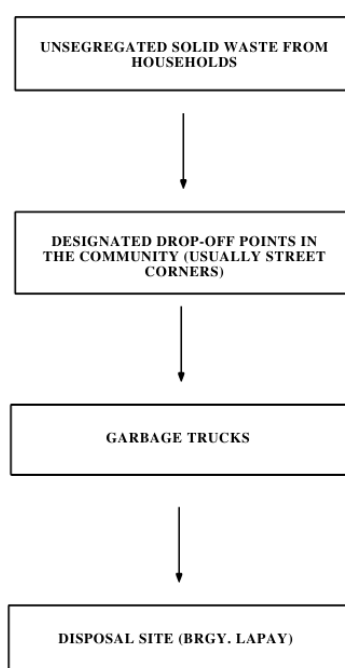


Fig. 1: Flow chart showing the solid waste collection process in Tanauan, Leyte, Philippines.

In Fig. 1, one can see the waste collection process in Tanauan, Leyte. Unsegregated solid wastes from households are dropped off at designated areas in the community during their scheduled day of collection. Afterward, garbage trucks that collect all kinds of solid wastes pass by together with garbage collectors. The collected solid wastes are then brought to Brgy. Lapay is the only designated landfill (disposal site) in the whole municipality.

CONCLUSION AND RECOMMENDATIONS

The fact that there is a lack of waste segregation at the household level tells us that the state of solid waste management in the municipality of Tanauan remains unsatisfactory. This is due to the absence of local policies, institutional arrangements, and limited information and education campaigns. This only means that reducing, reusing, and recycling, which is part of the mandate of the Ecological Solid Waste Management Act of 2000, are not being implemented and this is a failure of the local government unit.

There is a need to institutionalize waste segregation in the municipality by crafting laws and policies and emphasis must be made on the 3Rs. Moreover, a proactive approach must be taken by enhancing information and education campaigns (IEC) to help residents understand the environmental implications of solid waste management. Furthermore, incentivizing waste segregation and responsible solid waste management can help make sure that compliance with the Ecological Solid Waste Management Act of 2000 is being followed.

CONFLICT OF INTEREST

The authors declare that they do not have any conflict of interest.

REFERENCES

- Decker, R., Haltiwanger, J., Jarmin, R., & Miranda, J. (2015). Where has all the skewness gone? the decline in high-growth (young) firms in the U.S. *European Economic Review*, 86, 4–23. <https://doi.org/10.3386/w21776>
- Hodgson, G. M. (2006). What are institutions? *Journal of Economic Issues*, 40(1), 1–25. <https://doi.org/10.1080/00213624.2006.11506879>
- Idris, A., Inanc, B., & Hassan, M. N. (2004). Overview of waste disposal and landfills/dumps in Asian countries. *Journal of Material Cycles and Waste Management*, 6(2). <https://doi.org/10.1007/s10163-004-0117-y>
- Mishra, A. R., Mishra, S. A., & Tiwari, A. V. (2014). SOLID WASTE MANAGEMENT - CASE STUDY. *International Journal of Research in Advent Technology*, 2(1), 396–399.
- Naveen, B. P., Malik, R. K., & Puri, S. (2018). Waste Management: Issues and Solutions for a Rapidly Growing Satellite City in National Capital Region, India. *EMS Environmental Sciences Journal*, 1(1), 005.
- Rosenzweig, C., Jones J. W., Hatfield C. Z., Mutter, S. G. K., Adiku, A., Ahmad, Y., Beletse, B., *et al.* (2012). The Agricultural Model Intercomparison and Improvement Project (AgMIP): Integrated regional assessment projects. In *Handbook of Climate Change and Agroecosystems: Global and Regional Aspects and Implications*. D. Hillel & C. Rosenzweig, Eds., ICP Series on Climate Change Impacts, Adaptation, and Mitigation Vol. 2. Imperial College Press, pp. 263-280.
- Shekdar, A. V. (1999). Municipal solid waste management. The Indian perspective. *Journal of Indian Association for Environmental Management*, 26, 100–108.